Planning Department

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PLAN COMMISSION
MEETING NOTICE AND AGENDA
Thursday, March 21, 2024
6:00 PM

Pewaukee City Hall Common Council Chambers
W240 N3065 Pewaukee Road, Pewaukee, WI 53072

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1. Call to Order and Pledge of Allegiance

2. Discussion and Action Regarding Approval of the December 21st, 2023 Meeting Minutes

3. Discussion and Action Regarding a Certified Survey Map for Ruekert & Mielke for Property Located at W233 N2080 Ridgeview Parkway for the Purpose of Subdividing the Property Into Two Separate Lots (PWC 0953984002)

4. Discussion and Action Regarding the Site and Building Plans for Lakeland Supply for Property Located at N17 W25081 Bluemound Road for the Purpose of Constructing an Approximately 60,000 Square Foot Building Addition (PWC 0948985001)

5. Discussion and Action Regarding the Site and Building Plans for Scot Industries for Property Located at N13 W24600 Scot Drive for the Purpose of Constructing a Building Addition and a New Parking Lot (PWC 0951999)

6. Discussion And Possible Action Regarding a Conceptual Review for Shorepoint Church for Property Located at the Southwest Corner of Capitol Drive and Duplainville Road for the Purpose of Constructing and Operating a New Church (PWC 0912983, PWC 0912984, and PWC 0912985)

7. Adjournment

Ami Hurd
Deputy Clerk

3/14/2024

NOTICE

It is possible that members of other governmental bodies of the municipality may be in attendance to gather information that may form a quorum. At the above stated meeting, no action will be taken by any governmental body other than the governmental body specifically referred to above in this notice.

Any person who has a qualifying disability under the Americans with Disabilities Act that requires the meeting or materials at the meeting to be in an accessible format must contact the City Planner, Nick Fuchs, at (262) 691-6007 three business days prior to the meeting so that arrangements may be made to accommodate your request.

CITY OF PEWAUKEE
PLAN COMMISSION AGENDA ITEM 2.

DATE: March 21, 2024

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

Discussion and Action Regarding Approval of the December 21st, 2023 Meeting Minutes

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

12.21.23 minutes

In attendance:
Alderwoman C. Brown, D. Kiser, A. Schoenemann, and S. Sullivan.

Also in attendance:
Attorney L. Martell, City Planner & Community Development Director N. Fuchs, Administrator S. Klein, Department of Public Works Director M. Wagner, and Deputy Clerk A. Hurd.

1. Call to Order and Pledge of Allegiance

   In the absence of Chairman Bierce, Commissioner Brown called the meeting to order at 6:00pm and requested everyone stand for the Pledge of Allegiance.

2. Conduct Public Hearing Regarding Request for a Conditional Use Permit for Quattro Development/Higher Ground Education for Property Located on Highfield Court for the Purpose of Constructing a Childcare Facility (PWC 0906994)

   Attorney Martell explained the legal standards for the Conditional Use determination. He stated if the Commission seeks to impose any conditions, those conditions will be related to the purpose of the City's Conditional Use ordinance and based upon substantial evidence. The decision will be based only on the substantial evidence that is presented. Attorney Martell noted that the City's code requires a majority of the Commission for approval, so all four Commissioners in attendance must vote in favor tonight for approval.

   Commissioner Brown opened the public hearing at 6:05pm.

   Tom Gartner, Legal Counsel with Michael Best, stated he was representing the applicants and he introduced Matt Knopp, Brett Dahlman, and John Bieberitz.

   Mr. Gartner stated they were still proposing the same two basic conditions that were proposed previously, with the first being that no bell tower would be required and the second being that the applicant will not transport students to and from the facility using buses.

   Matt Knopp with Higher Ground gave a description and background about their Guidepost Montessori program. He noted there would be children from infants to six years old at the facility. Mr. Knopp stated morning pick-up is about two and a half hours and afternoon pick-up is about three and a half hours, so the steady flow of traffic does not lead to congestion. The pre-care and after-care programs, as well as having no set curriculum, gives families the ultimate flexibility of when to drop off and pick up.

   Brett Dahlman with Quattro Development walked through the site plan and noted the site was difficult because it is long and narrow and limits what they can do. The building is elongated in a north south direction and is roughly 11,800 square feet with playgrounds surrounding it to the north, south, and east. Mr. Dahlman stated the location of the playgrounds is integral, as the children leave directly through the door in their classroom to their playground. There are 25 new parking stalls proposed, as well as an existing shared parking agreement with the office building to the west that provides an additional 33 parking stalls, for a total of 58. Mr. Dahlman stated there would be 29 staff on site, and 152 children at maximum capacity. Pick up and drop off is staggered and there will be no buses. He then referred to the landscaping and stated there would be landscaping in front of the building, around the dumpster enclosure, towards Highfield Court,

and a decent buffer along Capitol Drive in two different sections. There will be ten different classroom areas for the children.

John Bieberitz with Traffic Analysis and Design discussed the traffic study that was done in May and looked at the intersections at Highfield Court and Capitol Drive, and Swan Road and Highway 164. He reviewed the specific traffic counts in each area. Mr. Bieberitz summarized that the study shows there is no benefit to cutting through the Broken Hill subdivision. He proposed a concrete channelized island on Highfield Court to force vehicles to turn right to go south to Capitol Drive, thus eliminating the potential for cut through traffic through the neighborhood. There would be signage stating, "right turn only" and "no left turns allowed".

Phil Vetterkind (N37 W23788 Broken Hill Circle South) questioned if they could do staggered starts according to age. Mr. Knopp stated they do not have anything like that at any of their other locations, but they could discuss it, although it may be difficult with different-aged siblings. Mr. Vetterkind then referred to the photometrics and noted the staff report stated there were zero footcandles at the property line, but he felt it was way above that on the north side, which backs up to the neighbor's backyards. He requested someone look into that. Mr. Vetterkind referred to the traffic study and stated they wanted the option for a left turn onto Capitol Drive. He noted that the traffic study done with the camera was done when KinderCare was not open, so he felt that would add more traffic than was listed in the last report. Mr. Vetterkind questioned if something could be stated to families in the orientation that they cannot make a left turn onto Highfield. Mr. Knopp stated they provide a handbook at orientation, and they can make sure it is put in the handbook and discussed with parents at orientation. Mr. Vetterkind questioned what kind of power the City has if they find people driving through the neighborhood because they were not told about not making a left turn. Attorney Martell stated if they are violating the conditions, the Conditional Use Permit could be revoked.

Commissioner Brown stated she liked the idea of no left turns and signs and felt it was a great condition to help with the traffic. She was not in favor of the barrier onto Capitol Drive and felt that would make more problems. Ms. Brown also agreed with adding a condition to put the no left turn information in the orientation packet.

Commissioner Schoenemann agreed and stated she liked the right turn only exit. She felt there was nothing in the traffic study about coming into the center, versus exiting. Commissioner Schoenemann did not like the idea of telling people in a handbook that they cannot turn a certain direction on a public street or they will get kicked out of the daycare.

Commissioner Sullivan stated he liked the right turn only onto Highfield but felt they could not force people not to do it. He was concerned about the parking and felt it would be a little tight, even with the shared parking with the building next door.

Commissioner Kiser questioned if there was a Plan of Operation. Commissioner Brown noted a Plan of Operation is for permitted uses, and since this is a Conditional Use, it would be all the conditions we put on the use to become the Plan of Operation.

Commissioner Schoenemann suggested making a condition that the facility must include in the orientation handbook that the families understand the traffic patterns.

Rich Reinbold (W237 N3127 Littlefield Court) questioned how long the agreement was with the business next door for parking. The applicants noted that the agreement goes with the land. Mr. Reinbold was also

concerned about the lighting on the backside facing the neighborhood. He suggested having someone from the school outside for two hours in the morning coning off the neighborhood.

Ms. Wagner stated she does not support the right turn only, as there are other businesses on that stretch of roadway that would be affected by that. She stated it would also cause some functionality issues with the snowplow operations and the roadway may have to be widened. She stated she would also not support a no left turn onto Capitol Drive.

Commissioner Kiser stated he was not in favor of a barrier, and he wanted signage only.

Mr. Vetterkind stated if they could not do a physical barrier to prohibit left turns, then he suggested at least painting lines on the road so it would not affect the plows.

Commissioner Brown closed the public hearing at 7:00pm.

A motion was made and seconded (D. Kiser, C. Brown) to approve the Conditional Use Permit for Quattro Development with the conditions that signage for no left turn is put at Highfield Court, the orientation packet is to contain language that indicates no left turn into the subdivision, street paint for no left turn, if parking becomes a problem with the shared parking agreement then the item may be brought back to City staff or the Council, no busing allowed, no requirement for the applicant to build a bell tower according to the previous Conditional Use Permit for the property, and limiting the hours to weekdays from 7am to 6pm. Motion Passed: 4-For, 0-Against.

3. Discussion and Action on Potential Approval of a Conditional Use Permit for Quattro Development/Higher Ground Education for Property Located on Highfield Court for the Purpose of Constructing a Childcare Facility (PWC 0906994)

   Action taken in Item 2.

4. Discussion and Action Regarding the Site and Building Plans for Quattro Development/Higher Ground Education for Property Located on Highfield Court for the Purpose of Constructing a Childcare Facility (PWC 0906994)

   Brett Dahlman with Quattro Development referred to the parking and stated the requirement was one stall for every two employees, which would be 15 spots required by City Code. There are 58 spots total, with 25 spots on site and 33 spots from the shared parking agreement. Mr. Dahlman felt the spaces were adequate for their use. He noted that employees would park in the overflow shared parking, and the majority of the 25 stalls will be open for parent drop off and pick up.

   Commissioner Brown felt screening was one of the biggest issues, and she suggested pine trees or evergreen trees.

   Discussion took place regarding the lighting on the site. Mr. Fuchs stated there are three light poles proposed at 18 feet at the perimeter of the parking lot. Mr. Dahlman added that there would also be wall pack lights on the building for the playground areas.

   Commissioner Schoenemann felt an extra row of evergreens could be put on the north to block the area more.

Commissioner Brown referred to the parking agreement and questioned if the City needed anything for it. Mr. Dahlman noted that the agreement was a recorded document.

Commissioner Kiser referred to the monument sign and questioned if it was illuminated. Mr. Dahlman stated there would be two solar powered lights that would shine up at the sign, so it would be externally illuminated. Mr. Fuchs noted that signs cannot be illuminated after a specific time if they are within a specific distance from a residential use.

Ms. Wagner added that there will have to be a separate sanitary sewer lateral brought in.

A motion was made and seconded (A. Schoenemann, D. Kiser) to approve the Site and Building Plans with the condition to add more landscaping along the north and along the dumpster, and signage lighting to be turned off at 9:00pm per City ordinance. Motion Passed: 4-For, 0-Against.

5. Discussion and Action and Public Hearing for Junior Cup Golf, Inc. for a Conditional Use Permit for Property Located at W229 N2494 Redford Boulevard for the Purpose of Running a Non-Profit Junior Golf and Athletics Center (PWC 0915990001)

Mr. Fuchs stated the applicant was looking to occupy a 7,350 square foot tenant space to offer team golf and instructional programming for youth golfers. The hours will vary but they are anticipated as anywhere from 9:00am to 9:00pm. The facility will not be generally open to the public. No exterior site or building modifications are proposed. Mr. Fuchs recommended approval.

Commission Brown opened the public hearing at 7:30pm.

Nathan Dosch and Ian Gonzales stated they were the directors of Junior Cup Golf. The program is a non-profit program that is school district based for 3rd through 8th graders. They are currently involved in five school districts and have approximately 350 students. Mr. Dosch stated there would be drop off and pick up only but would have at least 15 parking spots available. The sessions are an hour and a half Monday through Friday, with an average of only 20 kids in the facility at a time.

Mr. Dosch and Mr. Gonzales then showed the renderings and described the facility's amenities.

Commissioner Brown closed the public hearing at 7:38pm.

A motion was made and seconded (D. Kiser, S. Sullivan) to recommend approval of the Junior Cup Golf Conditional Use Permit with the recommended staff conditions. Motion Passed: 4-For, 0-Against.

6. Discussion and Action Regarding a Recommendation to the Common Council for a Comprehensive Master Plan Amendment to Change the Year 2050 Land Use/Transportation Plan Use Designation for the City of Pewaukee for Fox Run Development Partners, LLC for Property Located at N15 W22261 Watertown Road from Office/Commercial and Floodplains, Lowland and Upland Conservancy, and Other Natural Areas to Manufacturing/Fabrication/Warehousing and Floodplains, Lowland and Upland Conservancy, and Other Natural Areas (PWC 0960987)

Mr. Fuchs stated the proposal was for a 59,500 square foot industrial building with tenants unknown at this time but requiring either a Business Plan of Operation for a permitted use or a Conditional Use Permit. He recommended approval subject to the conditions listed in the staff report. He stated the wetland area needed to be designated as a natural resource area on the Comprehensive Master Plan Amendment and needed to be

designated as lowland conservancy district for the Rezoning. Conditions related to grading, erosion control, utilities, and storm water management are also included. There is also a suggestion for additional landscaping along the entry drive and perimeter of the parking lot.

Commissioner Brown opened the public hearing at 7:43pm.

Tom Irgens with Irgens Partners stated they were the owners of the site. He stated the staff recommendations in the staff report were acceptable to Irgens.

Commissioner Brown questioned the colors in the building renderings, and Mr. Irgens confirmed that the colors were supposed to be a mix of grey, natural earth tones.

Commissioner Brown then referred to the driveway and stated there were concerns that this driveway was directly next to another one. Mr. Irgens stated he has had conversations with the neighboring property to get an easement, but the property owner was unwilling to work with them. He understood the concerns if the neighboring site was ever developed in the future. He proposed granting an access easement, and in the event the neighboring property is developed, they would shut their driveway down if they were granted an access easement.

Commissioner Brown closed the public hearing at 8:00pm.

A motion was made and seconded (S. Sullivan, D. Kiser) to recommend approval of the Rezoning from Rs-1 to M-2 and LC with the conditions listed in the staff report. Motion Passed: 4-For, 0-Against.

A motion was made and seconded (A. Schoenemann, D. Kiser) to recommend approval of the Comprehensive Master Plan Amendment. Motion Passed: 4-For, 0-Against.

Mr. Fuchs noted that what gets built needs to be in substantial conformance with these plans. If there are minor changes, chances are that staff would not sign off on it and it would be brought back to the Plan Commission.

A motion was made and seconded (D. Kiser, S. Sullivan) to approve the Site & Building Plans with the site recommendations. Motion Passed: 4-For, 0-Against.

7. Discussion and Action and Public Hearing for Fox Run Development Partners, LLC to Rezone Property Located at N15 W22261 Watertown Road from Rs-1 Single-Family Residential and LC Lowland Conservancy to M-2 Limited Industrial and LC Lowland Conservancy for the Purpose of Developing an Industrial Flex Building (PWC 0960987)

   Action taken in Item 6.

8. Discussion and Action Regarding the Site and Building Plans for Fox Run Development Partners, LLC for Property Located at N15 W22261 Watertown Road for the Purpose of Developing an Industrial Flex Building (PWC 0960987)

   Action taken in Item 6.

9. Discussion and Action Regarding the Site and Building Plans for Zeilhofer Properties, LLC for Property Located at N4 W22540 Bluemound Road for the Purpose of Constructing an Attached

Garage Addition and Front Porch Modifications to the Existing Structure (PWC 0963997)

Mr. Fuchs stated the applicant is proposing to construct a 602 square foot attached garage to the front of the existing structure on the property, along with a 255 square foot porch. The use of the property is not changing, and the addition will match the recently approved storage building. Staff recommended providing an architectural feature on the front of the garage to be similar to the front porch, and a more decorative-style garage door. The applicant wanted to draw more attention to the front of the home and the main entrance and downplay the garage, so they are keeping it as originally proposed. Mr. Fuchs stated staff was recommending approval.

Mr. Zeilhofer stated he did not want to do a decorative style on the garage because the garage matches everything in the back, and when people drive in, they want them to go to the front, not to the storage area. He noted that there would be additional screenings on both sides of the garage.

Commissioner Schoenemann felt the applicant had done a lot to clean up the property but felt the two masses looked totally unrelated to each other. She felt it looked unbalanced and suggested either a gable structure or some windows to tie the two looks together.

Discussion took place regarding the overhead door location facing the main road.

A motion was made and seconded (A. Schoenemann, S. Sullivan) to approve the Site and Building Plans for Zeilhofer Properties, LLC with the staff recommendations on the architectural enhancements on the garage face. Motion Passed: 4-For, 0-Against.

10. Discussion and Action Regarding a Certified Survey Map for Yench, LLC for Property Located on the West Side of Yench Road for the Purpose of Subdividing the Existing Property Into Three Lots and One Outlot (PWC 0885996006)

Mr. Fuchs stated the two CSM's are being proposed to create four lots and one outlot. It is an existing 30.7-acre property, and the applicant would like to create the smaller lots for a single-family development. Conditions of approval include approval of access locations for each lot; making sure that lot 2 of the two-lot CSM has the required 220 feet of lot width at the setback line; having the applicant come back to the Plan Commission to correct the split zoning issue on lot 3 if needed; and engineering approval of a stormwater management plan for the entire 56.5-acre original property. Mr. Fuchs noted that staff is recommending both CSM's be tabled to work out the stormwater issues.

The applicant, Jeff Mierow, gave a description of the history of the property and the subdividing and processes that were done in the past.

Josh Pudelko with Trio Engineering discussed the property and felt they could not achieve a stormwater management plan that would manage their neighbor's property without physically imposing it on their land. He stated they are able to manage the City's requirements with the lots that are created by these two CSM's. The neighbors would have done the stormwater management at the time if the City had required it at the time that they were building.

Discussion took place regarding the stormwater requirements as relates to the DNR. Ms. Wagner stated everyone else in the system will now have to over-compensate for this piece of the development.

Mr. Fuchs summarized that CSM 1 was three lots and one outlot, and lot three would get further subdivided into two lots.

A motion was made and seconded (D. Kiser, S. Sullivan) to recommend approval of the Certified Survey Map subdividing the existing property into three lots and one outlot, including staff conditions. Motion Passed: 4-For, 0-Against.

11. Discussion and Action Regarding a Certified Survey Map for Yench, LLC for Property Located on the West Side of Yench Road for the Purpose of Further Subdividing the Property Into Two Lots (PWC 0885996006)

A motion was made and seconded (D. Kiser, A. Schoenemann) to recommend approval of the CSM further subdividing into two lots, including staff comments. Motion Passed: 4-For, 0-Against.

12. Discussion and Action Regarding a Conceptual Review for Land by Label Development Company for a Mixed-Use Residential Re-Development of the Willow Run Golf Course Located at N12 W26506 Golf Road (PWC 0944994 & PWC 0941988094 through 0941988103)

Emily Cialdini with Land by Label stated the site is approximately 161 acres and includes the Pewaukee Golf Course and an adjacent 20-acre parcel that was part of the Meadowbrook Village Phase 2 redevelopment. The primary access will stem from Golf Road, go through the site, and connect to Fieldhack Drive. Ms. Cialdini noted that it will be a public road, and no construction traffic will enter or exit from Fieldhack Drive. All construction traffic will be directed to and from Golf Road. The development includes roughly 300 garden-style apartment units with direct entries, and most will have attached garages. There will also be a resident clubhouse with a club room, fitness center, leasing staff, and a pool. Ms. Cialdini noted they were looking to partner with or sell the northern part of the site to a third-party single-family developer for up to 160 single-family lots. The southern 60 acres would not change zoning or the use, and they plan to preserve those 60 acres into a community-oriented park space. Ms. Cialdini mentioned that they plan to host neighborhood meetings to get feedback from the neighbors and community stakeholders.

Ms. Cialdini then discussed various other projects that Land by Label has completed.

Buck Knitt with Rinka discussed the history of the site and the surrounding area. He then described the buildings and their locations on the site. Mr. Knitt noted the buildings were oriented towards green corridors or natural green spaces off the site. He stated there is a 23-unit two-story building with the second-floor units on each side and first floor units on all sides of the building. There is also a 17-unit building with the same unit setup.

Commissioner Brown stated she liked that the single-family was closer to the north and the multi-family was closer to the south. She liked that they planned to keep as much of the landscape with the trees as possible. Commissioner Brown noted that apartment complexes in the City typically have garage doors facing inside instead of facing the road.

Commissioner Schoenemann stated she liked the single-family residential use on this property, and she felt the garden-style apartments offered additional choices for residents. She felt the positioning of the single-family residential would actually improve the scenario for the condo residents.

Commissioner Sullivan was concerned about traffic, as the exit onto Golf Road is an uncontrolled intersection. He was unsure about the connection to the existing subdivision to the west. Commissioner Sullivan also felt 300 apartments was too much.

Ms. Cialdini commented that they do have a preliminary traffic memo estimating the traffic counts, but she felt a full traffic impact analysis would probably be required by the Department of Transportation.

Commissioner Sullivan added that he would not vote in favor of this development if it has private roads.

Commissioner Kiser stated the City has had issues with private roads in the past. He questioned if there could be a connection with Fatima Drive near the GE lands. Commissioner Kiser also mentioned that he did not mind the density of the project.

Ms. Cialdini stated the preliminary traffic memo did look at the idea of traffic going west onto Fieldhack Drive versus going south to Golf Road, and 70 percent of the traffic would go south and only ten percent would head west on Fieldhack Drive.

Ms. Wagner stated because of the challenges on this site, they have already had preliminary discussions with the developer regarding stormwater management and the public roadways.

Tim Rieck (N15 W26525 Tall Reeds Lane) was concerned about the traffic flow on Milkweed Lane and Fieldhack Drive. He was also concerned about the density of the apartments. He discussed his stormwater management concerns for the southern corner of the site that is shown as a floodplain. He also questioned if the new road would be torn up to increase the sewer main and water main sizes.

Sharon Russell (N19 W26655 Milkweed Lane) felt people would exit the development onto Fieldhack Drive instead of going south to Golf Road.

Bill Wroblewski (N19 W26583 Honeysuckle Court A) felt there was a speeding problem in the area, and he felt people would use Milkweed Lane instead of Golf Road. He felt no more traffic could be added to the area.

Christine Howard (N16 W26543 Meadowgrass Circle) felt there was not a lot of buffer from the single-family homes. She stated the plans show only a 75-foot separation, although the developer said it was a 300-foot separation. She did not believe people would go south to Golf Road but would instead use Milkweed Lane.

Bob Baade (N15 W26510 Golf View Lane H) questioned the cost of the homes and the rent. He also questioned the zoning of the northern portion of the site.

Connie Shiestl (N16 W26573 Wild Oats Drive C) questioned if the road coming off Golf Road had the potential to be denied.

Nina Nowakowski (N19 W26514 Milkweed Lane) questioned if this would affect the lift station and if it would need to be rebuilt or enlarged. She was concerned about the traffic on Milkweed Lane.

Mike Fruin (N19 W26710 Primrose Court) was concerned about the traffic from the single-family homes onto Fieldhack Drive and using Milkweed Lane. He felt the developer should run a connecting road exiting to the east.

Penny Tomczyk (N16 W26549 Wild Oats Drive) questioned if this development would affect whether or not they have to pay for Fieldhack Drive, or if the road reconstruction would be put on hold.

Discussion took place regarding construction traffic. Ms. Cialdini noted that all construction traffic would be directed to Golf Road.

Don Hilgemann (N16 W26401 Meadowgrass Circle) did not want a building in front of his living room window and felt he would not be able to see blue sky.

No action was taken.

13. Discussion and Action and Public Hearing Regarding Revisions to Section 17.0500 of the City's Zoning Code Related to Review and Approval and Public Hearing Requirements for Conditional Use Permits

Mr. Fuchs stated this was an amendment to the Zoning Code and would change the language for Conditional Use Permits to have public hearings held at the Common Council instead of the Plan Commission. This is due to a change in State law and allows the Council to make the final decision.

Commissioner Brown opened the public hearing at 10:08pm.

Larry Marincic (N30 W22121 Green Road) felt this was a great idea and felt the Plan Commission should be focused on technical things.

Rich Reinbold (W237 N3127 Littlefield Court) stated he agreed with the change.

Commissioner Brown closed the public hearing at 10:10pm.

A motion was made and seconded (D. Kiser, S. Sullivan) to approve the revisions to Section 17.0500 of the City's Zoning Code. Motion Passed: 4-For, 0-Against.

14. Discussion and Action and Public Hearing Regarding Revision and Codification of Chapter 17 Zoning as Chapter 340 of the City's Municipal Code

Mr. Fuchs stated the City has been working with General Code on getting the municipal code updated and into their online platform.

Commissioner Brown opened the public hearing at 10:13pm. The public hearing was immediately closed at 10:13pm after hearing no requests to speak.

A motion was made and seconded (D. Kiser, S. Sullivan) to approve the revision and codification of Chapter 17 Zoning as Chapter 340 of the City's Municipal Code. Motion Passed: 4-For, 0-Against.

15. Adjournment

A motion was made and seconded (D. Kiser, S. Sullivan) to adjourn the meeting at 10:15pm. Motion Passed: 4-For, 0-Against.

Respectfully Submitted,

Ami Hurd
Deputy Clerk

CITY OF PEWAUKEE
PLAN COMMISSION AGENDA ITEM 3.

DATE: March 21, 2024

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

Discussion and Action Regarding a Certified Survey Map for Ruekert & Mielke for Property Located at W233 N2080 Ridgeview Parkway for the Purpose of Subdividing the Property Into Two Separate Lots (PWC 0953984002)

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Ruekert & Mielke staff report 3.21.24

Ruekert & Mielke narrative

Ruekert & Mielke CSM

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REPORT TO THE PLAN COMMISSION

Meeting of March 21, 2024

Date: 03/14/2024

Project Name: R/M Certified Survey Map

Project Address/Tax Key No.: W233N2080 Ridgeview Parkway / PWC 0953984002

Applicant: Ruekert & Mielke, Inc

Property Owner: R-M INVESTMENT PROPERTIES LLC

Current Zoning: B-4 Office District

2050 Land Use Map Designation: Office Commercial

Use of Surrounding Properties: Vacant Rm-3 District property planned for the Ridgeview Apartments to the north, office uses to the south, office and industrial to the east and industrial to the west.

Project Description and Analysis

The applicant filed a Certified Survey Map Application requesting to subdivide the existing property located at W233N2080 Ridgeview Parkway. The land division is in anticipation of the construction of an office building on the newly created parcel, Lot 2.

The subject property has an area of approximately 7.07-acres. The property currently consists of an existing office building and a large parking lot of about 355 parking spaces.

The proposed Lot 1 has an area of 5.07-acres and will contain the existing office building and remaining parking, which is 197 parking spaces.

Lot 2 has an area of 2-acres and will be the site of the future office building. The CSM shows the proposed building and parking lot, which is expected to have 98 parking spaces. Note future uses must be allowed within the B-4 District and development of Lot 2 will require review and approval of a Site & Building Plan Review Application.

Both lots conform to the B-4 District minimum lot area of 2-acres and minimum lot width of 140 feet at the building setback line. *However, the rear yard building setback on Lot 2 shall be revised to 25-feet, opposed to 20-feet as currently shown, prior to the recording of the Certified Survey Map with the Waukesha County Register of Deeds*.

According to the applicant, the 40% minimum greenspace requirement is met on Lot 1 and sufficient area is provided on Lot 2 to comply with this standard. *Staff recommends that greenspace calculations be provided to the City Planner demonstrating conformance with the 40% minimum greenspace requirement on Lot 1 and show that the proposed development plan of Lot 2 will also meet this standard, prior to recording the CSM*.

Parking
The Zoning Code suggests the following for professional office uses:

> (5) Financial institutions; business, government, and professional offices.
>
> > One (1) space for each 200 square feet of floor space plus one (1) space for each two (2) Employees.

The applicant has indicated that they do not anticipate any parking issues; however, if necessary, they could provide additional parking on the south side of Lot 1. The feasibility of this will also depend on the resulting greenspace/impervious surface ratio of Lot 1.

Access
Access is anticipated to be shared between the two properties. Any requests for additional access from Ridgeview Parkway would be reviewed at that time, but again, the existing ingress/egress is planned to be utilized by both properties. *Staff recommends that a shared access and parking agreement be recorded with the Waukesha County Register of Deeds prior to or at the same time as the recording of the Certified Survey Map*.

Existing improvements on Lot 2
As a result of this proposed land division, Lot 2 will be created and consist of a parking lot.

The City's Zoning Code may not necessarily allow a parking lot as a principal use on a property without specific approvals. The existing improvements on this new lot would also not comply with the minimum 40% greenspace requirement and paving setbacks.

Staff recommended to the applicant that the parking lot on Lot 2 be removed prior to the recording of the CSM.

The applicant is requesting that they be allowed to record the CSM and then remove the parking lot within one year following recording. According to the applicant, this is being requested for financial purposes. Staff does not object to this request and recommends the condition below. It can be noted that this was discussed with the City Attorney as well.

> *The parking lot and pavement within the proposed Lot 2 of the Certified Survey Map shall be removed and the area returned to greenspace, prior to the recording of the Certified Survey Map with the Waukesha County Register of Deeds. Alternatively, the applicant may remove the parking lot and pavement and return the area to greenspace within one year from the time of recording of the Certified Survey Map, subject to the applicant providing a letter of credit in the amount of the cost to remove the existing impervious surface areas and returning it to greenspace. Said amount shall be approved by the City Planner*.

Recommendation

Staff recommends a motion to approve the Certified Survey Map for property located at W233N2080 Ridgeview Parkway, subject to the staff recommended conditions of approval within this report.

Ruekert · Mielke
W233 N2080 Ridgeview Parkway, Waukesha, WI 53188-1020 262-542-5733

January 25, 2024

To: Nick Fuchs, City Planner
City of Pewaukee

From: Stan Sugden, President & CEO
Ruekert & Mielke, Inc.

RE: Ruekert & Mielke, Inc. Building

W233 N2080 Ridgeview Parkway, Waukesha, WI 53188-1020

Dear Mr. Fuchs,

Enclosed please find our application for land division and CSM approval for our parcel located in the City of Pewaukee. I am making this request on behalf of our Employee Owners as we plan the future of our company.

Our building was built in 2000 at a time when parking requirements were firm and required a significant use of land for parking. Over the last 23 years the parking lot has proven to be significantly larger than necessary and will require significant investment on our part in the near future.

Our submitted plan is to split off a 2-acre lot that we will use to construct a new facility. Parking for the new building will be on the 2-acre site and we will have shared access and parking easements to help with overflow from both buildings. We currently have 5 tenants in our building and would likely add one more after the new building is constructed. The current working habits of office personnel give us confidence that our proposed parking arrangement will be more than reasonable for our intended uses.

We don't have a defined timeline for construction of the new facility; however, I am hoping it is a two-year process. We also need to spend significant funds on our existing parking lot so we want to know what our final plan will be before we begin that investment.

I plan to attend the Plan Commission once you have us on the agenda.

Thank you for your consideration.

Respectfully,

Stanley R. Sugden, PE, FACEC
President & CEO
ssugden@ruekert-mielke.com

SRS: vlf

CERTIFIED SURVEY MAP - _____

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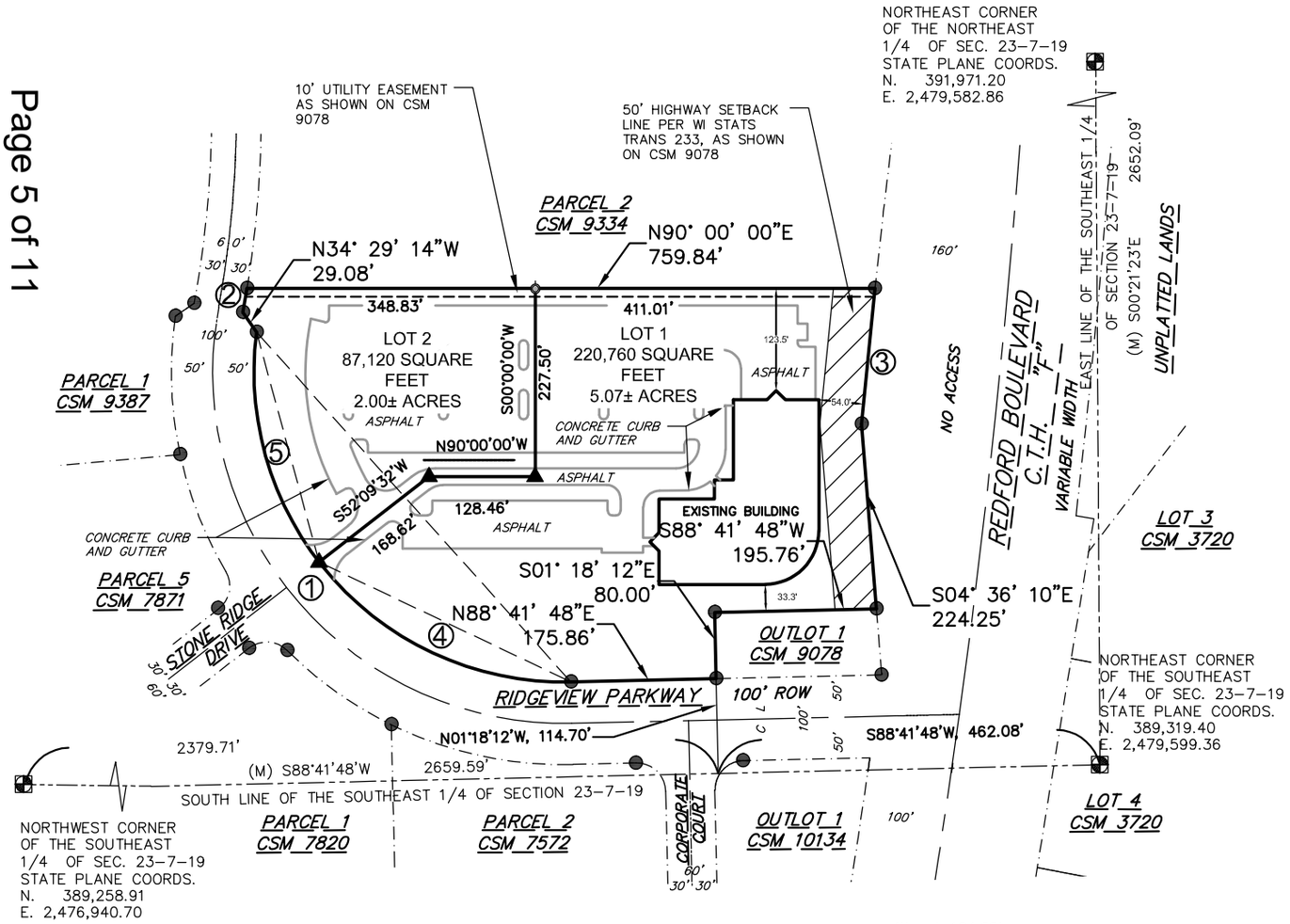

① Chord: 568.91'
Course: N 41°58'01" W
Arc Length: 645.81'
Radius: 375.00'
Delta: 98°40'22"
Tangent: 436.54'

② Chord: 29.25'
Course: N 09°52'45" E
Arc Length: 29.25'
Radius: 1322.51'
Delta: 1°16'03"
Tangent: 14.63'

③ Chord: 164.63'
Course: S 05°39'57" W
Arc Length: 164.63'
Radius: 11299.16'
Delta: 0°50'03"
Tangent: 82.32'

④ Chord: 337.35'
Course: N 64°34'22" W
Arc Length: 349.90'
Radius: 375.00'
Delta: 53°27'39"
Tangent: 188.86'

⑤ Chord: 280.29'
Course: N 15°14'11" W
Arc Length: 295.91'
Radius: 375.00'
Delta: 45°12'41"
Tangent: 156.14'

SURVEY LEGEND

- BRASS CAP MONUMENT FOUND
- FOUND 1"" O.D. IRON PIPE
- 1" O.D. IRON PIPE SET 18" LONG AND 1.13 LBS / PER FOOT
- "PK" NAIL SET IN ASPHALT

SEE PAGE 2 FOR BUILDING SETBACK INFORMATION.

SEE PAGE 2 FOR PROPOSED BUILDING, PARKING LOT AND ACCESS EASEMENT

N W E S

0 100 200 400

GRAPHIC SCALE

BEARINGS ARE REFERENCED TO THE WISCONSIN COORDINATE REFERENCE SYSTEM, SOUTH ZONE (NAD 83), THE SOUTH LINE OF THE SE 1/4 OF SECTION 12-7-19 MEASURED TO BEAR S88°41'48"W.

WISCONSIN JOHN M. SCHULZ S-3253 OCONOMOWOC WIS. LAND SURVEYOR

_____
John M. Schulz, P.S. 3253

Dated this 12th day of March, 2024

SITE ADDRESS:
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188

OWNER(S):
R-M Investment Properties, LLC.
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188

PREPARED BY:
Ruekert & Mielke, Inc.
W233 N2080 Ridgeview Pkwy.
Waukesha, WI 53188
262-547-5733

Ruekert • Mielke
www.ruekertmielke.com

THIS INSTRUMENT WAS DRAFTED BY JOHN M. SCHULZ, P.L.S. (3/12/24)

G:\C3D_2018\40_Private\92607 CSM\dwg\CSM\20240312 RM CSM.dwg

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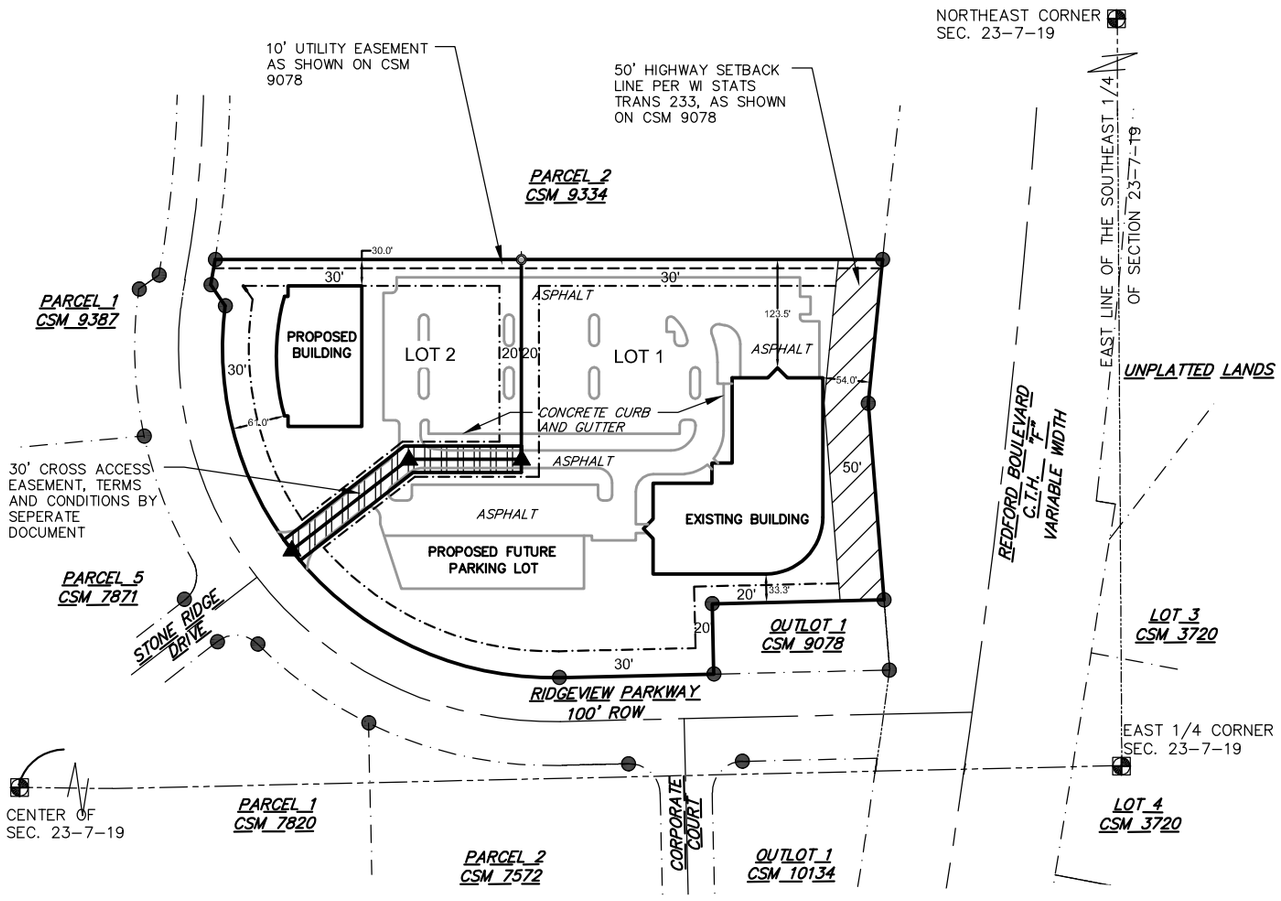

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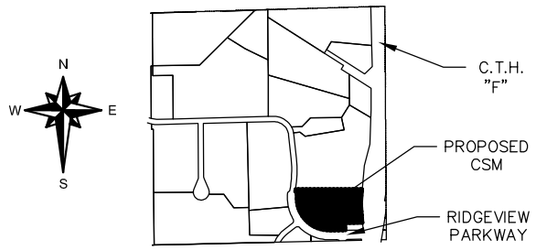
- 1" O.D. IRON PIPE SET 18" LONG AND 1.13 LBS / PER FOOT
- "PK" NAIL SET IN ASPHALT

Setbacks were determined from the B-4 zoning on the CSM property and the adjacent property to north's Rm-3 zoning per the City of Pewaukee's Community Development Office.

VICINITY SKETCH
SE 1/4 SEC. 23 T7N. R 19E.
SCALE 1" = 2000'



0 100 200 400
GRAPHIC SCALE

LOT 1 SETBACKS:
Street/Front (Ridgeview Parkway: 30'
North Side Yard: 30'
South Side Yard (adjacent to Outlot 1): 20'
Interior Side Yard (from proposed Lot 2): 20'
Street Side (along C.T.H. "F"): 50'

LOT 2 SETBACKS:
Street/Front (Ridgeview Parkway: 30'
North Side Yard: 30'
South Side Yard (adjacent to Outlot 1): 20'
Rear Yard (east): 25'

RUEKERT/MIELKE TAKES NO RESPONSIBILITY FOR ANY UNDERGROUND STRUCTURES OR BURIED MATERIALS SUCH AS, BUT NOT LIMITED TO, FOUNDATIONS, WELLS, SEPTIC, HOLDING TANKS, UTILITIES, HAZARDOUS MATERIALS, OR ANY OTHER ITEMS OF WHICH NO EVIDENCE CAN BE FOUND ON THE SURFACE BY A REASONABLE INSPECTION.

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Wakesha, WI 53188

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W233 N2080 Ridgeview Parkway
Waukesha, WI 53188

PREPARED BY:
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W233 N2080 Ridgeview Pkwy.
Waukesha, WI 53188
262-547-5733

WISCONSIN
JOHN M. SCHULZ
S-3253
OCONOMOWOC
WIS.
LAND SURVEYOR

John M. Schulz, P.L.S. 3253

Dated this 12th day of March, 2024

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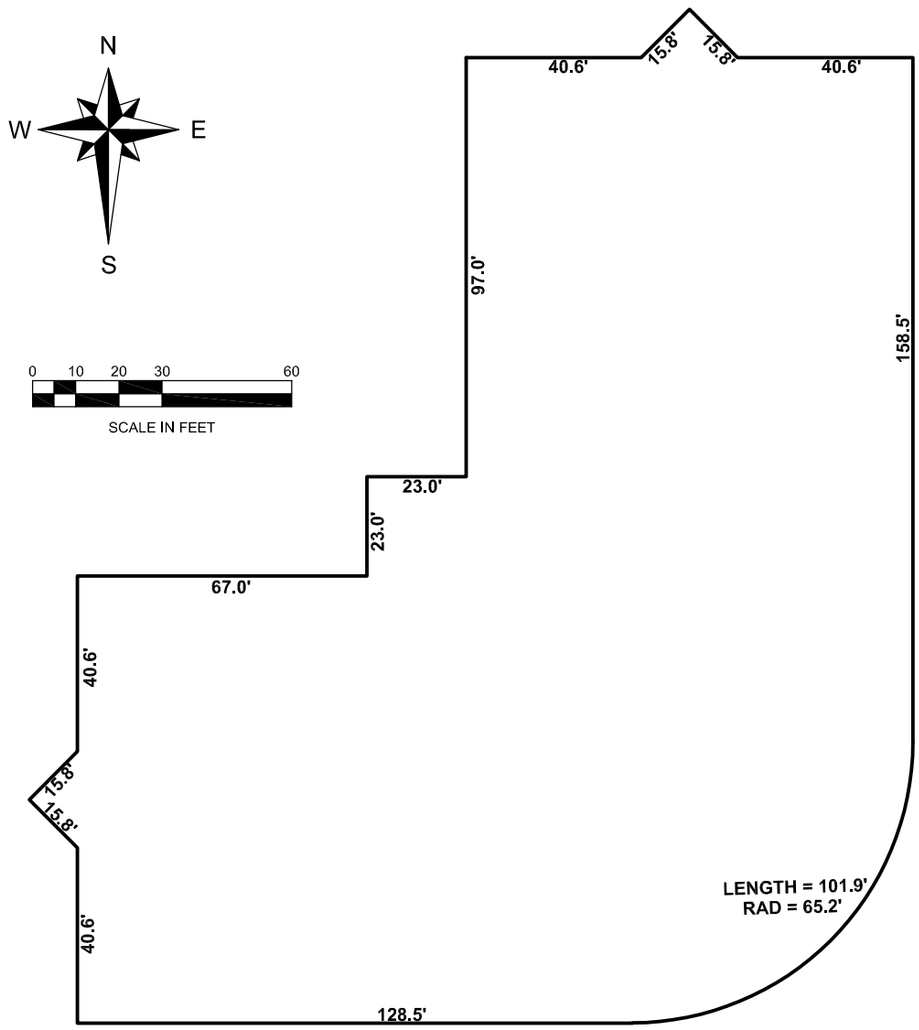
EXISTING BUILDING DIMENSIONS



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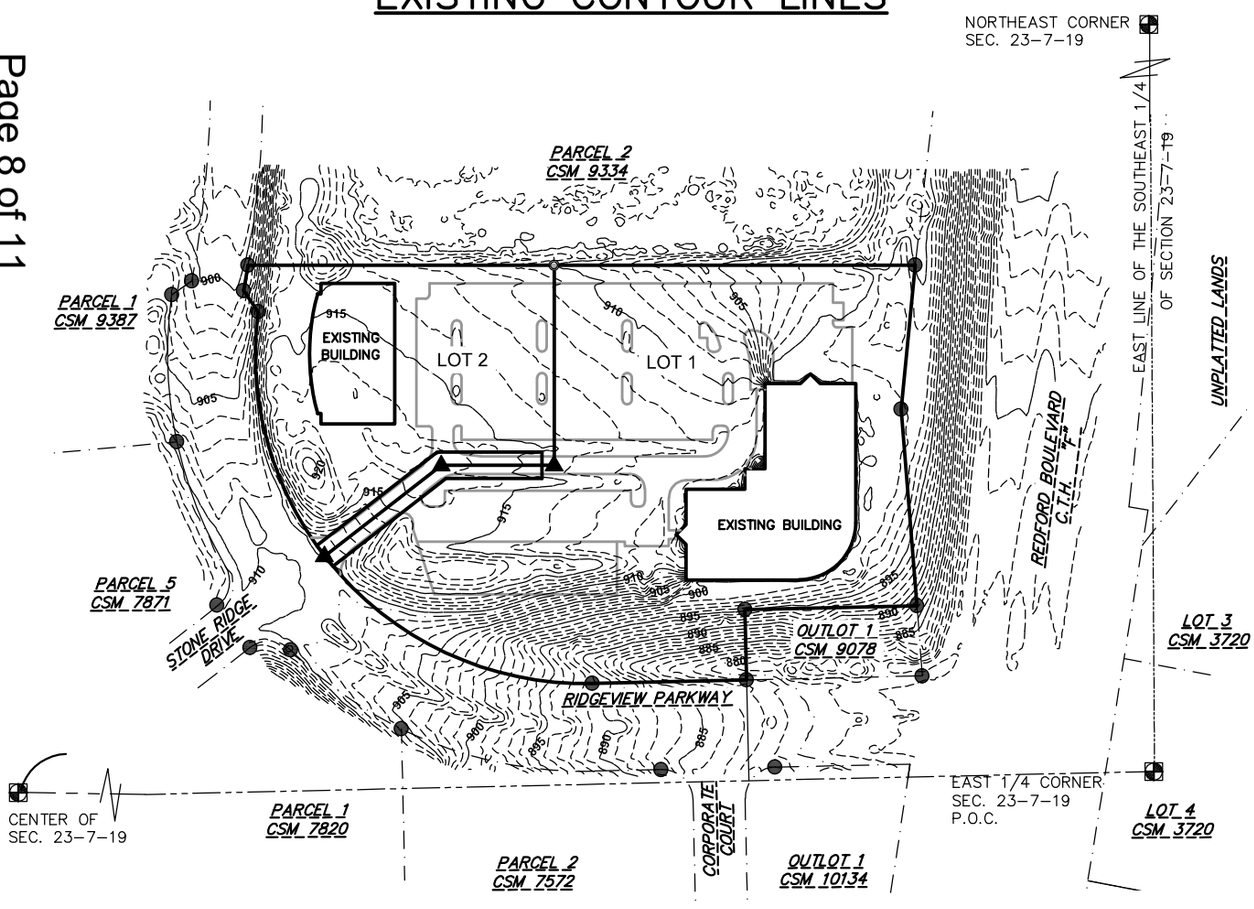
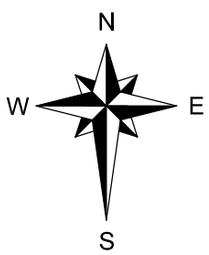
EXISTING CONTOUR LINES





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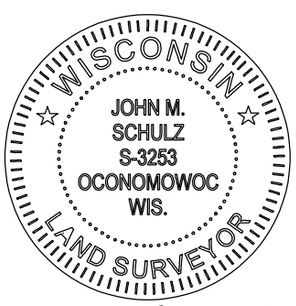

John M. Schulz, P.L.S. 3253

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SURVEYOR'S CERTIFICATE

I, John M. Schulz, Ruekert & Mielke, Inc., Professional Land Surveyor, do hereby certify that at the direction of R–M Investment Properties, LLC., that I have surveyed, divided and mapped a division of Parcel 1 of Certified Survey Map No. 9078, recorded in Volume 81 of Certified Survey Maps on Pages 343–348 as Document No. 2603960, located in the Southeast 1/4 of the Northeast 1/4 of Section 23, in Township 7 North, Range 19 East, City of Pewaukee, Waukesha County, Wisconsin.

That I have made this survey, land division and map by the direction of R–M Investment Properties, LLC., Subdivider of said land.

That such map is a correct representation of all the exterior boundaries of the land surveyed and the division thereof made.

That I have fully complied with the provisions of Chapter 236 or the Wisconsin Statutes and the City of Pewaukee ordinances in surveying, dividing and mapping of same.

GENERAL NOTES:

A. This Certified Survey Map was prepared with the benefit of a Title Commitment, First American Commitment No. NCS–1192193–MAD
B. This site contains one building.
C. Property lines are retraced from recorded CSM's, and deed descriptions.
D. This survey is contained within the parcels identified by Tax Key: PWC 0953984002
E. Zoning is B–4 (Office District), adjace property to the north is zoned Rm–4.
F. Fieldwork was performed on January 13, 2023.
G. No lands will be dedicated for public use.
H. No soil borings have been performed or are planned as of the date of the CSM.
I. Existing contours are shown on page 4, proposed contours have yet to be determined.
J. Utilities (i.e. gas, electric, sewer, etc.) were not marked or located.
K. A 10' parking lot setback may be needed for future work.

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WISCONSIN
JOHN M. SCHULZ
S-3253
OCONOMOWOC
WIS.
LAND SURVEYOR

John M. Schulz, P.L.S. 3253

Dated this 12th day of March, 2024

Ruekert • Mielke
www.ruekertmielke.com

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CORPORATE OWNER'S CERTIFICATE

R–M Investment Properties, LLC., a Wisconsin corporation duly organized and existing under and by virtue of the laws of the State of Wisconsin, as owner, does hereby certify that said corporation caused the land described on this plat to be surveyed, divided, and mapped, as represented on this plat.

R–M Investment Properties, LLC. does further certify this map is required by S.236.10 or S.236.12 to be submitted to the following for approval or objection: City of Pewaukee.

As owner(s) I hereby restrict all lots and blocks so that no owner, possessor, user, licensee or other person(s) may have any right of direct vehicular ingress from or egress to any highway lying within the right–of–way of C.T.H. "F", as shown on the land division map; it is expressly intended that this restriction shall constitute a restriction for the benefit of the public as provided on s.236.293, Stats., and shall be enforceable by the department or its assigns.

_____ day of _____, 20___.
Owner, R–M Investment Properties LLC.

STATE OF WISCONSIN }
WAUKESHA COUNTY } SS

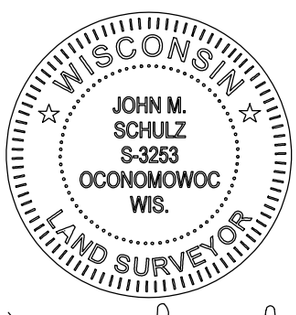
Personally came before me this _____ day of _____ , 20___, the

above named _____ and _____

to me known to be the persons who executed the foregoing instrument and acknowledge the same.

_____
Notary Public, State of Wisconsin.

My Commission _____.



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CITY OF PEWAUKEE PLANNING COMMISSION APPROVAL

Approved for recording per the City of Pewaukee Planning Commission.

By: _____ Date: _____
Steve Bierce, Mayor

_____ Date: _____
Colleen Brown, Secretary

COMMON COUNCIL CERTIFICATE OF APPROVAL

Approved and accepted for recording by the Common Council of City of Pewaukee.

By: _____ Date: _____
Steve Bierce, Mayor

_____ Date: _____
Kelly Tarczewski, Village Clerk/Treasurer

SITE ADDRESS:
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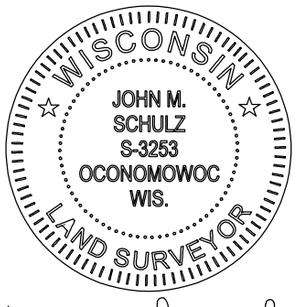

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CITY OF PEWAUKEE
PLAN COMMISSION AGENDA ITEM 4.

DATE: March 21, 2024

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

Discussion and Action Regarding the Site and Building Plans for Lakeland Supply for Property Located at N17 W25081 Bluemound Road for the Purpose of Constructing an Approximately 60,000 Square Foot Building Addition (PWC 0948985001)

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Lakeland Supply staff report 3.21.24

Lakeland Supply site & building plans

Lakeland Supply exterior lighting plan

Lakeland Supply staff comment responses

Office of the Planner & Community Development Director
W240 N3065 Pewaukee Road
Pewaukee, Wisconsin 53072
Phone (262) 691-0770 Fax (262) 691-1798
fuchs@pewaukee.wi.us

REPORT TO THE PLAN COMMISSION

Meeting of March 21, 2024

Date: March 13, 2024

Project Name: Lakeland Supply Site & Building Plan Review Application

Project Address/Tax Key No.: N17W25081 Bluemound Road / PWC 0948985001

Applicant: Briohn Builders Corp

Property Owner: SCHMIDT FAMILY INVESTMENT LIMITED PARTNERSHIP

Current Zoning: M-6 Mixed Industrial Use District

2050 Land Use Map Designation: Manufacturing/Fabrication/Warehousing

Use of Surrounding Properties: Single-Family Residential to the north, vacant LC District zoned land to the south, industrial to the east, and Highway 16 to the west

Introduction

The applicant has filed a Site & Building Plan Review Application for a proposed building addition for Lakeland Supply, located at N17W25081 Bluemound Road.

The subject property has an area of approximately 8.55 acres and consists of the existing 75,647 square foot building and associated site improvements such as parking, lighting, and landscaping.

The building addition is for warehousing use. As such, there is no change in operations or hours, and currently no additional employees are being added.

Site & Building Plan Review

The building addition is approximately 60,000 square feet. The building currently has eleven overhead doors on the east elevation. This addition will add ten overhead doors on that same elevation for a total of twenty-one.

The site will consist of about 222,981 square feet of impervious surfaces and 149,493 square feet of greenspace. The greenspace onsite is slightly over 40% with the wetlands onsite constituting less than 20% of the greenspace area, which is allowed by the zoning ordinance.

The addition is in line with the existing building and maintains a 50-foot setback from the west, Highway 16, property line.

Natural Resources

The site contains two wetlands and the associated 25-foot wetland setbacks. One wetland is located in the southwest corner of the property and is part of the wetland complex on the outlot to the south. Another wetland is located along the entire north property line.

The wetland in the southwest corner of the property was last delineated on July 22, 2020. The wetland along the north property line was delineated on August 4, 2014. As this wetland is within close proximity to the building addition, *it is recommended that a new delineation be completed, prior to any land disturbance*. The applicant has indicated that a consultant has been engaged to complete an updated wetland delineation to provide to the City.

Neither wetland nor wetland setback are being impacted by the proposed development.

Parking
The Zoning Ordinance suggests "One (1) space for each two (2) employees in 12-hour period."

There are currently eighty-eight parking spaces onsite, and no parking is proposed along with this addition. This is due to the use as warehouse space and no additional employees being added. It should be noted that the site is at its maximum allowed lot coverage with the addition, thus there is not an opportunity to add parking in the future. According to the applicant, the parking provided will exceed the Zoning Code suggested minimum considering this full buildout and maximum number of employees anticipated at this location.

Lighting
Building lighting is proposed on the west and north elevations. The applicant has indicated that mounting heights will not exceed 20-feet.

Landscaping
The Landscape Plan includes four shade trees, two decorative trees, eight evergreens, and sixty-three shrubs.

It should be noted that there is an existing single-family residential home to the north. There is an existing tree line along the north side of the property, with the trees being located on the residential property.

The applicant is providing two shade trees to fill in a gap in the tree line on the far west side.

Architecture
The architecture and building materials proposed match that of the existing building. The applicant has included a painted stripe near the top of the building as well as windows to match other elevations on the current building.

Note the north elevation does not contain windows. Staff recommended the applicant add windows to the north elevation. The applicant indicated that these panels are the existing panels being relocated and currently do not have windows.

The building exceeds 30-feet in height. As such, *Fire Chief approval of the building height shall be granted prior to issuance of a Building Permit*.

Signage

The elevations show a new wall sign located on the west side of the building, facing Highway 16. This is the second sign on this elevation. A wall sign also exists on the south elevation. If acceptable to the Plan Commission, the sign is subject to review and approval by staff and issuance of a Sign Permit.

Stormwater Management/Engineering
It is recommended that final grading, erosion control, utilities, and storm water management plans shall be approved by the Engineering Department prior to issuance of a Building Permit.

Recommendation

Staff recommends approval of the subject application to allow for a building addition for Lakeland Supply located at N17W25081 Bluemound Road.

PROPOSED BUILDING ADDITION FOR:

LAKELAND SUPPLY CO., INC.

N17W25081 W. BLUEMOUND ROAD
PEWAUKEE, WISCONSIN 53072

PERMIT SUBMITTAL
MARCH 5, 2024

SHEET INDEX

THE PROPOSED COMMERCIAL NON-RESIDENTIAL BUILDING FOR BUILDINGS LOCATED IN CLIMATE ZONE 6(A) - PER IECC 2015 WITH AMENDMENTS FOR PRESCRIPTIVE OPTION - OPAQUE ELEMENT MAXIMUM U-FACTORS: SUBSTITUTE 2009 IECC TABLE 502.1.2 FOR 2015 IECC TABLE C402.1.4

ROOFS - PROPOSED ROOF INSULATION ENTIRELY ABOVE DECK R-20ci REQUIRED AND R-20ci PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

WALLS ABOVE GRADE PROPOSED EXTERIOR WALL - MASS (PRECAST INSULATED CONCRETE) R-13.3ci REQUIRED AND R-14ci PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

SLAB-ON-GRADE FLOORS - PROPOSED UNHEATED SLABS R-10 FOR 24 INCHES BELOW REQUIRED AND R-10 FOR 24 INCHES OR MORE PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

PER 2015 IECC TABLE C402.4 BUILDING ENVELOPE REQUIREMENTS: FENESTRATION
VERTICAL FENESTRATION (40% MAXIMUM ALLOWED ABOVE GRADE) 5% ACTUAL PROVIDED, REQUIRED U - FACTOR .36, ACTUAL PROVIDED .29 AND SHGC .41

ENTRANCE DOORS: REQUIRED U-FACTOR OF .77 ACTUAL. .60 PROVIDED.

PER 2015 IECC:

C402.5 AIR LEAKAGE THERMAL ENVELOPE.
PROPOSED BUILDING COMPLIES.

C402.5.1 AIR BARRIER PER C402.5.1.2.1 MATERIALS SEE EXCEPTION 13 CAST-IN-PLACE AND PRECAST CONCRETE.
PROPOSED BUILDING COMPLIES.

C402.5.2 AIR LEAKAGE FENESTRATION SEE EXCEPTION 1. FIELD FABRICATED FENESTRATION ASSEMBLIES THAT ARE SEALED IN ACCORDANCE WITH SECTION C402.5.1.
PROPOSED BUILDING COMPLIES.

C402.5.3 ROOMS CONTAINING FUEL - BURNING APPLIANCES EXCEPTION 1. DIRECT VENT APPLIANCES WITH BOTH INTAKE AND EXHAUST PIPES INSTALLED CONTINUOUS TO OUTSIDE.
PROPOSED BUILDING COMPLIES.

C402.5.4 DOORS AND ACCESS OPENINGS TO SHAFTS, CHUTES, STAIRWAYS AND ELEVATOR LOBBIES.
NOT APPLICABLE TO PROPOSED BUILDING.

C402.5.5 AIR INTAKES, EXHAUST OPENINGS, STAIRWAYS AND SHAFTS, IF REQUIRED TO BE DAMPERED.
PROPOSED BUILDING COMPLIES.

C402.5.6 LOADING DOCK WEATHER SEALS TO BE PROVIDED FOR LOADING DOCK DOORS.
PROPOSED BUILDING COMPLIES.

C402.5.7 VESTIBULES EXCEPTION 2. DOORS NOT INTENDED TO BE USED BY THE PUBLIC, SUCH AS DOORS TO MECHANICAL OR ELECTRICAL EQUIPMENT ROOMS, ON INTENDED SOLELY FOR EMPLOYEE USE. EXCEPTION 4 DOORS THAT OPEN DIRECTLY FROM A SPACE LESS THAN 3,000 SQUARE FEET IN AREA. EXCEPTION 6 DOORS USED PRIMARILY TO FACILITATE VEHICULAR MOVEMENT OR MATERIAL HAND LINE AND ADJACENT PERSONAL DOORS.
PROPOSED BUILDING COMPLIES.

C402.5.8 RECESSED LIGHTING.
NOT APPLICABLE TO PROPOSED BUILDING.

OWNER :

LAKELAND SUPPLY, INC
VINCE SCHMIDT
LARRY SCHMIDT

N17W25081 Bluemound Rd
Pewaukee, WI 53072

(262) 549-6800 PHONE

GENERAL CONTRACTOR :

BRIOHN BUILDING CORPORATION
CARY BILICKI

3885 N. BROOKFIELD RD., SUITE 200
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(262) 790-0500 PHONE
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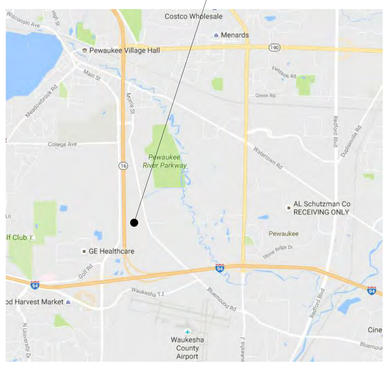
PROJECT LOCATION:



PROJECT INFORMATION:

BUILDING CODE:
2015 INTERNATIONAL BUILDING CODE WITH WISCONSIN AMENDMENTS SPS 362
2015 INTERNATIONAL EXISTING BUILDING CODE WITH WISCONSIN AMENDMENTS SPS 366
ACCESSIBILITY CODE:
2015 INTERNATIONAL BUILDING CODE WITH WISCONSIN AMENDMENTS SPS 362
2009 ICC/ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
ENERGY CODE:
2015 IECC INTERNATIONAL ENERGY CONSERVATION CODE WITH WISCONSIN AMENDMENTS SPS 363
MECHANICAL CODE:
2015 INTERNATIONAL MECHANICAL CODE WITH WISCONSIN AMENDMENTS SPS 364
PLUMBING CODE:
2014 WISCONSIN PLUMBING CODE SPS 381-387
ELECTRICAL CODE:
2017 NFPA 70 NATIONAL ELECTRICAL CODE WITH WISCONSIN AMENDMENTS SPS316
FIRE CODE:
SPS 314 FIRE PREVENTION

OCCUPANCY (ADDITION ONLY):	PRIMARY	S-1	(MODERATE HAZARD STORAGE)
CLASS OF CONSTRUCTION:	TYPE 2B		
SPRINKLER SYSTEM:	FULLY SPRINKLERED, NFPA 13		
FLOOR LEVELS:	1	NOTE:	
NUMBER OF STORIES	1	ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SPRINKLER ENGINEERTING BY DESIGN-BUILD CONTRACTORS	
EXISTING BUILDING FOOTPRINT:	75,638 SF		
PROPOSED BUILDING ADDITION:	60,400 SF		

ZONING:	M-6	LIMITED BUSINESS & INDUSTRIAL PARK
SETBACKS:	STREET:	50'
	SIDE:	40'
	REAR:	40'
PARKING:	83	STANDARD STALLS
	4	HANDICAPPED STALLS
	87	TOTAL STALLS

APPLICABLE TO ALL PLAN VIEWS

BRIOHN
DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE: TITLE SHEET

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision

Date

JOB: 230119
DRAWN: CW
CHECKED: DF
DATE: 03-05-2024
SHEET: T1.1

GENERAL NOTES

1. THE FOLLOWING SHALL APPLY TO ALL SUBCONTRACTORS AND SUPPLIERS ENGAGED IN EXECUTION OF THE WORK SHOWN ON THESE DRAWINGS AND SPECIFICATIONS.
2. THE COMPLETE CONSTRUCTION DOCUMENT SET IS INCLUSIVE OF THE DRAWING SHEETS LISTED IN THE DRAWING INDEX.
3. ALL WORK SHALL CONFORM TO ALL APPLICABLE PROVISIONS OF THE LOCAL AND STATE BUILDING, HVAC AND FIRE SAFETY CODE; LOCAL AND STATE PLUMBING CODE; LOCAL AND STATE MECHANICAL CODES; LOCAL AND STATE ELECTRICAL CODE; OSHA BARRIER FREE DESIGN; LOCAL AND STATE FIRE PROJECTION CODES. ALL WORK SHALL CONFORM TO ALL NATIONAL CODES AND REFERENCE STANDARDS AS REFERENCED IN THE LOCAL AND STATE CODES. ALL WORK, MATERIALS AND INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH ALL ORDINANCES, STATE AND LOCAL BUILDING CODES, LATEST EDITION, OF THE AUTHORITIES HAVING JURISDICTION. DESIGN LOADS; LOADS AND CODE RESTRICTIONS FOR ALL DESIGN CONSIDERATIONS SHALL CONFORM TO THE LOCAL AND STATE CODES AND ALL GOVERNING CODES, AND ALL CONSTRUCTION IS TO COMPLY WITH ALL LOCAL SEISMIC REQUIREMENTS. REFER TO STRUCTURAL SPECIFICATIONS.
4. PERMITS: THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER APPLICATION FOR AND SECURING OF ALL NECESSARY PERMITS, AS WELL AS THE OBSERVANCE OF ALL APPLICABLE CITY, COUNTY, STATE AND FEDERAL LAWS, REGULATIONS OR ORDINANCES.
5. FIRE PROTECTION: SUBCONTRACTOR SHALL PROVIDE FIRE EXTINGUISHERS WITHIN THE PREMISES AS REQUIRED BY CODE AND OR INSURANCE COMPANIES (FOLLOW MORE STRINGENT REQUIREMENTS), OR VERIFY THAT AN ADEQUATE NUMBER OF FIRE EXTINGUISHERS EXIST IN THE CASE OF REMODELING OR ALTERATION. DISCONNECT AND SEAL UTILITIES SERVING STRUCTURE TO BE DEMOLISHED, PRIOR TO START OF DEMOLITION WORK IF DEMOLITION WORK IS PART OF THE SCOPE OF WORK REQUIRED.
FIRE SPRINKLERS: THE GENERAL CONTRACTOR SHALL EMPLOY THE SERVICES OF A LICENSED FIRE SPRINKLER CONTRACTOR TO REWORK AND MODIFY THE EXISTING SYSTEM TO CONFORM WITH THE NEW ROOM AND CEILING HEIGHTS AS SHOWN IN THESE DRAWINGS. THE SPRINKLER CONTRACTOR SHALL DESIGN AND PREPARE SHOP DRAWINGS FOR THE PROPOSED SYSTEM MODIFICATIONS AND SUBMIT THESE DRAWINGS TO THE LOCAL AND STATE BUILDING CODE OFFICIALS AND THE ARCHITECT TO GAIN APPROVALS PRIOR TO CONNECTING ANY WORK. PROVIDE CONCEALED HEADS FOR AREAS WITH FINISHED CEILINGS UNLESS OTHERWISE NOTED.
6. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS.
7. CONTRACTOR COMPLIANCE: THE SUBCONTRACTOR SHALL VISIT THE PREMISES AND VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION AND SHALL REPORT ALL DISCREPANCIES TO THE ARCHITECT AND THE GENERAL CONTRACTOR. THE SUBCONTRACTOR SHALL CONFORM TO ALL REQUIREMENTS REGARDING CONSTRUCTION PROCEDURES, INSURANCE, ETC AS SET FORTH BY THE GENERAL CONTRACTOR.
8. THE SUBCONTRACTOR SHALL SUBMIT A SPECIFIC CONSTRUCTION SCHEDULE TO THE GENERAL CONTRACTOR'S CONSTRUCTION/PROJECT MANAGER WITHIN 7 DAYS AFTER THE AWARD OF THE SUBCONTRACT.
9. HAZARDOUS MATERIALS: IN THE EVENT HAZARDOUS MATERIALS ARE ENCOUNTERED ON THE PREMISES DURING THE EXECUTION OF THE WORK, NOTIFY THE GENERAL CONTRACTOR BEFORE PROCEEDING WITH THE WORK. THE GENERAL CONTRACTOR SHALL NOTIFY THE OWNER/LANDLORD. AFTER THE OWNER/LANDLORD IS NOTIFIED AND WORK IS SUSPENDED, THE OWNER/LANDLORD IS RESPONSIBLE FOR DIRECTIONS TO THE GENERAL CONTRACTOR AS TO THE REMOVAL AND HANDLING OF HAZARDOUS MATERIALS. PROCEED WITH WORK WHEN THE OWNER/LANDLORD GIVES WRITTEN APPROVAL. REMOVAL AND HANDLING OF HAZARDOUS MATERIALS SHALL FOLLOW LOCAL AND STATE CODES AND REQUIREMENTS.
10. INFORMATION RELATED TO EXISTING CONDITIONS GIVEN IN THE CONSTRUCTION DOCUMENTS WAS OBTAINED FROM EXISTING BUILDING SCHEMATIC DRAWINGS AVAILABLE AT THE TIME OF DESIGN. ACCURACY CAN NOT BE GUARANTEED. DRAWINGS AND SPECIFICATIONS ARE INTENDED FOR ASSISTANCE AND GUIDANCE, BUT EXACT DIMENSIONS AND ELEVATIONS SHALL BE GOVERNED BY ACTUAL CONDITIONS AT THE SITE AND SHALL BE VERIFIED BY THE SUBCONTRACTOR.
11. NOTES ARE AN AID FOR THE SUBCONTRACTOR IN UNDERSTANDING THE WORK AND SHALL NOTE BE CONSTRUED AS BEING COMPLETE IN EVERY DETAIL. IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO VISIT THE SITE, BECOME THOROUGHLY FAMILIAR WITH THE WORK AND REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE ACTUAL CONDITIONS TO THE ARCHITECT AND THE GENERAL CONTRACTOR.
12. DO NOT SUBSTITUTE, REVISE OR CHANGE THE WORK WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT AND THE GENERAL CONTRACTOR.
13. INSTALL WORK PLUMB LEVEL SQUARE TRUE AND IN PROPER ALIGNMENT.
14. WORK SHALL BE SCHEDULED AND PERFORMED SO AS NOT TO DISTURB OR CAUSE DAMAGE TO EXISTING BUILDING ELEMENTS INTENDED TO REMAIN WHICH IS NOT PART OF THE SCOPE OF THE WORK. WORK SHALL BE SCHEDULED AND PERFORMED SO AS NOT TO DISTURB OR CAUSE DAMAGE TO INSTALLED WORK.
15. NO WORK SHALL BE DONE IN OTHER NON DESIGNATED AREAS OR OTHER TENANT AREAS, UNLESS OTHERWISE NOTED, SCHEDULE AND PERFORM THE WORK SO THAT THE OTHER AREAS NOT DESIGNATED TO RECEIVE WORK AND THE OTHER TENANTS IN THE BUILDING WILL NOT BE DISTURBED AND COMPLY WITH THE BUILDING OWNERS REQUIREMENTS.
16. COORDINATE WORK AS REQUIRED WITH THE OWNER/LANDLORD'S REPRESENTATIVE INCLUDING THE USE OF ELEVATORS, TEMPORARY STORAGE, LOADING DOCKS, BUILDING KEYING SYSTEMS, ETC. AND PROVIDE NECESSARY BARRICADES, LIGHTING, SIGNAGE AND GUARDRAILS AS REQUIRED BY OWNER/LANDLORD AND/OR APPLICABLE REGULATORY AGENCIES FOR THE PROTECTION OF BUILDING OCCUPANTS, WORKERS, VISITORS, CUSTOMERS AND PEDESTRIANS.
17. EACH SUBCONTRACTOR IS CONSIDERED A SPECIALIST IN HIS/HER RESPECTIVE FIELD, AND PRIOR TO THE SUBMISSION OF BID OR PERFORMANCE OF WORK EACH SUBCONTRACTOR SHALL NOTIFY THE ARCHITECT AND GENERAL CONTRACTOR OF WORK CALLED IN THE DRAWINGS OR SPECIFICATIONS IN HIS/HER TRADE THAT CANNOT BE FULLY GUARANTEED OR CONSTRUCTED ACCORDING TO THE DESIGN INTENT.
18. PROVIDE AND COORDINATE LOCATION AND TYPE OF BLOCKING/BACKING REQUIRED WITHIN PARTITIONS AT LOCATIONS OF WALL MOUNTED ITEMS.
19. THE DRAWINGS INDICATE LOCATION, DIMENSIONS, REFERENCE AND TYPICAL DETAILS OF CONSTRUCTION. THE DRAWINGS DO NOT ILLUSTRATE EVERY CONDITION, WORK NOT PARTICULARLY DETAILED SHALL BE OF CONSTRUCTION SIMILAR TO PARTS THAT ARE DETAILED. VERIFY WITH ARCHITECT AND GENERAL CONTRACTOR PRIOR TO FABRICATION OR INSTALLATION OF SPECIFIC DETAILS OF CONSTRUCTION.
20. DISCREPANCY IN THE PLANS SHALL BE REPORTED TO ARCHITECT AND GENERAL CONTRACTOR IMMEDIATELY. SUBCONTRACTOR SHALL NOT MAKE A DETERMINATION FOR CONFLICTS IN PLAN DIMENSIONS.
21. DIMENSIONS ARE NOT ADJUSTABLE WITHOUT THE APPROVAL OF THE ARCHITECT AND GENERAL CONTRACTOR UNLESS NOTED +/-.
22. VERTICAL DIMENSIONS ARE FROM THE TOP OF FLOOR FINISH, ESTABLISHED BY THE ARCHITECT AND GENERAL CONTRACTOR UNLESS OTHERWISE NOTED.
23. DIMENSIONS MARKED "FIELD VERIFY" SHALL BE VERIFIED IN THE FIELD BY THE SUBCONTRACTOR'S AFFECTED.
24. HORIZONTAL DIMENSIONS SHALL BE SHOWN FROM THE FINISHED FACE OF CONSTRUCTION UNLESS OTHERWISE NOTED.
25. WASTE AND REFUSE CAUSED BY WORK SHALL BE REMOVED FROM THE PREMISES AND DISPOSED OF OR RECYCLED PROPERLY BY THE SUBCONTRACTOR DAILY. FINAL CLEANING PRIOR TO FINAL INSPECTION SHALL INCLUDE A THOROUGH CLEANING OF AL SURFACES AND REPLACEMENT OF ALL FILTERS IN NEW INSTALLED HVAC EQUIPMENT AND EXISTING HVAC EQUIPMENT AFFECTED BY CONSTRUCTION OF WORK.
26. MAINTAIN STRICT CONTROL OF DUST AND DEBRIS EMANATING FROM THE PROJECT AREA. KEEP PROJECT AREA BROOM CLEAN AND CLEAR OF DEBRIS DAILY.
27. SUBCONTRACTOR SHALL PERFORM ANY AND ALL EXCAVATING, CUTTING, PATCHING, REPAIRING, RESTORING AND THE LIKE NECESSARY TO COMPLETE THE WORK OF THIS CONTRACT. RESTORE ANY DAMAGED OR AFFECTED SURFACES RESULTING FROM THE WORK OF THIS CONTRACT TO THEIR ORIGINAL CONDITION AND TO THE SATISFACTION OF THE ARCHITECT, GENERAL CONTRACTOR, AND THE OWNER/LANDLORD. PATCH DAMAGE WITHIN THE WORK AREA, AS WELL AS OUTSIDE THE LIMIT OF WORK, AREA IF CAUSED BY THE EXECUTION OF THE WORK.
28. EACH SUBCONTRACTOR SHALL LEAVE THE SITE IN A NEAT, CLEAN AND ORDERLY CONDITION ON A DAILY BASIS AND UPON CONCLUSION OF HIS WORK. ALL WASTE, RUBBISH AND EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE PROMPTLY. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL TRASH GENERATED FOR THE DURATION OF THE PROJECT.
29. CONSULT PROPERTY AS BUILT UTILITY PLANS BEFORE SAW CUTTING CONCRETE SLAB IF REQUIRED. IF AS BUILT DRAWINGS ARE NOT AVAILABLE UTILIZE OTHER MEANS TO UNCOVER BURIED UTILITIES.
30. NO SUBSTITUTIONS SHALL BE PERMITTED UNLESS PRIOR APPROVAL BY THE ARCHITECT AND THE GENERAL CONTRACTOR IS GIVEN.
31. PATCH AND REPAIR ALL FIREPROOFING AND FIRE STOPPING DAMAGED OR REMOVED DURING THE PERFORMANCE OF THE WORK.
32. ACCESSORIES, ETC. SHALL BE PAINTED TO MATCH THE ADJACENT SURFACE AND AS DIRECTED BY THE ARCHITECT AND THE GENERAL CONTRACTOR.
33. EXTERIOR WALL OPENINGS, FLASHING, COUNTER FLASHING, COPING AND EXPANSION JOINTS SHALL BE WEATHERPROOF.
34. CAULKING AND SEALANTS: OPEN JOINTS PENETRATIONS AND OTHER OPENINGS IN THE BUILDING ENVELOPE SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED TO LIMIT AIR LEAKAGE, MAINTAIN REQUIRED FIRE RATING.
35. USE A ACOUSTICAL SEALANT AROUND ALL PIPES, DUCTS, CONDUITS, SWITCHES, ETC. ON BOTH SIDES OF WALLS (CROSSING/PENETRATION) WITH THERMAL AND ACOUSTIC INSULATION, MAINTAIN REQUIRED FIRE RATING.
36. NOISE BARRIER BATTS (SOUND INSULATION) SHALL BE NON-COMBUSTIBLE.
37. MECHANICAL CONTRACTORS SHALL VERIFY EXACT LOCATIONS AND EXACT DIMENSIONS WITH EQUIPMENT MANUFACTURERS, MECHANICAL CONTRACTORS SHALL VERIFY ALL SIZES AND LOCATIONS OF DUCT OPENINGS BEFORE INSTALLATION AND VERIFY DISCREPANCIES, IF ANY.
38. DEFINITIONS:
A) AS REQUIRED: AS REQUIRED BY REGULATORY REQUIREMENTS BY REFERENCED STANDARDS, BY EXISTING CONDITIONS, BY GENERALLY ACCEPTED CONSTRUCTION PRACTICE OF BY THE CONTRACT DOCUMENTS.
B) TYPICAL: IDENTICAL FOR SIMILAR CONDITIONS, UNLESS OTHERWISE NOTED.
C) SIMILAR: COMPARABLE CHARACTERISTICS FOR THE CONDITION NOTED. DIFFERENCES CAN BE INFERRED FROM OTHER INFORMATION INDICATED. VERIFY DIMENSIONS AND ORIENTATIONS.
D) REMOVE: ELIMINATE AND RECYCLE OR DISPOSE OF PROPERLY.
39. SUBCONTRACTOR TO CROSS CHECK WITH ARCHITECTURAL, HVAC, AND PLUMBING PLANS FOR OTHER DETAILS, DIMENSIONS, ELEVATIONS, OPENINGS, INSERTS, BRICK LEDGES, ETC. BRIOHN DESIGN GROUP, LLC TO BE NOTIFIED OF ANY VARIANCE BEFORE CONTRACTOR BEGINS WORK.
40. DIMENSIONS SHOWN ON ARCHITECTURAL DRAWINGS SUPERSEDE DIMENSIONS SHOWN ON STRUCTURAL PLANS. THE USE OF A SCALE TO OBTAIN DIMENSIONS NOT SHOWN ON DRAWINGS IS NOT PERMITTED.
41. IN NO CASE SHALL STRUCTURAL ALTERATIONS OR WORK AFFECTING A STRUCTURAL MEMBER BE MADE, UNLESS APPROVED BY BRIOHN DESIGN GROUP, LLC.

GENERAL NOTES (CONTINUED)

42. IT IS THE SUBCONTRACTORS SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE-DOWNS AS MAY BE NECESSARY. ALL CONSTRUCTION AND ERECTION TO CONFORM TO OSHA REQUIREMENTS.
43. WHERE DETAILS ARE CALLED FOR IN A CERTAIN PORTION OF THE BUILDING, THEY SHALL BE DUPLICATED IN SIMILAR PORTIONS OF THE BUILDING UNLESS SHOWN OTHERWISE. CLARIFY WITH ARCHITECT BEFORE SUBCONTRACTOR BEGINS WORK.
44. CONSTRUCTION DOCUMENTS SHOW DIMENSIONS AND ELEVATIONS TO SIGNIFICANT WORKING POINTS (COLUMN CENTERLINES, OUTSIDE FACES OF WALLS, TOP OF FRAMING MEMBERS, ETC.) MATERIAL SUPPLIERS AND DESIGNERS ARE RESPONSIBLE FOR ALL OTHER INFORMATION IN ORDER TO DETAIL/FABRICATE THEIR WORK. CONTACT THE ARCHITECT WITH ANY DISCREPANCIES.
45. SUBCONTRACTOR SHALL PROVIDE A MINIMUM OF FOUR DETAILED SHOP DRAWINGS, OTHER RELATED DRAWINGS, ERECTION DRAWINGS AND SAMPLES WHERE REQUIRED PRIOR TO COMMENCEMENT OF FABRICATION AND INSTALLATION OF WORK.

GENERAL REQUIREMENTS

1. THE WORK SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT AND SERVICES NECESSARY FOR AND SAID HEADING AS INDICATED IN THE SPECIFICATIONS, DRAWINGS AND DESIGN BUILD CONSTRUCTION CONTRACT.
2. SUBCONTRACTORS SHALL VISIT THE PREMISES WHILE BIDDING AND SHALL FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND THE REQUIREMENTS OF THE PROJECT PRIOR TO DEVELOPING THEIR BID. MATERIAL QUANTITIES SHALL BE BASED ON ACTUAL FIELD CONDITIONS AND MEASUREMENTS. DO NOT RELY ON SCALING PLANS FOR ACCURATE DIMENSIONING.
3. PRIOR TO BEGINNING THE WORK, VERIFY ALL EXISTING DIMENSIONS AND SQUARE FOOTAGES. NOTIFY THE OWNER/LANDLORD OF COMPLIANCE OR DISCREPANCIES, COMPARING THOSE DISCREPANCIES TO THE NUMBERS ON THE TITLE SHEET.
4. SUBCONTRACTORS SHALL TAKE CARE TO PROTECT ADJACENT AREAS FROM DUST AND DAMAGE DURING THE CONSTRUCTION PROCESS AND SHALL CLEAN UP AFTER THEMSELVES AT THE END OF EACH WORKING DAY. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PROTECTION OF ADJACENT ITEMS AND SURFACES FROM DAMAGE RESULTING FROM THE FURNISHING OR INSTALLATION OF SUBCONTRACTORS WORK AND SHALL PROMPTLY REPLACE, AT HIS OWN COST, SUCH DAMAGED WORK. SUBCONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE PROPER PROTECTION OF HIS AND OTHERS WORK FROM DAMAGE. USE APPROPRIATE COVERING OVER FURNITURE, DISPLAY CASES, EQUIPMENT AND FINISHES AS REQUIRED.
5. RUBBISH AND TRASH SHALL BE REMOVED FROM THE PREMISES AND RECYCLED AND/OR PROPERLY DISPOSED OF EACH DAY. NO RUBBISH SHALL BE LEFT IN THE PREMISES AFTER WORK IS COMPLETED.
6. DRAWINGS HEREIN CREATE AN ENTIRE PACKAGE. ALL TRADES SHALL BE RESPONSIBLE FOR REVIEWING THEIR RESPECTIVE REQUIREMENTS AND COORDINATING THEIR HIDDEN OR EXPOSED WORK WITH OTHER RELATED TRADES.
7. COORDINATE WORK OF THE VARIOUS TRADES AND SUBCONTRACTORS TO ASSURE EFFICIENT AND ORDERLY INSTALLATION. PROVIDE ACCOMMODATION FOR ITEMS INSTALLED AT A LATER DATE. VERIFY THAT CHARACTERISTICS OF ELEMENTS OF INTERRELATED OPERATING EQUIPMENT ARE COMPATIBLE. COORDINATE WORK OF VARIOUS SECTIONS WHICH HAVE INTERDEPENDENT RESPONSIBILITIES FOR INSTALLING, CONNECTING TO, AND PLACING IN SERVICE, SUCH EQUIPMENT. COORDINATE SPACE REQUIREMENTS AND INSTALLATION OF MECHANICAL AND ELECTRICAL WORK AND FIRE SPRINKLER SYSTEM WHICH ARE INDICATED, DETAILED OR IMPLIED DIAGRAMMATICALLY ON DRAWINGS.
8. UNLESS SPECIFICALLY NOTED, PROVIDE AND PAY FOR LABOR, MATERIALS AND EQUIPMENT, TOOLS, CONSTRUCTION EQUIPMENT AND MACHINERY AND OTHER FACILITIES AND SERVICES NECESSARY FOR PROPER EXECUTION AND COMPLETION OF WORK, INCLUDING PERMITS.
9. GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL PURCHASE AND MAINTAIN INSURANCE COVERAGE IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER/LANDLORD.
10. FURNISH REQUIRED TEMPORARY FACILITIES AND TEMPORARY UTILITIES IMMEDIATELY AFTER RECEIPT OF NOTICE TO PROCEED FOR USE IN CONVENIENCE OF THOSE ENGAGED IN THE PROJECT WORK.
11. SUBCONTRACTORS MUST STAY BEHIND THE BARRIERS AND MAINTAIN ACCESS TO SUCH AREAS CLEAN AND FREE OF CONSTRUCTION MATERIALS AND DEBRIS. FAILURE TO MAINTAIN CLEAN WORK AREAS WILL RESULT IN GENERAL CONTRACTOR HAVING SUCH MATERIALS AND DEBRIS REMOVED AND CHARGES FOR MAINTENANCE BILLED TO THE SUBCONTRACTOR.
12. COORDINATE CONSTRUCTION, SCHEDULING WITH THE OWNER/LANDLORD OR REPRESENTATIVE REVIEWING SCHEDULED ACTIVITIES AT OUTSET OF CONSTRUCTION.
13. ALLOWABLE TOLERANCES - UNLESS OTHERWISE NOTED OR INDICATED, THE FOLLOWING TOLERANCES SHALL APPLY TO WORK WITHIN AND RELATED TO THE SCOPE OF THESE DOCUMENTS.
A. VERTICAL SURFACES SHALL BE PLUMB OR CONSTRUCTED TO THE EXACT SLOPES OR ANGLES INDICATED.
B. THE MAXIMUM DEVIATION FROM THE TRUE PLANE FOR VERTICAL AND HORIZONTAL SURFACES SHALL NOT BE GREATER THAN 1/8" IN 10'-0" AS MEASURED BY A STRAIGHT EDGE PLACED ANYWHERE ON THE SURFACE.
C. HORIZONTAL SURFACES SHALL BE LEVEL OR CONSTRUCTED TO THE EXACT ANGLE INDICATED OR INTENDED.
D. WALL AND SOFFIT INTERSECTIONS SHALL BE 90 DEGREES OR THE EXACT ANGLE INDICATED OR INTENDED.
E. CORNERS AND EDGES SHALL BE STRAIGHT AND TRUE WITHOUT DENTS, WAVES, BULGES OR OTHER BLEMISHES.
F. JOINTS SHALL BE TIGHT, STRAIGHT, EVEN AND SMOOTH.
G. OPERABLE ITEMS SHALL OPERATE SMOOTHLY WITHOUT STICKING OR BINDING AND WITHOUT EXCESSIVE "PLAY" OR LOOSENESS.
15. THE OWNER/LANDLORD OR OWNER/LANDLORD'S SUBCONTRACTORS MAY OCCUPY PORTIONS OF THE PROJECT DURING THE FINAL STAGE OF CONSTRUCTION, WITH THE COOPERATION AND COORDINATION OF THE GENERAL CONTRACTOR AND APPROVAL OF THE LOCAL CODE OFFICIAL IF REQUIRED.
16. DIMENSIONS AND FINISHES SHALL BE VERIFIED AND COORDINATED WITH EXISTING CONDITIONS PRIOR TO CONSTRUCTION, FABRICATION OR PURCHASING. IN CASE OF CONFLICT BETWEEN THE PROJECT REQUIREMENTS AND/OR EXISTING CONDITIONS, THE ONE HAVING THE MOST STRINGENT REQUIREMENTS SHALL GOVERN, AS APPROVED BY THE ARCHITECT AND THE GENERAL CONTRACTOR.
17. PERFORM WORK IN ACCORDANCE WITH ACCEPTABLE TRADE PRACTICE TO ENSURE THE HIGHEST QUALITY FINISHED PRODUCT - EXPRESSED OR IMPLIED. PERFORM WORK BY SKILLED MECHANICS IN ACCORDANCE WITH ESTABLISHED STANDARDS OF WORKMANSHIP IN EACH OF THE VARIOUS TRADES.
18. COORDINATE BLOCKING REQUIREMENTS WITH ADJACENT OR RELATED TRADES, ACCESSORIES, EQUIPMENT AND FIXTURES INSTALL REQUIRED BLOCKING AT NO ADDITIONAL COST TO CONTRACT.
19. REPAIR PROPERTY DAMAGE BY THE INSTALLERS TO A LIKE - NEW CONDITION OR REPLACE DAMAGED SURFACES AND MATERIALS OF THE PREVIOUSLY INSTALLED WORK BY OTHER TRADES, INSTALLERS AND SUBCONTRACTORS.
20. WHERE REQUESTED BY THE OWNER/LANDLORD TO CERTIFY CONFORMANCE TO TRADE STANDARDS OR THE PROJECT REQUIREMENTS, THE SUBCONTRACTOR SHALL ENLIST A TESTING LABORATORY AT THE OWNER/LANDLORD'S COST. IF THE REQUESTED TEST SHOWS NON-CONFORMANCE TO GENERALLY ACCEPTED TRADE STANDARDS OR THE PROTECT REQUIREMENTS, THE SUBCONTRACTOR SHALL CORRECT THE DEFICIENCY AT NO ADDITIONAL COSTS TO THE OWNER/LANDLORD AND REIMBURSE THE COSTS OF THE TESTING TO THE OWNER/LANDLORD, UNLESS THE CONTRACTOR HAS USED PRODUCTS INCORRECTLY LABELED BY THE MANUFACTURER OR HAS MADE PREVIOUSLY APPROVED CHANGES.
21. PROVIDE SECURITY OF THE WORK, INCLUDING TOOLS AND UNINSTALLED MATERIALS. PROTECT THE WORK, STORED PRODUCTS, CONSTRUCTION EQUIPMENT AND OWNER/LANDLORD'S PROPERTY FROM THEFT AND VANDALISM AND THE PREMISES FROM ENTRY BY UNAUTHORIZED PERSONNEL UNTIL FINAL ACCEPTANCE BY OWNER/LANDLORD.
22. MAINTAIN ACTIVE FIRE EXTINGUISHERS AT THE PROJECT AS REQUIRED TO ADEQUATELY COVER THE WORK AREA.
23. DO NOT USE MATERIALS OR EQUIPMENT FOR A PURPOSE OTHER THAN THAT FOR WHICH IS SPECIFICALLY DESIGNED OR SPECIFIED FOR. MATERIALS AND EQUIPMENT THAT ARE SIMILAR SHALL BE THE SAME TYPE, MODEL AND STYLE FOR THE SAME USE THE THROUGHOUT THE PROJECT OR THEY SHALL BE REJECTED.
24. WHEN THE PROJECT REQUIREMENTS REQUIRE THAT THE INSTALLATION OF WORK SHALL COMPLY WITH MANUFACTURER'S INSTRUCTIONS, PERFORM THE WORK IN STRICT ACCORDANCE WITH THE MOST CURRENT WRITTEN MANUFACTURER'S INSTRUCTIONS.
25. PRODUCTS AND EQUIPMENT SHALL BE DELIVERED IN UNDAMAGED CONDITION AND STORED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS TO AVOID DISRUPTION OF THE WORK OR DAMAGE TO THE ITEMS. REPLACE DAMAGED OR UNFIT MATERIALS, AT NO ADDITIONAL COST TO OWNER/LANDLORD.
26. NOTIFY THE OWNER/LANDLORD WHEN THE WORK IS SUBSTANTIALLY COMPLETE AND READY FOR INSPECTION. PROVIDE WRITTEN OPERATION AND MAINTENANCE INSTRUCTIONS AND GUARANTEES FOR ALL EQUIPMENT AND MATERIALS INSTALLED. PROVIDE WRITTEN GUARANTEES FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.
27. PROVIDE FINAL CLEAN-UP AND DAMAGE REPAIR AT THE PROJECT CONCLUSION. LEAVE THE PREMISES NEAT, CLEAN AND CLEAR OF TOOLS, EQUIPMENT AND SURPLUS MATERIALS, UNLESS REQUESTED BY THE OWNER/LANDLORD. CLEAN-UP SHALL INCLUDE AND NOT BE LIMITED TO:
28. SUBCONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS CORRESPONDING TO THE LOCATION OF EXISTING ELEMENTS SUCH AS COLUMNS, BEAMS, WALLS, ETC. NEEDED TO CONSTRUCT THIS PROJECT.
29. SUBCONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY ARCHITECT OF ANY CONFLICTS WITH CONSTRUCTION DOCUMENTS.
30. REMOVE, REPLACE AND/OR MODIFY ALL EXISTING CONSTRUCTION (ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL) AS REQUIRED IN ORDER TO PLACE NEW STRUCTURAL WORK SHOWN ON THE CONSTRUCTION DOCUMENTS.
31. SUBCONTRACTOR SHALL DESIGN AND PROVIDE ALL SHORING REQUIRED TO SUPPORT EXISTING CONSTRUCTION AND NEW CONSTRUCTION AS REQUIRED TO BUILD THIS PROJECT.
32. IT SHALL BE THE SUBCONTRACTOR'S SOLD RESPONSIBILITY TO RECEIVE, CHECK AND CONFIRM THE ARRIVAL IN GOOD ORDER ALL ITEMS CALLED FOR TO BE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR. THE SUBCONTRACTOR SHALL NOTIFY BRIOHN BUILDING CORP. AND OWNER IN WRITING OF ANY SUCH ITEMS MISSING OR DAMAGED WITHIN 3 DAYS OF RECEIVING DATE. FAILURE TO SO NOTIFY THE BRIOHN BUILDING CORP. AND OWNER WILL BE CONSIDERED PROOF OF PROPER QUANTITIES WERE DELIVERED AND IN GOOD CONDITION, AND IT SHALL BE THE SUBCONTRACTOR'S RESPONSIBILITY (AT SUBCONTRACTOR'S OWN COST) TO PROMPTLY REORDER, REPLACE AND/OR REPAIR ANY SUCH ITEM(S) NEEDED FOR THE PROPER COMPLETION OF THIS PROJECT, ON THE AGREED DATE OF COMPLETIONS.

GENERAL REQUIREMENTS (CONT)

33. THE APPLICATIONS OF A MATERIAL AND/OR EQUIPMENT ITEM BY A SUBCONTRACTOR TO UNSATISFACTORY WORK INSTALLED BY OTHERS, CONSTITUTES ACCEPTANCE OF THAT WORK AND ASSUMPTION OF FULL RESPONSIBILITY. PRIOR TO STARTING THE SPECIFIC APPLICATION, NOTIFY BRIOHN BUILDING CORP. IN WRITING OF ANY DEFECT OR DEFICIENCY WHICH WOULD IMPAIR COMPLETE AND SATISFACTORY APPLICATIONS OR INSTALLATION OF SUBCONTRACTORS WORK INCLUDING GUARANTEE.
34. WHERE INSTALLATION INCLUDE MANUFACTURED PRODUCTS, COMPLY WITH MANUFACTURER'S APPLICABLE INSTRUCTIONS AND RECOMMENDATIONS FOR INSTALLATION, TO THE EXTENT THESE ARE MORE EXPLICIT OR MORE STRINGENT THAN REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS.
35. PROVIDE ATTACHMENT AND CONNECTION DEVISES AND METHODS FOR SECURING WORK PROPERLY AS IT IS INSTALLED, TRUE TO LINE AND LEVEL, AND WITHIN RECOGNIZED INDUSTRY TOLERANCES UNLESS OTHERWISE NOTED. ALLOW FOR EXPANSION AND BUILDING MOVEMENT.
36. PROVIDE UNIFORM JOINT WIDTHS IN EXPOSED WORK, ORGANIZED FOR BEST POSSIBLE VISUAL EFFECT. REFER QUESTIONABLE VISUAL-EFFECT CHOICES TO ARCHITECT AND GENERAL CONTRACTOR FOR A FINAL DECISION. RECHECK MEASUREMENTS AND DIMENSIONS OF THE WORK, AS AN INTEGRAL STEP OF STARTING EACH INSTALLATION.
37. MOUNTING HEIGHTS: WHERE MOUNTING HEIGHTS ARE NOT INDICATED, MOUNT INDIVIDUAL UNITS OF WORK AT INDUSTRY RECOGNIZED STANDARD MOUNTING HEIGHTS FOR APPLICATIONS INDICATED. REFER QUESTIONABLE MOUNTING HEIGHT CHOICES TO ARCHITECT AND GENERAL CONTRACTOR FOR FINAL DECISION.
38. PROVIDE AND COMPLETE ALL PRELIMINARY WORK AND TEMPORARY CONSTRUCTION REQUIRED AS INDICATED AND REQUIRED. INSTALL TEMPORARY BARRICADE AS REQUIRED BY LOCAL OFFICIALS IN MANNER STIPULATED BY SAME.
39. INSTALLATION OF ANY COMBUSTIBLE MATERIALS ABOVE FINISHED CEILINGS OR IN ANY OTHER CONCEALED, NON-SPRINKLERED SPACE IS STRICTLY PROHIBITED.
40. IMPOSING ANY STRUCTURAL LOAD, TEMPORARY OR PERMANENT ON ANY PART OF EXISTING OR PROPOSED STRUCTURE WITHOUT ARCHITECT AND STRUCTURAL ENGINEER'S APPROVAL IS STRICTLY PROHIBITED.
41. CUTTING ANY HOLE IN EXISTING OR PROPOSED FLOOR SLABS, WALLS, COLUMNS, BEAMS OR ROOF WITHOUT PROPER APPROVAL BY ARCHITECT AND STRUCTURAL ENGINEER AND NOT IN ACCORDANCE WITH INSTRUCTIONS HEREIN AND PROPER CONSTRUCTION PROCEDURES IS STRICTLY PROHIBITED.
42. ATTACHING ANY WORK TO METAL DECK OR HANGING WORK FROM PLUMBING AND SPRINKLER PIPING OR CONDUIT IS STRICTLY PROHIBITED.

SITE WORK

WATER DISTRIBUTION

PART 1 GENERAL

1.1 SUMMARY
A. THIS SECTION INCLUDES WATER-DISTRIBUTION PIPING AND RELATED COMPONENTS OUTSIDE THE BUILDING FOR COMBINED WATER SERVICE AND FIRE-SERVICE.
B. UTILITY-FURNISHED PRODUCTS INCLUDE WATER METERS THAT WILL BE FURNISHED TO THE SITE. C. RELATED SECTIONS:
1. EARTHWORK

1.2 REFERENCES
A. STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
B. LOCAL MUNICIPALITY WATER WORKS RULES AND REGULATIONS GOVERNING WATER SERVICE AND WATER SERVICE PIPING
SPECIFICATIONS, LATEST EDITION.

1.3 SUBMITTALS
A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.

1.4 QUALITY ASSURANCE
A. REGULATORY REQUIREMENTS:
1. COMPLY WITH REQUIREMENTS OF LOCAL MUNICIPALITY WATER WORKS.
2. COMPLY WITH STANDARDS OF AUTHORITIES HAVING JURISDICTION FOR POTABLE-WATER-SERVICE PIPING, INCLUDING MATERIALS, INSTALLATION, TESTING, AND DISINFECTION.
3. COMPLY WITH STANDARDS OF AUTHORITIES HAVING JURISDICTION FOR FIRE-SUPPRESSION WATER- SERVICE PIPING, INCLUDING MATERIALS, HOSE THREADS, INSTALLATION, AND TESTING.

1.5 PROJECT CONDITIONS
A. INTERRUPTION OF EXISTING WATER-DISTRIBUTION SERVICE: DO NOT INTERRUPT SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY WATER-DISTRIBUTION SERVICE ACCORDING TO REQUIREMENTS INDICATED:
1. NOTIFY ARCHITECT AND OWNER NO FEWER THAN FIVE (5) DAYS IN ADVANCE OF PROPOSED INTERRUPTION OF SERVICE.
2. DO NOT PROCEED WITH INTERRUPTION OF WATER-DISTRIBUTION SERVICE WITHOUT ARCHITECT'S AND
OWNER'S WRITTEN PERMISSION.

1.6 COORDINATION
A. COORDINATE CONNECTION TO WATER MAIN WITH LOCAL MUNICIPALITY WATER UTILITY.

PART 2 PRODUCTS

2.1 PIPE AND FITTINGS
A. DUCTILE-IRON PIPE WITH PUSH-ON RUBBER GASKETS JOINTS: CONFORM TO AWWA C151/A21.51-96 AND LOCAL MUNICIPALITY WATER WORKS WATER SERVICE PIPING SPECIFICATIONS.

2.2 CORPORATION VALVES AND CURB VALVES
A. CONFORM TO LOCAL MUNICIPALITY WATER WORKS WATER SERVICE PIPING SPECIFICATIONS.

2.3 WATER METERS
A. WATER METERS WILL BE FURNISHED BY UTILITY COMPANY.

PART 3 EXECUTION

3.1 EARTHWORK
A. REFER TO DIVISION 2 SECTION "EARTHWORK" FOR EXCAVATING, TRENCHING, AND BACKFILLING.

3.2 PIPING INSTALLATION
A. WATER-MAIN CONNECTION: TAP WATER MAIN ACCORDING TO REQUIREMENTS OF WATER UTILITY COMPANY AND OF SIZE AND IN LOCATION INDICATED.
B. INSTALL DUCTILE-IRON, WATER-SERVICE PIPING ACCORDING TO AWWA C600 AND AWWA M41 AND IN ACCORDANCE WITH LOCAL MUNICIPALITY WATER WORKS WATER SERVICE PIPING SPECIFICATIONS.

3.3 JOINT CONSTRUCTION
A. MAKE PIPE JOINTS ACCORDING TO THE FOLLOWING:.
1. DUCTILE-IRON PIPING, GASKETED JOINTS FOR WATER-SERVICE PIPING: AWA C600 AND AWWA M41 AND LOCAL MUNICIPALITY WATER WORKS WATER SERVICE PIPING SPECIFICATIONS.

3.4 VALVE INSTALLATION
A. IN ACCORDANCE WITH LOCAL MUNICIPALITY WATER WORKS WATER SERVICE PIPING SPECIFICATIONS.

3.5 FIELD QUALITY CONTROL
A. ARRANGE INSPECTION AND TESTING OF WATER SERVICE PIPING WITH LOCAL MUNICIPALITY WATER WORKS AND LOCAL MUNICIPALITY DEPARTMENT OF NEIGHBORHOOD SERVICES PLUMBING INSPECTION. CONDUCT INSPECTION AND TESTING BEFORE JOINTS ARE COVERED.

3.6 CLEANING/DISINFECTION
A. CLEAN AND DISINFECT WATER SERVICE PIPING IN ACCORDANCE WITH DCOMM CHAPTER 82.40(8)(I) AND
LOCAL MUNICIPALITY WATER WORKS REQUIREMENTS.

SANITARY SEWERAGE

PART 1 GENERAL

1.1 SUMMARY
A. THIS SECTION INCLUDES GRAVITY-FLOW, NONPRESSURE SANITARY SEWERAGE OUTSIDE THE BUILDING, WITH THE FOLLOWING COMPONENTS:
1. CLEANOUTS.
2. PRECAST CONCRETE MANHOLES.
B. RELATED SECTIONS
1. SECTION 31 20 00 EARTHWORK

1.2 REFERENCES
A. STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION
B. WISCONSIN DEPARTMENT OF COMMERCE PLUMBING CODE DCOMM CHAPTERS 82 – 85.

1.3 SUBMITTALS
A. SHOP DRAWINGS: FOR MANHOLES. INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, AND FRAMES AND COVERS.
B. PRODUCT DATA: FORE EACH TYPE OF PRODUCT INDICATED.

PART 2 PRODUCTS

2.1 PIPING MATERIALS
A. PVC SEWER PIPE AND FITTINGS, ASTM D 3034, [SDR 35] , WITH BELL-AND-SPIGOT ENDS FOR GASKETED JOINTS IN ACCORDANCE WITH CHAPTER 8.10.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.

2.2 NONPRESSURE-TYPE PIPE COUPLINGS
A. COMPLY WITH ASTM C 1173, ELASTOMERIC, SLEEVE-TYPE, REDUCING OR TRANSITION COUPLING, FOR JOINING UNDERGROUND NONPRESSURE PIPING. INCLUDE ENDS OF SAME SIZES AS PIPING TO BE JOINED AND CORROSION-RESISTANT-METAL TENSION BAND AND TIGHTENING MECHANISM ON EACH END.

SITE WORK (CONTINUED)

SANITARY SEWERAGE CONTINUED

B. SLEEVE MATERIALS:
1. FOR PLASTIC PIPES: ASTM F 477, ELASTOMERIC SEAL OR ASTM D 5926, PVC.
2. FOR DISSIMILAR PIPES: ASTM D 5926, PVC OR OTHER MATERIAL COMPATIBLE WITH PIPE MATERIALS BEING JOINED.
C. UNSHIELDED, FLEXIBLE COUPLINGS: ELASTOMERIC SLEEVE WITH STAINLESS-STEEL SHEAR RING AND CORROSION-RESISTANT-METAL TENSION BAND AND TIGHTENING MECHANISM ON EACH END.
1. MANUFACTURERS:
A. DALLAS SPECIALTY & MFG. CO. B. FERNCO INC.
C. LOGAN CLAY PRODUCTS COMPANY (THE).
D. MISSION RUBBER COMPANY; A DIVISION OF MCP INDUSTRIES, INC. E. NDS INC.
F. PLASTIC ODDITIES, INC.
G. SHIELDED, FLEXIBLE COUPLINGS: ASTM C 1460, ELASTOMERIC OR RUBBER SLEEVE WITH FULL-LENGTH, CORROSION-RESISTANT OUTER SHIELD AND CORROSION-RESISTANT-METAL TENSION BAND AND TIGHTENING MECHANISM ON EACH END.
1. MANUFACTURERS:
A. CASCADE WATERWORKS MFG.
B. DALLAS SPECIALTY & MFG. CO.
C. MISSION RUBBER COMPANY; A DIVISION OF MCP INDUSTRIES, INC.
E. RING-TYPE, FLEXIBLE COUPLINGS: ELASTOMERIC COMPRESSION SEAL WITH DIMENSIONS TO FIT INSIDE BELL OF LARGER PIPE AND FOR SPIGOT OF SMALLER PIPE TO FIT INSIDE RING.
1. MANUFACTURERS:
A. FERNCO INC.
B. LOGAN CLAY PRODUCTS COMPANY (THE).
C. MISSION RUBBER COMPANY; A DIVISION OF MCP INDUSTRIES, INC.

2.3 CLEANOUTS
A. CLEANOUTS: IN ACCORDANCE WITH DEPARTMENT OF COMMERCE CODE CHAPTER 82.35.

2.4 MANHOLES
A. STANDARD PRECAST CONCRETE MANHOLES: CONFORM TO ASTM C478 AND SECTION 8.39.0 AND FILE NO. 12 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
B. MANHOLE STEPS: CONFORM TO SECTION 8.40.0 AND FILE NO. 15 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.

PART 3 EXECUTION

3.1 PIPING APPLICATIONS
A. PIPE COUPLINGS AND FITTINGS WITH PRESSURE RATINGS AT LEAST EQUAL TO PIPING RATING MAY BE USED IN APPLICATIONS BELOW, UNLESS OTHERWISE INDICATED.
1. USE NONPRESSURE-TYPE FLEXIBLE COUPLINGS WHERE REQUIRED TO JOIN GRAVITY-FLOW, NONPRESSURE SEWER PIPING, UNLESS OTHERWISE INDICATED.
A. UNSHIELDED FLEXIBLE COUPLINGS FOR SAME OR MINOR DIFFERENCE OD PIPES.
B. UNSHIELDED, INCREASER/REDUCER-PATTERN, FLEXIBLE COUPLINGS FOR PIPES WITH DIFFERENT OD.
C. RING-TYPE FLEXIBLE COUPLINGS FOR PIPING OF DIFFERENT SIZES WHERE ANNULAR SPACE BETWEEN SMALLER PIPING'S OD AND LARGER PIPING'S ID PERMITS INSTALLATION.

3.2 PIPING INSTALLATION
A. GENERAL LOCATIONS AND ARRANGEMENTS: DRAWING PLANS AND DETAILS INDICATE GENERAL LOCATION AND ARRANGEMENT OF UNDERGROUND SANITARY SEWERAGE PIPING. LOCATION AND ARRANGEMENT OF PIPING LAYOUT TAKE DESIGN CONSIDERATIONS INTO ACCOUNT. INSTALL PIPING AS INDICATED, TO EXTENT PRACTICAL. WHERE SPECIFIC INSTALLATION IS NOT INDICATED, FOLLOW PIPING MANUFACTURER'S WRITTEN INSTRUCTIONS.
B. INSTALL IN ACCORDANCE WITH CHAPTER 3.2.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER
CONSTRUCTION IN WISCONSIN, LATEST EDITION.
C. INSTALL PROPER SIZE INCREASERS, REDUCERS, AND COUPLINGS WHERE DIFFERENT SIZES OR MATERIALS OF PIPES AND FITTINGS ARE CONNECTED. REDUCING SIZE OF PIPING IN DIRECTION OF FLOW IS PROHIBITED.
D. USE CLASS B COMPACTED TRENCH SECTION IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
E. CLEAR INTERIOR OF PIPING AND MANHOLES OF DIRT AND SUPERFLUOUS MATERIAL AS WORK PROGRESSES.
MAINTAIN SWAB OR DRAG IN PIPING, AND PULL PAST EACH JOINT AS IT IS COMPLETED. PLACE PLUG IN END OF INCOMPLETE PIPING AT END OF DAY AND WHEN WORK STOPS.
F. INSTALL TRACER WIRE OVER NON-METALLIC PIPING IN ACCORDANCE WITH DCOMM CH. 82.30(11)(H).

3.3 PIPE JOINT CONSTRUCTION
A. FOLLOW PIPING MANUFACTURER'S WRITTEN INSTRUCTIONS.
B. JOIN GRAVITY-FLOW, NONPRESSURE, DRAINAGE PIPING ACCORDING TO THE FOLLOWING:
1. JOIN PVC SEWER PIPING ACCORDING TO ASTM D 2321 AND ASTM D 3034 FOR ELASTOMERIC- GASKET JOINTS.
2. JOIN DISSIMILAR PIPE MATERIALS WITH NONPRESSURE-TYPE, FLEXIBLE COUPLINGS.

3.4 MANHOLE INSTALLATION
A. SET MANHOLE RIMS TO ELEVATIONS INDICATED.
B. INSTALL IN ACCORDANCE WITH SECTION 3.5.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.

3.5 CLEANOUT INSTALLATION
A. INSTALL CLEANOUTS AND RISER EXTENSIONS FROM SEWER PIPES TO CLEANOUTS AT GRADE. INSTALL PIPING SO CLEANOUTS OPEN IN DIRECTION OF FLOW IN SEWER PIPE.
1. USE LIGHT-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN EARTH OR UNPAVED FOOT-TRAFFIC AREAS.
2. USE MEDIUM-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN PAVED FOOT-TRAFFIC AREAS.
3. USE HEAVY-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN VEHICLE-TRAFFIC SERVICE AREAS.
4. USE EXTRA-HEAVY-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN [ROADS] <INSERT OTHER>.
B. SET CLEANOUT FRAMES AND COVERS IN EARTH IN CAST-IN-PLACE-CONCRETE BLOCK, 18 BY 18 BY 12 INCHES DEEP. SET WITH TOPS 1 INCH ABOVE SURROUNDING GRADE.
C. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT WITH TOPS FLUSH WITH PAVEMENT SURFACE.

3.6 FIELD QUALITY CONTROL
A. INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT OR OTHER DAMAGE HAS OCCURRED.
INSPECT AFTER APPROXIMATELY 24 INCHES OF BACKFILL IS IN PLACE, AND AGAIN AT COMPLETION OF PROJECT.
1. DEFECTS REQUIRING CORRECTION INCLUDE THE FOLLOWING:
A. ALIGNMENT: LESS THAN FULL DIAMETER OF INSIDE OF PIPE IS VISIBLE BETWEEN STRUCTURES.
B. DEFLECTION: FLEXIBLE PIPING WITH DEFLECTION THAT PREVENTS PASSAGE OF BALL OR CYLINDER OF SIZE NOT LESS THAN 92.5 PERCENT OF PIPING DIAMETER.
C. CRUSHED, BROKEN, CRACKED, OR OTHERWISE DAMAGED PIPING.
D. INFILTRATION: WATER LEAKAGE INTO PIPING.
E. EXFILTRATION: WATER LEAKAGE FROM OR AROUND PIPING.
1. REPLACE DEFECTIVE PIPING USING NEW MATERIALS, AND REPEAT INSPECTIONS UNTIL DEFECTS ARE WITHIN ALLOWANCES SPECIFIED.
2. REINSPECT AND REPEAT PROCEDURE UNTIL RESULTS ARE SATISFACTORY.
F. TEST NEW SANITARY BUILDING SEWER IN ACCORDANCE WITH SECTION 5.4.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
1. DO NOT ENCLOSE, COVER, OR PUT INTO SERVICE BEFORE INSPECTION AND APPROVAL.
2. SCHEDULE TESTS AND INSPECTIONS BY AUTHORITIES HAVING JURISDICTION WITH AT LEAST 24 HOURS' ADVANCE NOTICE.
3. SUBMIT SEPARATE REPORT FOR EACH TEST.
4. LEAKS AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE REPAIRED.
5. REPLACE LEAKING PIPING USING NEW MATERIALS, AND REPEAT TESTING UNTIL LEAKAGE IS WITHIN ALLOWANCES SPECIFIED.

SITE CLEARING

PART 1 GENERAL

1.1 SUMMARY
A. THIS SECTION INCLUDES THE FOLLOWING:
1. REMOVING EXISTING TREES, SHRUBS, GROUNDCOVERS, PLANTS, AND GRASS.
2. CLEARING AND GRUBBING.
3. STRIPPING AND STOCKPILING TOPSOIL.
4. REMOVING ABOVE- AND BELOW-GRADE SITE IMPROVEMENTS.
5. DISCONNECTING AND CAPPING OR SEALING SITE UTILITIES.
6. TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES.

1.2 MATERIAL OWNERSHIP
A. EXCEPT FOR STRIPPED TOPSOIL OR OTHER MATERIALS INDICATED TO REMAIN OWNER'S PROPERTY, CLEARED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM PROJECT SITE.

1.3 PROJECT CONDITIONS
A. TRAFFIC: MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES DURING SITE-CLEARING OPERATIONS.
1. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER ADJACENT OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM OWNER AND AUTHORITIES HAVING JURISDICTION.
2. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS IF REQUIRED BY AUTHORITIES HAVING JURISDICTION.
B. SALVABLE IMPROVEMENTS: CAREFULLY REMOVE ITEMS INDICATED TO BE SALVAGED AND STORE ON OWNER'S PREMISES WHERE INDICATED.
C. UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE SITE CLEARING.
D. DO NOT COMMENCE SITE CLEARING OPERATIONS UNTIL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE.

SITE WORK (CONTINUED)

SITE CLEARING CONTINUED

PART 2 PRODUCTS

2.1 SOIL MATERIALS
A. SATISFACTORY SOIL MATERIALS: REQUIREMENTS FOR SATISFACTORY SOIL MATERIALS ARE SPECIFIED IN SECTION "EARTHWORK."
1. OBTAIN APPROVED BORROW SOIL MATERIALS OFF-SITE WHEN SATISFACTORY SOIL MATERIALS ARE NOT AVAILABLE ON-SITE.

PART 3 EXECUTION

3.1 PREPARATION
A. PROTECT AND MAINTAIN BENCHMARKS AND SURVEY CONTROL POINTS FROM DISTURBANCE DURING CONSTRUCTION.
B. LOCATE AND CLEARLY FLAG TREES AND VEGETATION TO REMAIN OR TO BE RELOCATED.
C. PROTECT EXISTING SITE IMPROVEMENTS TO REMAIN FROM DAMAGE DURING CONSTRUCTION.
1. RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO OWNER.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL
A. CONTRACTOR SHALL OBTAIN EROSION CONTROL PERMIT FROM LOCAL MUNICIPALITY PRIOR TO ANY LAND DISTURBANCE.
B. PROVIDE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES TO PREVENT SOIL EROSION AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS, ACCORDING TO SITE EROSION CONTROL PLAN, AND LOCAL MUNICIPALITY EROSION CONTROL PERMIT.
C. INSPECT, REPAIR, AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED.
D. REMOVE EROSION AND SEDIMENTATION CONTROLS AND RESTORE AND STABILIZE AREAS DISTURBED DURING REMOVAL.

3.3 UTILITIES
A. LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF UTILITIES INDICATED TO BE REMOVED.
1. ARRANGE WITH UTILITY COMPANIES TO SHUT OFF INDICATED UTILITIES.
B. EXISTING UTILITIES: DO NOT INTERRUPT UTILITIES SERVING FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY UTILITY SERVICES ACCORDING TO REQUIREMENTS INDICATED:
1. NOTIFY ARCHITECT NOT LESS THAN TWO DAYS IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS.
2. DO NOT PROCEED WITH UTILITY INTERRUPTIONS WITHOUT ARCHITECT'S WRITTEN PERMISSION.
C. REMOVAL OF UNDERGROUND UTILITIES IS INCLUDED IN DIVISION 2 SECTIONS COVERING SITE UTILITIES.

3.4 CLEARING AND GRUBBING
A. FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY SOIL MATERIAL UNLESS FURTHER EXCAVATION OR EARTHWORK IS INDICATED.
1. PLACE FILL MATERIAL IN HORIZONTAL LAYERS NOT EXCEEDING A LOOSE DEPTH OF 8 INCHES (200 MM), AND COMPACT EACH LAYER TO A DENSITY EQUAL TO ADJACENT ORIGINAL GROUND.

3.5 TOPSOIL STRIPPING
A. REMOVE SOD AND GRASS BEFORE STRIPPING TOPSOIL.
B. STRIP TOPSOIL TO WHATEVER DEPTHS ARE ENCOUNTERED IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER WASTE MATERIALS.
C. STOCKPILE TOPSOIL MATERIALS AWAY FROM EDGE OF EXCAVATIONS WITHOUT INTERMIXING WITH SUBSOIL. GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.

3.6 SITE IMPROVEMENTS
A. REMOVE EXISTING ABOVE- AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION.

3.7 DISPOSAL
A. DISPOSAL: REMOVE SURPLUS SOIL MATERIAL, UNSUITABLE TOPSOIL, OBSTRUCTIONS, DEMOLISHED MATERIALS, AND WASTE MATERIALS INCLUDING TRASH AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
1. SEPARATE RECYCLABLE MATERIALS PRODUCED DURING SITE CLEARING FROM OTHER NONRECYCLABLE MATERIALS. STORE OR STOCKPILE WITHOUT INTERMIXING WITH OTHER MATERIALS AND TRANSPORT THEM TO RECYCLING FACILITIES.

EARTHWORK

PART 1 GENERAL

1.1 RELATED DOCUMENTS
A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 1 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

1.2 SUMMARY
A. THIS SECTION INCLUDES THE FOLLOWING:
1. PREPARING SUBGRADES FOR SLABS-ON-GRADE, WALKS, PAVEMENTS, LAWNS AND GRASSES AND EXTERIOR PLANTS.
2. EXCAVATING AND BACKFILLING FOR BUILDINGS AND STRUCTURES.
3. DRAINAGE COURSE FOR SLABS-ON-GRADE.
4. BASE COURSE FOR CONCRETE WALKS, PAVEMENTS.
5. BASE COURSE FOR ASPHALT PAVING.
6. EXCAVATING AND BACKFILLING FOR UTILITY TRENCHES.
B. RELATED SECTIONS INCLUDE THE FOLLOWING:
1. DIVISION 1 SECTION "TEMPORARY FACILITIES AND CONTROLS" FOR TEMPORARY CONTROLS, UTILITIES, AND SUPPORT FACILITIES.
2. SECTION "SITE CLEARING" FOR TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES, SITE STRIPPING, GRUBBING, STRIPPING AND STOCKPILING TOPSOIL, AND REMOVAL OF ABOVE- AND BELOW- GRADE IMPROVEMENTS AND UTILITIES.

1.3 REFERENCES
A. STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION
B. STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION

1.4 DEFINITIONS
A. BACKFILL: SOIL MATERIAL USED TO FILL AN EXCAVATION.
B. BASE COURSE: COURSE PLACED BETWEEN THE PREPARED SUBGRADE AND HOT-MIX ASPHALT PAVING OR CEMENT CONCRETE PAVEMENT, SIDEWALK OR CURB AND GUTTER.
C. BEDDING COURSE: COURSE PLACED OVER THE EXCAVATED SUBGRADE IN A TRENCH BEFORE LAYING PIPE.
D. BORROW SOIL: SATISFACTORY SOIL IMPORTED FROM OFF-SITE FOR USE AS FILL OR BACKFILL.
E. DRAINAGE COURSE: COURSE SUPPORTING THE SLAB-ON-GRADE THAT ALSO MINIMIZES UPWARD CAPILLARY FLOW OF PORE WATER.
F. EXCAVATION: REMOVAL OF MATERIAL ENCOUNTERED ABOVE SUBGRADE ELEVATIONS AND TO LINES AND DIMENSIONS INDICATED.
1. AUTHORIZED ADDITIONAL EXCAVATION: EXCAVATION BELOW SUBGRADE ELEVATIONS OR BEYOND INDICATED LINES AND DIMENSIONS AS DIRECTED BY ARCHITECT. AUTHORIZED ADDITIONAL EXCAVATION AND REPLACEMENT MATERIAL WILL BE PAID FOR ACCORDING TO CONTRACT PROVISIONS FOR CHANGES IN THE WORK.
2. UNAUTHORIZED EXCAVATION: EXCAVATION BELOW SUBGRADE ELEVATIONS OR BEYOND INDICATED LINES AND DIMENSIONS WITHOUT DIRECTION BY ARCHITECT. UNAUTHORIZED EXCAVATION, AS WELL AS REMEDIAL WORK DIRECTED BY ARCHITECT, SHALL BE WITHOUT ADDITIONAL COMPENSATION.
G. FILL: SOIL MATERIALS USED TO RAISE EXISTING GRADES.
H. PIPE COVER MATERIAL: MATERIAL WHICH IS PLACED IN A TRENCH AROUND AND OVER SEWER OR WATER PIPE ABOVE THE BEDDING COURSE.
I. STRUCTURES: BUILDINGS, FOOTINGS, FOUNDATIONS, RETAINING WALLS, SLABS, TANKS, CURBS, MECHANICAL AND ELECTRICAL APPURTENANCES, OR OTHER MAN-MADE STATIONARY FEATURES CONSTRUCTED ABOVE OR BELOW THE GROUND SURFACE.
J. SUBGRADE: SURFACE OR ELEVATION REMAINING AFTER COMPLETING EXCAVATION, OR TOP SURFACE OF A FILL OR BACKFILL IMMEDIATELY BELOW BASE COURSE, DRAINAGE FILL, OR TOPSOIL MATERIALS.
K. TRENCH BACKFILL: MATERIAL PLACED IN A TRENCH AVOVE THE PIPE COVER MATERIAL FOR SEWER OR WATER PIPE.
L. UTILITIES: ON-SITE UNDERGROUND PIPES, CONDUITS, DUCTS, AND CABLES, AS WELL AS UNDERGROUND SERVICES WITHIN BUILDINGS.

1.5 SUBMITTALS
A. MATERIAL TEST REPORTS: FROM A QUALIFIED TESTING AGENCY INDICATING AND INTERPRETING TEST RESULTS FOR COMPLIANCE OF THE FOLLOWING WITH REQUIREMENTS INDICATED:
1. CLASSIFICATION ACCORDING TO ASTM D 2487 OF EACH ON-SITE AND BORROW SOIL MATERIAL PROPOSED FOR FILL AND BACKFILL.
2. LABORATORY COMPACTION CURVE ACCORDING TO ASTM D 1557 FOR EACH ON-SITE AND BORROW SOIL MATERIAL PROPOSED FOR FILL AND BACKFILL.
B. PREEXCAVATION PHOTOGRAPHS OR VIDEOTAPE: SHOW EXISTING CONDITIONS OF ADJOINING CONSTRUCTION AND SITE IMPROVEMENTS, INCLUDING FINISH SURFACES, THAT MIGHT BE MISCONSTRUED AS DAMAGE CAUSED BY EARTHWORK OPERATIONS. SUBMIT BEFORE EARTHWORK BEGINS.

1.6 QUALITY ASSURANCE
A. GEOTECHNICAL TESTING AGENCY QUALIFICATIONS: AN INDEPENDENT TESTING AGENCY QUALIFIED ACCORDING TO ASTM E 329 TO CONDUCT SOIL MATERIALS AND ROCK-DEFINITION TESTING, AS DOCUMENTED ACCORDING TO ASTM D 3740 AND ASTM E 548.

SITE WORK (CONTINUED)

EARTH WORK CONTINUED

1.7 PROJECT CONDITIONS
A. EXISTING UTILITIES: DO NOT INTERRUPT UTILITIES SERVING FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED IN WRITING BY ARCHITECT AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY UTILITY SERVICES ACCORDING TO REQUIREMENTS INDICATED.
1. NOTIFY ARCHITECT NOT LESS THAN TWO DAYS IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS.
2. DO NOT PROCEED WITH UTILITY INTERRUPTIONS WITHOUT ARCHITECT'S WRITTEN PERMISSION.
3. CONTACT UTILITY-LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE EXCAVATING.
B. DEMOLISH AND COMPLETELY REMOVE FROM SITE EXISTING UNDERGROUND UTILITIES INDICATED TO BE REMOVED. COORDINATE WITH UTILITY COMPANIES TO SHUT OFF SERVICES IF LINES ARE ACTIVE.

PART 2 PRODUCTS

2.1 SOIL MATERIALS
A. GENERAL: PROVIDE BORROW SOIL MATERIALS WHEN SUFFICIENT SATISFACTORY SOIL MATERIALS ARE NOT AVAILABLE FROM EXCAVATIONS.
B. SATISFACTORY SOILS: ASTM D 2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, SW, SP, AND SM OR A COMBINATION OF THESE GROUPS; FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATTER OR ANY SOIL GROUP OR COMBINATION OF GROUPS APPROVED OF BY THE PROJECT GEOTECHNICAL ENGINEER
C. UNSATISFACTORY SOILS: SOIL CLASSIFICATION GROUPS GC, SC, CL, ML, OL, CH, MH, OH, AND PT
ACCORDING TO ASTM D 2487 OR A COMBINATION OF THESE GROUPS.
1. UNSATISFACTORY SOILS ALSO INCLUDE SATISFACTORY SOILS NOT MAINTAINED WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT AT TIME OF COMPACTION.
D. BASE COURSE: SHALL BE 1-1/4" DENSE GRADED BASE COURSE CONFORMING TO SECTION 305 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.
E. ENGINEERED FILL: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND; ASTM D 2940; WITH AT LEAST 90 PERCENT PASSING A 1-1/2-INCH (37.5-MM) SIEVE AND NOT MORE THAN 12 PERCENT PASSING A NO. 200 SIEVE.
F. BEDDING COURSE: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND CONFORMING TO THE REQUIREMENTS OF SECTION 8.43.2 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
G. DRAINAGE COURSE: NARROWLY GRADED MIXTURE OF WASHED,CRUSHED STONE, OR CRUSHED OR UNCRUSHED GRAVEL; ASTM D 448; COARSE-AGGREGATE GRADING SIZE 57; WITH 100 PERCENT PASSING A 1-1/2-INCH (37.5-MM) SIEVE AND 0 TO 5 PERCENT PASSING A NO. 8 SIEVE.
H. PIPE COVER MATERIAL: CONFORM TO SECTION 8.43.3 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
I. TRENCH BACKFILL: CONFORM TO SECTIONS 8.43.4 AND 8.43.5 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. TRENCH BACKFILL BENEATH AND WITHIN FIVE FEET OF PAVEMENT AREAS SHALL BE GRANULAR BACKFILL. TRENCH BACKFILL BENEATH LANDSCAPE AREAS MAY BE SATISFACTORY SOIL MATERIAL.

PART 3 EXECUTION

3.1 PREPARATION
A. SITE PREPARATION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE REFERENCED PRELOADING COMPLETION REPORT AND GEOTECHNICAL RECOMMENDATIONS REVIEW OR AS DIRECTED BY THE PROJECT GEOTECHNICAL ENGINEER IN THE FIELD.
B. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, AND OTHER HAZARDS CREATED BY EARTHWORK OPERATIONS.
C. PREPARATION OF SUBGRADE FOR EARTHWORK OPERATIONS INCLUDING REMOVAL OF VEGETATION, TOPSOIL, DEBRIS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE IS SPECIFIED IN DIVISION 2
SECTION "SITE CLEARING."
D. PROTECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROLS, WHICH ARE SPECIFIED IN DIVISION 2 SECTION "SITE CLEARING," DURING EARTHWORK OPERATIONS.
E. PROVIDE PROTECTIVE INSULATING MATERIALS TO PROTECT SUBGRADES AND FOUNDATION SOILS AGAINST FREEZING TEMPERATURES OR FROST.

3.2 DEWATERING
A. PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA.
B. PROTECT SUBGRADES FROM SOFTENING, UNDERMINING, WASHOUT, AND DAMAGE BY RAIN OR WATER ACCUMULATION.
1. REROUTE SURFACE WATER RUNOFF AWAY FROM EXCAVATED AREAS. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. DO NOT USE EXCAVATED TRENCHES AS TEMPORARY DRAINAGE DITCHES.
2. INSTALL A DEWATERING SYSTEM TO KEEP SUBGRADES DRY AND CONVEY GROUND WATER AWAY FROM EXCAVATIONS. MAINTAIN UNTIL DEWATERING IS NO LONGER REQUIRED.

3.3 EXPLOSIVES
A. EXPLOSIVES: DO NOT USE EXPLOSIVES.

3.4 EXCAVATION, GENERAL
A. UNCLASSIFIED EXCAVATION: EXCAVATE TO SUBGRADE ELEVATIONS REGARDLESS OF THE CHARACTER OF SURFACE AND SUBSURFACE CONDITIONS ENCOUNTERED. UNCLASSIFIED EXCAVATED MATERIALS MAY INCLUDE ROCK, SOIL MATERIALS, AND OBSTRUCTIONS. NO CHANGES IN THE CONTRACT SUM OR THE CONTRACT TIME WILL BE AUTHORIZED FOR ROCK EXCAVATION OR REMOVAL OF OBSTRUCTIONS.
1. IF EXCAVATED MATERIALS INTENDED FOR FILL AND BACKFILL INCLUDE UNSATISFACTORY SOIL MATERIALS AND ROCK, REPLACE WITH SATISFACTORY SOIL MATERIALS.
B. SHORING, SHEETING AND BRACING: SHORE, BRACE OR SLOPE BANKS OF EXCAVATION TO PROTECT WORKWEN, BANKS, ADJACENT PAVING, STRUCTURES, AND UTILITIES TO MEET OSHA REQUIREMENTS. DESIGN OF TEMPORARY SUPPORT OF EXCAVATION IS THE RESPONSIBILITY OF THE CONTRACTOR.

3.5 EXCAVATION FOR STRUCTURES
A. EXCAVATE TO INDICATED ELEVATIONS AND DIMENSIONS WITHIN A TOLERANCE OF PLUS OR MINUS 1 INCH. IF APPLICABLE, EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORMWORK, FOR INSTALLING SERVICES AND OTHER CONSTRUCTION, AND FOR INSPECTIONS.
1. EXCAVATIONS FOR FOOTINGS AND FOUNDATIONS: DO NOT DISTURB BOTTOM OF EXCAVATION.
EXCAVATE BY HAND TO FINAL GRADE JUST BEFORE PLACING CONCRETE REINFORCEMENT. TRIM BOTTOMS TO REQUIRED LINES AND GRADES TO LEAVE SOLID BASE TO RECEIVE OTHER WORK.
2. PILE FOUNDATIONS: STOP EXCAVATIONS 6 TO 12 INCHES ABOVE BOTTOM OF PILE CAP BEFORE PILES ARE PLACED. AFTER PILES HAVE BEEN DRIVEN, REMOVE LOOSE AND DISPLACED MATERIAL. EXCAVATE TO FINAL GRADE, LEAVING SOLID BASE TO RECEIVE CONCRETE PILE CAPS.
3. EXCAVATION FOR UNDERGROUND TANKS, BASINS, AND MECHANICAL OR ELECTRICAL UTILITY STRUCTURES: EXCAVATE TO ELEVATIONS AND DIMENSIONS INDICATED WITHIN A TOLERANCE OF PLUS OR MINUS 1 INCH. DO NOT DISTURB BOTTOM OF EXCAVATIONS INTENDED AS BEARING SURFACES.

3.6 EXCAVATION FOR WALKS AND PAVEMENTS
A. EXCAVATE SURFACES UNDER WALKS AND PAVEMENTS TO INDICATED LINES, CROSS SECTIONS, ELEVATIONS, AND SUBGRADES.

3.7 EXCAVATION FOR UTILITY TRENCHES
A. EXCAVATE TRENCHES TO INDICATED GRADIENTS, LINES, DEPTHS, AND ELEVATIONS.
B. TRENCH BOTTOMS: EXCAVATE TRENCHES DEEPER THAN BOTTOM OF PIPE ELEVATION TO ALLOW FOR REQUIRED BEDDING COURSE.
C. CONFORM TO CLASS B COMPACTED SECTION IN ACCORDANCE WITH FILE NO. 4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.

3.8 SUBGRADE INSPECTION
A. PROOF-ROLL SUBGRADE BELOW THE BUILDING SLABS AND PAVEMENTS WITH HEAVY PNEUMATIC-TIRED EQUIPMENT TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. DO NOT PROOF-ROLL WET OR SATURATED SUBGRADES. PROOF ROLL IN PRESENCE OF PROJECT GEOTECHNICAL ENGINEER.
1. COMPLETELY PROOF-ROLL SUBGRADE IN ONE DIRECTION, REPEATING PROOF-ROLLING IN DIRECTION PERPENDICULAR TO FIRST DIRECTION. LIMIT VEHICLE SPEED TO 5 MPH.
2. PROOF-ROLL WITH A 20-TON TRI-AXIAL DUMP TRUCK.
3. EXCAVATE SOFT SPOTS, UNSATISFACTORY SOILS, AND AREAS OF EXCESSIVE PUMPING OR RUTTING, AS DETERMINED BY GEOTECHNICAL ENGINEER, AND REPLACE WITH COMPACTED BACKFILL OR FILL AS DIRECTED.
B. AUTHORIZED ADDITIONAL EXCAVATION AND REPLACEMENT MATERIAL WILL BE PAID FOR ACCORDING TO CONTRACT PROVISIONS FOR CHANGES IN THE WORK.
C. RECONSTRUCT SUBGRADES DAMAGED BY FREEZING TEMPERATURES, FROST, RAIN, ACCUMULATED WATER, OR CONSTRUCTION ACTIVITIES, AS DIRECTED BY ARCHITECT, WITHOUT ADDITIONAL COMPENSATION.

3.9 UNAUTHORIZED EXCAVATION
A. FILL UNAUTHORIZED EXCAVATION UNDER FOUNDATIONS OR WALL FOOTINGS BY EXTENDING BOTTOM ELEVATION OF CONCRETE FOUNDATION OR FOOTING TO EXCAVATION BOTTOM, WITHOUT ALTERING TOP ELEVATION. LEAN CONCRETE FILL, WITH 28-DAY COMPRESSIVE STRENGTH OF 2500 PSI, MAY BE USED WHEN APPROVED BY ARCHITECT.
1. FILL UNAUTHORIZED EXCAVATIONS UNDER OTHER CONSTRUCTION OR UTILITY PIPE AS DIRECTED BY .

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SHEET TITLE
SPECIFICATIONS

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Date	Revision

JOB:	230119
DRAWN:	CW
CHECKED:	DF
DATE:	03-05-2024

SHEET:
GS0.1

SITE WORK (CONTINUED)

EARTH WORK CONTINUED

PART 3 EXECUTION (CONTINUED)

3.10 STORAGE OF SOIL MATERIALS
A. STOCKPILE BORROW SOIL MATERIALS AND EXCAVATED SATISFACTORY SOIL MATERIALS WITHOUT INTERMIXING. PLACE, GRADE, AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.
1. STOCKPILE SOIL MATERIALS AWAY FROM EDGE OF EXCAVATIONS. DO NOT STORE WITHIN DRIP LINE OF REMAINING TREES.

3.11 BACKFILL
A. PLACE AND COMPACT BACKFILL IN EXCAVATIONS PROMPTLY, BUT NOT BEFORE COMPLETING THE FOLLOWING:
1. CONSTRUCTION BELOW FINISH GRADE INCLUDING, WHERE APPLICABLE, SUBDRAINAGE, DAMPPROOFING, WATERPROOFING, AND PERIMETER INSULATION.
2. SURVEYING LOCATIONS OF UNDERGROUND UTILITIES FOR RECORD DOCUMENTS.
3. TESTING AND INSPECTING UNDERGROUND UTILITIES.
4. REMOVING CONCRETE FORMWORK.
5. REMOVING TRASH AND DEBRIS.
6. REMOVING TEMPORARY SHORING AND BRACING, AND SHEETING.
7. INSTALLING PERMANENT OR TEMPORARY HORIZONTAL BRACING ON HORIZONTALLY SUPPORTED WALLS.
B. PLACE BACKFILL ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.

3.12 UTILITY TRENCH BACKFILL
A. PLACE BACKFILL ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.
B. PLACE AND COMPACT BEDDING COURSE ON TRENCH BOTTOMS AND WHERE INDICATED. SHAPE BEDDING COURSE TO PROVIDE CONTINUOUS SUPPORT FOR BELLS, JOINTS, AND BARRELS OF PIPES AND FOR JOINTS, FITTINGS, AND BODIES OF CONDUITS.
C. CONFORM TO CLASS B COMPACTED TRENCH SECTION IN ACCORDANCE WITH FILE NO. 4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
D. BEDDING PLACEMENT: CONFORM TO SECTION 3.2.6 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
E. BACKFILL PLACEMENT: CONFORM TO SECTION 2.6.0 OF THE STANDARD SPECIFICATIONS FOR SEWERE AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION EXCEPT THAT FLOODING OF GRANULAR TRENCH BACKFILL SHALL NOT BE ALLOWED FOR BACKFILL CONSOLIDATION.
F. INSTALL TRACER WIRE ABOVE NON-METALLIC PIPING IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF COMMERCE CODE SECTION 82.30(11)(H).

3.13 SOIL FILL
A. PLOW, SCARIFY, BENCH, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING MATERIAL.
B. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS AS FOLLOWS:
1. UNDER GRASS AND PLANTED AREAS, USE SATISFACTORY SOIL MATERIAL.
2. UNDER WALKS AND PAVEMENTS, USE SATISFACTORY SOIL MATERIAL.
3. UNDER STEPS AND RAMPS, USE ENGINEERED FILL.
4. UNDER BUILDING SLABS, USE ENGINEERED FILL.
5. UNDER FOOTINGS AND FOUNDATIONS, USE ENGINEERED FILL.
C. PLACE SOIL FILL ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.

3.14 SOIL MOISTURE CONTROL
A. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL SOIL LAYER BEFORE COMPACTION TO WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT.
1. DO NOT PLACE BACKFILL OR FILL SOIL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE.
2. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY OTHERWISE SATISFACTORY SOIL MATERIAL THAT EXCEEDS OPTIMUM MOISTURE CONTENT BY 2 PERCENT AND IS TOO WET TO COMPACT TO SPECIFIED DRY UNIT WEIGHT.

3.15 COMPACTION OF SOIL BACKFILLS AND FILLS
A. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
B. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE.
C. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 1557:
1. UNDER STRUCTURES, BUILDING SLABS, AND STEPS, SCARIFY AND RECOMPACT TOP 12 INCHES OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 92 PERCENT.
2. UNDER PAVEMENTS AND WALKWAYS, SCARIFY AND RECOMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL WITHIN THREE FEET OF THE BASE COURSE ELEVATION AT 92 PERCENT.
3. UNDER LAWN OR UNPAVED AREAS, SCARIFY AND RECOMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 85 PERCENT.

3.16 GRADING
A. GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED.
1. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES.
2. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES.
B. SITE GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES:
1. LAWN OR UNPAVED AREAS: PLUS OR MINUS 1 INCH.
2. WALKS: PLUS OR MINUS 1/2 INCH .
3. PAVEMENTS: PLUS OR MINUS 1/2 INCH.
C. GRADING INSIDE BUILDING LINES: FINISH SUBGRADE TO A TOLERANCE OF 1/2 INCH WHEN TESTED WITH A 10- FOOT STRAIGHTEDGE.

3.17 SUBBASE AND BASE COURSES
A. PLACE BASE COURSE ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.
B. ON PREPARED SUBGRADE, PLACE BASE COURSE UNDER PAVEMENTS AND WALKS AS FOLLOWS:
1. SHAPE BASE COURSE TO REQUIRED CROWN ELEVATIONS AND CROSS-SLOPE GRADES.
2. COMPACT BASE COURSE AT OPTIMUM MOISTURE CONTENT TO REQUIRED GRADES, LINES, CROSS SECTIONS, AND THICKNESS TO CONFORM TO STANDARD COMPACTION REQUIREMENTS CONTAINED IN SECTION 301.3.4.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.

3.18 DRAINAGE COURSE
A. PLACE DRAINAGE COURSE ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.
B. ON PREPARED SUBGRADE, PLACE AND COMPACT DRAINAGE COURSE UNDER CAST-IN-PLACE CONCRETE SLABS- ON-GRADE AS FOLLOWS:
1. INSTALL SUBDRAINAGE GEOTEXTILE ON PREPARED SUBGRADE ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, OVERLAPPING SIDES AND ENDS.
2. PLACE DRAINAGE COURSE 6 INCHES OR LESS IN COMPACTED THICKNESS IN A SINGLE LAYER.
3. PLACE DRAINAGE COURSE THAT EXCEEDS 6 INCHES IN COMPACTED THICKNESS IN LAYERS OF EQUAL THICKNESS, WITH NO COMPACTED LAYER MORE THAN 6 INCHES THICK OR LESS THAN 3 INCHES THICK.
4. COMPACT EACH LAYER OF DRAINAGE COURSE TO REQUIRED CROSS SECTIONS AND THICKNESSES TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698.

3.19 FIELD QUALITY CONTROL
A. TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED INDEPENDENT GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM FIELD QUALITY-CONTROL TESTING.
B. ALLOW TESTING AGENCY TO INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS.
C. FOOTING SUBGRADE: AT FOOTING SUBGRADES, AT LEAST ONE TEST OF EACH SOIL STRATUM WILL BE PERFORMED TO VERIFY DESIGN BEARING CAPACITIES. SUBSEQUENT VERIFICATION AND APPROVAL OF OTHER FOOTING SUBGRADES MAY BE BASED ON A VISUAL COMPARISON OF SUBGRADE WITH TESTED SUBGRADE WHEN APPROVED BY ARCHITECT.
D. TESTING AGENCY SHALL OBSERVE PROOF ROLLING OF BUILDING AND PAVEMENT SUBGRADES.
E. TESTING AGENCY WILL TEST COMPACTION OF SOILS IN PLACE ACCORDING TO ASTM D 1556, ASTM D 2167, ASTM D 2922, AND ASTM D 2937, AS APPLICABLE. TESTS WILL BE PERFORMED AT THE FOLLOWING LOCATIONS AND FREQUENCIES:
1. BUILDING SLAB AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST 1 TEST FOR EVERY 2500 SQ. FT. OR LESS OF BUILDING SLAB, BUT IN NO CASE FEWER THAN 3 TESTS.
2. PAVEMENT AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 5,000 SQUARE FEET OF PAVEMENT AREA.
3. FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST 1 TEST FOR EACH 100 FEET OR LESS OF WALL LENGTH, BUT NO FEWER THAN 2 TESTS.
4. TRENCH BACKFILL: AT EACH COMPACTED INITIAL AND FINAL BACKFILL LAYER, AT LEAST 1 TEST FOR EACH 150 FEET OR LESS OF TRENCH LENGTH, BUT NO FEWER THAN 2 TESTS.
F. WHEN TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.

SITE WORK (CONTINUED)

EARTH WORK CONTINUED

PART 3 EXECUTION (CONTINUED)

3.20 PROTECTION
A. PROTECTING GRADED AREAS: PROTECT NEWLY GRADED AREAS FROM TRAFFIC, FREEZING, AND EROSION. KEEP FREE OF TRASH AND DEBRIS.
B. REPAIR AND REESTABLISH GRADES TO SPECIFIED TOLERANCES WHERE COMPLETED OR PARTIALLY COMPLETED SURFACES BECOME ERODED, RUTTED, SETTLED, OR WHERE THEY LOSE COMPACTION DUE TO SUBSEQUENT CONSTRUCTION OPERATIONS OR WEATHER CONDITIONS.
1. SCARIFY OR REMOVE AND REPLACE SOIL MATERIAL TO DEPTH AS DIRECTED BY ARCHITECT; RESHAPE AND RECOMPACT.
C. WHERE SETTLING OCCURS BEFORE PROJECT CORRECTION PERIOD ELAPSES, REMOVE FINISHED SURFACING, BACKFILL WITH ADDITIONAL SOIL MATERIAL, COMPACT, AND RECONSTRUCT SURFACING.
1. RESTORE APPEARANCE, QUALITY, AND CONDITION OF FINISHED SURFACING TO MATCH ADJACENT WORK, AND ELIMINATE EVIDENCE OF RESTORATION TO GREATEST EXTENT POSSIBLE.

3.21 DISPOSAL OF SURPLUS AND WASTE MATERIALS
A. DISPOSAL: REMOVE SURPLUS SATISFACTORY SOIL AND WASTE MATERIAL, INCLUDING UNSATISFACTORY SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF IT OFF OWNER'S PROPERTY.

HOT-MIX ASPHALT PAVING

PART 1 GENERAL

1.1 SUMMARY
A. THIS SECTION INCLUDES HOT-MIX ASPHALT PAVING.
B.RELATED SECTIONS:
1. SECTION 31 20 00 – EARTHWORK

1.2 REFERENCES
A. STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION (WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION).

1.3 SUBMITTALS
A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED. INCLUDE TECHNICAL DATA AND TESTED PHYSICAL AND PERFORMANCE PROPERTIES.
B. JOB-MIX DESIGNS: CERTIFICATION THAT MIX MEETS OR EXCEEDS WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
C. MATERIAL CERTIFICATES CERTIFYING COMPLIANCE WITH WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

1.4 QUALITY ASSURANCE
A. MANUFACTURER QUALIFICATIONS: MANUFACTURER SHALL BE REGISTERED WITH AND APPROVED BY THE DOT OF THE STATE IN WHICH PROJECT IS LOCATED.
B. REGULATORY REQUIREMENTS: COMPLY WITH WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION FOR ASPHALT PAVING WORK.

1.5 PROJECT CONDITIONS
A. ENVIRONMENTAL LIMITATIONS: DO NOT APPLY ASPHALT MATERIALS IF BASE COURSE IS WET OR EXCESSIVELY DAMP OR IF THE FOLLOWING CONDITIONS ARE NOT MET:
1. ASPHALT LOWER LAYER COURSE, TACK COAT, ASPHALT UPPER LAYER COURSE: MINIMUM SURFACE TEMPERATURE OF 36 DEG F AND RISING AT TIME OF PLACEMENT.
B. PAVEMENT-MARKING PAINT: PROCEED WITH PAVEMENT MARKING ONLY ON CLEAN, DRY SURFACES. DO NOT APPLY BELOW THE MINIMUM PAVEMENT TEMPERATURE AS RECOMMENDED BY THE MANUFACTURER.

PART 2 PRODUCTS

2.1 AGGREGATES
A. IN ACCORDANCE WITH SECTION 460.2.2 OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.

2.2 ASPHALT MATERIALS
A. IN ACCORDANCE WITH CHAPTER 455 OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.

2.3 PAVEMENT MARKING PAINT
A. PROVIDE PAINT FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION'S APPROVED PRODUCTS LIST.
1. COLOR: WHITE

2.4 MIXES
A. HOT-MIX ASPHALT: ASPHALTIC BINDER COURSE AND SURFACE COURSE SHALL BE MIXTURE E-1 COMPLYING WITH THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.

PART 3 EXECUTION

3.1 GENERAL
A. ASPHALT CONCRETE PAVING EQUIPMENT, WEATHER LIMITATIONS, JOB-MIX FORMULA, MIXING, CONSTRUCTION METHODS, COMPACTION, FINISHING, TOLERANCE AND PROTECTION SHALL CONFORM TO THE REQUIREMENTS OF THE APPROPRIATE SECTIONS OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.

3.2 SURFACE PREPARATION
A. PROOF-ROLL BASE COURSE USING HEAVY, PNEUMATIC-TIRED ROLLERS TO LOCATE AREAS THAT ARE UNSTABLE OR THAT REQUIRE FURTHER COMPACTION.
B. IMMEDIATELY BEFORE PLACING ASPHALT MATERIALS, REMOVE LOOSE AND DELETERIOUS MATERIAL FROM SUBSTRATE SURFACES. ENSURE THAT PREPARED BASE COURSE IS READY TO RECEIVE PAVING.
1. SWEEP LOOSE GRANULAR PARTICLES FROM SURFACE OF UNBOUND-AGGREGATE BASE COURSE. DO NOT DISLODGE OR DISTURB AGGREGATE EMBEDDED IN COMPACTED SURFACE OF BASE COURSE.

3.3 HOT-MIX ASPHALT PLACING
A. SPREAD AND FINISH ASPHALTIC MIXTURE IN ACCORDANCE WITH SECTION 450.3.2.5 OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION
B. PROMPTLY CORRECT SURFACE IRREGULARITIES IN PAVING COURSE BEHIND PAVER. USE SUITABLE HAND TOOLS TO REMOVE EXCESS MATERIAL FORMING HIGH SPOTS. FILL DEPRESSIONS WITH HOT-MIX ASPHALT TO PREVENT SEGREGATION OF MIX; USE SUITABLE HAND TOOLS TO SMOOTH SURFACE.

3.4 COMPACTION
A. COMPACT ASPHALTIC PAVEMENT IN ACCORDANCE WITH SECTION 450.3.2.6 OF THE WISDOT STANDARD
SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.
B. PROTECTION: AFTER FINAL ROLLING, DO NOT PERMIT VEHICULAR TRAFFIC ON PAVEMENT UNTIL IT HAS COOLED AND HARDENED.
C. ERECT BARRICADES TO PROTECT PAVING FROM TRAFFIC UNTIL MIXTURE HAS COOLED ENOUGH NOT TO BECOME MARKED.

3.5 INSTALLATION TOLERANCES
A. THICKNESS: COMPACT EACH COURSE TO PRODUCE THE THICKNESS INDICATED WITHIN THE FOLLOWING TOLERANCES:
1. BASE COURSE: PLUS OR MINUS 1/2 INCH.
2. SURFACE COURSE: PLUS 1/4 INCH, NO MINUS.
B. SURFACE SMOOTHNESS: COMPACT EACH COURSE TO PRODUCE A SURFACE SMOOTHNESS WITHIN THE FOLLOWING TOLERANCES AS DETERMINED BY USING A 10-FOOT STRAIGHTEDGE APPLIED TRANSVERSELY OR LONGITUDINALLY TO PAVED AREAS:
1. LOWER LAYER: 1/4 INCH.
2. UPPER LAYER: 1/8 INCH.
3. REMOVE AND REPLACE ALL HUMPS OR DEPRESSIONS EXCEEDING THE SPECIFIED TOLERANCES

3.6 PAVEMENT MARKING
A. DO NOT APPLY PAVEMENT-MARKING PAINT UNTIL LAYOUT, COLORS, AND PLACEMENT HAVE BEEN VERIFIED WITH ENGINEER.
B. APPLY MARKINGS TO A DRY SURFACE FREE FROM FROST. REMOVE DUST, DIRT, OIL, GREASE, GRAVEL, DEBRIS OR OTHER MATERIAL THAT MAY PREVENT BONDING TO THE PAVEMENT.
C. APPLY PAINT AS THE MANUFACTURER SPECIFIES WITH MECHANICAL EQUIPMENT TO PRODUCE PAVEMENT MARKINGS, OF DIMENSIONS INDICATED, WITH UNIFORM, STRAIGHT EDGES. APPLY AT MANUFACTURER'S RECOMMENDED RATES AT A MINIMUM RATE OF 17.6 GALLONS/MILE FOR A CONTINUOUS 4" LINE.

3.7 FIELD QUALITY CONTROL
A. TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND TO PREPARE TEST REPORTS.
B. ADDITIONAL TESTING AND INSPECTING, AT CONTRACTOR'S EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPAIRS.

SITE WORK (CONTINUED)

CEMENT CONCRETE PAVEMENT

PART 1 GENERAL

1.1 SUMMARY
A. THIS SECTION INCLUDES EXTERIOR CEMENT CONCRETE PAVEMENT FOR THE FOLLOWING:
1. SITE CURBS AND GUTTERS
2. SITE WALKWAYS
3. PUBLIC SIDEWALK
4. DRIVE APPROACH
5. PUBLIC CURB AND GUTTER
B. RELATED SECTIONS
1. SECTION 31 20 00 EARTHWORK

1.2 REFERENCES
A. WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION
B. LOCAL MUNICIPALITY STREET CONSTRUCTION SPECIFICATIONS

1.3 SUBMITTALS
A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.
B. DESIGN MIXTURES: FOR EACH CONCRETE PAVEMENT MIXTURE.

1.4 QUALITY ASSURANCE
A. MANUFACTURER QUALIFICATIONS: MANUFACTURER OF READY-MIXED CONCRETE PRODUCTS WHO COMPLIES WITH ASTM C 94/C 94M REQUIREMENTS FOR PRODUCTION FACILITIES AND EQUIPMENT AND APPROVED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.
B. ACI PUBLICATIONS: COMPLY WITH ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE," UNLESS MODIFIED BY REQUIREMENTS IN THE CONTRACT DOCUMENTS.
C. MOCKUPS: PROVIDE MOCKUPS OF DECORATIVE STAMPED CONCRETE PAVING NOT LESS THAN 96 INCHES BY
96 INCHES TO DEMONSTRATE SURFACE COLOR, PATTERN, AND TEXTURE.

PART 2 PRODUCTS

2.1 CONCRETE MATERIALS: ON-SITE WORK
A. CONCRETE GRADE: GRADE A OR GRADE A-2 CONFORMING TO SECTION 501.3.1.3 OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION
B. AGGREGATES: CONFORM TO SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS. PROVIDE AGGREGATES FROM A SINGLE SOURCE.
C. WATER: ASTM C 94/C 94M AND SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS.
D. AIR-ENTRAINING ADMIXTURE: ASTM C 260 AND SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS.
E. CHEMICAL ADMIXTURES: PER SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS.
F. COLOR PIGMENT: ASTM C 979, SYNTHETIC MINERAL-OXIDE PIGMENTS OR COLORED WATER-REDUCING ADMIXTURES; COLOR STABLE, NONFADING, AND RESISTANT TO LIME AND OTHER ALKALIS.
G. CURING MATERIALS
1. IN ACCORDANCE WITH SECTION 415.3.12 OF THE WISDOT STANDARD SPECIFICATIONS.
H. RELATED MATERIALS
1. EXPANSION JOINT MATERIAL: CONFORM TO SECTION 415.2.2 OF THE WISDOT STANDARD
SPECIFICATIONS.
I. CONCRETE MIXTURES
1. GRADE A OR GRADE A2 CONFORMING TO SECTION 501.3.1 OF THE WISDOT STANDARD SPECIFICATIONS.
J. CONCRETE MIXING
1. MEASURE, BATCH, AND MIX CONCRETE MATERIALS AND CONCRETE IN ACCORDANCE WITH SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS.

2.2 CONCRETE MATERIALS: PUBLIC RIGHT OF WAY
A. CONFORM TO THE LOCAL MUNICIPALITY STREET CONSTRUCTION SPECIFICATIONS

PART 3 EXECUTION

3.1 GENERAL
A. CONFORM TO SECTION 415 OF THE WISDOT STANDARD SPECIFICATIONS FOR CONCRETE PAVEMENTS FOR ON- SITE WORK
B. CONFORM TO THE LOCAL MUNICIPALITY STREET CONSTRUCTION SPECIFICATIONS FOR WORK IN THE PUBLIC RIGHT- OF-WAY.

3.2 EXAMINATION AND PREPARATION
A. PROOF-ROLL PREPARED SUBBASE OR BASE SURFACE BELOW CONCRETE PAVING TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING.
B. REMOVE LOOSE MATERIAL FROM COMPACTED SUBBASE OR BASE SURFACE IMMEDIATELY BEFORE PLACING CONCRETE.

3.3 EDGE FORMS AND SCREED CONSTRUCTION
A. SET, BRACE, AND SECURE EDGE FORMS, BULKHEADS, AND INTERMEDIATE SCREED GUIDES FOR PAVEMENT TO REQUIRED LINES, GRADES, AND ELEVATIONS. INSTALL FORMS TO ALLOW CONTINUOUS PROGRESS OF WORK AND SO FORMS CAN REMAIN IN PLACE AT LEAST 24 HOURS AFTER CONCRETE PLACEMENT.
B. CLEAN FORMS AFTER EACH USE AND COAT WITH FORM-RELEASE AGENT TO ENSURE SEPARATION FROM CONCRETE WITHOUT DAMAGE.

3.4 JOINTS
A. GENERAL: FORM CONSTRUCTION, ISOLATION, AND CONTRACTION JOINTS AND TOOL EDGINGS TRUE TO LINE WITH FACES PERPENDICULAR TO SURFACE PLANE OF CONCRETE. CONSTRUCT TRANSVERSE JOINTS AT RIGHT ANGLES TO CENTERLINE, UNLESS OTHERWISE INDICATED. CONFORM TO SECTION 415 OF THE WISDOT STANDARD SPECIFICATIONS FOR ON-SITE WORK. CONFORM TO LOCAL MUNICIPALITY STREET CONSTRUCTION SPECIFICATIONS FOR WORK IN THE PUBLIC RIGHT-OF-WAY.
B. CONSTRUCTION JOINTS: SET CONSTRUCTION JOINTS AT SIDE AND END TERMINATIONS OF PAVEMENT AND AT LOCATIONS WHERE PAVEMENT OPERATIONS ARE STOPPED FOR MORE THAN ONE-HALF HOUR UNLESS PAVEMENT TERMINATES AT ISOLATION JOINTS.
C. ISOLATION JOINTS: FORM ISOLATION JOINTS OF PREFORMED JOINT-FILLER STRIPS ABUTTING CONCRETE CURBS, CATCH BASINS, MANHOLES, INLETS, STRUCTURES, WALKS, OTHER FIXED OBJECTS, AND WHERE INDICATED.
D. CONTRACTION JOINTS: FORM WEAKENED-PLANE CONTRACTION JOINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS TO MATCH JOINTING OF EXISTING ADJACENT CONCRETE PAVEMENT.
E. EDGING: TOOL EDGES OF PAVEMENT, GUTTERS, CURBS, AND JOINTS IN CONCRETE AFTER INITIAL FLOATING WITH AN EDGING TOOL TO A 1/4-INCH RADIUS. REPEAT TOOLING OF EDGES AFTER APPLYING SURFACE FINISHES. ELIMINATE TOOL MARKS ON CONCRETE SURFACES.

3.5 CURBING
A. COMPLY WITH SECTION 601 OF THE WISDOT STANDARD SPECIFICATIONS FOR ON-SITE WORK.
B. COMPLY WITH THE LOCAL MUNICIPALITY STREET CONSTRUCTION SPECIFICATIONS FOR WORK IN THE PUBLIC RIGHT-OF-WAY.

3.6 SIDEWALKS
A. COMPLY WITH SECTION 602 OF THE WISDOT STANDARD SPECIFICATIONS FOR ON-SITE WORK.
B. COMPLY WITH THE LOCAL MUNICIPALITY STREET CONSTRUCTION SPECIFICATIONS FOR PUBLIC SIDEWALK CONSTRUCTION.

3.7 DRIVE APPROACH
A. COMPLY WITH THE LOCAL MUNICIPALITY STREET CONSTRUCTION SPECIFICATIONS.

3.8 CONCRETE PLACEMENT
A. MOISTEN SUBBASE TO PROVIDE A UNIFORM DAMPENED CONDITION AT TIME CONCRETE IS PLACED.
B. COMPLY WITH ACI 301 REQUIREMENTS AND WISDOT STANDARD SPECIFICATIONS SECTION 501 REQUIREMENTS FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE.

3.9 FINISHING
A. ON-SITE WORK
1. FINISH CURBING IN ACCORDANCE WITH SECTION 601.3.5 OF THE WISDOT STANDARD
SPECIFICATIONS.
2. FINISH SIDEWALK AND PATIO IN ACCORDANCE WITH SECTION 602.3.2.3 OF THE WISDOT STANDARD
SPECIFICATIONS (LIGHT BROOM FINISH).
B. COMPLY WITH LOCAL MUNICIPALITY STREET CONSTRUCTION SPECIFICATIONS FOR WORK IN THE PUBLIC RIGHT-OF- WAY.

3.10 STAMPING
A. MAT STAMPING: AFTER FLOATING AND WHILE CONCRETE IS PLASTIC, APPLY MAT-STAMPED FINISH.
1. PIGMENTED POWDER RELEASE AGENT: UNIFORMLY DISTRIBUTE ONTO CONCRETE AT A RATE OF 3 TO 4 LB./100 SQ. FT.
2. LIQUID RELEASE AGENT: APPLY LIQUID RELEASE AGENT TO THE CONCRETE SURFACE AND THE STAMP MAT. UNIFORMLY MIST SURFACE OF CONCRETE AT A RATE OF 5 GAL/1000 SQ. FT.
3. AFTER APPLICATION OF RELEASE AGENT, ACCURATELY ALIGN AND PLACE STAMP MATS IN SEQUENCE.
4. PRODUCE REQUIRED IMPRINT AND PATTERN AND DEPTH OF IMPRINT ON CONCRETE SURFACE. HAND STAMP EDGES AND SURFACES UNABLE TO BE IMPRINTED BY STAMP MATS.

SITE WORK (CONTINUED)

CEMENT CONCRETE PAVEMENT CONTINUED

3.10 STAMPING CONTINUED
5. REMOVE RESIDUAL RELEASE AGENT ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, BUT NO FEWER THAN THREE DAYS AFTER STAMPING CONCRETE.
B. TOOL STAMPING: AFTER FLOATING AND WHILE CONCRETE IS PLASTIC, APPLY TOOL-STAMPED FINISH.
1. COVER SURFACE WITH POLYETHYLENE FILM, STRETCH TAUT TO REMOVE WRINKLES, LAP SIDES AND ENDS, AND SECURE TO EDGE FORMS. LIGHTLY BROOM SURFACE TO REMOVE AIR BUBBLES.
2. ALIGN AND PLACE STAMP TOOLS IN SEQUENCE AND TAMP INTO CONCRETE TO PRODUCE REQUIRED IMPRINT PATTERN AND DEPTH OF IMPRINT ON CONCRETE SURFACE. HAND STAMP EDGES AND SURFACES UNABLE TO BE IMPRINTED BY STAMP TOOLS.
3. CAREFULLY REMOVE POLYETHYLENE FILM IMMEDIATELY AFTER TOOL STAMPING.
A. ROLLER STAMPING: AFTER FLOATING AND WHILE CONCRETE IS PLASTIC, APPLY ROLLER-STAMPED FINISH.
1. COVER SURFACE WITH POLYETHYLENE FILM, STRETCH TAUT TO REMOVE WRINKLES, LAP SIDES AND ENDS, AND SECURE TO EDGE FORMS. LIGHTLY BROOM SURFACE TO REMOVE AIR BUBBLES.
2. ALIGN ROLLER AND PERFORM ROLLING OPERATION TO PRODUCE REQUIRED IMPRINT PATTERN AND EPTH OF IMPRINT ON CONCRETE SURFACE. HAND STAMP SURFACES INACCESSIBLE TO ROLLER.
3. CAREFULLY REMOVE POLYETHYLENE FILM IMMEDIATELY AFTER ROLLER STAMPING.

3.11 CONCRETE PROTECTION AND CURING
A. ON-SITE WORK
1. PROTECT AND CURE SIDEWALK IN ACCORDANCE WITH SECTION 602.3.2.6 OF THE WISDOT STANDARD SPECIFICATIONS.
2. PROTECT AND CURE CURBING IN ACCORDANCE WITH SECTION 601.3.7 OF THE WISDOT STANDARD SPECIFICATIONS.
B. COMPLY WITH LOCAL MUNICIPALITY STREET CONSTRUCTION SPECIFICATIONS FOR WORK IN THE PUBLIC RIGHT-OF- WAY.

3.12 REPAIRS AND PROTECTION
A. REMOVE AND REPLACE CONCRETE PAVEMENT THAT IS BROKEN, DAMAGED, OR DEFECTIVE OR THAT DOES NOT COMPLY WITH REQUIREMENTS IN THIS SECTION.
B. PROTECT CONCRETE FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVEMENT FOR AT LEAST 7 DAYS AFTER PLACEMENT.
C. MAINTAIN CONCRETE PAVEMENT FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL. SWEEP CONCRETE PAVEMENT NOT MORE THAN TWO DAYS BEFORE DATE SCHEDULED FOR SUBSTANTIAL COMPLETION INSPECTIONS.

STORM DRAINAGE

PART 1 GENERAL

1.1 SUMMARY
A. THIS SECTION INCLUDES GRAVITY-FLOW, NONPRESSURE STORM DRAINAGE OUTSIDE THE BUILDING, WITH THE FOLLOWING COMPONENTS:
1. STORM SEWER PIPING
2. PRECAST CONCRETE CATCH BASINS.
B.RELATED SECTIONS:
1. SECTION 31 20 00 EARTHWORK

1.2 REFERENCES
A. STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION
B. WISCONSIN DEPARTMENT OF COMMERCE PLUMBING CODE DCOMM CHAPTERS 82 – 85.

1.3 SUBMITTALS
A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.
B. SHOP DRAWINGS: FOR CATCH BASINS. INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, AND CATCH BASIN FRAMES AND GRATES.

PART 2 PRODUCTS

2.1 PIPING MATERIALS
A. PVC SEWER PIPE AND FITTINGS: ASTM D 3034, SDR 35, WITH BELL-AND-SPIGOT ENDS WITH RUBBER GASKETED JOINTS IN ACCORDANCE WITH CHAPTER 8.10.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. JOINTS SHALL CONFORM TO ASTM D-3212.

2.2 NONPRESSURE-TYPE PIPE COUPLINGS
A. COMPLY WITH ASTM C 1173, ELASTOMERIC, SLEEVE-TYPE, REDUCING OR TRANSITION COUPLING, FOR JOINING UNDERGROUND NONPRESSURE PIPING. INCLUDE ENDS OF SAME SIZES AS PIPING TO BE JOINED AND CORROSION-RESISTANT-METAL TENSION BAND AND TIGHTENING MECHANISM ON EACH END.
B. SLEEVE MATERIALS:
1. FOR PLASTIC PIPES: ASTM F 477, ELASTOMERIC SEAL OR ASTM D 5926, PVC.
2. FOR DISSIMILAR PIPES: ASTM D 5926, PVC OR OTHER MATERIAL COMPATIBLE WITH PIPE MATERIALS BEING JOINED.
C. UNSHIELDED FLEXIBLE COUPLINGS: ELASTOMERIC SLEEVE WITH STAINLESS-STEEL SHEAR RING AND CORROSION-RESISTANT-METAL TENSION BAND AND TIGHTENING MECHANISM ON EACH END.
1. MANUFACTURERS:
A. DALLAS SPECIALTY & MFG. CO. B. FERNCO INC.
B. LOGAN CLAY PRODUCTS COMPANY (THE).
C. MISSION RUBBER COMPANY; A DIVISION OF MCP INDUSTRIES, INC. NDS INC.
D. PLASTIC ODDITIES, INC.
E. SHIELDED FLEXIBLE COUPLINGS: ASTM C 1460, ELASTOMERIC OR RUBBER SLEEVE WITH FULL-LENGTH, CORROSION-RESISTANT OUTER SHIELD AND CORROSION-RESISTANT-METAL TENSION BAND AND TIGHTENING MECHANISM ON EACH END.
1. MANUFACTURERS:
A.CASCADE WATERWORKS MFG.
B. DALLAS SPECIALTY & MFG. CO.
C. MISSION RUBBER COMPANY; A DIVISION OF MCP INDUSTRIES, INC.
D. RING-TYPE FLEXIBLE COUPLINGS: ELASTOMERIC COMPRESSION SEAL WITH DIMENSIONS TO FIT INSIDE BELL OF LARGER PIPE AND FOR SPIGOT OF SMALLER PIPE TO FIT INSIDE RING.
1. MANUFACTURERS:
A. FERNCO INC.
B. LOGAN CLAY PRODUCTS COMPANY (THE).
C. MISSION RUBBER COMPANY; A DIVISION OF MCP INDUSTRIES, INC.

2.3 CLEANOUTS
A. CLEANOUTS SHALL BE IN ACCORDANCE WITH DEPARTMENT OF COMMERCE CODE CHAPTER 82.35.

2.4 CATCH BASINS
A. STANDARD PRECAST CONCRETE CATCH BASINS: CONFORMING TO CHAPTER 3.6.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION, OF DEPTH INDICATED.
1. BASE SECTION: 12-INCH MINIMUM THICKNESS FOR FLOOR SLAB AND 5-INCH MINIMUM THICKNESS FOR WALLS AND BASE RISER SECTION.
2. TOP SECTION: ECCENTRIC-CONE TYPE.
B. FRAMES AND GRATES: ASTM A-48, CLASS NO. 35B. NEENAH R-2501 WITH TYPE G GRATE OR EQUAL. NEENAH R-3229-A FOR CURB TYPE FRAMES OR EQUAL.

2.5 MANHOLES
A. STANDARD PRECAST REINFORCED CONCRETE MANHOLES: CONFORM TO ASTM C478 AND SECTION 8.39.0 AND FILE NO. 12 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
B. MANHOLE STEPS: CONFORM TO SECTION 8.40.0 AND FILE NO. 15 OF THE STANDARD SPECIFICATIONS FOR
SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. C.FRAMES AND COVERS: AS INDICATED ON PLANS

2.6 TRENCH DRAIN
A. ACO MODEL S200K, OR EQUAL

PART 3 EXECUTION

3.1 PIPING APPLICATIONS
A. PIPE COUPLINGS AND FITTINGS WITH PRESSURE RATINGS AT LEAST EQUAL TO PIPING RATING MAY BE USED IN APPLICATIONS BELOW, UNLESS OTHERWISE INDICATED.
1. USE NONPRESSURE-TYPE FLEXIBLE COUPLINGS WHERE REQUIRED TO JOIN GRAVITY-FLOW, NONPRESSURE SEWER PIPING, UNLESS OTHERWISE INDICATED.
A. UNSHIELDED FLEXIBLE COUPLINGS FOR SAME OR MINOR DIFFERENCE OD PIPES.
B. UNSHIELDED, INCREASER/REDUCER-PATTERN, FLEXIBLE COUPLINGS FOR PIPES WITH DIFFERENT OD.
C. RING-TYPE FLEXIBLE COUPLINGS FOR PIPING OF DIFFERENT SIZES WHERE ANNULAR SPACE BETWEEN SMALLER PIPING'S OD AND LARGER PIPING'S ID PERMITS INSTALLATION.

3.2 PIPING INSTALLATION
A.GENERAL LOCATIONS AND ARRANGEMENTS: DRAWING PLANS AND DETAILS INDICATE GENERAL LOCATION AND ARRANGEMENT OF UNDERGROUND STORM DRAINAGE PIPING. LOCATION AND ARRANGEMENT OF PIPING LAYOUT TAKE DESIGN CONSIDERATIONS INTO ACCOUNT. INSTALL PIPING AS INDICATED, TO EXTENT PRACTICAL. WHERE SPECIFIC INSTALLATION IS NOT INDICATED, FOLLOW PIPING MANUFACTURER'S WRITTEN INSTRUCTIONS.
B. INSTALL IN ACCORDANCE WITH CHAPTER 3.2.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER
CONSTRUCTION IN WISCONSIN, LATEST EDITION.
C. INSTALL PROPER SIZE INCREASERS, REDUCERS, AND COUPLINGS WHERE DIFFERENT SIZES OR MATERIALS OF PIPES AND FITTINGS ARE CONNECTED. REDUCING SIZE OF PIPING IN DIRECTION OF FLOW IS PROHIBITED.
D. USE CLASS B COMPACTED TRENCH SECTION IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR
SEWER AND WATER CONSTRUCTION IN WISCONSIN.
E. CLEAR INTERIOR OF PIPING AND MANHOLES OF DIRT AND SUPERFLUOUS MATERIAL AS WORK PROGRESSES.
F. INSTALL TRACER WIRE OVER NON-METALLIC PIPING IN ACCORDANCE WITH DCOMM CH. 82.30(11)(H) AND 82.36(7)(D).

SITE WORK (CONTINUED)

STORM DRAIN CONTINUED

PART 3 EXECUTION CONTINUED

3.3 PIPE JOINT CONSTRUCTION
A.BASIC PIPE JOINT CONSTRUCTION IS SPECIFIED IN DIVISION 2 SECTION "PIPED UTILITIES - BASIC MATERIALS AND METHODS." WHERE SPECIFIC JOINT CONSTRUCTION IS NOT INDICATED, FOLLOW PIPING MANUFACTURER'S WRITTEN INSTRUCTIONS.
B. JOIN GRAVITY-FLOW, NONPRESSURE DRAINAGE PIPING ACCORDING TO THE FOLLOWING:
1. JOIN PVC SEWER PIPING ACCORDING TO ASTM D 2321 AND ASTM D 3034 FOR ELASTOMERIC- GASKET JOINTS.
2. JOIN DISSIMILAR PIPE MATERIALS WITH NONPRESSURE-TYPE FLEXIBLE COUPLINGS.

3.4 CLEANOUT INSTALLATION
A. INSTALL CLEANOUTS AND RISER EXTENSIONS FROM SEWER PIPES TO CLEANOUTS AT GRADE. INSTALL PIPING SO CLEANOUTS OPEN IN DIRECTION OF FLOW IN SEWER PIPE.
1. USE LIGHT-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN EARTH OR UNPAVED FOOT-TRAFFIC AREAS.
2. USE MEDIUM-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN PAVED FOOT-TRAFFIC AREAS.
3. USE HEAVY-DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN VEHICLE-TRAFFIC SERVICE] AREAS. B. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT WITH TOPS FLUSH WITH PAVEMENT SURFACE.

3.5 CATCH BASIN INSTALLATION
A. SET FRAMES AND GRATES TO ELEVATIONS INDICATED.
B. INSTALL IN ACCORDANCE WITH CHAPTER 3.6.1 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER
CONSTRUCTION IN WISCONSIN, LATEST EDITION.
C. CATCH BASIN EXCAVATION AND PREPARATION OF SUBGRADE SHALL BE IN ACCORDANCE WITH SECTION 3.5.4(A) AND (B) OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.

3.6 MANHOLE INSTALLATION
A. SET MANHOLE RIMS TO ELEVATIONS INDICATED.
B. INSTALL IN ACCORDANCE WITH SECTION 3.5.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER
CONSTRUCTION IN WISCONSIN, LATEST EDITION.

3.7 FIELD QUALITY CONTROL
A. INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT OR OTHER DAMAGE HAS OCCURRED.
B. CONDUCT DEFLECTION TESTING OF INSTALLED PIPE IN ACCORDANCE WITH SECTION 3.2.6(I)4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
1. REPLACE ANY PIPE SECTION NOT PASSING THE DEFLECTION TEST USING NEW MATERIALS.
2.REINSPECT AND REPEAT PROCEDURE UNTIL RESULTS ARE SATISFACTORY.

CONCRETE

1. ALL CONCRETE UNLESS OTHERWISE SPECIFIED, SHALL BE READY MIXED IN ACCORDANCE WITH ASTM C94.
2. ALL CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C150 TYPE 1 AND SHALL BE THE PRODUCT OF ONE MANUFACTURER, IF POSSIBLE. PLEASE NOTIFY BRIOHN BUILDING CORP. IN WRITING IF NOT POSSIBLE, SO THAT THEY MAY DISCUSS IMPACT WITH THE CUSTOMER. THE TEMPERATURE OF CEMENT DELIVERED TO THE PLANT SHALL NOT EXCEED 150° AT THE TIME OF MIXING.
3. MIX DESIGNED TO BE SUBMITTED TO BRIOHN DESIGN GROUP A MINIMUM OF 3 WEEKS PRIOR TO POUR AND APPROVED IN WRITING FOLLOWING PRE-POUR MEETING.
    1. CLASS 'C' FLY ASH MAY BE ADDED.
    2. 1 1/2" STONE TO BE USED IN ALL SLABS THAT ARE A MINIMUM 5" THICK.
    3. TYPE 'A' WATER REDUCERS ARE PERMITTED.
    4. LOW SHRINKAGE CEMENTS ARE PERMITTED.
4. CEMENT CONTENT PER CUBIC YARD SHALL CONFORM TO THE FOLLOWING BASIC REQUIREMENTS UNLESS APPROVED OTHERWISE BY BRIOHN BUILDING CORP. REPRESENTATIVE:
    1. 2,000 PSI = SLURRY CONCRETE (SUBMIT SUPPLIERS MIX DESIGN FOR APPROVAL)
    2. 3,000 PSI = 5 BAGS, 470# MIN. CEMENT
    3. 3,500 PSI = 5 1/3 BAGS, 510# MIN. CEMENT
    4. 4,000 PSI = 5 7/8 BAGS, 550# MIN. CEMENT
    5. 4,500 PSI = 6 1/8 BAGS, 590# MIN. CEMENT
    6. 5,000 PSI = 6 3/8 BAGS, 630# MIN. CEMENT
    7. 3,000 PSI CONCRETE FOR FOOTINGS MAY BE REDI-MIX SUPPLIERS STANDARD FOOTING DESIGN.
5. AGGREGATES SHALL CONFORM TO ASTM C33.
6. ALL WATER SHALL BE CLEAN AND FREE FROM INJURIOUS AMOUNTS OF OIL, ACID, ALKALI, SALT, ORGANIC MATTER, AND OTHER DELETERIOUS SUBSTANCES. IN ALL CASES WATER FROM A MUNICIPAL WATER SOURCE WILL BE ACCEPTABLE.
7. THE USE OF CHEMICAL ADMIXTURES IN CONCRETE SHALL ALWAYS BE SUBJECT TO THE WRITTEN APPROVAL OF BRIOHN DESIGN GROUP, LLC.
8. CURING COMPOUNDS TO CONFORM TO ASTM C309, TYPE 1, MIN. 12% WEIGHT SOLIDS CONTENT, CLEAR SOLVENT TYPE, SONNEBORN KURE 'N SEAL IS ACCEPTABLE.
9. ISOLATION JOINT MATERIAL TO BE POLYETHYLENE FOAM EXPANSION ISOLATION JOINT FILLER OF 1/2" THICKNESS UNLESS OTHERWISE INDICATED. THE MINIMUM DEPTHS OF ISOLATION JOINT MATERIAL TO BE EQUAL TO THE CONCRETE SLAB THICKNESS WITH WHICH IT COMES IN CONTACT.
10. VAPOR BARRIER TO BE MOISTOP GRADE 395 AS MANUFACTURED BY FORTIFIBER CORP.
11. USE FIBER MESH REINFORCED CONCRETE OVER PRE-CAST DECK UNLESS OTHERWISE INDICTED.
12. MAXIMUM WATER TO CEMENT RATION TO BE 0.5.
    1. ASTM C94 REQUIRES THAT NO WATER FROM THE TRUCK WATER SYSTEM OR ELSEWHERE SHALL BE ADDED, EXCEPT WHEN ON ARRIVAL AT THE JOB SITE, THE SLUMP OF THE CONCRETE IS LESS THAN SPECIFIED.
    2. IF WATER IS ADDED, FOLLOW DIRECTIONS OF ASTM C94, ONLY THE INDIVIDUAL AGREED TO AT THE PRE-POUR MEETING HAS AUTHORITY TO ADD WATER AFTER PRODUCT HAS LEFT BATCH PLANT.
    3. SUCH ADDITIONAL WATER THAT IS ADDED TO BRING THE SLUMP WITHIN REQUIRED LIMITS SHALL BE INJECTED INTO THE MIXER UNDER CORRECT PRESSURES AND DIRECTION. THE DRUM OR BLADES SHALL BE TURNED AND ADDITIONAL 30 REVOLUTIONS OR MORE IF NECESSARY, AT MIXING SPEED, UNTIL UNIFORMITY OF THE CONCRETE. WATER SHALL NOT BE ADDED TO THE BATCH AT ANY LATER TIME. DISCHARGE OF THE CONCRETE SHALL BE COMPLETED WITHIN 1 1/2 HOURS OR BEFORE THE DRUM HAS REVOLVED 300 TIMES, WHICHEVER COMES FIRST. SEE ASTM C94 FOR ADDITIONAL REQUIREMENTS. NO DEVIATION ALLOWED FROM THIS SECTION.
13. SLUMPS SHALL CONFORM TO THE FOLLOWING STANDARDS UNLESS APPROVED OTHERWISE BY BRIOHN BUILDING CORP. REPRESENTATIVE:

3 1/2"	=	FORMED REINFORCED FOUNDATION WALLS AND FOOTINGS
3 1/2"	=	FORMED PLAIN FOOTINGS AND STRUCTURAL WALLS
5"	=	EARTH FORM FOUNDATIONS
8"	=	CAISSONS
3 1/2"	=	BUILDING COLUMNS
3 1/2"	=	PAVEMENTS AND SLABS ON GRADE
3 1/2"	=	STRUCTURAL SLABS
2"	=	MASS CONCRETE
4"	=	BOND BEAMS AND LINTELS
5"	=	METAL PANS AND STAIRS AND LANDINGS
9"	=	HIGH SLUMP CONCRETE FOR FILLING MASONRY PIERS AND PILASTERS

14. TOLERANCES = WHEN SPECIFIED SLUMP IS 3" OR LESS, PLUS OR MINUS 1/2".
15. TOLERANCES = WHEN SPECIFIED SLUMP IS GREATER THAN 3", PLUS OR MINUS 1".
16. ALL CONCRETE EXPOSED TO FREEZING AND THAWING AND/OR REQUIRED TO BE WATERTIGHT SHALL HAVE AN AIR CONTENT AT THE TIME OF PLACEMENT OF 4.5% TO 7.5%. (CONCRETE TO BE "NON-REACTIVE" CHERT.)
17. ALL STRENGTH TESTS SHALL CONSIST OF FOUR STANDARD CYLINDERS, WITH TESTS AT THREE AND SEVEN DAYS AND TWO TESTS AT 28 DAYS. STRENGTH AT THREE DAYS TO BE MINIMUM 1800 PSI. CONCRETE TEST REPORTS SHALL DIRECTLY STATE WHETHER OR NOT THE TEST RESULTS COMPLY WITH THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS. CONCRETE TEST REPORTS SHALL STATE THE FOLLOWING INFORMATION:
    A) LOCATION ON THE PROJECT WHERE THE CONCRETE IS USED
    B) 7 DAY COMPRESSIVE STRENGTH
    C) 28 DAY COMPRESSIVE STRENGTH
    D) AIR CONTENT
    E) SLUMP
    F) AMOUNT OF WATER ADDED ON JOB SITE
    G) MIX USED
18. PRIOR TO ALL WORK OF THIS SECTION, CAREFULLY INSPECT THE INSTALLED WORK OF OTHER TRADES AFFECTING CONCRETE PLACEMENT AND VERIFY THAT ALL SUCH WORK IS COMPLETE TO THE POINT WHERE THIS INSTALLATION MAY PROPERLY COMMENCE.
19. VERIFY THAT ALL ITEMS TO BE EMBEDDED IN CONCRETE ARE IN PLACE.
20. VERIFY THAT CONCRETE MAY BE PLACED TO THE LINES AND ELEVATIONS INDICATED ON THE DRAWINGS, WITH ALL REQUIRED CLEARANCE FROM REINFORCEMENT. PROVIDE THE FOLLOWING CLEAR COVER DISTANCES FOR REINFORCEMENT IN CONCRETE:

FOOTINGS - BOTTOM AND SIDES	3"
FOOTINGS - TOP	2"
SLABS - BOTTOM AND SIDES	1"
SLABS - TOP	3/4"
INTERIOR WALLS	1"
EXTERIOR WALLS - OUTSIDE FACE	1/2"
BEAMS AND GIRDERS	1 1/2"
PIERS AND COLUMNS	2"

21. CONVEY CONCRETE FROM MIXER TO PLACE OF FINAL DEPOSIT BY METHODS THAT WILL PREVENT SEPARATION AND LOSS OF MATERIAL.
22. DEPOSIT CONCRETE AS NEARLY AS POSSIBLE IN ITS FINAL POSITION TO AVOID SEGREGATION DUE TO RE-HANDLING AND FLOWING.
23. PLACE CONCRETE AS DRY AS POSSIBLE CONSISTENT WITH GOOD WORKMANSHIP, NEVER EXCEEDING THE MAXIMUM SPECIFIED SLUMP.
24. PLACE CONCRETE AT SUCH A RATE THAT CONCRETE IS AT ALL TIMES PLASTIC AND FLOWS READILY BETWEEN REINFORCEMENT.
25. WHEN PLACING IS ONCE STARTED, CARRY IT ON AS CONTINUOUS OPERATIONS UNTIL PLACEMENT OF THE PANEL SECTION IS COMPLETE.

CONCRETE (CONTINUED)

26. DO NOT PLACE A GREATER AREA AT ONE TIME THAN CAN BE PROPERLY FINISHED WITHOUT CRACKING. THIS IS PARTICULARLY IMPORTANT DURING HOT OR DRY WEATHER.
27. THOROUGHLY CONSOLIDATE CONCRETE BY SUITABLE MEANS DURING PLACEMENT, WORKING IT AROUND ALL EMBEDDED FIXTURES AND INTO CORNERS OF THE FORMS. TYPE AND USE OF VIBRATORS SHALL BE IN STRICT CONFORMANCE WITH ACI C309.
28. INSTALL EXPANSION AND CONTROL JOINTS ONLY IN LOCATIONS SHOWN AND AS DETAILED ON THE DRAWINGS.
29. PLACE, CONSOLIDATE STRIKE OFF AND LEVEL CONCRETE TO THE PROPER ELEVATIONS.
30. AFTER THE CONCRETE HAS STIFFENED SUFFICIENTLY TO PERMIT THE OPERATION AND THE WATER SHEEN HAS DISAPPEARED. THE SURFACE SHALL BE FLOATED AT LEAST TWICE TO A UNIFORM SANDY TEXTURE.
31. TAKE CARE THAT THE SURFACE OF THE SLAB MEETS THE SCREEDS ACCURATELY AND DOES NOT RISE ABOVE OR FALL BELOW THEM.
32. CAREFULLY PROVIDE SLAB DEPRESSIONS AS REQUIRED FOR THE FINISHES INDICATED ON THE DRAWINGS.
33. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, MAKE ALL SLABS EVEN AND UNIFORM IN APPEARANCE AND IN TRUE PLANES, SO THE DEPRESSIONS BETWEEN HIGH SPOTS DO NOT EXCEED 3/16" UNDER A 10' STRAIGHT EDGE OR F_F30.
34. WHERE FLOOR DRAINS OR FLOOR SLOPES ARE INDICATED, SLOPE SLABS UNIFORMLY TO PROVIDE EVEN FALL FOR DRAINAGE.
35. TROWEL ALL INTERIOR SLABS TO A SMOOTH, HARD FINISH USING STEEL TROWELS.
36. WHERE 'BROOM FINISH' IS INDICATED AND WHERE NO OTHER EXTERIOR SLAB FINISH IS INDICATED, FINISH THE EXPOSED CONCRETE SURFACES BY LIGHTLY COMBING WITH A MEDIUM STIFF BROOM AFTER FLOATING IS COMPLETE.
37. RUBBED SURFACES SHALL BE PROVIDED ON ALL EXPOSED WALLS AND PIERS, IMMEDIATELY AFTER FORMS ARE REMOVED. EXPOSED SURFACES SHALL BE WETTED AND RUBBED WITH CARBORUNDUM BRICK OR OTHER ABRASIVE UNTIL EVEN, SMOOTH, AND UNIFORM IN APPEARANCE.
38. PVC WATER STOPS SHALL BE INSTALLED IN LOCATIONS INDICATED, SUBCONTRACTOR SHALL ATTACH WATER STOPS FIRMLY TO REINFORCEMENT AND/OR FORM WORK TO ENSURE THAT WATER STOP WILL NOT BE DISPLACED OR BENT DURING CONCRETE OPERATIONS.
39. BRIOHN SUPERINTENDENT IS TO BE PRESENT DURING CONCRETE POURS, UNLESS SPECIFIC AUTHORITY IS GRANTED BY BRIOHN TO POUR WITHOUT SUPERINTENDENT PRESENT.
40. THE FOLLOWING CONCRETE FLOOR POUR PROCEDURES SHALL BE USED AS A GUIDE AND AMENDED AS NECESSARY FOR INDIVIDUAL PROJECT NEEDS. A PRE-POUR MEETING IS TO BE HELD WITH REPRESENTATIVES OF THE OWNER, BRIOHN BUILDING CORP., CONCRETE SUBCONTRACTOR, ELECTRICIAN, PLUMBER, TESTING AGENCY, CONCRETE SUPPLIER AND FLOORING CONTRACTOR. THIS MEETING TO BE HELD A MINIMUM OF ONE (1) WEEK PRIOR TO POURING. ACTUAL POUR PROCEDURES WILL BE AGREED TO AT THIS MEETING AND PUT IN WRITING BEFORE POURING BEGINS. THE FOLLOWING PROCEDURE WILL BE FOLLOWED, UNLESS OTHERWISE AGREED TO OR AUTHORIZED AT PRE-POUR MEETING.
41. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY IRREGULARITIES OF DEFECTS IN CONCRETE SLABS (CRACKS, BUMPS, FLOOR CURLING, ETC) BEFORE ANY FLOOR FINISHES ARE APPLIED.
    A) POUR CONCRETE FLOORS ONLY AFTER THE ROOF IS ON.
    B) MAKE SURE THERE IS EQUIVALENT TEMPERATURES BETWEEN THE SUB GRADE AND THE AIR TEMPERATURE.
    C) IF THE SUB GRADE IS EXTREMELY DRY IT SHOULD BE WET DOWN PRIOR TO POURING THE CONCRETE TO AVOID RAPID DRYING UNDER SIDE OF SLAB.
    D) THE TOP OF SLAB WILL BE COVERED WITH A 6 MIL VISQUEEN AS SOON AS POSSIBLE AFTER FINISHING TO PREVENT RAPID DRYING FOR A MINIMUM OF 7 DAYS.
    E) THE CONCRETE SHALL BE POURED PER THIS SPECIFICATION WITH A 3 1/2" SLUMP, PLUS OR MINUS 1". BRIOHN BUILDING CORP. HAS THE RIGHT TO TEST ALL LOADS PRIOR TO PLACEMENT.
    F) MESH WILL BE FLAT, NOT ROLLED.
    G) "DIAMOND" OVER POURS AT COLUMNS TO BE POURED 1/4" LOW.
    H) THE FLOOR WILL BE SAW CUT ON A GRID PER PLANS GETTING ON THE FLOOR AS SOON AS POSSIBLE WITH A SOFT CUT SAW, AFTER IT IS POURED.
    I) PUT A HARD TROWEL FINISH IN THIS CONCRETE.
    J) KURE 'N SEAL WILL BE APPLIED TO ALL SLABS, INCLUDING A DOUBLE COAT ON ALL SAW CUTS, AS SOON AS POSSIBLE AFTER FINISHING.
    K) NO WATER MAY BE ADDED TO CONCRETE ON SITE, UNLESS PRIOR AUTHORITY GRANTED. (SEE SECTION 3.01 A).
    L) VERIFY FLOOR DRAINS ARE AT LOW POINT OF FLOOR AND FLOOR PITCHES TOWARDS DRAIN.

REINFORCED CONCRETE FOUNDATIONS

1. WHERE REQUIRED, REMOVE UNSUITABLE EXISTING SOILS BELOW FOOTINGS AND SLABS ON GRADE. PROVIDE ENGINEERED FILL TO RAISE SITE TO ELEVATIONS CALLED FOR ON PLANS. REVIEW SOIL REPORT AND SITE PLAN. FILL MATERIAL SHALL HAVE A MINIMUM 3000 PSF BEARING CAPACITY. FILL MATERIAL SHALL BE APPROVED BY BRIOHN DESIGN GROUP, LLC. PLACEMENT SHALL CONFORM TO SOIL REPORT UNDER THE DIRECTION AND SUPERVISION OF BRIOHN BUILDING CORP.
2. FOOTING EXCAVATIONS MUST EXTEND TO COMPETENT BEARING MATERIAL. BRIOHN BUILDING CORP. TO HIRE A SOILS ENGINEER TO FIELD VERIFY NET ALLOWABLE SOIL BEARING CAPACITY STATED ON THESE CONSTRUCTION DOCUMENTS AND IN GEOTECHNICAL REPORT FOR THIS PROJECT. IF SUITABLE BEARING STRATUM DOES NOT EXIST AT FOOTING ELEVATIONS STATED ON CONSTRUCTION DOCUMENTS, EXCAVATIONS SHALL EXTEND UNTIL SOIL WITH STATED BEARING CAPACITY IS REACHED. PLACE COMPACTED FILL OR SLURRY BELOW FOOTINGS OR EXTEND FOOTINGS DOWN TO SUITABLE BEARING STRATUM. ENGINEERED FILL BELOW SLABS ON GRADE AND FOOTINGS SHALL BE FREE DRAINING GRANULAR MATERIAL COMPACTED TO 90% MODIFIED PROCTOR AND PLACED PER THE SOIL ENGINEERS RECOMMENDATIONS.
3. ALL BACK FILL AGAINST WALLS TO BE FREE-DRAINING GRANULAR MATERIAL AS APPROVED BY BRIOHN DESIGN GROUP, LLC AND COMPACTED PER SOIL REPORT RECOMMENDATIONS UNDER SUPERVISION OF BRIOHN BUILDING CORP.
4. CENTER PIERS AND COLUMN FOOTINGS ON COLUMN CENTERLINES, AND CENTER WALL FOOTINGS ON WALL CENTERLINES, UNLESS NOTED OTHERWISE.
5. FILL OR BACK FILL SHALL EXTEND LATERALLY BEYOND THE EDGE OF BUILDING OR FOUNDATIONS A MINIMUM OF TWO FEET, SLOPES SHOULD NOT EXCEED 1:1 FOR COHESIVE SOILS AND 2 (HORIZONTAL); 1 (VERTICAL) FOR GRANULAR SOILS.
6. SUBCONTRACTOR SHALL PLACE FOUNDATIONS ON UNDISTURBED NON-ORGANIC BEARING SOILS. IF EXCAVATION ACTIVITY LOOSENS SOILS BELOW BOTTOM OF FOOTINGS. BASE SHALL BE COMPACTED.
7. SUBCONTRACTOR SHALL FOLLOW ANY AND ALL ADDITIONAL REQUIREMENTS AS SPECIFIED IN SOIL REPORT.
8. ALL EXTERIOR FOOTINGS MUST BEAR AT A MINIMUM DEPTH OF 4'-0" BELOW ADJACENT FINISH EXTERIOR GRADE.
9. DO NOT PLACE ANY FOOTINGS ON FROZEN SUB-GRADE.
10. WHERE NEW FOOTINGS ABUT EXISTING FOOTINGS, STEP THE NEW FOOTING AS REQUIRED TO HAVE NEW BOTTOM OF FOOTING ELEVATION MATCH THE EXISTING BOTTOM OF FOOTING ELEVATION. SUBCONTRACTOR SHALL FIELD VERIFY EXISTING BOTTOM OF FOOTING ELEVATION.

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3. ALL BACK FILL AGAINST WALLS TO FREE-DRAINING GRANULAR MATERIAL AS APPROVED BY BRIOHN DESIGN GROUP, LLC AND COMPACTED PER SOIL REPORT RECOMMENDATIONS UNDER SUPERVISIONS OF BRIOHN BUILDING CORP.
4. CENTER PIERS AND COLUMN FOOTINGS ON COLUMN CENTERLINES, AND CENTER WALL FOOTINGS ON WALL CENTERLINES, UNLESS NOTED OTHERWISE.
5. FILL OR BACK FILL SHALL EXTEND LATERALLY BEYOND THE EDGE OF BUILDING OR FOUNDATIONS A MINIMUM OF TWO FEET. SLOPES SHOULD NOT EXCEED 1:1 FOR COHESIVE SOILS AND 2 (HORIZONTAL); 1 (VERTICAL) FOR GRANULAR SOILS.
6. SUBCONTRACTOR SHALL PLACE FOUNDATIONS ON UNDISTURBED NON-ORGANIC BEARING SOILS. IF EXCAVATION ACTIVITY LOOSENS BOTTOM OF FOOTING, BASE SHALL BE COMPACTED.
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10. WHERE NEW FOOTINGS ABUT EXISTING FOOTINGS, STEP THE NEW FOOTING AS REQUIRED TO HAVE NEW BOTTOM OF FOOTING ELEVATION MATCH THE EXISTING BOTTOM OF FOOTING ELEVATION. SUBCONTRACTOR SHALL FIELD VERIFY EXISTING BOTTOM OF FOOTING ELEVATION.

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SPECIFICATIONS
SHEET TITLE

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision
Date

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PRECAST CONCRETE

1. TILT UP DESIGN SHALL CONFORM TO TCI AND ACI STANDARDS. GOVERNING SPECIFICATION FOR TILT UP CONCRETE PANELS TO BE IN ACCORDANCE WITH THE TILT-UP CONCRETE ASSOCIATIONS GUIDELINE SPECIFICATIONS. DESIGN LOADS SHALL CONFORM TO DESIGN LOADS INDICATED IN "DESIGN LOADS" SECTION OF THE PLAN AND APPLICABLE CODES. DESIGN AND CONSTRUCT TILT-UP WALL PANELS TO WITHSTAND CONSTRUCTION LOADS WHICH MAY OCCUR DURING LIFTING, BRACING, AND IMPACT OF ADJOINING PANELS. PERMANENT LOADS SHALL CONFORM TO CODE REQUIREMENTS.
2. THE PROJECT ARCHITECT/ENGINEER HAS NOT BEEN RETAINED TO DESIGN THE WALL PANELS OR THE FLOOR SLAB TO RESIST THE STRESSES CAUSED BY ERECTION OF THE WALL PANELS, NOR TO DETERMINE THE MEANS AND METHODS TO BE USED FOR ERECTION AND BRACING UNTIL PERMANENT BRACING IS IN PLACE.
3. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ERECT THE PANEL IN A MANNER THAT WILL BE BOTH SAFE FOR PERSONNEL AND PROPERTY, AND TO BRACE AND OTHERWISE PROTECT THE PANELS AGAINST WIND AND OTHER FORCES THAT MAY OCCUR DURING CONSTRUCTION AND UNTIL CONNECTIONS TO THE PERMANENT STRUCTURAL SYSTEM ARE COMPLETED.
4. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT A SUITABLE SLAB HAS BEEN PREPARED TO PROVIDE FOR THE LEVEL OF FINISH THAT HAS BEEN ESTABLISHED WITHIN THIS SPECIFICATION.
5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE THE SLAB FINISHING INCLUDING SAW CUTTING OF ALL JOINTS WITH THE PANEL FORMING TOM MINIMIZE THE IMPACT TO THE ARCHITECTURAL FINISH OF THE PANELS.
6. SHOP DRAWINGS:
   A) DRAWINGS SHALL BE COMPLETE AND INCLUDE PLANS, ELEVATIONS, CROSS SECTIONS AND DETAILS OF ALL BUILDING COMPONENTS AND ACCESSORIES TO BE FURNISHED BY THE TILT UP SUPPLIER.
   B) APPROVAL OF SHOP AND ERECTION DRAWINGS IN AN APPROVAL OF GENERAL DESIGN ONLY AND DOES NOT RELIEVE THE TILT UP SUPPLIER FROM THE NECESSITY OF MAKING, WITHOUT COST, CHANGES OR CORRECTIONS DUE TO ERRORS IN FABRICATION, OR RESULTING FROM ERRORS IN SHOP AND/OR ERECTION DRAWING DIMENSIONS.
   C) CONTRACTOR IS TO VERIFY ALL DIMENSIONS AND COORDINATE ALL OPENINGS IN TILT UP WITH TILT UP SUPPLIER.
   D) ONE TILT UP SUPPLIER WILL BE RESPONSIBLE FOR COORDINATING ENGINEERING, DRAFTING, AND SHOP DRAWING SUBMITTALS IN THE EVENT THAT TILT UP COMPONENTS WILL BE PROVIDED BY MORE THAN ONE SUPPLIER.
   E) SUBMIT PRODUCT DATA, SHOP DRAWINGS, AND CONCRETE MIX DESIGNS TO OWNER AND OWNERS CONTRACTED TESTING LABORATORY FOR REVIEW.
7. TILT UP SUPPLIER SHALL INCLUDE ERECTION, GROUTING, SAWING OF OPENINGS AT NEW AND EXISTING TILT UP. TILT UP SUPPLIER SHALL INCLUDE CAULKING OF ALL TILT UP TO TILT UP JOINTS, AND CAULKING OF ALL TILT UP TO OTHER MATERIAL JOINTS AT ALL EXPOSED AREAS. CAULK TO BE 'TREMCO DYMERIC 240 FC'. PROVIDE 'SONNEBORN DEGUSSA NP1' CAULK AT ALL STRANLOK FINISH LOCATIONS IN FOOD PROCESSING FACILITIES, FOOD PREP AND FOOD STORAGE AREAS. PROVIDE 'TREMCO DYMERIC 240 FC' AT ALL NON-FINISH INTERIOR AND EXTERIOR LOCATIONS. SEE FLOOR PLAN.
8. FACING CONCRETE SHALL BE DESIGNED FOR MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS INDICATED ON PROJECT DRAWINGS, OR SPECIFIED, AND TESTED ACCORDING TO ASTM C39.
9. THE BOND BREAKER USED ON THE TILT-UP PANELS AND THE CASTING SLAB MUST BE COMPATIBLE WITH ANY COATING SUITABLE FOR INTERIOR AND EXTERIOR CONCRETE PANELS AND SLAB.
10. CONTRACTOR SHALL ENSURE THAT FINISHED FLOOR SLAB DOES NOT SHOWING SPALLING, BOLT HOLES, OR OTHER SURFACE DEFECTS AFTER TILT-UP CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL FIGURE ALL COSTS REQUIRED TO PROVIDE OWNER WITH FLOOR SLABS THAT MEET ALL QUALITY REQUIREMENTS STATED WITHIN THIS SPECIFICATION. WASTE SLABS ARE STRONGLY RECOMMENDED.
11. CASTING SLAB SHALL BE CURED. SAW CUTS, CRACKS OR JOINTS IN THE CASTING BED SHALL BE FILLED AND LEVELED WITH A SEALANT SO AS TO MINIMIZE TRANSFER OF THE JOINT LINE TO THE PANEL FACE.
12. SURFACES TO BE PAINTED SHALL BE PREPARED TO RECEIVE PAINT FINISH AS SPECIFIED. ALL EXPOSED EXTERIOR SURFACES SHALL BE SACKED AND GROUTED TO CREATE A SMOOTH HONEYCOMB-FREE SURFACE TO ACCEPT FINAL PAINT.
13. PANEL DAMAGED DURING ERECTION, CRACKS READILY VISIBLE FROM 40 FEET, PERMANENT BOWING FROM ERECTION, SPALLS AND PANELS WITH INSUFFICIENT TESTED STRENGTH, SHALL BE REPAIRED OR REPLACED IN A MANNER ACCEPTABLE TO OWNER, AT THE CONTRACTORS EXPENSE. ANY DEMOLITION OR REPAIR OF OTHER MATERIALS OR SYSTEMS AS A RESULT OF REPAIR OR REPLACEMENT OF DEFECTIVE CONCRETE SHALL BE AT THE CONTRACTORS EXPENSE.

MASONRY

1. MASONRY CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF 'BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES' ACI AND 'SPECIFICATIONS FOR MASONRY STRUCTURES' ACI.
2. BOND BEAMS, PILASTERS, AND LINTELS SHALL BE FILLED WITH CONCRETE HAVING F'c = 3000 PSI UNLESS NOTED OTHERWISE. COARSE AGGREGATE SHALL PEA GRAVEL. REINFORCE ALL CONTINUOUS BOND BEAMS WITH 2-#5, U.N.O. PROVIDE CORNER BARS TO MATCH. THE MINIMUM LENGTH OF LAP FOR BARS EMBEDDED IN CONCRETE SHALL BE 24" FOR #4 BARS, 30" FOR #5 BARS, 36" FOR #6 BARS AND 42" FOR #7 BARS.
3. MASONRY CONTRACTORS TO GROUT COURSE(S) SOLID WHERE EXPANSION ANCHORS ARE SHOWN/CALLED OUT ON DRAWINGS.
4. USE ONLY U-SHAPED LINTEL BLOCK FOR MASONRY LINTELS. CENTERLINE OF REINFORCING TO BE LOCATED 3" MAX FROM BOTTOM OF LINTEL BLOCK.
5. LINTELS SHALL BEAR A MINIMUM OF 8" AT EACH END. THE FIRST COURSE OF MASONRY ABOVE THE LINTEL SHALL BE LAID WITH FULL MORTAR BEDDING. AT BEARING WALLS, GROUT END CELL SOLID TO FLOOR BELOW. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR SPECIAL BOND BEAM AND LINTEL CONDITIONS.
6. FOR STEEL BEAMS BEARING PERPENDICULAR TO MASONRY WALL, GROUT AN AREA OF 4 CELLS WIDE, 4 COURSES DEEP, UNLESS NOTED OTHERWISE.
7. PROVIDE POCKETS IN MASONRY WALLS FOR STEEL BEAMS, JOISTS, GIRDERS AND COLUMN BASE PLATES AND BACK PATCH.
8. WALLS MUST BE BRACED OR TIED INTO FLOORS PRIOR TO BACKFILLING.
9. GROUT PLACEMENT IN REINFORCED MASONRY WALLS OR PIERS SHALL FOLLOW THE PROCEDURES DESCRIBED IN NCMA TEK MANUAL 3-2A FOR EITHER LOW-LIFT OR HIGH-LIFT GROUTING.
10. PROVIDE HORIZONTAL JOINT REINFORCEMENT SUCH AS DUR-O-WALL, 16 INCHES ON CENTER VERTICALLY FOR RUNNING BOND WALLS, AND 8" AND 10" STACK BOND WALLS. FOR 12" STACK BOND WALLS, STANDARD HORIZONTAL JOINT REINFORCEMENT AT 8" ON CENTER OR HEAVY (A=0.056* MIN) JOINT REINFORCEMENT AT 16" ON CENTER.
11. CONSTRUCTION SHALL BE RUNNING BOND UNLESS OTHERWISE NOTED.
12. REFER TO ARCHITECTURAL DRAWINGS &/OR STRUCTURAL FOUNDATION PLAN FOR LOCATION OF ALL VERTICAL CONTROL JOINTS IN EXTERIOR WALLS. SEE STANDARD CONTROL JOINT DETAIL.
13. CONNECTIONS OF MASONRY VENEERS TO STRUCTURAL BACKUP WALL TO ADHERE TO THE FOLLOWING:
   A. MASONRY VENEER ANCHORED TO MASONRY BACKING MAY BE ATTACHED USING WIRE ANCHORS, ADJUSTABLE ANCHORS, OR JOINT REINFORCEMENT. VENEER ANCHORED TO A CONCRETE OR STEEL BACKING MUST BE ATTACHED WITH ADJUSTABLE ANCHORS. VENEER ANCHORED TO WOOD STUDS TO BE ATTACHED WITH MINIMUM 22 GA. CORRUGATED SHEET METAL. ANCHOR SPACING TO BE SPACED AT MAXIMUM 32" HORIZONTALLY & 18" VERTICALLY WITH A MAXIMUM WALL SURFACE SUPPORTED OF 2.67 SQ. FT.
   B. AROUND OPENINGS LARGER THAN 16" IN EITHER DIMENSION, SPACE ANCHORS AROUND PERIMETER OF OPENING AT A MAXIMUM OF 3 FT. ON CENTER & PLACE ANCHORS WITHIN 12" OF OPENING.
   C. WHEN MASONRY VENEER IS ANCHORED TO WOOD BACKING, ANCHOR TO BE ATTACHED WITH A CORROSION RESISTANT 8d COMMON NAIL, OR A FASTENER EQUIVALENT OR GREATER PULL-OUT VALUE. WHEN VENEER IS ANCHORED TO STEEL BACKING, ATTACHED WITH CORROSION-RESISTANT SCREW THAT HAS A MINIMUM NOMINAL SHANK DIAMETER OF 0.19".
   D. ALL WALL TIES, ANCHORS, AND CONNECTORS TO CONFORM WITH NCMA TEK MANUALS 3-6B AND 12-1A.
14. TEMPORARY CONSTRUCTION BRACING OF FREESTANDING WALLS IS THE RESPONSIBILITY OF THE SUB-CONTRACTOR. PROCEDURES OUTLINED IN NCMA TEK MANUAL 3-4B TO BE FOLLOWED.

METALS

1. PROVIDE MISCELLANEOUS METAL ITEMS INCLUDING MATERIALS, FABRICATIONS, FASTENINGS AND ACCESSORIES REQUIRED FOR FINISHED INSTALLATION AS INDICATED AND SPECIFIED.
2. WHERE METAL ITEMS ARE TO BE ERECTED AND IN CONTACT WITH DISSIMILAR MATERIALS. PROVIDE CONTACT SURFACES WITH COATING OF AN IMPROVED ZINC CHROMATE PRIMER IN A MANNER TO OBTAIN NOT LESS THAN 1.0 MIL DRY FILM THICKNESS.
3. ALUMINUM EXTRUSIONS SHALL CONFORM TO ASTM B221. PROVIDE A CLEAR ANODIZED FINISH UNLESS OTHERWISE NOTED.
4. FASTENERS SHALL BE AS REQUIRED FOR PROPER ASSEMBLY AND INSTALLATION OF FABRICATED ITEMS.
5. MISCELLANEOUS MATERIALS: PROVIDE INCIDENTAL ACCESSORY MATERIALS, TOOLS, METHODS AND EQUIPMENT REQUIRED FOR FABRICATION AND INSTALLATION OF MISCELLANEOUS MATERIAL ITEMS AS INDICATED ON DRAWINGS.
6. VERIFY DIMENSIONS PRIOR TO FABRICATION OR CASTING. FORM METAL ITEMS TO ACCURATE SIZES AND CONFIGURATIONS AS INDICATED ON DRAWINGS AND OTHERWISE REQUIRED FOR PROPER INSTALLATION. FABRICATE WITH ALL LINES STRAIGHT AND ANGLES SHARP, CLEAN AND TRUE. DRILL, COUNTERSINK, TAP AND OTHERWISE PREPARE ITEMS FOR CONNECTION WITH WORK OF OTHER TRADES MAKE PERMANENT CONNECTIONS BY WELDING AND GRIND ALL EXPOSED WELDS SMOOTH TO MATCH ADJACENT SURFACES. ROUGH JOINT SURFACES NOT PERMITTED. AVOID USING BOLTS AND SCREWS UNLESS SPECIFICALLY INDICATED OR APPROVED. WHEN USED, DRAW UP TIGHT AND TIE THREADS TO PREVENT LOOSENING.
7. ALL FERROUS METAL ITEMS SHALL BE SHOP FINISHED. TOUCH UP OR REPAIR DAMAGED AREAS PRIOR TO INSTALLATION WITH SAME MATERIAL.
8. PROVIDE ALL STEEL BLOCKING AND BRACING IN METAL STUD FRAMED PARTITIONS NECESSARY FOR A COMPLETE INSTALLATION INCLUDE AS REQUIRED FOR SUPPORT OF ALL WALL-MOUNTED EQUIPMENT AND FABRICATIONS AS INDICATED ON DRAWINGS. PROVIDE SUPPORTS AT JAMBS OF DOORS AND ELSEWHERE, AS REQUIRED.
9. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS AND SPECIFICATIONS.

METALS: STRUCTURAL STEEL

1. DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL MEMBERS SHALL BE GOVERNED BY THE CURRENT EDITION OF AISC 'MANUAL OF STEEL CONSTRUCTION'.
2. ALL WELDERS TO BE CERTIFIED. ALL WELDING TO CONFORM TO AWS D1.1 LATEST EDITION USING E70-XX ELECTRODES.
3. BOLTED CONNECTIONS TO BE DOUBLE ANGLE WITH 3/4" DIAMETER ASTM A-325 BOLTS UNLESS SHOWN OTHERWISE. USE 3/4" DIAMETER A-325 BOLTS FOR SINGLE SHEAR, WING PLATE CONNECTIONS. PROVIDE MAXIMUM NUMBER OF BOLTS IN A SINGLE LINE WITH 3" GAGE. PROVIDE WASHERS FOR ALL ANCHOR BOLTS (ASTM A-307).
4. PROVIDE AND MAINTAIN TEMPORARY BRACING OF STEEL UNTIL SECURELY INCORPORATED INTO CONSTRUCTION SUCH AS SHEAR WALLS, X-BRACING, ETC.
5. STEEL COLUMNS BUILT IN MASONRY SHALL HAVE ADJUSTABLE MASONRY WALL ANCHORS AT 2'-0" ON CENTER VERTICALLY EACH SIDE, LOCATED IN COURSING.
6. WIDE FLANGE BEAMS 12" OR DEEPER SHALL HAVE 1/4" STIFFENER PLATE EACH SIDE AT ALL POINTS OF SUPPORT INCLUDING BEARING ENDS ON CONCRETE OR MASONRY. PROVIDE 5/8" BEARING PLATES WITH (2) 3/4" ANCHOR BOLTS 12" LONG WITH 3" HOOKS UNLESS OTHERWISE INDICATED ON STRUCTURAL DWGS..
7. UNLESS NOTED OTHERWISE, FRAME AROUND ALL ROOF DECK OPENINGS LARGER THAN 12" IN DIAMETER, INCLUDING ROOF DRAINS/SUMPS, WITH 4-L's 3" x 3" x 1/4" DOWN TURNED.
8. ALL STEEL BEAMS SHALL BE FABRICATED WITH THE NATURAL CAMBER (WITHIN THE MILL TOLERANCE) LOCATED ABOVE THE HORIZONTAL CENTERLINE BETWEEN THE END CONNECTIONS.
9. STAIRS, HANDRAILS, AND GUARDRAILS SHALL BE DESIGNED BY THE STEEL SUPPLIER.
10. SUBCONTRACTOR SHALL SUBMIT FIVE SETS OF STEEL SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. SHOP DRAWINGS MUST BE SUBMITTED TO BRIOHN DESIGN GROUP A MINIMUM OF SEVEN WORKING DAYS PRIOR TO FABRICATION DATE NEEDED FOR PROJECT SCHEDULING.
11. ROOF SLOPE TO BE 1/4" PER FOOT UNLESS OTHERWISE NOTED ON CONSTRUCTION DOCUMENTS. ROOF SLOPE IS GENERALLY TO BE ACHIEVED BY SLOPING THE STRUCTURE UNLESS THICKENED OR TAPERED INSULATION IS NOTED ON THE ROOF PLAN. ROOF SLOPE MAY BE 1/8" PER FOOT IF PONDING ANALYSIS IS PERFORMED PROVING STABILITY OF THE ROOF STRUCTURE AGAINST PROGRESSIVE DEFLECTIONS. SEE ASCE 7-05 SECTIONS 7.11 & 8.4. IF DIFFERENCE IN HEIGHT BETWEEN ROOF DRAINS AND HIGH POINT IN ROOF IS GREATER THAN 6", PLUMBING CONTRACTOR TO PROVIDE OVERFLOW DRAINS @ EACH DRAINAGE FIELD ON THE ROOF.

METALS: DECK

1. DECK, ACCESSORIES, AND ATTACHMENTS SHALL CONFORM WITH THE CURRENT EDITION OF 'STEEL DECK INSTITUTE SPECIFICATIONS'.
2. PROVIDE SUPPORT AT COLUMNS AS REQUIRED FOR DECK SUPPORT. PROVIDE L2" x 2" X 3/16" MINIMUM.
3. AT OPENINGS IN DECK LESS THAN 12" x 12", PROVIDE A 16 GAUGE COVER PLATE FASTENED TO DECK WITH #12 TEK SCREWS.
4. AT CHANGE IN DECK DIRECTION, PROVIDE A 22 GAUGE x 12" CONTINUOUS PLATE. PROVIDE SAME PLATE AT ALL RIDGES, VALLEYS AND HIPS BENT TO MATCH PROFILE OF ROOF.

METALS: STEEL JOISTS & JOIST GIRDERS

1. DESIGN, FABRICATION, AND ERECTION SHALL CONFORM TO THE CURRENT EDITION OF 'STEEL JOIST INSTITUTE SPECIFICATIONS'.
2. JOIST MANUFACTURER SHALL BE A MEMBER OF THE SJI (STEEL JOIST INSTITUTE).
3. SUBCONTRACTOR SHALL SUBMIT FIVE SETS OF STEEL JOIST SHOP DRAWINGS TO BRIOHN DESIGN GROUP FOR APPROVAL PRIOR TO FABRICATION. SHOP DRAWINGS MUST BE SUBMITTED TO BRIOHN DESIGN GROUP A MINIMUM OF SEVEN WORKING DAYS PRIOR TO FABRICATION DATE NEEDED FOR PROJECT SCHEDULING.
4. PROVIDE SJI STANDARD BRIDGING AS SHOWN ON THE CONSTRUCTION DOCUMENTS OR AS REQUIRED BY DESIGN.
5. DO NOT DRILL OR CUT THROUGH ANY JOIST OR GIRDER.
6. ALL CONCENTRATED LOADS SHALL BE APPLIED AT A JOIST PANEL POINT UNLESS SPECIFICALLY NOTED OTHERWISE.
7. JOIST MANUFACTURER SHALL DESIGN JOISTS FOR ROOF TOP UNIT LOADS AND SUSPENDED UNIT OR BULKHEAD LOADS SHOWN ON CONSTRUCTION DOCUMENTS. COORDINATE EXACT LOCATION OF APPLIED LOAD WITH APPROPRIATE SUB-CONTRACTOR.
8. DESIGN JOIST, JOIST GIRDERS AND BRIDGING TO RESIST A NET UPLIFT LOAD OF 5 PSF UNLESS OTHERWISE NOTED.
9. PROVIDE CAMBER IN JOIST AS RECOMMENDED BY SJI SPECIFICATIONS UNLESS OTHERWISE NOTED ON CONSTRUCTION DOCUMENTS.
10. JOIST SUPPLIER SHALL COORDINATE WORK WITH THE STEEL SUPPLIER ON THE PROJECT.
11. DESIGN JOISTS AND JOIST GIRDERS FOR L/240 LIVE LOAD DEFLECTION UNLESS NOTED OTHERWISE.

METALS: COLD-FORMED STEEL FRAMING

1. DESIGN, FABRICATION AND ERECTION OF COLD-FORMED STEEL FRAMING SHALL BE IN ACCORDANCE WITH THE AISI DESIGN MANUAL AS AMENDED TO DATE. ALL FRAMING MEMBERS SHOWN ON PLANS ARE SCHEMATIC AND ARE SHOWN FOR INTENT ONLY. (ASSUMES THAT THE DESIGN AND CALCULATIONS ARE DONE BY THE SUPPLIER)
2. ALL LIGHT GAUGE FRAMING DESIGN & CALCULATIONS TO BE DONE BY SUPPLIER. THIS INCLUDES BEAMS, HEADERS, STUDS, COLUMNS, ETC. INCLUDING ALL CONNECTIONS TO MASONRY, CONCRETE, STEEL & OTHER LIGHT GAUGE MEMBERS.
3. STEEL STUD CURTAIN WALL AND CONNECTIONS TO BE DESIGNED BY SUPPLIER. (STEEL STUD CURTAIN WALL AND CONNECTION DESIGN SHALL BE SEALED BY PROFESSIONAL STRUCTURAL ENGINEER EXPERIENCED IN THIS WORK).

	COMPONENTS & CLADDING	
	UPLIFT.........................	PER ASCE 7
	V.................................	115 MPH
	I...................................	1.0
	GCPI...........................	0.55
LIVE LOADS:	GROUND SNOW LOAD..........	30 PSF
	IMPORTANCE FACTOR...........	1.0
	FLAT ROOF SNOW LOAD........	21 PSF
	FACTOR Ct...............................	1.0
	FACTOR Ce..............................	1.0

L/600 FOR BRICK VENEER
L/360 FOR WALL STUDS W/ATTACHED DRYWALL

4. MINIMUM DESIGN THICKNESS OF STUDS AND TRACK AT EXTERIOR OF BUILDING VERTICALLY SUPPORTING MASONRY SHALL BE 0,045 INCHES (GAGE: 18).
5. MINIMUM DESIGN THICKNESS OF STUDS AND TRACK AT EXTERIOR OF BUILDING VERTICALLY NOT SUPPORTING MASONRY SHALL BE 0,045 INCHES (GAGE: 18).
6. LOAD BEARING STUDS VERTICALLY SUPPORTING MASONRY SHALL BE DESIGNED TO CARRY ALL GRAVITY LOADS AND LATERAL FORCES INCLUDING BUT NOT LIMITED TO DEAD LOADS, LIVE LOADS, WIND LOADS, AND AXIAL LOAD ECCENTRICITIES.
7. LOAD BEARING STUDS NOT VERTICALLY SUPPORTING MASONRY SHALL BE DESIGNED TO CARRY ALL GRAVITY LOADS AND LATERAL FORCES INCLUDING BUT NOT LIMITED TO DEAD LOADS, LIVE LOADS, WIND LOADS, AND AXIAL LOAD ECCENTRICITIES.

8. NON-LOAD BEARING STUDS NOT VERTICALLY SUPPORTING MASONRY SHALL TRANSFER LATERAL LOADS TO STRUCTURE BY MEANS OF SLIDE CLIPS TO ALLOW FOR VERTICAL MOVEMENT OF PRIMARY STRUCTURAL MEMBERS.
9. SPLICES IN AXIALLY LOADED STUDS ARE NOT PERMITTED.
10. STUDS, TRACK AND ACCESSORIES SHALL BE GALVANIZED WITH A MINIMUM G-90 COATING PER ASTM A-525.
11. STUDS SHALL BE PLUMBED, ALIGNED, AND SECURELY ATTACHED TO FLANGES OR WEBS OF LOWER TRACK. STUDS SHALL BE SEATED TIGHT TO TRACK EXCEPT AS NEEDED FOR DIAGONAL BRACING OR REQUIRED FOR NON-PLUMB WALLS OR WARPED SURFACES AND SIMILAR REQUIREMENTS.
12. JOINTS SHALL BE LOCATED DIRECTLY OVER BEARING STUDS OR A LOAD DISTRIBUTION MEMBER SHALL BE PROVIDED AT THE TOP OF THE WALL.
13. REFER TO ARCHITECTURAL WALL SECTIONS AND DETAILS FOR ADDITIONAL INFO.
14. ALL MEMBERS 0,0566 INCH MINIMUM THICKNESS OR THICKER (16 GAGE OR LOWER) SHALL BE OF MINIMUM 50 KSI STEEL. ALL MEMBERS OF 0,0451 INCH MINIMUM THICKNESS OR THINNER (18 GAGE OR HIGHER) AND ALL ACCESSORIES SHALL BE OF MINIMUM 33 KSI STEEL.
15. STEEL STUD ERECTOR SHALL CONSTRUCT ALL LIGHT GAGE FRAMING IN A MANNER WHICH PROTECTS LATERAL STABILITY OF THE STRUCTURE.
16. ALL WELDS PERFORMED ON GALVANIZED LIGHT GAGE COMPONENTS SHALL BE COATED WITH ZINC RICH PAINT FOR CORROSION PROTECTION IN ACCORDANCE WITH ASTM A780. CONTRACTOR SHALL NOTIFY THE ENGINEER TO ALLOW ADEQUATE TIME FOR WELDS TO BE REVIEWED BEFORE SYSTEMS ARE ENCLOSED.
17. STEEL STUD WALLS SHALL BE DESIGNED AND CONSTRUCTED TO PROVIDE REQUIRED CAPACITIES TO CARRY CONSTRUCTION LOADS. CONTRACTOR SHALL PROVIDE NECESSARY BRIDGING OR ATTACHMENT TO WALL SHEATHING BEFORE STRUCTURAL COMPONENTS ARE LOADED.
18. INSTALL SUPPLEMENTARY FRAMING, BLOCKING AND BRACING IN METAL FRAMING SYSTEM WHENEVER WALLS OR PARTITIONS ARE INDICATED TO SUPPORT FIXTURES, EQUIPMENT, SERVICES, CASEWORK, HEAVY TRIM AND FURNISHING AND SIMILAR WORK.

WOOD AND PLASTICS

1. PROVIDE AND/OR INSTALL ALL ROUGH CARPENTRY, FINISH CARPENTRY INCLUDING MILLWORK, FINISH HARDWARE, ROUGH HARDWARE, FASTENING DEVICES AND MISCELLANEOUS ACCESSORIES AS MAY BE REQUIRED HEREIN AND/OR AS SHOWN ON THE DRAWINGS.
2. ROUGH CARPENTRY: FURNISH AND INSTALL ALL FRAMING AS MAY BE REQUIRED FOR INTERIOR PARTITION, BAFFLE, WALLS, SOFFITS, CEILINGS, STOREFRONTS, EXTERIOR WALLS, ETC. AS NOTED AND WHERE SHOWN ON THE DRAWINGS.
3. FINISH CARPENTRY: FURNISH AND INSTALL ALL THAT IS REQUIRED FOR DOORS AND FRAMES, FINISH TRIM AND MOLDING AND PANELING. PERFORM FINISH CARPENTRY WOK IN ACCORDANCE WITH AWI QUALITY STANDARDS, PREMIUM GRADE. USE FULL LENGTH PIECES, MITER ALL JOINTS, SHOULDER JOINT AT DOOR JAMBS. FILL ALL NAIL HOLES AND SAND SMOOTH.
4. PROVIDE ROUGH LUMBER AND PLYWOOD IN STANDARD DIMENSIONS. MOISTURE CONTENT NOT MORE THAN 19%.
5. PROVIDE ALL NECESSARY ROUGH HARDWARE IN SIZES AND QUANTITIES REQUIRED BY LOCAL CODE OR APPROVED BY ARCHITECT.
6. USE FINISH OR CASING NAILS FOR EXPOSED WORK. USE TYPE 'S' TRIM HEAD SCREWS FOR ATTACHMENT OF WOOD TRIM TO METAL STUDS, RUNNERS OR FURRING.
7. RELIEVE BACKS OF WOOD TRIM, KERF BACKS OF MEMBERS MORE THAN 5" WIDE AND 1" NOMINAL THICKNESS. EASE ALL EXTERNAL CORNERS.
8. INSTALL LAMINATES ONLY WHEN RECEIVING SURFACES ARE IN SATISFACTORY CONDITION FOR INSTALLATION.
9. USE ADHESIVES RECOMMENDED BY THE MANUFACTURER FOR THE PARTICULAR APPLICATION. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOST CURRENT PRINTED APPLICATION INSTRUCTIONS. USE LOWEST VOC ADHESIVES AVAILABLE WHICH MEET OR EXCEED THE MANUFACTURERS REQUIREMENTS.
10. PROTECT FROM DAMAGE BY OTHER TRADES WORKING ADJACENT TO THE INSTALLATION. REPLACE DAMAGED SURFACES.
11. REMOVE EXCESS ADHESIVE AND CLEAN SURFACES USING MANUFACTURER'S RECOMMENDED SOLVENT AND CLEANING PROCEDURES.
12. FILL IN ALL SEAMS WITH MANUFACTURER'S RECOMMENDED SOLVENT AND CLEANING PROCEDURES. USE LOWEST VOC CLEANING AGENTS AVAILABLE THAT MEET OR EXCEED THE MANUFACTURER'S REQUIREMENTS.
13. WOOD PRODUCTS SHALL MEET OR EXCEED THE AMERICAN WOODWORK INSTITUTE STANDARDS.
14. INSTALL WOODS AND PLASTICS IN CONFORMANCE WITH DETAILS AND THE FOLLOWING CONSIDERATIONS AND REQUIREMENTS:
   A. INSTALL WOODS AND PLASTICS WITH TIGHT JOINTS.
   B. MITER CASINGS AND MOLDINGS UNLESS OTHERWISE NOTED.
   C. ALL RUNNING TRIM ONE (1) PIECE UP TO 10'-0" LONG. MATCH GRAIN AND COLOR PIECE TO PIECE.
   D. USE FINISH NAILS EXCEPT WHERE ARE SPECIFICALLY CALLED FOR OR WHERE SCREWS DO NOT SHOW.
   E. SET FASTENERS FOR PUTTYING.
   F. WHERE SCREW ATTACHMENT REQUIRED, SPACE SCREWS AT EQUAL INTERVALS. SINK AND PUTTY IN FINISH WOOD SURFACES.
   G. ALL MEMBERS AND LINES LEVEL AND PLUMB.
   H. SELECT AND CUT MATERIAL TO EXCLUDE DAMAGED, MARKED OR DEFECTIVE AREAS.
   I. FINISH EXPOSED SURFACES SMOOTH, FREE FROM TOOL AND MACHINE MARKS.
   J. EASE ALL EXPOSED WOOD EDGES 1/8" MINIMUM RADIUS.
   K. INSTALL FIRE RATED DOORS IN ACCORDANCE WITH REQUIREMENTS OF NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RECOMMENDATIONS.
15. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS AND SPECIFICATIONS.

WOOD: LUMBER

1. LUMBER SHALL BE GRADED AND STAMPED WITH MINIMUM STRUCTURAL DESIGN VALUES AS LISTED BELOW:
   A. #1/#2 DOUGLAS FUR 850 PSI Fb. 95 PSI Fv. 1600 KSI E (BEAMS, JOISTS, LINTELS & HEADERS, UNLESS OTHERWISE NOTED)
   B. #1/#2 S.P.F. 875 PSI Fb. 1150 PSI Fv. 1400 KSI E (ALL STUDS & PLATES, UNLESS OTHERWISE NOTED)
   C. LVL @ 1800 KSI E OR MICRO-LAM @ 1900 KSI E 2600 PSI Fb. 285 PSI Fv (OR AS NOTED ON STRUCTURAL DRAWINGS)
   D. WOOD HEADER AND FRAMING MATERIAL SHALL BE THOROUGHLY SEASONED,
F FREE FROM WARP AND FREE OF ALL SPLITS, SHAKES AND CHECKS.
2. MISCELLANEOUS LUMBER: PROVIDE NO. 3 OR STANDARD GRADE LUMBER OF ANY SPECIES FOR SUPPORT OR ATTACHMENT OF OTHER CONSTRUCTION, INCLUDING ROOFTOP EQUIPMENT CURBS AND SUPPORT BASES, CANT STRIPS, BUCKS, NAILERS, BLOCKING AND SIMILAR MEMBERS.
3. PROTECTION AGAINST DECAY WITH PRESERVATIVE-TREATED WOOD SHALL BE REQUIRED IN THE FOLLOWING AREAS:
   A. ALL WOOD SILL PLATES, FRAMING AND FURRING STRIPS ATTACHED TO EXTERIOR BELOW GRADE MASONRY AND CONCRETE WALLS.
   B. ALL WOOD PLATES, BLOCKING, FRAMING AND FURRING STRIPS ATTACHED TO EXTERIOR, SINGLE WYTHE MASONRY WALLS.
   C. ALL WOOD CAP FLASHING BLOCKING ATTACHED TO MASONRY OR CONCRETE PARAPETS.
   D. ALL WOOD SLEEPERS AND SILL PLATES ON CONCRETE SLABS INDIRECT CONTACT WITH EARTH.
   E. ALL WOOD IN CONTACT WITH GROUND OR EXPOSED TO THE WEATHER.
4. EXCEPTION: WOOD SILL PLATES ON CONCRETE SLABS SEPARATED FROM DIRECT CONTACT TO THE EARTH WITH A 10 MIL POLYETHYLENE VAPOR BARRIER WILL NOT REQUIRE PRESERVATIVE-TREATMENT.
5. FINISHES FOR FASTENERS AND HARDWARE IN CONTACT WITH PRESERVATIVE-TREATED WOOD ARE BASED ON THE FOLLOWING ASSUMPTIONS:
   A. ALL INTERIOR TREATED WOOD SHALL USE AN ACQ-C, ACQ-D (CARBONATE), CBA-A OR CA-B TREATMENT WITH RETENTION LEVELS LESS THAN OR EQUAL TO 0.40 PCF, 0.40 PCF, 0.41 PCF AND 0.21 PCF RESPECTIVELY.
   B. ALL CONNECTION HARDWARE AND FASTENERS IN DIRECT CONTACT WITH INTERIOR TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED, MECHANICALLY GALVANIZED OR STAINLESS STEEL.
   C. ALL CONNECTION HARDWARE AND FASTENERS IN DIRECT CONTACT WITH EXPOSED EXTERIOR TREATED WOOD OR UNKNOWN TREATMENTS SHALL BE STAINLESS STEEL.
   D. USE TAPCON CLIMASEAL FASTENERS TO CONNECT ACQ-TREATED WOOD BLOCKING TO MASONRY OR CONCRETE PARAPETS.
6. SHOP DRAWINGS FOR PRESERVATIVE-TREATED WOOD, HARDWARE AND FASTENERS:
   A. THE SUBCONTRACTOR SHALL FURNISH MATERIAL CERTIFICATES FOR ALL P PRESERVATIVE TREATED WOOD TYPES, SPECIFYING THE NAME OF THE TREATING PRESERVATIVE USED, THE LEVEL OF TREATMENT (0.10, 0.25, 0.40, ETC) THE USE (ABOVE GROUND, GROUND CONTACT, ETC.) AND A REFERENCE TO THE AWPA STANDARD.
   B. THE SUBCONTRACTOR SHALL FURNISH MATERIAL, DATA SHEETS FOR HARDWARE FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD.
7. PLACE 2" THICK NOMINAL FIRE-BLOCKING IN STUD WALLS AT CEILING, SOFFIT, FLOOR LEVELS AND AT EACH 10'-0" HEIGHT OF STUD.
8. JOISTS SHALL BE BLOCKED AT SUPPORTS AND BRIDGED OR BLOCKED AT INTERVALS OF 8'-0" WHERE JOISTS ARE 2' x 12" OR DEEPER.
9. JOISTS UNDER NON-BEARING PARTITIONS SHALL BE DOUBLED AND TRIPLED FOR BEARING PARTITIONS ABOVE, UNLESS OTHERWISE NOTED.
10. COMMON NAILS SHALL BE USED, UNLESS OTHERWISE NOTED.
11. LAG BOLTS AND SCREWS SHALL BE PRE-DRILLED TO SHANK DIAMETER AND FULL DEPTH AND SCREWED, NOT DRIVEN INTO PLACE.
12. CUT WASHERS SHALL BE PLACED UNDER HEADS AND NUTS OF ALL BOLTS AND UNDER HEADS OF LAG BOLTS. ONE CUT WASHER SHALL BE USED FOR BOLTS CONNECTING WOOD LEDGERS TO CONCRETE OR MASONRY WALLS.
13. SEE LUMBER, PLYWOOD AND NAILING SPECIFICATIONS ON STRUCTURAL DRAWINGS. PROVIDE AND INSTALL ALL WOOD FRAMING AS INDICATED ON THE DRAWINGS.
14. METAL CONNECTORS AND FRAMING DEVICES SHOWN ON DRAWINGS OTHER THAN CUSTOM FABRICATED ITEMS SHALL BE "STRONG-TIE" CONNECTORS BY SIMPSON COMPANY.

THERMAL AND MOISTURE PROTECTION

1. CAULK AROUND ALL WINDOWS (HEAD AND JAMB), DOORS, VENT, OPENINGS, WHERE DIFFERENT MATERIALS MEET, ROOF OPENINGS, EAVES, SOFFITS, JOINTS, COUNTERTOPS, DOOR FRAMES, ETC. AS REQUIRED FOR WATERTIGHT AND AIRTIGHT CONNECTION. PROVIDE CAULK PER MANUFACTURERS RECOMMENDATIONS. CAULK TO BE 'TREMCO DYMERIC 240 FC' FOR FOOD PROCESSING FACULTIES OR FOOD PRE/FOOD STORAGE AREAS. CAULK TO BE INSTALLED AFTER FINISH IS APPLIED TO SURFACES PER MANUFACTURE'S RECOMMENDATIONS.
2. PROVIDE NON-SAG SEALANT COMPLYING WITH REQUIREMENTS OF FEDERAL SPECIFICATIONS TTS-1543 OR FS TT-S-230 TYPE "II", CLASS "A". PROVIDE ACOUSTICAL SEALANT WHICH SHALL BE NON-HARDENING, NONDRYING SYNTHETIC RUBBER SEALING COMPOUND WITH MINIMUM 90% SOLIDS. USE AT ALL INTERIOR JOINTS AT INTERSECTIONS BETWEEN PLANES. AROUND DOOR AND WINDOW FRAMES PRIMER SHALL BE MADE OR RECOMMENDED B SEALANT MANUFACTURER FOR THE SPECIFIC CONDITIONS AND SUBSTRATES. USE LOWEST VOC SEALANTS AND CAULKING AVAILABLE WHICH MEET OR EXCEED THE CODE AND MANUFACTURES REQUIREMENTS.
3. PROVIDE BACKING MATERIAL BY DOW 'ETHAFOAM' OR APPROVED EQUAL. APPLY SEALANT OVER BACKING TO UNIFORM THICKNESS IN CONTINUOUS BEADS FILLING ALL JOINTS AND VOIDS, SOLID. SUPERFICIAL POINTING WITH SKIM BEAD WILL NOT BE ACCEPTED.
4. ALL SURFACES SHALL BE ADEQUATELY CLEANED AND PREPARED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS PRIOR TO INSTALLATION. USE LOWEST VOC CLEANING AGENTS AVAILABLE THAT MEET OR EXCEED THE MANUFACTURER'S REQUIREMENTS.
5. ISOLATION AND CONTROL JOINT MATERIAL TO BE POLYETHYLENE FOAM EXPANSION ISOLATION JOINT FILLER OF 1/2" THICKNESS UNLESS OTHERWISE INDICATED. THE MINIMUM DEPTH OF ISOLATION JOINT MATERIAL TO BE EQUAL TO THE SMALL OF THE CONCRETE SLAB THICKNESS WITH WHICH IT COMES IN CONTACT.
6. WIND RESISTANCE OF EDGE FLASHING SHALL MEET OR EXCEED THE MINIMUM STANDARDS PER THE CODE AND SATISFY THE ANSI AND SPRI REFERENCED STANDARDS INCLUDING TESTING.
7. REFER TO ROOF PLAN FOR ADDITIONAL REQUIREMENTS AND SPECIFICATIONS FOR ROOFING MATERIALS AS THEY PERTAIN TO THERMAL AND MOISTURE PROTECTION.

DOORS AND WINDOWS

1. PROVIDE PRIMED HOLLOW METAL GALVANIZED FRAMES FOR EXTERIOR DOOR FRAMES. PROVIDE PRIMED HOLLOW METAL FRAMES FOR INTERIOR DOORS. WHERE WEATHERSTRIPPING IS IDENTIFIED ON THE DOOR SCHEDULE PROVIDE 'CURRISEAL' TYPE WEATHER STRIPPING FOR EXTERIOR AND INTERIOR APPLICATIONS.
2. PROVIDE HOLLOW METAL EXIT DOOR CONSTRUCTED WITH THE FOLLOWING MATERIALS:
   A. MINIMUM 18 GA. FOR FACE SHEETS OF INTERIOR DOORS.
   B. 16 GA. FOR EDGE CHANNELS.
   C. MINIMUM 22 GA. FOR FACE STIFFENERS.
   D. MINIMUM 16 GA. FOR INTERIOR FRAMES.
3. PROVIDE DOORS OF SIZES AND TYPES INDICATED ON DRAWINGS, FULLY WELDED SEAMLESS CONSTRUCTION WITH NO VISIBLE SEAMS OR JOINTS ON FACES OR VERTICAL EDGES. THICKNESS AS SCHEDULED ON DRAWINGS.
4. FACE STIFFENERS, EDGES AND HARDWARE REINFORCEMENT SHALL BE THE HIGHEST QUALITY WORKMANSHIP AND MATERIALS. PROVIDE IN ACCORDANCE WITH BEST TRADE PRACTICE AND MANUFACTURER'S WRITTEN REQUIREMENTS AND RECOMMENDATIONS FOR THE USE INTENDED.
5. PROVIDE CUSTOM MADE WELDED UNITS WITH INTEGRAL TRIM. SIZES AND SHAPES AS INDICATED ON DRAWINGS. FABRICATE UNITS SQUARE, TRUE AND FREE FROM DEFECTS.
6. HARDWARE REINFORCEMENT AND ANCHORS (ERECTION, FLOOR, AND JAMBS) SHALL BE AS REQUIRED FOR A SECURE INSTALLATION AND SHALL BE IN ACCORDANCE WITH TRADE REQUIREMENTS FOR THE SPECIFIED HARDWARE AND INTENDED USE.
7. INSTALL FRAMES IN ACCURATE LOCATIONS AS INDICATED ON DRAWINGS. INSTALL RIGID, PLUMB, LEVEL AND TRUE. ALIGN WITH ADJACENT CONSTRUCTION. SECURE FLOOR ANCHORS TO FLOOR CONSTRUCTION WITH APPROVED TYPE MECHANICAL FASTENINGS. ANCHOR TO ADJOINING WALLS WITH SPECIFIED ANCHORS. BRACE FRAMES TO RETAIN POSITION AND CONTINUOUSLY CHECK ALIGNMENT DURING CONSTRUCTION OF ADJACENT WALLS. ADJUST FRAME LOCATIONS AS NECESSARY USING SHIMS BEFORE FASTENING. LEAVE READY TO RECEIVE SEALANT WHERE INDICATED ON DRAWINGS. ADJUST AND CHECK OPERATION OF EVERY UNIT. REPAIR OR REPLACE UNITS WHICH CANNOT BE ADJUSTED TO OPERATE FREELY AND SMOOTHLY.
8. INSTALL WOOD DOORS, FRAMES AND TRIM. SIZES AND THICKNESS AS SCHEDULED ON DRAWINGS.
9. HANG DOORS AS SCHEDULED ON DRAWINGS, IN ACCURATE LOCATIONS WITH 1/8" CLEARANCE AT THE TOPS AND 3/8" CLEARANCE AT BOTTOM, UNLESS SPECIFICALLY NOTED FOR 'UNDERCUTS' OR OTHER DEVIATIONS IN FIT. MAKE NO JOB SITE FIT IN CUTS UNLESS APPROVED. HANG PAIRS OF DOORS AS SPECIFIED WITH 3/32" CLEARANCE AT MEETING EDGES. DEMONSTRATE THAT DOORS OPEN FREELY WITHOUT BINDING, AND WHEN CLOSED, WILL LATCH PROPERLY.
10. PROVIDE ACCESS DOORS AS REQUIRED FOR SPECIFIED RATING. SIZE AS INDICATED.
11. PROVIDE ALL DOORS PER DOOR AND FRAME AND HARDWARE SCHEDULES. INSTALLATION TO COMPLY WITH MANUFACTURER'S INSTRUCTIONS.
12. PROVIDE ALL HARDWARE WITH ALL NECESSARY SCREWS AND OTHER FASTENERS OF SUITABLE SIZE AND TYPE TO ANCHOR THE HARDWARE IN POSITION FOR LONG LIFE UNDER HARD USE. FURNISH ITEMS COMPLETE WITH EXPANSION SHIELDS, TOGGLE BOLTS AND OTHER ANCHORS IN ACCORDANCE WITH THE MATERIAL TO WHICH THE HARDWARE IS TO BE APPLIED TO AND THE RECOMMENDATIONS OF THE HARDWARE MANUFACTURER. FASTENER FINISH SHALL HARMONIZE WITH THE HARDWARE MATERIAL.
13. COORDINATE WITH OTHER TRADES TO ASSURE PROPER AND ADEQUATE PROVISION IN THE WORK OF THOSE TRADES FOR INTERFACE WITH THE WORK OF THIS SECTION.

FINISHES

1. GENERAL FINISH REQUIREMENTS:
   A. PROVIDE AND INSTALL ALL FINISHES AS INDICATED ON PLANS.
   B. INSTALL ALL MATERIALS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
   C. 'FINISH' INSTALLER INSPECT SUBSURFACE AND PREPARE AS PER REQUIREMENTS, RECOMMENDATIONS, AND SPECIFICATIONS PRIOR TO OF PRODUCT.
   D. ALL FINISHES TO MEET ALL CODE REQUIREMENTS AND REGULATIONS FLAME SPREAD AND SMOKE DEVELOPMENT.

SPECIALTIES

1. NOT USED.

EQUIPMENT

1. NOT USED.

FURNISHINGS

1. NOT USED.

SPECIAL CONSTRUCTION

1. NOT USED.

CONVEYING SYSTEMS

1. NOT USED.

MECHANICAL

1. NOT USED.

ELECTRICAL

1. NOT USED.

BRIOHN
DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
SPECIFICATIONS

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision
Date

JOB: 230119
DRAWN: Author
CHECKED: Checker
DATE: 03-05-2024
SHEET:
GS0.3

DIGGERS HOTLINE
Call 811 or (800) 242-8511
Milwaukee Area (262) 432-7910
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

WETLANDS PER DELINEATION BY HEATHER PATTI RA SMITH NATIONAL AUGUST 4, 2014

S87°34'14"W 669.34'

WETLAND

35' DRAINAGE EASEMENT

NORTHWEST BIO-RETENTION BASIN HWL=866.95

88.0'

32.1'

50.0'

PROTECT EXT. HYDRANT

PROTECT EXT. STO BASIN CLN OUT

5'x5' CONC. STOOP (TYP.) SEE ARCHITECTURAL PLAN

25.8'

25' WETLAND SETBACK

STANDARD DUTY ASPHALT

26'

262.7'

93.8'

32.0'

PROTECT EXT. HYDRANT

PROTECT EXT. POND OUTLET STAND PIPE

R30'

R3'

181.3'

BOLLARDS

CONC.

RAILING SEE ARCH. PLAN

53'

77.3'

CONC. SLOPE

HEAVY DUTY ASPHALT

CONCRETE

108'

SAW CUT

BUILDING ADDITION
FFE=873.25
MATCH EXISTING FFE
CONTRACTOR TO FIELD VERIFY

REMOVE 10,400± SF ASPHALT, REUSE STONE BASE IF IN FAIR CONDITION

HEAVY DUTY ASPHALT PAVEMENT

END OF CURB

REMOVE 76± LF CURB AND GUTTER

CONC. SLOPE

181.3'

N01°41'01"W 465.01'

WEST BIO-RETENTION BASIN HWL=870.47

RET. WALL

DUMPSTER ENCLOSURE

36" RCP I.E. = 862.96

36" RCP I.E. = 862.99

CONC. RAIL

42.5'

53.0'

CONCRETE PATIO

EXISTING BUILDING
FIRST FLOOR ELEV. 873.25

LOT 1
CSM NO. 11514
372,474 SF
8.551 AC

S.T.H. "16"
(PUBLIC RIGHT OF WAY - WIDTH VARIES)

S00°25'09"E 609.36'

25' WETLAND & SETBACK

WETLANDS PER DELINEATION BY ERIC PARKER HEARTLAND ECOLOGICAL GROUP INC. JULY 22, 2020

ASPHALT EDGE

HC RAMP

HC SIGN (TYP.)

RAISED WALK

F.D.C.

HIGH-SIDE CURB & GUTTER

LOW-SIDE CURB & GUTTER

STANDARD DUTY ASPHALT PAVEMENT

3' WIDE CURB CUT

SOUTHWEST BIO-RETENTION BASIN HWL=869.77

50' HWY SETBACK

40' WETLAND SETBACK

40' SETBACK

20' SETBACK

WETLAND

WETLANDS PER DELINEATION BY ERIC PARKER HEARTLAND ECOLOGICAL GROUP INC. JULY 22, 2020

N87°47'57"E 265.90'

N00°19'08"W 83.30'

N88°02'17"E 350.07'

N47°37'13"E 85.17'

LOT 1
CSM NO. 12102
TAX KEY: PWC 0949 989 003
OWNER: WRP PEWAUKEE LLC

LOT 2
CSM NO. 11514
TAX KEY: PWC 0948 985 002
OWNER: PEWAUKEE 16-94 LLC

UNPLATTED LANDS
TAX KEY: PWC 0949 990
OWNER: CYRUS AND DORENE PERKINS

WETLANDS PER DELINEATION BY HEATHER PATTI RA SMITH NATIONAL AUGUST 4, 2014

UTILITY EASEMENT FOR THE BENEFIT OF LOT 1

HC SIGN (TYP.)

HIGH-SIDE CURB & GUTTER

DUMPSTER ENCLOSURE

RET. WALL

EDGE OF ASPHALT

CONCRETE LOADING DOCK

SLOPED PAVEMENT

LOT 2
CSM NO. 11514
TAX KEY: PWC 0948 985 002
OWNER: PEWAUKEE 16-94 LLC

HEAVY DUTY ASPHALT PAVEMENT

20' SETBACK

40' SETBACK

END OF CURB

SOUTH DRY BASIN HWL=870.93

LIGHT POLE (TYPICAL)

60' ACCESS AND UTILITY EASEMENT PER DOC. #1264540

PROPOSED FIRE HYDRANT (TYPICAL)

ASP

EDGE OF ASPHALT

SITE DATA TABLE

LOT AREA	372,474 SF (8.55 AC)
EXIST IMPERVIOUS AREA	147,977 SF (3.40 AC)
BUILDING	75,647 SF
PAVEMENT	72,330 SF
EXIST PERVIOUS AREA	224,497 SF (13.49 AC)
"GREEN" SPACE	60.3% > 40%
WETLAND AREA	27,755 SF
% OF "GREEN" SPACE	12.4% < 20%
PROPOSED IMPERVIOUS AREA	222,981 SF (3.40 AC)
BUILDING	135,579 SF
PAVEMENT	87,402 SF
PROPOSED PERVIOUS AREA	149,493 SF (13.49 AC)
"GREEN" SPACE	40.1% > 40%
WETLAND AREA	27,755 SF
% OF "GREEN" SPACE	18.6% < 20%
EXIST/PROPOSED CAR PARKING STALLS:	88
STANDARD STALLS	84
ADA ACCESSIBLE STALLS	4

THE PROPERTY IS ZONED M-6, MIXED INDUSTRIAL USE DISTRICT, PER THE CITY OF PEWAUKEE, AND HAS THE FOLLOWING SETBACKS AND RESTRICTIONS:

BUILDING SETBACKS/RESTRICTIONS:

FRONT/STREET YARD SETBACK: 50'
SIDE/REAR YARD SETBACK: 40'
WETLAND SETBACK: 25'
BUILDING MAX. HEIGHT: 30' (PRINCIPAL STRUCTURE)

PARKING SETBACKS/RESTRICTIONS:
FRONT/STREET YARD SETBACK: 30'
SIDE/REAR SETBACK: 20'
WETLAND SETBACK: 25'

PAVEMENT THICKNESS NOTES

ALL PAVING SHALL CONFORM TO "STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION – CURRENT EDITION AND ADDENDUM, APPLICABLE CITY OF PEWAUKEE ORDINANCES

MINIMUM PAVEMENT STRUCTURE

CONCRETE PAVEMENT (TRUCK DOCK, APRON ENT.)
8" CONCRETE
6" CRUSHED AGGREGATE BASE COURSE
CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

CONCRETE STOOPS
5" CONCRETE
4" CRUSHED AGGREGATE BASE COURSE
CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

STANDARD DUTY ASPHALT PAVEMENT
3-1/2" ASPHALTIC CONCRETE (2 LIFTS)
1-1/2" SURFACE LAYER
2" BINDER LAYER
8" CRUSHED AGGREGATE BASE COURSE
CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

HEAVY DUTY ASPHALT PAVEMENT
4" ASPHALTIC CONCRETE (2 LIFTS)
1-3/4" SURFACE LAYER
2-1/4" BINDER LAYER
10" CRUSHED AGGREGATE BASE COURSE
CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

SHEET INDEX

RIZAL W. ISKANDARSJACH E-41735 MILWAUKEE, WI PROFESSIONAL ENGINEER WISCONSIN
3/5/24

north
SCALE IN FEET
30' 0 30'

BRIOHN DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
SITE DIMENSION AND PAVEMENT ID PLAN

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND RD.
CITY OF PEWAUKEE, WISCONSIN

Revision

Date

JOB: 230119
DRAWN: RWI
CHECKED: RWI
DATE: 03-05-2024
SHEET: C1.0

DIGGERS HOTLINE
Call 811 or (800) 242-8511
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BUILDING ADDITION
FFE=873.25
MATCH EXISTING FFE
CONTRACTOR TO FIELD VERIFY

EXISTING BUILDING
FIRST FLOOR ELEV. 873.25

LOT 1
CSM NO. 11514
372,474 SF
8.551 AC

WETLANDS PER DELINEATION BY HEATHER PATTI RA SMITH NATIONAL AUGUST 4, 2014

WETLANDS PER DELINEATION BY ERIC PARKER HEARTLAND ECOLOGICAL GROUP INC. JULY 22, 2020

S87°34'14"W 669.34'

N01°41'01"W 465.01'

N47°37'13"E 85.17'

N88°02'17"E 350.07'

N00°19'09"W 93.30'

N87°47'57"E 265.90'

S.T.H. "16"
(PUBLIC RIGHT OF WAY - 80' WIDE)

S00°25'09"E 609.36'

NORTHWEST BIO-RETENTION BASIN HWL=866.95

SOUTHWEST BIO-RETENTION BASIN HWL=869.77

WEST BIO-RETENTION BASIN HWL=870.47

SOUTH DRY BASIN HWL=870.93

SILT FENCE (TYP)

EROSION MATTING (TYP)

SAW CUT

SPILLWAY EL. 872.00

SPILLWAY EL. 872.0

SPILLWAY EL. 871.0

35' DRAINAGE EASEMENT

60' ACCESS AND UTILITY EASEMENT PER DOC. #2243540

UTILITY EASEMENT FOR THE BENEFIT OF LOT 1

UNPLATTED LANDS
TAX KEY: PWC 0945 990
OWNER: CYRUS AND DORENE PERKINS

LOT 2
CSM NO. 11514
TAX KEY: PWC 0948 985 002
OWNER: PEWAUKEE 16-94 LLC

LOT 1
CSM NO. 12102
TAX KEY: PWC 0945 989 003
OWNER: WRP PEWAUKEE LLC

WETLAND

125' WETLAND SETBACK

50' HWY SETBACK

40' SETBACK

20' SETBACK

20' SETBACK

F.D.C.

HC RAMP

HC SIGN (TYP.)

RAISED WALK

3' CURB CUT (TYP.)

STANDARD DUTY ASPHALT PAVEMENT

HEAVY DUTY ASPHALT PAVEMENT

CONCRETE PATIO

CONCRETE LOADING DOCK

DUMPSTER ENCLOSURE

PROVIDE BLEEDER IN RETAINING WALL FOR DRAINAGE OF TRASH ENCLOSURE

PROVIDE BLEEDER IN RETAINING WALL FOR DRAINAGE INV. EL. 870.80

TRENCH DRAIN RIM 869.05

TRENCH DRAIN RIM 872.10

SLOPED PAVEMENT

EDGE OF ASPHALT

HIGH-SIDE CURB & GUTTER

LOW-SIDE CURB & GUTTER

END OF CURB

LIGHT POLE (TYPICAL)

PROPOSED FIRE HYDRANT (TYPICAL)

MANHOLE RIM 871.85

24" STANDPIPE RIM 872.0

RET. WALL

GRADE BREAK

SETBACK

862.64 (EXST.)

862.96 (EXST.)

36" RCP I.E. = 862.99

north
SCALE IN FEET
30' 0 30'

BRIOHN DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
GRADING AND EROSION CONTROL PLAN

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND RD.
CITY OF PEWAUKEE, WISCONSIN

Revision

Date

JOB:	230119
DRAWN:	RWI
CHECKED:	RWI
DATE:	03-05-2024

SHEET:
C2.0

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S87°34'14"W 669.34'

WETLANDS PER DELINEATION BY HEATHER PATTI RA SMITH NATIONAL AUGUST 4, 2014

WETLAND

35' DRAINAGE EASEMENT

NORTHWEST BIO-RETENTION BASIN HWL=866.95

25' WETLAND SETBACK

ADJUST EX. VALVE COVER GRADE

ADJUST EX. CLN OUT RIM GRADE

BUILDING ADDITION
FFE=873.25
MATCH EXISTING FFE
CONTRACTOR TO FIELD VERIFY

CONNECT TRENCH DRAIN TO INTERNAL BUILDING SUMP PUMP SEE BUILDING PLUMBING PLAN

RD-102
BUILDING DRAIN
869.72 18"E

116.5 LF-18" HDPE S=0.0052'

3.523 GPM

MH-101
RIM=871.85
869.11 18"W
869.11 18"E

ES-100
IE=869.00
W/ RIP RAP

22.0 LF-18" HDPE S=0.0052'

4.0%

EX. 8" SAN LINE IE=863.3±

EX. 18" STO LINE IE=869.8±

DUMPSTER ENCLOSURE

RET. WALL

CONCRETE PATIO

EXISTING BUILDING
FIRST FLOOR ELEV. 873.25

LOT 1
CSM NO. 11514
372,474 SF
8.551 AC

S.T.H. "16"
(PUBLIC RIGHT OF WAY - WIDTH VARIES)

S00°25'09"E 609.36'

36" RCP
I.E. = 862.99

36" RCP
I.E. = 862.96

CONC. PAD

ASPHALT EDGE

25' WETLAND SETBACK

WETLANDS PER DELINEATION BY ERIC PARKER HEARTLAND ECOLOGICAL GROUP INC. JULY 22, 2020

HC RAMP

HC SIGN (TYP.)

RAISED WALK

F.D.C.

HIGH-SIDE CURB & GUTTER

STANDARD DUTY ASPHALT PAVEMENT

LOW-SIDE CURB & GUTTER

3' WIDE CURB CUT

LIGHT POLE (TYPICAL)

END OF CURB
SOUTH DRY BASIN
HWL=870.93

SOUTHWEST BIO-RETENTION BASIN
HWL=869.77

50' HWY SETBACK

40' SETBACK

20' SETBACK

50' WETLAND SETBACK

WETLANDS PER DELINEATION BY ERIC PARKER HEARTLAND ECOLOGICAL GROUP INC. JULY 22, 2020

N87°47'57"E 265.90'

N00°19'09"W 93.30'

N88°02'17"E 350.07'

N47°37'13"E 85.17'

60' ACCESS AND UTILITY EASEMENT PER DOC. #2043540

LOT 2
CSM NO. 11514
TAX KEY:PWC 0948 985 002
OWNER: PEWAUKEE 16-94 LLC

LOT 1
CSM NO. 12102
TAX KEY:PWC 0949 989 003
OWNER: WRP PEWAUKEE LLC

UNPLATTED LANDS
TAX KEY:PWC 0949 990
OWNER: CYRUS AND DORENE PERKINS

WETLANDS PER DELINEATION BY HEATHER PATTI RA SMITH NATIONAL AUGUST 4, 2014

UTILITY EASEMENT FOR THE BENEFIT OF LOT 1

N01°41'01"W 465.01'

WEST BIO-RETENTION BASIN
HWL=870.47

MATCH 872.08

MATCH 871.50

MATCH 872.30

20' SETBACK

40' SETBACK

HEAVY DUTY ASPHALT PAVEMENT

EDGE OF ASPHALT

CONCRETE LOADING DOCK

HC SIGN (TYP.)

HIGH-SIDE CURB & GUTTER

DUMPSTER ENCLOSURE

RET. WALL

SLOPED PAVEMENT

LOT 2
CSM NO. 11514
TAX KEY:PWC 0948 985 002
OWNER: PEWAUKEE 16-94 LLC

PROPOSED FIRE HYDRANT (TYPICAL)

ASP

EDGE OF ASPHALT

north
SCALE IN FEET
30' 0 30'

BRIOHN DESIGN GROUP
3885 N.BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
SITE UTILITY PLAN

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND RD.
CITY OF PEWAUKEE, WISCONSIN

Revision

Date

JOB:	230119
DRAWN:	RWI
CHECKED:	RWI
DATE:	03-05-2024
SHEET:	C3.0

GENERAL NOTES AND SPECIFICATIONS

1. THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO SET FORTH PERFORMANCE AND CONSTRUCTION MATERIAL STANDARDS FOR THE PROPER EXECUTION OF WORK. ALL WORKS CONTAINED WITHIN THE PLANS AND SPECIFICATIONS SHALL BE COMPLETED IN ACCORDANCE WITH ALL REQUIREMENTS FROM LOCAL, STATE, FEDERAL OR OTHER GOVERNING AGENCY'S LAWS, REGULATIONS, JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., AND THE OWNER'S DIRECTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ANY ADDITIONAL SOILS INVESTIGATIONS THEY FEEL IS NECESSARY FOR THE PROPER EVALUATION OF THE SITE FOR PURPOSES OF PLANNING, BIDDING, OR CONSTRUCTING THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND UNDERSTAND ALL COMPONENTS OF THE PLANS AND SPECIFICATIONS, INCLUDING FIELD VERIFYING SOIL CONDITIONS, PRIOR TO SUBMISSION OF A BID PROPOSAL.
4. THE CONTRACTOR SHALL PROMPTLY REPORT ANY ERRORS OR AMBIGUITIES DISCOVERED AS PART OF THEIR REVIEW OF PLANS, SPECIFICATIONS, REPORTS AND FIELD INVESTIGATIONS.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COMPUTATION OF QUANTITIES AND WORK REQUIRED TO COMPLETE THIS PROJECT. THE CONTRACTOR'S BID SHALL BE BASED ON THEIR OWN COMPUTATIONS AND UNDER NO CIRCUMSTANCES BE BASED ON THE ENGINEER'S ESTIMATE.
6. QUESTIONS/CLARIFICATIONS WILL BE INTERPRETED BY ENGINEER/OWNER PRIOR TO THE AWARD OF CONTRACT. ENGINEER/OWNER WILL SUBMIT OFFICIAL RESPONSES IN WRITING. INTERPRETATIONS PRESENTED IN OFFICIAL RESPONSES SHALL BE BINDING ON ALL PARTIES ASSOCIATED WITH THE CONTRACT. IN NO WAY SHALL WORD-OF-MOUTH DIALOG CONSTITUTE AN OFFICIAL RESPONSE.
7. PRIOR TO START OF WORK, CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH ALL CONDITIONS OF THE SITE, AND SHALL ACCOUNT FOR CONDITIONS THAT AFFECT, OR MAY AFFECT CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LIMITATIONS OF WORK ACCESS, SPACE LIMITATIONS, OVERHEAD OBSTRUCTIONS, TRAFFIC PATTERNS, LOCAL REQUIREMENTS, ADJACENT ACTIVITIES, ETC. FAILURE TO CONSIDER SITE CONDITIONS SHALL NOT BE CAUSE FOR CLAIM OF JOB EXTRAS.
8. COMMENCEMENT OF CONSTRUCTION SHALL EXPLICITLY CONFIRM THAT THE CONTRACTOR HAS REVIEWED THE PLANS AND SPECIFICATIONS IN THEIR ENTIRETY AND CERTIFIES THAT THEIR SUBMITTED BID PROPOSAL CONTAINS PROVISIONS TO COMPLETE THE PROJECT, WITH THE EXCEPTION OF UNFORESEEN FIELD CONDITIONS; ALL APPLICABLE PERMITS HAVE BEEN OBTAINED; AND CONTRACTOR UNDERSTANDS ALL OF THE REQUIREMENTS OF THE PROJECT.
9. SHOULD ANY DISCREPANCIES OR CONFLICTS IN THE PLANS OR SPECIFICATIONS BE DISCOVERED AFTER THE AWARD OF CONTRACT, ENGINEER SHALL BE NOTIFIED IN WRITING IMMEDIATELY AND CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES/CONFLICTS SHALL NOT COMMENCE, OR CONTINUE, UNTIL A WRITTEN RESPONSE FROM ENGINEER/OWNER IS DISTRIBUTED. IN THE EVENT OF A CONFLICT BETWEEN REFERENCED CODES, STANDARDS, SPECIFICATIONS AND PLANS, THE ONE ESTABLISHING THE MOST STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
10. THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, OBTAIN ALL NECESSARY PERMITS AND LICENSES TO COMPLETE THE PROJECT. OBTAINING PERMITS, OR DELAYS IN OBTAINING PERMITS, IS NOT CAUSE FOR DELAY OF THE CONTRACT OR SCHEDULE. CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS.
11. THE CONTRACTOR SHALL NOTIFY ALL INTERESTED GOVERNING AGENCIES, UTILITY COMPANIES AFFECTED BY THIS CONSTRUCTION PROJECT, AND "DIGGER'S HOTLINE" IN ADVANCE OF CONSTRUCTION TO COMPLY WITH ALL JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., PERMIT STIPULATIONS, AND OTHER APPLICABLE STANDARDS. CONTRACTOR IS RESPONSIBLE TO DETERMINE WHICH ORDINANCES/CODES/RULES/ETC. ARE APPLICABLE.
12. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO INITIATE, INSTITUTE, ENFORCE, MAINTAIN, AND SUPERVISE ALL SAFETY PRECAUTIONS AND JOB SITE SAFETY PROGRAMS IN CONNECTION WITH THE WORK.
13. CONTRACTOR SHALL KEEP THE JOBSITE CLEAN AND ORDERLY AT ALL TIMES. ALL LOCATIONS OF THE SITE SHALL BE KEPT IN A WORKING MANNER SUCH THAT DEBRIS IS REMOVED CONTINUOUSLY AND ALL RESPECTIVE CONTRACTORS OPERATE UNDER GENERAL "GOOD HOUSEKEEPING."
14. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, JSD, AND THEIR AGENTS FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.
15. ALL FIELD/DRAIN TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE IMMEDIATELY REPORTED TO ENGINEER/OWNER. TILES ORIGINATING OUTSIDE THE PROJECT LIMITS SHALL BE RECONNECTED OR REROUTED TO MAINTAIN DRAINAGE. ENGINEER/OWNER SHALL DETERMINE THE MOST FAVORABLE METHOD OF RE-ESTABLISHMENT OF OFFSITE DRAINAGE. IF TILE IS ENCOUNTERED DURING TRENCH EXCAVATIONS, RE-ESTABLISHING TILE FUNCTIONALITY SHALL BE CONSIDERED AN INCIDENTAL EXPENSE.

PAVING NOTES

1. ALL PAVING SHALL CONFORM TO "STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION AND APPLICABLE CITY OF PEWAUKEE ORDINANCES.
2. CONCRETE PAVING SPECIFICATIONS–

   CODES AND STANDARDS – THE PLACING, CONSTRUCTION AND COMPOSITION OF THE CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 415 AND 416 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, CURRENT EDITION. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.

   CRUSHED AGGREGATE BASE COURSE – THE BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS. CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

   SURFACE PREPARATION – NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
3. ASPHALTIC CONCRETE PAVING SPECIFICATIONS–

   CODES AND STANDARDS – THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BASE COURSE AND ASPHALTIC CONCRETE SURFACING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460 AND 465 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, EDITION OF 2005. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.

   WEATHER LIMITATIONS – APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50° F (10° C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35° F (1° C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS AMOUNTS OF MOISTURE. CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40° F (4° C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30° F (–1° C).

   GRADE CONTROL – ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.

   CRUSHED AGGREGATE BASE COURSE – THE TOP LAYER OF BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS. CLEAN RECYCLED CRUSHED CONCRETE MAY BE USED IF APPROVED BY GEOTECH ENGINEER OF RECORD.

   BINDER COURSE AGGREGATE – THE AGGREGATE FOR THE BINDER COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 315, STATE HIGHWAY SPECIFICATIONS.

   SURFACE COURSE AGGREGATE – THE AGGREGATE FOR THE SURFACE COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 465, STATE HIGHWAY SPECIFICATIONS.

   ASPHALTIC MATERIALS – THE ASPHALTIC MATERIALS SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.

   SURFACE PREPARATION – NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.

PAVEMENT STRIPING NOTES

1. CONTRACTOR SHALL CONSULT STRIPING COLOR WITH OWNER PRIOR TO CONSTRUCTION.
2. PROVIDE CONTRACTOR GRADE ACRYLIC, STRIPING PAINT FOR NEW ASPHALT OR COATED ASPHALT. ALL STRIPING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. THOROUGHLY CLEAN SURFACES FREE OF DIRT, SAND, GRAVEL, OIL AND OTHER FOREIGN MATTER. CONTRACTOR RESPONSIBLE TO INSPECT PAVEMENT SURFACES FOR CONDITIONS AND DEFECTS THAT WILL ADVERSELY AFFECT QUALITY OF WORK, AND WHICH CANNOT BE PUT INTO AN ACCEPTABLE CONDITION THROUGH NORMAL PREPARATORY WORK AS SPECIFIED.
4. DO NOT PLACE MARKING OVER UNSOUND PAVEMENTS. IF THESE CONDITIONS EXIST, NOTIFY OWNER. STARTING INSTALLATION CONSTITUTES CONTRACTOR'S ACCEPTANCE OF SURFACE AS SUITABLE FOR INSTALLATION.
5. LAYOUT MARKINGS USING GUIDE LINES, TEMPLATES AND FORMS. STENCILS AND TEMPLATES SHALL BE PROFESSIONALLY MADE TO INDUSTRY STANDARDS. "FREE HAND" PAINTING OF ARROWS, SYMBOLS, OR WORDING SHALL NOT BE ALLOWED. APPLY STRIPES STRAIGHT AND EVEN.
6. PROTECT ADJACENT CURBS, WALKS, FENCES, AND OTHER ITEMS FROM RECEIVING PAINT.
7. APPLY MARKING PAINT AT A RATE OF ONE (1) GALLON PER THREE TO FOUR HUNDRED (300–400) LINEAL FEET OF FOUR (4) INCH WIDE STRIPES. (OR TO MFG. SPECIFICATIONS)
8. BARRICADE MARKED AREAS DURING INSTALLATION AND UNTIL THE MARKING PAINT IS DRIED AND READY FOR TRAFFIC.
9. ALL HANDICAPPED ACCESSIBLE PARKING SHALL BE LOCATED PER 2009 IBC 1106.6

GRADING NOTES

1. CONTRACTOR SHALL VERIFY ALL GRADES, ENSURE ALL AREAS DRAIN PROPERLY AND REPORT ANY DISCREPANCIES TO JSD PROFESSIONAL SERVICES, INC. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
2. ALL EXISTING CONTOURS REPRESENT EXISTING SURFACE GRADES UNLESS OTHERWISE NOTED. ALL PROPOSED GRADES SHOWN ARE FINISH SURFACE GRADES UNLESS OTHERWISE NOTED.
3. ALL EXCAVATIONS AND MATERIAL PLACEMENT SHALL BE COMPLETED TO DESIGN ELEVATIONS AS DEPICTED IN THE PLANS.
   - CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATION(S) OF ALL GRADING QUANTITIES. WHILE JSD ATTEMPTS TO PROVIDE A COST EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARD OF CARE, THEREFORE NO GUARANTEE CAN BE MADE FOR A BALANCED SITE.
   - THE CONTRACTOR MAY SOLICIT APPROVAL FROM ENGINEER/OWNER TO ADJUST FINAL GRADES FROM DESIGN GRADES TO PROVIDE AN OVERALL SITE BALANCE AS A RESULT OF FIELD CONDITIONS.
4. GRADING ACTIVITIES SHALL BE IN A MANNER TO ALLOW POSITIVE DRAINAGE ACROSS DISTURBED SOILS, WHICH MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES TO PREVENT PONDING, AND IF NECESSARY PUMPING TO ALLEVIATE PONDING. CONTRACTOR SHALL PREVENT SURFACE WATER FROM ENTERING INTO EXCAVATIONS. IN NO WAY SHALL OWNER BE RESPONSIBLE FOR REMEDIATION OF UNSUITABLE SOILS CREATED/ORIGINATED AS A RESULT OF IMPROPER SITE GRADING OR SEQUENCING. CONTRACTOR SHALL SEQUENCE GRADING ACTIVITIES TO LIMIT EXPOSURE OF DISTURBED SOILS DUE TO WEATHER.
5. THE CONTRACTOR IS RESPONSIBLE FOR MEETING MINIMUM COMPACTION STANDARDS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL ENGINEERING SERVICES REPORT PREPARED BY _______ AND DATED _________, 202__ FOR SITE COMPACTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY ENGINEER/OWNER IF PROPER COMPACTION CANNOT BE OBTAINED. THE PROJECT'S GEOTECHNICAL CONSULTANT SHALL DETERMINE WHICH IN-SITU SOILS ARE TO BE CONSIDERED UNSUITABLE SOILS. THE ENGINEER/OWNER AND GEOTECHNICAL TESTING CONSULTANT WILL DETERMINE IF REMEDIAL MEASURES WILL BE NECESSARY.
6. IN THE EVENT THAT ANY MOISTURE-DENSITY TEST(S) FAIL TO MEET SPECIFICATION REQUIREMENTS, THE CONTRACTOR SHALL PERFORM CORRECTIVE WORK AS NECESSARY TO BRING THE MATERIAL INTO COMPLIANCE AND RETEST THE FAILED AREA AT NO COST TO THE OWNER.
7. WITH THE AUTHORIZATION OF THE ENGINEER/OWNER, MATERIAL THAT IS TOO WET TO PERMIT PROPER COMPACTION MAY BE SPREAD ON FILL AREAS IN AN EFFORT TO DRY. CONTRACTOR SHALL CLEARLY FIELD MARK THE EXTERIOR LIMITS OF SPREAD MATERIAL WITH PAINTED LATH AND SUBMIT A PLAN TO THE ENGINEER/OWNER THAT IDENTIFIES THE LIMITS. UNDER NO CONDITION SHALL THE SPREAD MATERIAL DEPTH EXCEED THE MORE RESTRICTIVE OF: THE EFFECTIVE TREATMENT DEPTH OF MACHINERY THAT WILL BE USED TO TURNOVER THE SPREAD MATERIAL; OR THE MAXIMUM COMPACTION LIFT DEPTH.
8. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER/OWNER IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION.
9. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ADEQUATE AND SAFE TEMPORARY SHORING, BRACING, RETENTION STRUCTURES, AND EXCAVATIONS.
10. THE SITE SHALL BE COMPLETED TO WITHIN 0.10-FT (+/-) OF THE PROPOSED GRADES AS INDICATED WITHIN THE PLANS PRIOR TO PLACEMENT OF TOPSOIL OR STONE. CONTRACTOR IS ENCOURAGED TO SEQUENCE CONSTRUCTION SUCH THAT THE SITE IS DIVIDED INTO SMALLER AREAS TO ALLOW STABILIZATION OF DISTURBED SOILS IMMEDIATELY UPON COMPLETION OF INDIVIDUAL SMALLER AREAS.
11. CONTRACTOR SHALL CONTACT "DIGGER'S HOTLINE" FOR LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR PROTECTING SAID UTILITIES FROM ANY DAMAGE DURING CONSTRUCTION.
12. CONTRACTOR SHALL PROTECT INLETS AND ADJACENT PROPERTIES WITH SILT FENCING OR APPROVED EROSION CONTROL METHODS UNTIL CONSTRUCTION IS COMPLETED. CONTRACTOR SHALL PLACE SILT FENCING AT DOWN SLOPE SIDE OF GRADING LIMITS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING FACILITIES OR UTILITIES. ANY DAMAGE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.
14. WORK WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPAL OFFICIAL PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES. GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID OFFICIALS. RESTORATION OF RIGHT-OF-WAY IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF GRADING. RESTORATION SHALL INCLUDE ALL ITEMS NECESSARY TO RESTORE RIGHT-OF-WAY IN-KIND INCLUDING LANDSCAPING.
15. CONTRACTOR SHALL COMPLY WITH ALL CITY AND/OR STATE CONSTRUCTION STANDARDS/ORDINANCES.

CONSTRUCTION SITE SEQUENCING

1. INSTALL PERIMETER SILT FENCE, EXISTING INLET PROTECTION, AND TEMPORARY CONSTRUCTION ENTRANCE.
2. CONDUCT SITE DEMOLITION WORK AND REMOVE WASTE MATERIALS OFF-SITE ACCORDINGLY.
3. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
4. CONDUCT ROUGH GRADING EFFORTS.
5. INSTALL UTILITY PIPING AND STRUCTURES, IMMEDIATELY INSTALL INLET PROTECTION.
6. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
7. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROLS.
8. EROSION CONTROL MEASURES SHALL BE REMOVED ONLY AFTER SITE CONSTRUCTION IS COMPLETE WITH ALL SOIL SURFACES HAVING AN ESTABLISHED VEGETATIVE COVER THAT MEETS OR EXCEEDS THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES DEFINITION OF 'FINAL STABILIZATION'.

   CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

EROSION AND SEDIMENT CONTROL NOTES:

1. ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN WISCONSIN'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARDS (REFERRED TO AS BMP'S) AND CITY OF PEWAUKEE ORDINANCE. THESE PROCEDURES AND STANDARDS SHALL BE REFERRED TO AS BEST MANAGEMENT PRACTICES (BMP'S). IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THE BMP'S PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY BRIOHN DESIGN GROUP (BDG) OR GOVERNING AGENCIES SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
3. MODIFICATIONS TO THE APPROVED EROSION CONTROL PLAN IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO BMP'S. ALL MODIFICATIONS MUST BE APPROVED BY JSD/MUNICIPALITY PRIOR TO DEVIATION OF THE APPROVED PLAN.
4. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
5. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL LOCATIONS OF VEHICLE INGRESS/EGRESS POINTS. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITIES, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE PRIOR APPROVED BY THE APPLICABLE GOVERNING AGENCIES PRIOR TO INSTALLATION.
6. PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST AFTER THE END OF EACH WORK DAY AND AS REQUESTED BY THE GOVERNING AGENCIES.
7. ALL EXISTING STORM SEWER FACILITIES THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER. ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
8. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:
   - PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
   - BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
   - DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH BMP'S PRIOR TO RELEASE INTO STORM SEWER OR DITCHES.
9. AT A MINIMUM, SEDIMENT BASINS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
10. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
11. TOPSOIL STOCKPILES SHALL HAVE A BERM OR TRENCH AROUND THE CIRCUMFERENCE AND PERIMETER SILT FENCE TO CONTROL SILT. IF TOPSOIL STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IS REQUIRED.
12. EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER PRIOR TO THE COMPLETION OF EACH WORK DAY.
13. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. DISTURBANCES ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
14. PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS.
15. GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF THIRTY (30) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH TECHNICAL STANDARDS.
16. ALL DISTURBED SLOPES EXCEEDING 4:1 YET LESS THAN 3:1, SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND DISTURBED SLOPES EXCEEDING 3:1 YET LESS THAN 2:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN C125BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.
17. DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BECOME AIRBORNE. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT HIS/HER EXPENSE.
18. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
19. QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH PART IV D.4. (a–f). OF THE NPDES GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
20. THE FOLLOWING MAINTENANCE PRACTICES SHALL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN. UPON IDENTIFICATION, DEFICIENCIES IN STORMWATER CONTROLS SHALL BE ADDRESSED IMMEDIATELY. THE MAINTENANCE PROCEDURES FOR THIS DEVELOPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO THE BELOW.
    - SILT FENCE – REPAIR OR REPLACE ANY DAMAGED FILTER FABRIC AND/OR STAKES. REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE ABOVE GROUND HEIGHT OF THE FENCE.
    - CONSTRUCTION ENTRANCE – AS NEEDED, ADD STONE TO MAINTAIN CONSTRUCTION ENTRANCE DIMENSIONS AND EFFECTIVENESS.
    - DITCH CHECK (STRAW BALES) – RE-SECURE STAKES; ADJUST OR REPOSITION BALES TO ADDRESS PROPER FLOW OF STORMWATER; AND REMOVE ACCUMULATED SEDIMENT WHEN IT HAS REACHED ONE-HALF THE HEIGHT OF THE BALE.
    - EROSION CONTROL MATTING – REPAIR MATTING IMMEDIATELY IF INSPECTION REVEALS BREACHED OR FAILED CONDITIONS. REPAIR AND RE-GRADE SOIL WHERE CHANNELIZATION HAS OCCURRED.
    - DIVERSION BERM/SWALE – REPLACE OR RE-COMPACT THE CONSTRUCTION MATERIALS AS NECESSARY.
    - INLET PROTECTION – CLEAN, REPAIR OR REPLACE FILTER FABRIC AND/OR STONE WHEN CONTROL MEASURE IS CLOGGED. INLET FILTER BAGS SHALL BE REPLACED ONCE BAG BECOMES ONE-HALF FULL OF SEDIMENT.

    ADDITIONAL POLLUTANT CONTROL MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING.

    - CONSTRUCTION WASTE SHALL BE PROPERLY DISPOSED OF. THIS INCLUDES ALL CONSTRUCTION SITE WASTE MATERIAL, SANITARY WASTE, AND WASTE FROM VEHICLE TRACKING OF SEDIMENTS. THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, BURNED, OR DISCHARGED TO THE WATERS OF THE STATE. VEHICLES HAULING MATERIAL AWAY FROM THE SITE SHALL BE COVERED WITH A TARPAULIN TO PREVENT BLOWING DEBRIS.
    - DUST CONTROL SHALL BE ACCOMPLISHED BY ONE OR MORE OF THE FOLLOWING METHODS:
      A. COVERING 30% OR MORE OF THE SOIL SURFACE WITH A NON-ERODIBLE MATERIAL.
      B. ROUGHENING THE SOIL TO PRODUCE RIDGES PERPENDICULAR TO THE PREVAILING WIND. RIDGES SHALL BE AT LEAST SIX (6) INCHES IN HEIGHT.
      C. FREQUENT WATERING OF EXCAVATION AND FILL AREAS.
      D. PROVIDING GRAVEL OR PAVING AT ENTRANCE/EXIT DRIVES, PARKING AREAS AND TRANSIT PATHS.
    - STREET SWEEPING SHALL BE PERFORMED TO IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ON PAVEMENTS.

UTILITY NOTES

1. EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE TYPE, LOCATION, SIZE AND ELEVATION OF UNDERGROUND UTILITIES AS THEY DEEM NECESSARY FOR PROPOSED UTILITY CONNECTIONS AND/OR TO AVOID DAMAGE THERETO. CONTRACTOR SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
2. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN (WISCONSIN LATEST EDITION AND ADDENDUM) AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
3. UTILITY CONSTRUCTION AND SPECIFICATIONS SHALL COMPLY WITH THE CITY OF PEWAUKEE TECHNICAL STANDARDS AND WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES DSPS 382.
4. TRACER WIRES SHALL BE INSTALLED AS NECESSARY IN ACCORD WITH 182.0715(2R) OF THE STATE STATUTES AND CITY OF PEWAUKEE REQUIREMENTS.
5. LENGTHS OF PROPOSED UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS ARE SHOWN FOR CONTRACTOR CONVENIENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPUTATIONS OF MATERIALS REQUIRED TO COMPLETE WORK. LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION.
6. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT EXISTING UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH FINISHED GRADES OF THE AREAS DISTURBED DURING CONSTRUCTION.
7. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF PROPOSED UTILITIES AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS PRIOR TO ATTEMPTING CONNECTIONS AND BEGINNING UTILITY CONSTRUCTION.
8. STORM SEWER SPECIFICATIONS –

   PIPE – REINFORCED CONCRETE PIPE (RCP) SHALL MEET THE REQUIREMENTS OF ASTM CLASS IV (MINIMUM) C-76 WITH RUBBER GASKET JOINTS CONFORMING TO ASTM C-443; HIGH DENSITY DUAL-WALL POLYETHYLENE N-12 CORRUGATED PIPE (HDPE) SHALL BE AS MANUFACTURED BY ADS OR EQUAL WITH WATER TIGHT JOINTS, AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-294 TYPE "S", OR POLYVINYL CHLORIDE (PVC) – CLASS PS46 MEETING AASHTO M278, AS NOTED.

   INLETS/CATCH BASINS – INLETS/CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NO. 25 OF THE "STANDARD SPECIFICATIONS" WITH A 1'-8" X 2'-6" MAXIMUM OPENING. FRAME & GRATE SHALL BE NEENAH R-1580 WITH TYPE G GRATE, OR EQUAL. CURB FRAME & GRATE SHALL BE NEENAH R-3067, OR EQUAL.

   BACKFILL AND BEDDING – STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

   MANHOLE FRAMES AND COVERS – MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1642 WITH TYPE "B" SELF SEALING LIDS, NON-ROCKING OR EQUAL .

   FIELD TILE CONNECTION – ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE(S) FOR STORM SEWER. TILE LINES CROSSED BY THE TRENCH SHALL BE REPLACED WITH THE SAME MATERIAL AS THE STORM SEWER.
9. WATER MAIN AND SANITARY SEWER SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND PLACING OF INSULATION SHALL CONFORM TO CHAPTER 4.17.0 "INSULATION" OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN 6TH EDITION UPDATED WITH ITS LATEST ADDENDUM (TYP.).
10. ALL NEW ON-SITE STORM UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER.

DEMOLITION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) OF ALL STRUCTURES, PADS, WALLS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., IN A LAWFUL MANNER, SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
2. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING FOR ALL FEES AND CHARGES. COORDINATION REQUIRED PRIOR TO CONSTRUCTION.
3. THIS PLAN INDICATES ITEMS ON THE PROPERTY INTENDED FOR DEMOLITION BASED ON THE CURRENT SITE DESIGN THAT HAVE BEEN IDENTIFIED BY A REASONABLE OBSERVATION OF THE EXISTING CONDITIONS THROUGH FIELD RECONNAISSANCE, ORIGINAL SITE CIVIL PLAN, AND GENERAL "STANDARD OF CARE". THERE MAY BE ADDITIONAL ITEMS THAT CAN NOT BE IDENTIFIED BY A REASONABLE ABOVE GROUND OBSERVATION, OF WHICH THE ENGINEER WOULD HAVE NO KNOWLEDGE OR MAY BE A PART OF ANOTHER DESIGN DISCIPLINE. IT IS THE CONTRACTOR'S/BIDDER'S RESPONSIBILITY TO REVIEW THE PLANS, INSPECT THE SITE AND PROVIDE THEIR OWN DUE DILIGENCE TO INCLUDE IN THEIR BID WHAT ADDITIONAL ITEMS, IN THEIR OPINION, MAY BE NECESSARY FOR DEMOLITION. ANY ADDITIONAL ITEMS IDENTIFIED BY THE CONTRACTOR/BIDDER SHALL BE IDENTIFIED IN THE BID AND REPORTED TO THE ENGINEER OF RECORD. BRIOHN DESIGN GROUP (BDG) TAKES NO RESPONSIBILITY FOR ITEMS ON THE PROPERTY THAT COULD NOT BE LOCATED BY A REASONABLE OBSERVATION OF THE PROPERTY OR OF WHICH THEY WOULD HAVE NO KNOWLEDGE.
4. ALL PERIMETER EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF DEMOLITION ACTIVITIES. CONTRACTOR SHALL KEEP ALL STREETS, PRIVATE DRIVES AND PAVEMENT FREE AND CLEAR OF ALL CONSTRUCTION RELATED DIRT, DUST AND DEBRIS.
5. CONTRACTOR TO MAINTAIN CONTINUOUS ACCESS TO SURROUNDING PROPERTIES AND REMAINING PARTS OF THE SITE AT ALL TIMES DURING THE DEMOLITION.
6. ALL LIGHT POLES TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY, INCLUDING BASE AND ALL APPURTENANCES. SALVAGE FOR RELOCATION. COORDINATE RELOCATION AND/OR ABANDONMENT OF ALL ELECTRIC LINES WITH ELECTRICAL ENGINEER AND OWNER PRIOR TO DEMOLITION.
7. ABANDONED/REMOVED ITEMS SHALL BE DISPOSED OF OFF-SITE UNLESS OTHERWISE NOTED.
8. CONTRACTOR TO REPLACE ALL SIDEWALK AND CURB AND GUTTER ABUTTING THE PROPERTIES, WHICH IS DAMAGED BY THE CONSTRUCTION.
9. VOIDS LEFT BY ANY ITEM REMOVED UNDER ANY PROPOSED PAVEMENT, WALK, ETC. OR WITHIN 24" THEREOF SHALL BE FILLED AND BACKFILLED WITH GRANULAR MATERIALS AND COMPACTED PER SPECIFICATIONS.
10. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR:

    10.1 EXAMINE ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE DESIGN ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.

    10.2 VERIFYING UTILITY ELEVATIONS AND NOTIFYING THE DESIGN ENGINEER OF ANY DISCREPANCIES. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCIES ARE RESOLVED.

    10.3 NOTIFYING ALL UTILITIES PRIOR TO THE REMOVAL OF ANY UNDERGROUND UTILITIES.

    10.4 NOTIFYING THE DESIGN ENGINEER AND LOCAL CONTROLLING MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION.

    10.5 PERFORMING UTILITY LOCATE OBSERVATIONS (ULO) ON ALL UTILITY CROSSINGS. CONTRACTOR TO REPORT ANY PLAN DISCREPANCIES OR CONFLICTS PRIOR TO THE START OF UTILITY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE APPROPRIATE UTILITY COMPANIES TO CONDUCT ULO'S.
11. ALL EXISTING UTILITIES TO BE FIELD LOCATED AND FLAGGED BY CONTRACTOR.
12. ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE TO REMAIN, THAT ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
13. CONTRACTOR SHALL NOTIFY BDG OF ANY ROOF LEADERS AND/OR STORM DRAIN LINES ENCOUNTERED DURING DEMOLITION WHICH ARE NOT SHOWN ON THE PLANS PRIOR TO ABANDONMENT OR REMOVAL.
14. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF THESE IMPROVEMENTS.
15. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH THE APPROVED MUNICIPALITY RECYCLING PLAN.
16. ANY CONTAMINATED SOILS SHALL BE REMOVED IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS TO AN APPROVED LANDFILL.
16. BUILDING REMOVALS SHALL BE BY A QUALIFIED CONTRACTOR. CONTRACTOR TO FOLLOW ALL DEMOLITION REGULATIONS, DISCONNECT ALL UTILITIES, OBTAIN ALL APPLICABLE PERMITS AND DISPOSE OF ALL BUILDING MATERIALS IN APPROPRIATE LANDFILLS. DEMOLISHED MATERIALS SHALL NOT BE BURIED ON SITE. IF ENCOUNTERED, ANY CONTAMINATED BUILDING MATERIAL AND/OR SOILS SHALL BE REMOVED AND DISPOSED OF OFF-SITE BY THE CONTRACTOR IN ACCORDANCE WITH APPROPRIATE STATE AND FEDERAL REGULATIONS.
17. CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, CURB, SIDEWALK, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IT'S REMOVAL AND REPAIR. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.

BRIOHN
DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE

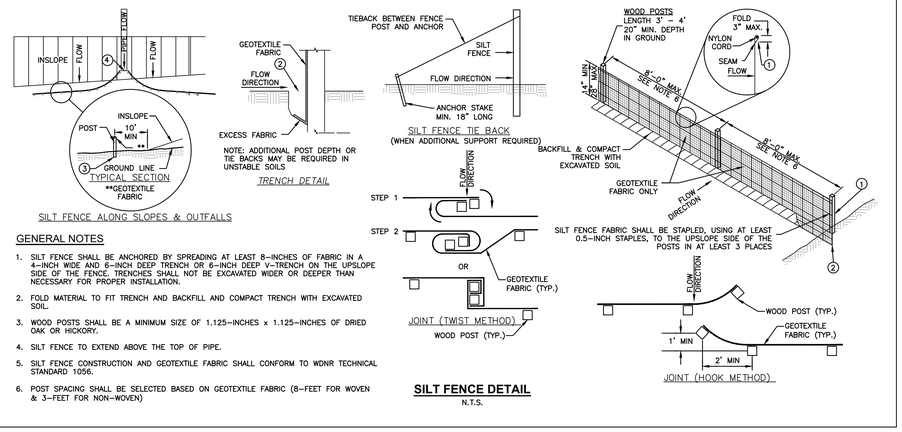
SITE NOTES
AND DETAILS

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND RD.
CITY OF PEWAUKEE, WISCONSIN

Date	Revision

JOB:	230119
DRAWN:	RWI
CHECKED:	RWI
DATE:	03-05-2024

SHEET:
C4.0

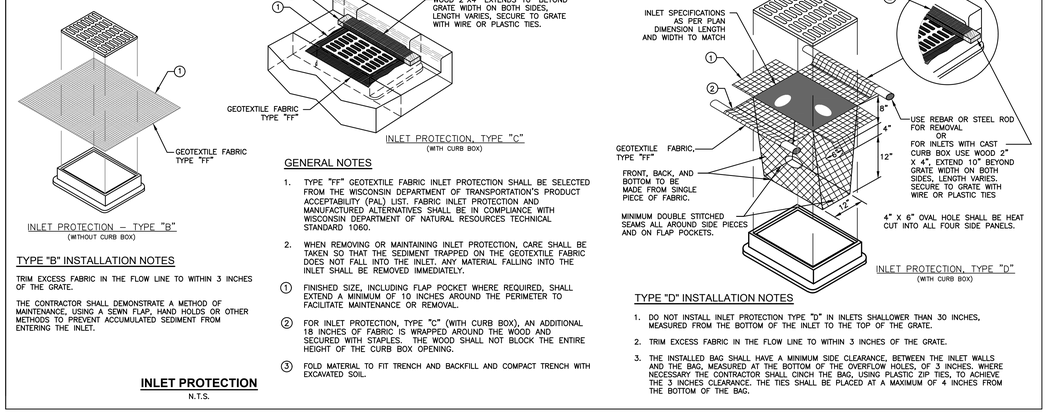


SILT FENCE ALONG SLOPES & OUTFALLS

GENERAL NOTES

1. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8–INCHES OF FABRIC IN A 4–INCH WIDE AND 6–INCH DEEP TRENCH OR 6–INCH DEEP V–TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
2. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125–INCHES x 1.125–INCHES OF DRIED OAK OR HICKORY.
4. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE.
5. SILT FENCE CONSTRUCTION AND GEOTEXTILE FABRIC SHALL CONFORM TO WDNR TECHNICAL STANDARD 1056.
6. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8–FEET FOR WOVEN & 3–FEET FOR NON–WOVEN)

SILT FENCE DETAIL
N.T.S.



TYPE "B" INSTALLATION NOTES

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHODS TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

GENERAL NOTES

1. TYPE "FF" GEOTEXTILE FABRIC INLET PROTECTION SHALL BE SELECTED FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION'S PRODUCT ACCEPTABILITY (PAL) LIST. FABRIC INLET PROTECTION AND MANUFACTURED ALTERNATIVES SHALL BE IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD 1060.
2. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

(1) FINISHED SIZE, INCLUDING FLAP POCKET WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

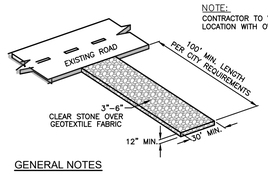
(2) FOR INLET PROTECTION, TYPE "C" (WITH CURB BOX), AN ADDITIONAL 18 INCHES OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

(3) FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.

TYPE "D" INSTALLATION NOTES

1. DO NOT INSTALL INLET PROTECTION TYPE "D" IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.
2. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.
3. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3 INCHES. WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCHES CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4 INCHES FROM THE BOTTOM OF THE BAG.

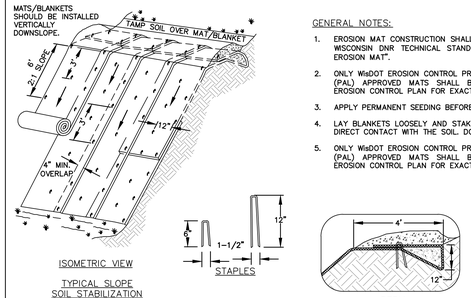
INLET PROTECTION
N.T.S.



GENERAL NOTES

1. TRACKING PADS SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE SITE.
2. THE AGGREGATE FOR TRACKING PADS SHALL BE 3 TO 6–INCH CLEAR OR WASHED STONE. ALL MATERIAL TO BE RETAINED ON A 3–INCH SIEVE.
3. THE AGGREGATE SHALL BE PLACED IN A LAYER AT LEAST 12–INCHES THICK, ON SITES WHERE SATURATED CONDITIONS ARE EXPECTED DURING THE LIFE OF THE PAD, THE PAD SHALL BE UNDERLAIN WITH WisDOT TYPE "R" GEOTEXTILE FABRIC TO PREVENT MIGRATION OF UNDERLYING SOILS INTO THE STONE LAYER.
4. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT. THE TRACKING PAD SHALL BE A MINIMUM 100–FEET LONG.
5. ANY SEDIMENT TRACKED ONTO A PUBLIC OR PRIVATE ROAD SHOULD BE REMOVED BY STREET CLEANING, NOT FLUSHING, AT THE END OF EACH WORKING DAY.
6. TRACKING PADS SHALL, AT A MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24–HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5–INCHES OF RAIN OR MORE DURING A 24–HOUR PERIOD.
7. THE TRACKING PAD PERFORMANCE SHALL BE MAINTAINED BY SCRAPING OR TOP–DRESSING WITH ADDITIONAL AGGREGATE.

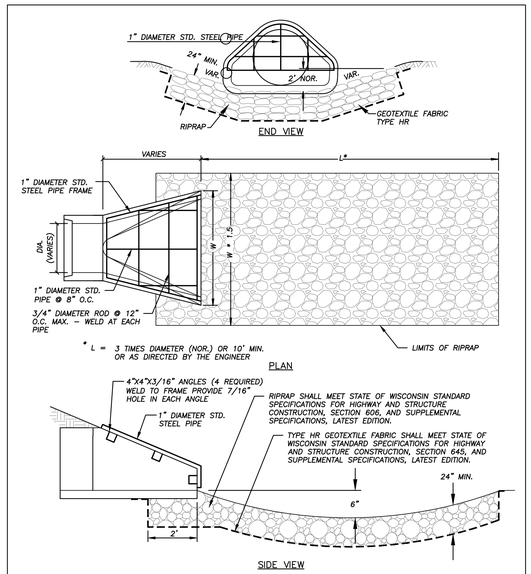
CONSTRUCTION ENTRANCE
N.T.S.



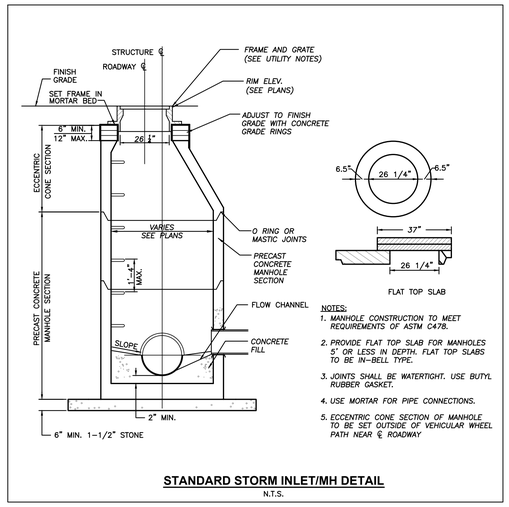
GENERAL NOTES:

1. EROSION MAT CONSTRUCTION SHALL BE IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1052 "NON–CHANNEL EROSION MAT".
2. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.
3. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
4. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
5. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.

EROSION MATTING
N.T.S.



APRON ENDWALL WITH GRATE
N.T.S.



STANDARD STORM INLET/MH DETAIL
N.T.S.

BRIOHN
DESIGN GROUP
3885 N.BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE
SITE NOTES AND DETAILS

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND RD.
CITY OF PEWAUKEE, WISCONSIN

Revision

Date

JOB:	230119
DRAWN:	RWI
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DATE:	03-05-2024
SHEET:	C4.1

DIGGERS HOTLINE
Call 811 or (800) 242-8511
Milwaukee Area (262) 432-7910
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

CARDNO / JF New, Inc.
www.cardnojfnew.com
128 Sunset Drive
Walkerton, Indiana 46574
Ph: 574-586-3400

6140 Cottonwood Road
Suite A
Fitchburg, Wisconsin 53719
Ph: 608-661-2965

6605 Steger Road
Suite A
Monee, Illinois 60449
Ph: 708-534-3450

Stormwater Seed Mix
For Use on Stormwater Management Ponds (SMP) side slopes to Normal Water Line (NWL)

Botanical Name	Common Name	PLS Ounces/Acre
Permanent Grasses/Sedges/Rushes:		
Carex crisatella	Crested Oval Sedge	1.00
Carex frankii	Bristly Cattail Sedge	1.00
Carex lurida	Bottlebrush Sedge	2.00
Carex sparganioides v. cephalaidea	Rough-Clustered Sedge	2.00
Carex vulpinoidea	Brown Fox Sedge	6.00
Eleocharis ovata	Blunt Spike Rush	0.50
Elymus virginicus	Virginia Wild Rye	12.00
Glyceria striata	Fowl Manna Grass	1.25
Juncus effusus	Common Rush	1.00
Juncus torreyi	Torrey's Rush	0.25
Leersia oryzoides	Rice Cut Grass	1.00
Panicum virgatum	Switch Grass	2.00
Scirpus atrovirens	Dark Green Rush	1.00
Scirpus cyperinus	Wool Grass	0.50
Scirpus fluviatilis	River Bulrush	0.75
Scirpus validus	Great Bulrush	6.00
	Total	**45.75**
Temporary Cover:		
Avena sativa	Common Oat	360.00
Lolium multiflorum	Annual Rye	116.00
	Total	**476.00**
Forbs:		
Alisma spp.	Water Plantain (Various Mix)	4.25
Asclepias incarnata	Swamp Milkweed	1.50
Bidens spp.	Bidens (Various Mix)	2.00
Helenium autumnale	Sneezeweed	3.00
Mimulus ringens	Monkey Flower	1.00
Penthorum sedoides	Ditch Stonecrop	0.50
Polygonum persylvanicum	Pinkweed	4.00
Rudbeckia subtomentosa	Sweet Black-Eyed Susan	1.00
Sagittaria latifolia	Broad-Leaf Arrowhead	1.00
Senna hebecarpa	Wild Senna	1.00
Thalictrum dasycarpum	Purple Meadow Rue	2.00
	Total	**21.25**

Approximate area of coverage:	
Total area (SF) of coverage surrounding SWM ponds:	500
Total area (acres) of coverage surrounding SWM ponds:	**0.0115**

STORMWATER SEED MIX

SHADE TREES (DECIDUOUS)
ABM Autumn Blaze Maple
PPH Prairie Pride Hackberry
SWO Swamp White Oak
BC Bald Cypress

ORNAMENTAL TREES (DECIDUOUS)
ABS Autumn Brilliance Serviceberry
TCH Thornless Cockspur Hawthorn
RJFC Red Jewel Flowering Crabapple

EVERGREEN TREES
CF Concolor Fir
HCJ Hetzi Columnar Juniper (upright)
FVJ Fairview Upright Juniper (upright)
NS Norway Spruce
BHS Black Hills Spruce

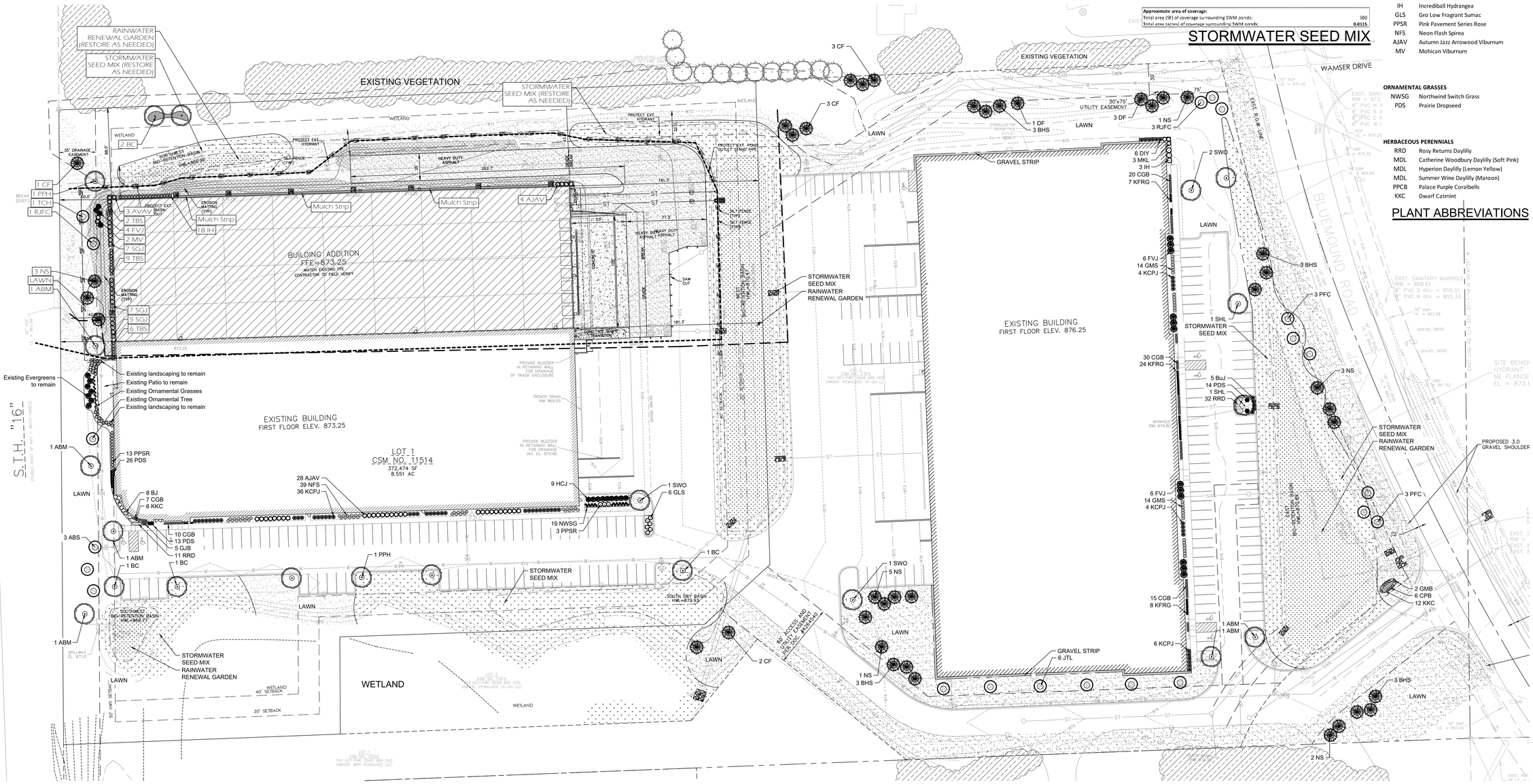
EVERGREEN SHURBS
CGB Chicagoland Green Boxwood
KCPJ Kallay Compact Pfitzer Juniper
BJ Broadmoor Juniper

DECIDUOUS SHRUBS
GJB Golden Japanese Barberry
CPB Crimson Pigmy Japanese Barberry
IH Incrediball Hydrangea
GLS Gro Low Fragrant Sumac
PPSR Pink Pavement Series Rose
NFS Neon Flash Spirea
AJAV Autumn Jazz Arrowood Viburnum
MV Mohican Viburnum

ORNAMENTAL GRASSES
NWSG Northwind Switch Grass
PDS Prairie Dropseed

HERBACEOUS PERENNIALS
RRD Rosy Returns Daylilly
MDL Catherine Woodbury Daylilly (Soft Pink)
MDL Hyperion Daylilly (Lemon Yellow)
MDL Summer Wine Daylilly (Maroon)
PPCB Palace Purple Coralbells
KKC Dwarf Catmint

PLANT ABBREVIATIONS



HELLER & ASSOCIATES, LLC
LANDSCAPE ARCHITECTURE
P.O. Box 1359
Lake Geneva, Wisconsin 53147-1359
ph 262.639.9733
david@wdavidheller.com
www.wdavidheller.com

NORTH
Scale: 1" = 40'0"

OVERALL LANDSCAPE PLAN

BRIOHN DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-0500 PHONE
(262) 790-0505 FAX

SHEET TITLE: OVERALL LANDSCAPE PLAN

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND RD.
CITY OF PEWAUKEE, WISCONSIN

Revision
Date

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DIGGERS HOTLINE
Call 811 or (800) 242-8511
Milwaukee Area (262) 432-7910
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

RAINWATER RENEWAL GARDEN (RESTORE AS NEEDED)

STORMWATER SEED MIX (RESTORE AS NEEDED)

STORMWATER SEED MIX (RESTORE AS NEEDED)

WETLAND

WETLAND

2 BC

35' DRAINAGE EASEMENT

86.0'

NORTHWEST BIO-RETENTION BASIN HWL=866.95

SILT FENCE (TYP)

PROTECT EXT. HYDRANT

18

26'

HEAVY DUTY ASPHALT

262.7'

GRADE BREAK

PROTECT EXT. HYDRANT

32.0'

PROTECT EXT. POND OUTLET STAND PIPE

181.3'

1 CF
1 PPH
1 TCH
1 RJFC

862.64 (EXST.)

50.0'

3 AVAV

PROTECT EXT. BASIN OUT

2 TBS
4 FVJ
2 MV
7 SGJ
9 TBS

Mulch Strip

18 IH

Mulch Strip

Mulch Strip

4 AJAV

CONC.

53'

77.3'

HEAVY DUTY ASPHALT

HEAVY DUTY ASPHALT

SILT FENCE (TYP)

BUILDING ADDITION
FFE=873.25
MATCH EXISTING FFE
CONTRACTOR TO FIELD VERIFY

CONCRETE

108'

GRADE BREAK

WEST BIO-RETENTION BASIN HWL=870.47

3 NS
LAWN
1 ABM

EROSION MATTING (TYP)

7 SGJ
5 SGJ
6 TBS

42.0'

36" RCP I.E. = 862.99

CONC. WALL

873.25

CONC. 1:31 SLOPE TRANSITION

181.3'

20' SETBACK

40' SETBACK

PROVIDE BLEEDER IN RETAINING WALL FOR DRAINAGE OF TRASH ENCLOSURE

TRENCH DRAIN RIM 869.05

GRADE BREAK

PROVIDE BLEEDER IN RETAINING WALL FOR DRAINAGE INV. EL. 870.80

Existing Evergreens to remain

Existing landscaping to remain
Existing Patio to remain
Existing Ornamental Grasses
Existing Ornamental Tree
Existing landscaping to remain

EXISTING BUILDING
FIRST FLOOR ELEV. 873.25

LOT 1
CSM NO. 11514
372,474 SF
8.551 AC

S.T.H. "16"
(PUBLIC RIGHT OF WAY - WIDTH VARIES)

F.D.C.

PLANT ABBREVIATIONS

NORTH

LANDSCAPE ENLARGEMENT

Scale: 1" = 20'0"

HELLER & ASSOCIATES, LLC
LANDSCAPE ARCHITECTURE

P.O. Box 1359
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SHEET TITLE
ENLARGED LANDSCAPE PLAN
NORTH SIDE ADDITION

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND RD.
CITY OF PEWAUKEE, WISCONSIN

Revision
Date

JOB:	230119
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SHEET:	L 1.1

DIGGERS HOTLINE
Call 811 or (800) 242-8511
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www.DiggersHotline.com

1. Contractor responsible for contacting Diggers Hotline (811 or 800-242-8511) to have site marked prior to excavation or planting.

2. Contractor to verify all plant quantities shown on Plant & Material List and landscape planting symbols and report any discrepancies to Landscape Architect or General Contractor.

3. All plantings shall comply with standards as described in American Standard of Nursery Stock - Z60.1 ANSI (latest version). Landscape Architect reserves the right to inspect, and potentially reject any plants that are inferior, compromised, undersized, diseased, improperly transported, installed incorrectly or damaged. No sub-standard "B Grade" or "Park Grade" plant material shall be accepted. Plant material shall originate from nursery(ies) with a similar climate as the planting site.

4. Any potential plant substitutions must be approved by Landscape Architect or Owner. All plants must be installed as per sizes indicated on Plant & Material Schedule, unless approved by Landscape Architect. Any changes to sizes shown on plan must be submitted in writing to the Landscape Architect prior to installation.

5. Topspoil in Parking Lot Islands (if applicable): All parking lot islands to be backfilled with topsoil to a minimum depth of 18" to insure long-term plant health. Topsoil should be placed within 3" of finish grade by General Contractor / Excavation Contractor during rough grading operations/activity. The landscape contractor shall be responsible for the fine grading of all disturbed areas, planting bed areas, and lawn areas. Crown all parking lot islands a minimum of 6" to provide proper drainage, unless otherwise specified.

6. Tree Planting: Plant all trees slightly higher than finished grade at the root flare. Remove excess soil from the top of the root ball, if needed. Remove and discard non-biodegradable ball wrapping and support wire. Removed biodegradable burlap and wire cage (if present) from the top $\frac{1}{3}$ of the rootball and carefully bend remaining wire down to the bottom of the hole. Once the tree has been placed into the hole and will no longer be moved, score the remaining $\frac{2}{3}$ of the burlap and remove the twine. Provide three slow release fertilizer for each tree planted.

7. Tree Planting: Backfill tree planting holes 80% existing soils removed from excavation and 20% plant starter mix. Avoid air pockets and do not tamp soil down. Discard any gravel, rocks, heavy clay, or concrete pieces. When hole is $\frac{2}{3}$ full, trees shall be watered thoroughly, and water left to soak in before proceeding to fill the remainder of the hole. Water again to full soak in the new planting. Each tree shall receive a 3" deep, 4-5' diameter (see planting details or planting plan) shredded hardwood bark mulch ring around all trees planted in lawn areas. Do not build up any mulch onto the trunk of any tree. Trees that are installed incorrectly will be replaced at the time and expense of the Landscape Contractor.

8. Shrub Planting: All shrubs to be planted in groupings as indicated on the Landscape Plan. Install with the planting of shrubs a 50/50 mix of plant starter with topsoil. Install topsoil into all plant beds as needed to achieve proper grade and displace undesirable soil (see planting detail). Remove all excessive gravel, clay and stones from plant beds prior to planting. When hole(s) are $\frac{2}{3}$ full, shrubs shall be watered thoroughly, and water left to soak in before proceeding. Provide slow-release fertilizer packets at the rater of 1 per 24" height/diameter of shrub at planting.

9. Mulching: All tree and shrub planting beds to receive a 3" deep layer of high quality shredded hardwood bark mulch (not pigment dyed or enviro-mulch). All perennial planting areas (groupings) shall receive a 2" layer of shredded hardwood bark mulch, and groundcover areas a 1-2" layer of the same mulch. Do not mulch annual flower beds (if applicable). Do not allow mulch to contact plant stems and tree trunks.

10. Edging: All planting beds shall be edged with a 4" deep spade edge using a flat landscape spade or a mechanical edger. Bedlines are to be cut crisp, smooth as per plan. A clean definition between landscape beds and lawn is required. Pack mulch against lawn edge to hold in place.

11. Plant bed preparation/Soil Amendment composition: All perennial, groundcover and annual areas (if applicable) are required to receive a blend of organic soil (Soil Amendments) amendments prior to installation. Roto-till the following materials at the following ratio, into existing soil beds or installed topsoil beds to a depth of approximately 8"-10". Containerized and balled & burlapped plant material should be back-filled with amended soil:

Per 100 SF of bed area (Soil Amendment composition):
¾ CY Peat Moss or Mushroom Compost
¾ CY blended/pulverized Topsoil
¼ CY composted manure

In roto-tilled beds only, also include in above mixture:
2 lbs Starter Fertilizer

12. Lawn Installation for all sodded turfgrass areas: Contractor to furnish and prepare blended topsoil (2" minimum) and sod bed, removing all debris and stones ½" and larger. Apply a 10-10-10 starter lawn fertilizer uniformly throughout areas prior to laying sod. Use only premium sod blend according to TPI (revised 1995) and ASPA Standards. Install sod uniformly with staggered joints, laid tightly end to end and side to side. Roll sod with a walk behind roller and water immediately upon installation to a 3" depth. Stake any sod installed on slopes steeper than 1:3, and in all swale applications. Contractor is responsible to provide a smooth, uniform, healthy turf, and is responsible for the first two mowings of the newly installed turf, and is also responsible for watering during this period.

13. Installation preparation for all seeded areas: remove/kill off any existing unwanted vegetation prior to seeding. Prepare the topsoil (if adequate or provide as in item #6 above) and seed bed by removing all surface stones 1" or larger. Apply a starter fertilizer and specified seed uniformly at the specified rate, and provide mulch covering suitable to germinate and establish turf. Provide seed and fertilizer specifications to Landscape Architect and Owner prior to installation. Erosion control measures are to be used in swales and on slopes in excess of 1:3 and where applicable (see Civil Engineering Drawings). Methods of installation may vary are the discretion of the Landscape Contractor on his/her responsibility to establish and guarantee a smooth, uniform, quality turf. A minimum of 2" of blended, prepared and non-compacted topsoil is required for all lawn areas. If straw mulch is used as a mulch covering, a tackifier may be necessary to avoid wind dispersal of mulch covering. Marsh hay containing reed canary grass is NOT acceptable as a mulch covering.

An acceptable quality seed installation is defined as having:
No bare spots larger than one (1) square foot
No more than 10% of the total area with bare areas larger than one (1) square foot
A uniform coverage through all turf areas

14. No-Mow seed areas: "No-Mow" fine fescue seed mix with annual rye nurse crop (available at Cedar Creek Seed Farm 888-313-6807; or Prairie Nursery 608-296-3679) or approved equivalent mix from a reputable seed mix provider. Apply at 220 lbs per acre or at rate recommended by supplier. Prepare seed bed and soil as specified in item #13 above.

15. Native Prairie Seed Mix / Stormwater Seed Mix: Native seed mixes as listed on the Plant and Material List or other seeding schedules outlined on the landscape plan set. Seed mixes available from Prairie Nursery 608-296-3679 or JF New 608-848-1789 or approved equivalent mix from a reputable seed mix provider. Apply at rates specified herein, or per supplier recommendation. Prepare soil and seed bed as in item #13 above.

16. Warranty and Replacements: All plantings are to be watered thoroughly at the time of planting, through construction and upon completion of project as required. Trees, Evergreens, and Shrubs (deciduous and evergreen) shall be guaranteed (100% replacement) for a minimum of one (1) year from the date of project completion. Perennials, groundcovers, and ornamental grasses shall be guaranteed for a minimum of one (1) growing season. Perennials, groundcovers, and ornamental grasses planted after September 15th shall be guaranteed through May 31st of the following year. Only one replacement per plant will be required during the warranty period, except for losses or replacements due to failure to comply with specified requirements. Watering and general ongoing maintenance instructions are to be supplied by the Landscape Contractor to the Owner upon completion of the project.

17. The Landscape Contractor is responsible for the watering and maintenance of all landscape areas for a period of 45 days after the substantial completion of the landscape installation. This shall include all trees, shrubs, evergreens, perennials, ornamental grasses, turf grass, no-mow grass, and native prairie seed mix / stormwater seed mix. Work also includes weeding, edging, mulching (only if required), fertilizing, trimming, sweeping up grass clippings, pruning and deadheading.

18. Project Completion: Landscape Contractor is responsible to conduct a final review of the project, upon completion, with the Landscape Architect, Client or Owner / Client Representative, and the General Contractor to answer questions, provide written care instructions for new plantings and turf, and insure that all specifications have been met.

LANDSCAPE GENERAL NOTES

WEST BUILDING

PLANT KEY	QUANTITY PHASE 1	QUANTITY PHASE 2	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	CALIPER SIZE	ROOT	SPECIFICATION / NOTES	PLANT SPACING
Proposed Landscape Materials								
SHADE TREES (DECIDUOUS)								
ABM	4	1	Acer xfreemanii 'Autumn Blaze'	Autumn Blaze Maple	2.5"	B&B	Straight central leader, full and even crown. Prune only after planting	
PPH	2	1	Celtis occidentalis 'Prairie Pride'	Prairie Pride Hackberry	2.5"	B&B	Straight central leader, full and even crown. Prune only after planting	
SWO	2		Quercus bicolor	Swamp White Oak	2.5"	B&B	Straight central leader, full and even crown. Prune only after planting	
BC	3	2	Taxodium distichum	Bald Cypress	2.5"	B&B	Straight central leader, full and even crown. Prune only after planting	

PLANT KEY	QUANTITY PHASE 1	QUANTITY PHASE 2	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	CALIPER SIZE	ROOT	SPECIFICATION / NOTES	PLANT SPACING
ORNAMENTAL TREES (DECIDUOUS)								
ABS	3		Amelanchier xgrandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	7-8'	B&B	Well balanced multi-stemmed tree with minimum four canes, and full appearance	
TCH	2	1	Crataegus crus-gall 'Inermis'	Thornless Cockspur Hawthorn	7-8'	B&B	Well balanced multi-stemmed tree with minimum four canes, and full appearance	
RJFC	3	1	Malus x 'Jewelcole'	Red Jewel Flowering Crabapple	7-8' H	B&B	Well balanced multi-stemmed tree with minimum four canes, and full appearance	

PLANT KEY	QUANTITY PHASE 1	QUANTITY PHASE 2	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	CALIPER SIZE	ROOT	SPECIFICATION / NOTES	PLANT SPACING
EVERGREEN TREES								
CF	2	1	Abies concolor	Concolor Fir	7-8'	B&B	Evenly shaped tree with branching to the ground	
HCJ	9		Juniperus chinensis 'Hetzii Columnaris'	Hetzi Columnar Juniper (upright)	5-6'	B&B	Evenly shaped tree with branching to the ground	
FVJ	12	4	Juniperus scopulorum 'Fairview'	Fairview Upright Juniper (upright)	5-6'	B&B	Evenly shaped tree with branching to the ground	
NS	12	3	Picea abies	Norway Spruce	7-8'	B&B	Evenly shaped tree with branching to the ground	
BHS	3		Picea densata 'glauca'	Black Hills Spruce	7-8'	B&B	Evenly shaped tree with branching to the ground	

PLANT KEY	QUANTITY PHASE 1	QUANTITY PHASE 2	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	SHRUB SIZE	ROOT/ CONT.	SPECIFICATION / NOTES	PLANT SPACING
EVERGREEN SHURBS								
CGB	17		Buxus 'Chicagoland Green'	Chicagoland Green Boxwood	18"	B&B	Full rounded well branched shrub	24-30"
GMB	2		Buxus 'Green Mountain'	Green Mountain Boxwood	30"	B&B	Full rounded well branched shrub	24"
SGJ		19	Juniperus chinensis 'Sea Green'	Sea Green Juniper	#5	Cont.	Full rounded well branched shrub	54"
KCPJ	48		Juniperus chinensis 'Kallay'	Kallay Compact Pfitzer Juniper	#5	Cont.	Full rounded well branched shrub	48"
BJ	8		Juniperus sabina 'Broadmoor'	Broadmoor Juniper	#3	Cont.	Full rounded well branched shrub	42"
BJJ	5		Juniperus sabina 'Buffalo'	Buffalo Juniper	#3	Cont.	Full rounded well branched shrub	42"
DIY	6		Taxus xmedia 'Densiformis'	Dense Intermediate Yew	24"	B&B	Full rounded well branched shrub	48"

PLANT KEY	QUANTITY PHASE 1	QUANTITY PHASE 2	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	SHRUB SIZE	ROOT/ CONT.	SPECIFICATION / NOTES	PLANT SPACING
DECIDUOUS SHRUBS								
GJB	5		Berberis thunbergii 'Aurea'	Golden Japanese Barberry	#3	Cont.	Full, well rooted plant, evenly shaped	30"
CPB	6		Berberis thunbergii 'Crimson Pigmy'	Crimson Pigmy Japanese Barberry	#3	Cont.	Full, well rooted plant, evenly shaped	24"
IH	3	18	Hydrangea arborescens 'Abetwo'	Incredibal! Hydrangea	#5	Cont.	Full, well rooted plant, evenly shaped	48"
GLS	6		Rhus aromatica 'Gro-Low'	Gro Low Fragrant Sumac	#5	Cont.	Full, well rooted plant, evenly shaped	42"
PPSR	24		Rosa nutgosa 'Pink Pavement'	Pink Pavement Series Rose	18"	Cont.	Full, well rooted plant, evenly shaped	42"
NFS	39	17	Spirea xbumalda 'Neon Flash'	Neon Flash Spirea	24"	Cont.	Full, well rooted plant, evenly shaped	60"
AJAV	28	7	Viburnum dentatum 'Autumn Jazz'	Autumn Jazz Arrowwood Viburnum	42"	Cont.	Full, well rooted plant, evenly shaped	60"
MV	6	2	Viburnum lantana 'Mohican'	Mohican Viburnum	42"	B&B	Full, well rounded plant with moist rootball and healthy appearance	60"

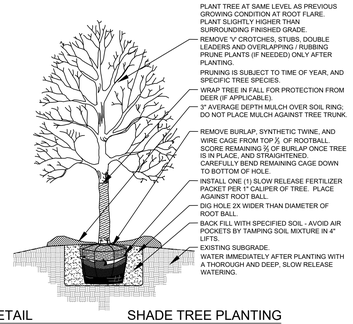
PLANT KEY	QUANTITY PHASE 1	QUANTITY PHASE 2	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	CONTAINER SIZE		SPECIFICATION / NOTES	PLANT SPACING
ORNAMENTAL GRASSES								
NWSG	19		Panicum virgatum 'Northwind'	Northwind Switch Grass	#1	Cont.	Full, well rooted plant	24"
PDS	39		Sporobolus heterolepis	Prairie Dropseed	#1	Cont.	Full, well rooted plant	36"

PLANT KEY	QUANTITY PHASE 1	QUANTITY PHASE 2	PLANT MATERIAL PROPOSED BOTANICAL NAME	COMMON NAME	CONTAINER SIZE		SPECIFICATION / NOTES	PLANT SPACING
HERBACEOUS PERENNIALS								
RRD	11		Hemerocallis 'Rosy Returns'	Rosy Returns Daylilly	#1	Cont.	Full, well rooted plant, evenly shaped	18"
MDL	8		Hemerocallis 'Catherine Woodbury'	Catherine Woodbury Daylilly (Soft Pink)	#1	Cont.	Full, well rooted plant, evenly shaped	18"
MDL	8		Hemerocallis 'Hyperion'	Hyperion Daylilly (Lemon Yellow)	#1	Cont.	Full, well rooted plant, evenly shaped	18"
MDL	8		Hemerocallis 'Summer Wine'	Summer Wine Daylilly (Maroon)	#1	Cont.	Full, well rooted plant, evenly shaped	18"
PPCB	23		Heuchera micrantha 'Palace Purple'	Palace Purple Coralbells	#1	Cont.	Full, well rooted plant, evenly shaped	18"
KYC	6		Nepeta faassenii 'Kit Cat'	Dwarf Catmint	Qt.	Pot	Full, well rooted plant, evenly shaped	30"
LAWN	13810	3257	Lawn Establishment Area / Grading Area			SY	Reinder's Deluxe 50 Seed Mix	
	192078	29817	Erosion Matting for sloped seeded areas	*see plan for area delineation*		SF	EroTex D575 Erosion Control Blanket (or approved equal)	
SWSM	5606	504	Stormwater Seed Mix	*see plan for area delineation*		SF	CARDNO JF New Inc. Stormwater Seed Mix (Ph: 608-661-2965)	
	240		Rainwater Renewal Garden Kits	*Area: 17398 SF*		KITS	Agrecol Kit of 2 Trays of 32 Plants; One plug plant per 14" o.c.	
Hardscape Materials								
	19		Heritage River Gravel (Gravel Strip)	*PH 1 Area: 1,925 SF*		TN	*2" depth*	
	975		Aluminum Edge Restraint (gravel areas)	Permaloc ProSlide 3/16"x5.5" Black Duraflex Finish		LF		
	1925		Landscape Fabric	*SF*		SF		
	72	17	Shredded Hardwood Mulch (3" depth)	*PH 1 Area: 7,765 SF; PH 2 Area: 1,760 SF*		CY	Bark Mulch; apply Preemergent after installation of mulch	
	48	11	Soil Amendments (2" depth)	*PH 1 Area: 7,765 SF; PH 2 Area: 1,760 SF*		CY		
	590	92	Pulverized Topsoil (Lawn Area)	*Area: 192,100 SF; PH 2 Area: 29,817 SF*		CY		
	48	11	Pulverized Topsoil (2" over bed areas)	*PH 1 Area: 7,765 SF; PH 2 Area: 1,760 SF*		CY		

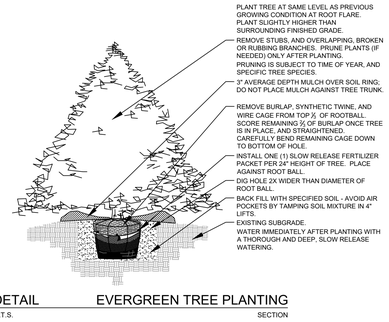
*Landscape counts & quantities are provided as a service to the Landscape Contractor; Landscape Contractor is responsible for verifying these counts and quantities in order to provide a complete landscape installation as outlined on this Landscape Master Plan. In the event that a discrepancy occurs between this schedule and the Landscape Master Plan, the Landscape Master Plan- including the graphics and notations depicted therein- shall govern.

Seed Compositions:
Reinder's Deluxe 50 Seed Mix (800-785-3301):
Seed at rate of 150 -200# per acre
20% Kentucky Bluegrass (Sod Quality)
15% Newport Kentucky Bluegrass
15% Ken Blue Kentucky Bluegrass
15% Quebec Perennial Ryegrass
10% Fiesta III Perennial Ryegrass

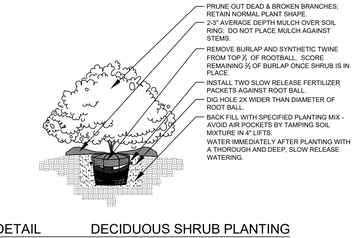
PLANTING & HARDSCAPE SCHEDULE



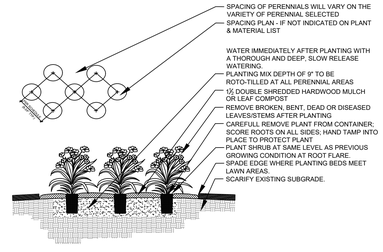
1 DETAIL SHADE TREE PLANTING
N.T.S. SECTION



2 DETAIL EVERGREEN TREE PLANTING
N.T.S. SECTION



5 DETAIL DECIDUOUS SHRUB PLANTING
N.T.S. SECTION



6 DETAIL GROUNDCOVER / PERENNIAL PLANTING
N.T.S. SECTION

PLANTING & HARDSCAPE DETAILS

HELLER & ASSOCIATES, LLC
LANDSCAPE ARCHITECTURE
P.O. Box 1359
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ph 262.639.9733
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BRIOHN DESIGN GROUP
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BROOKFIELD WISCONSIN 53045-1950
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(262) 790-0505 FAX

SHEET TITLE
LANDSCAPE NOTES, DETAILS, & SCHEDULE

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND RD.
CITY OF PEWAUKEE, WISCONSIN

Revision
Date

JOB: 230119
DRAWN: WDH
CHECKED: WDH
DATE: 03-05-2024
SHEET:
L 1.2

STRUCTURAL CODES & STANDARDS

- INTERNATIONAL BUILDING CODE - 2015 WITH WISCONSIN INSERTS

- INTERNATIONAL EXISTING BUILDING CODE - 2015

- ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE/SEI 2010

- ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY, 2014

- ACI 530/530.1-13 BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES (AND RELATED COMMENTARIES), 2013

- AISC-ASD/LRFD (ASD USED) STEEL CONSTRUCTION MANUAL, 14TH EDITION

- AISC SEISMIC DESIGN MANUAL

- AWS D1.1/D1.1M STRUCTURAL WELDING CODE-STEEL, 2011 EDITION

- NDS-NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION ASD/LRFD (ASD USED), 2015 EDITION

- NDS-NATIONAL DESIGN SPECIFICATION SUPPLEMENT, DESIGN VALUES FOR WOOD CONSTRUCTION, 2015 EDITION

- AISI S200-12 - NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING-GENERAL PROVISIONS, 2012 EDITION

- AISI S211/S212/S213/S214-12 - NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING, 2012D EDITION (WALL STUD, HEADER, LATERAL, & TRUSS DESIGN)

DEFLECTION CRITERIA

ROOF MEMBERS:

	LIVE	SNOW OR WIND	DEAD + LIVE OR SNOW
SUPPORTING GYP. BOARD CEILINGS	L/360	L/360	L/360
SUPPORTING FLEXIBLE CEILINGS	L/240	L/240	L/240
NOT SUPPORTING CEILINGS	L/240	L/240	L/180
SUPPORTING RIGID MATERIALS (BRICK, ETC) ..	L/600 OR 0.3in.	L/600 OR 0.3in.	L/600 OR 0.3in.

FLOOR MEMBERS:

SUPPORTING RIGID MATERIALS (BRICK, ETC) ..	L/600 OR 0.3in.	L/600 OR 0.3in.
SUPPORTING FLEXIBLE MATERIALS	L/360	L/240

LINTEL/HEADER/BEAM MEMBERS:

SUPPORTING RIGID MATERIALS (BRICK, ETC) ...	L/600 OR 0.3in.	L/600 OR 0.3in.	L/600 OR 0.3in.
SUPPORTING FLEXIBLE MATERIALS(EIFS, SIDING) ...	L/360	L/360	L/240

EXTERIOR WALLS:

WITH RIGID FINISHES (BRICK, MASONRY, ETC)	L/600 OR 0.3in.
WITH FLEXIBLE FINISHES (EIFS, SIDING, ETC)	L/360

DESIGN STRESSES

CONCRETE AT 28 DAYS — F'c = 4000 PSI SLAB ON GRADE, PRECAST KEYWAYS AND TOPPING, SUPPORTED FLOORS, WALLS, PIERS, COLUMNS AND EXTERIOR EXPOSED CONCRETE.

F'c = 3000 PSI FOOTINGS

F'c = 1000 PSI SLURRY

AIR ENTRAIN EXTERIOR EXPOSED CONCRETE PER CONCRETE SPECS.

REINFORCING STEEL & W.W.F. — Fy = 60,000 PSI PER ASTM A615 GRADE 60.

STRUCTURAL STEEL — Fy = 50,000 PSI PER ASTM A992 U.N.O.

ASTM A36 GRADE 50 FOR CHANNELS, ANGLES, S-SHAPES, PLATE & BAR

HANDRAILS — Fy = 42,000 PSI PER ASTM A500 GRADE B.

TUBES — Fy = 46,000 PSI PER ASTM A500 GRADE B.

STRUCTURAL BOLTS — HIGH STRENGTH BOLTS, NUTS, & WASHERS, ASTM A 325

ZINC-PLATED HIGH STRENGTH BOLTS, NUTS, & WASHERS, ASTM A 325

STAINLESS STEEL BOLTS, NUTS, & WASHERS, ASTM F 593

SHEAR CONNECTORS, ASTM A 108 GRADES 1015 THRU 1020

THREADED RODS, ASTM A 36 GRADE 50

CLEVISES & TURNBUCKLES, ASTM A 108, GRADE 1035

EYE BOLTS & NUTS, ASTM A 108, GRADE 1030

ANCHOR BOLTS, ASTM F1554-07a, 55 KSI YIELD

CONCRETE MASONRY UNIT — F'm = 2,500 PSI (NET AREA COMPRESSIVE STRENGTH = 3750 PSI MIN.)

USE NORMAL WEIGHT BLOCK .

TYPE "M" MORTAR SHALL BE USED FOR FOUNDATION WALLS AND TYPE "S" OR "M" MORTAR SHALL BE USED ON WALLS ABOVE GRADE.

GROUT BETWEEN BASE PLATES & BRG. PLATES — NON-METALLIC, SHRINKAGE-RESISTANT ASTM C 1107.

COLD-FORMED METAL FRAMING — Fy = 33,000 PSI 18 GUAGE & LIGHTER

Fy = 50,000 PSI 16 GUAGE & HEAVIER, ALL TRACK TO BE 16 GUAGE

GALVANIZED COATING - G90

FIBER REINFORCEMENT — FIBRILLATED POLYPROPYLENE FIBERS ENGINEERED & DESIGNED FOR USE IN CONCRETE SLABS COMPLYING WITH ASTM C 1116, TYPE III, 1/2" TO 1 1/2" LONG.

SOIL BEARING PRESSURE — 3,000 PSF (VERIFIED - SEE SOILS REPORT) SOILS ENG. TO FIELD VERIFY SOIL BEARING CAPACITY BEFORE FOOTINGS ARE PLACED. PROVIDE WRITTEN VERIFICATION TO BRIOHN DESIGN GROUP UPON REQUEST.

PERIMETER FOOTINGS DESIGNED FOR 2000 PSF PER SOILS ENG. RECOMMENDATIONS.

DESIGN CRITERIA

DESIGN DEAD LOADS:
- ROOF — 25 PSF
- FLOORS — N/A PSF

DESIGN LIVE LOADS:
- ROOF — 20 PSF
- FLOORS — N/A PSF
- CORRIDORS, STAIRS — N/A PSF

WIND LOAD DESIGN CRITERIA:
- BASIC WIND SPEED — 115 MPH (ULT.)
- IMPORTANCE FACTOR, Iw — 1.0

SNOW LOAD DESIGN CRITERIA (MAIN ROOF):
- GROUND SNOW LOAD — 35 PSF
- EXPOSURE FACTOR — 1.0
- IMPORTANCE FACTOR — 1.0
- THERMAL FACTOR — 1.0
- THERMAL FACTOR (CANOPIES & OH) — N/A
- DESIGN SNOW LOAD (CANOPIES) — N/A
- DESIGN SNOW LOAD (MAIN ROOF) — 25 PSF

SEISMIC LOAD DESIGN CRITERIA:
- SEISMIC USE GROUP — II
- SITE CLASS — D
- SEISMIC DESIGN CATEGORY — B
- 1-SEC. SPECTRAL RESPONSE COEF — 0.074
- SHORT PERIOD SPECTRAL RESPONSE COEF — 0.093

DESIGN WIND PRESSURES:
- WIND IMPORTANCE FACTOR — 1.0
- BUILDING EXPOSURE CATEGORY — C
- DESIGN PROCEDURE - METHOD 1 (ENCLOSED)

DESIGN RAIN LOADS:
- RAINFALL INTENSITY (MILWAUKEE, WI) — 3 IN/HR.
- DESIGN ROOF PITCH — 1/8" / FT.
- # OF PRIMARY ROOF DRAINS — 10
- # OF SECONDARY ROOF SCUPPERS — 12
- SECONDARY ROOF DRAIN SIZE — OPEN SCUPPER
- SCUPPER SIZE — 5'-0" WIDE

ds (static head) — 6"
dh(hydraulic head) — 1.7"
RAIN LOAD OFFICE — 40 PSF MAX

NOTE: PONDING CHECK CONTROLS JOIST SIZE (SEE CALCS)

NOTE: IF THE SECONDARY DRAINAGE SYSTEM CONTAINS DRAIN LINES, SUCH LINES & THEIR POINT OF DISCHARGE SHOULD BE SEPERATE FROM THE PRIMARY DRAIN LINES.

ROOF

*NOTE: LOADS SHOWN @ ULT. LOADS

AREA	SURFACE PRESSURE (PSF) 10 SF	50 SF	100 SF
NEGATIVE ZONE 1	-34.4 PSF	-32.1 PSF	-31.2 PSF
NEGATIVE ZONE 2	-57.3 PSF	-43.1 PSF	-37.0 PSF
NEGATIVE ZONE 3	-82.2 PSF	-51.8 PSF	-37.0 PSF
POSITIVE ALL ZONES	13.9 PSF	11.9 PSF	11.0 PSF
OVERHANG ZONE 1 & 2	N/A	N/A	N/A
OVERHANG ZONE 3	N/A	N/A	N/A

WALL

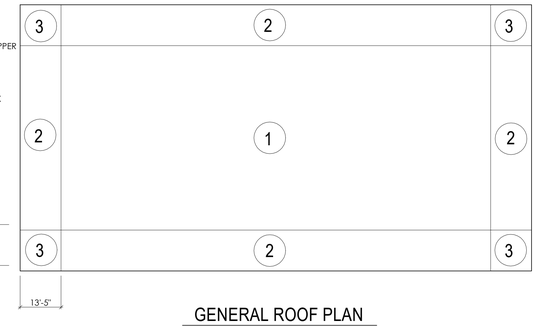
AREA	SURFACE PRESSURE (PSF) 10 SF	100 SF	500 SF
NEGATIVE ZONE 4	-33.8 PSF	-29.2 PSF	-26.0 PSF
NEGATIVE ZONE 5	-41.7 PSF	-32.5 PSF	-26.0 PSF
POSITIVE ZONE 4 & 5	31.2 PSF	26.6 PSF	23.4 PSF

PARAPET

	SOLID PARAPET PRESSURE	10 SF	100 SF	500 SF
CASE A = PRESSURE TOWARD BUILDING	CASE A : INTERIOR ZONE	N/A	N/A	N/A
	CASE A : CORNER ZONE	N/A	N/A	N/A
CASE B = PRESSURE AWAY FROM BUILDING	CASE B : INTERIOR ZONE	N/A	N/A	N/A
	CASE B : CORNER ZONE	N/A	N/A	N/A

PEDESTRIAN HANDRAILS OR GUARDS:
200 LB. LOAD OR 50 PLF LOAD APPLIED IN ANY DIRECTION AT TOP OF HANDRAIL ASSEMBLY OR GUARD & TO TRANSFER THIS LOAD THROUGH SUPPORTS TO THE STRUCTURE.

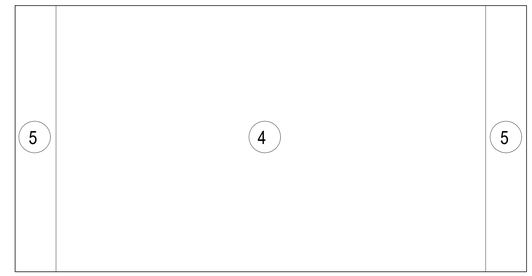
CRANE LOADS:
- MAXIMUM WHEEL LOAD — N/A
- VERTICAL IMPACT FORCE — N/A
- LATERAL FORCE — N/A
- LONGITUDINAL FORCE — N/A



GENERAL ROOF PLAN

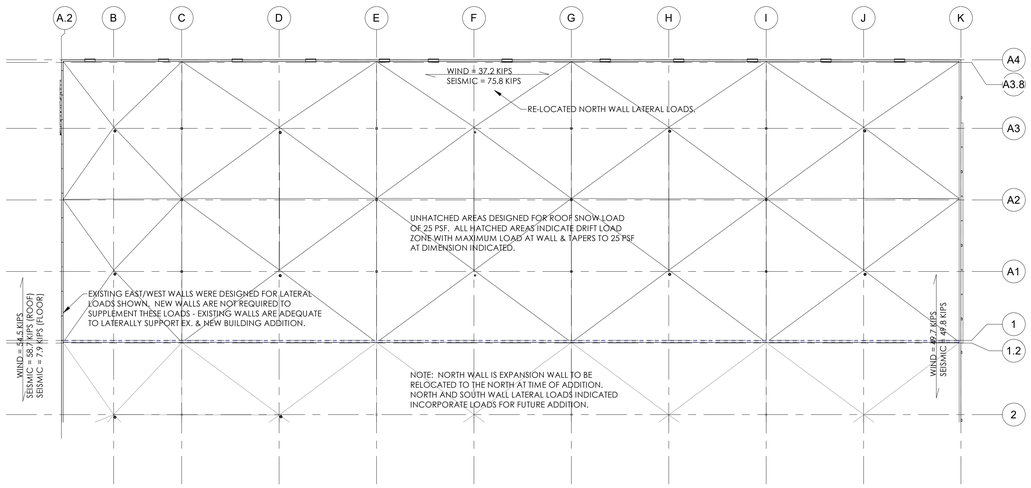
ROOF UPLIFT NOTES:

1. ALL ROOF JOISTS AND GIRDERS TO BE DESIGNED FOR A NET UPLIFT OF 10 PSF.

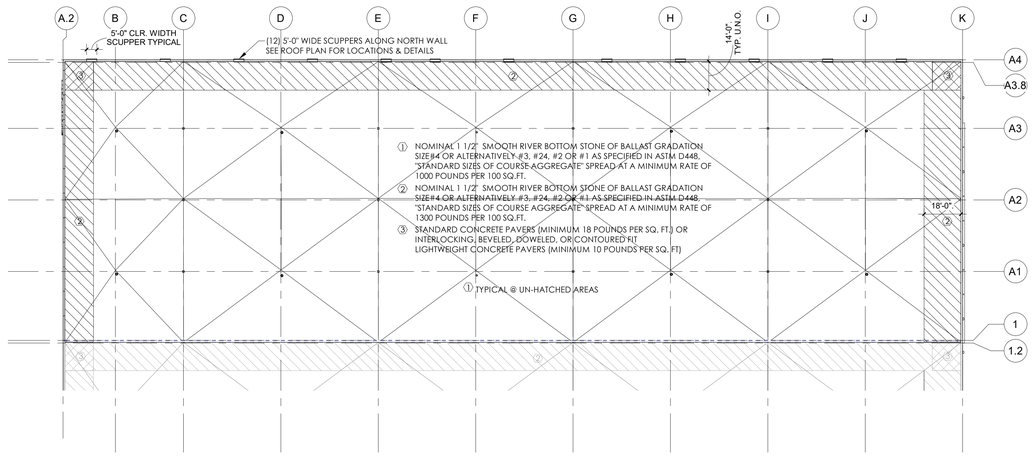


GENERAL WALL ELEVATION

3 STRUCTURAL DESIGN CRITERIA
1/4" = 1'-0"



1 SNOW DRIFT & LATERAL LOADS
1" = 30'-0"



2 ROOF BALLAST LOADING PLAN
1" = 30'-0"

BRIOHN DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-9500 PHONE
(262) 790-9505 FAX

SHEET TITLE: STRUCTURAL NOTES

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision

Date

JOB: 230119
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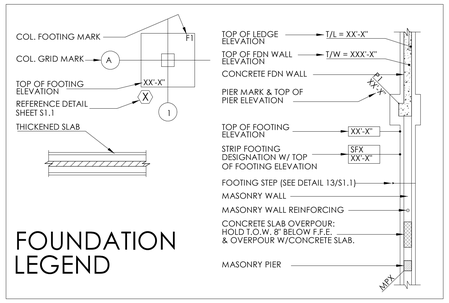
CHECKED: KAJ
DATE: 03-05-2024
SHEET: S0.1



FOUNDATION LEGEND

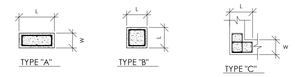
FOUNDATION PLAN NOTES:
- TOP OF FOOTINGS AT INTERIOR COLUMNS = EL. 98'-6" U.N.O.
- ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED BY CONTRACTOR TO CONFORM WITH THOSE SHOWN ON THE ARCHITECTURAL PLANS.
- THE CONTRACTOR SHALL ALSO VERIFY ELEVATIONS OF EXISTING SLABS, FOOTINGS, WALLS ECT. BRIOHN DESIGN GROUP SHALL BE NOTIFIED IF ANY DISCREPANCY IS DISCOVERED.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE LATERAL BRACING FOR ALL FOUNDATION WALLS.
- PROVIDE DOWELS TO MATCH ALL VERTICAL REINFORCING IN MASONRY PIERS AND WALLS.

FOOTING SCHEDULE

MARK	SIZE	THICKNESS	REINFORCING	REMARKS
F3	5'-6" x 5'-6"	12"	(5) - #5 BARS E.W. BOTTOM	
SF1	1'-4"XCONT.	8"	(2) - #5 BARS BOTTOM	#3 CROSS BARS @ LAPS OR 10'-0" O.C. MAX.
SF2	2'-0"XCONT.	12"	(2) - #5 BARS BOTTOM	#3 CROSS BARS @ LAPS OR 10'-0" O.C. MAX.
SF3	2'-6"XCONT.	12"	(3) - #5 BARS BOTTOM	#3 CROSS BARS @ LAPS OR 10'-0" O.C. MAX.
SF4	3'-0"XCONT.	12"	(3) - #5 BARS BOTTOM	#3 CROSS BARS @ LAPS OR 3'-0" O.C. MAX.

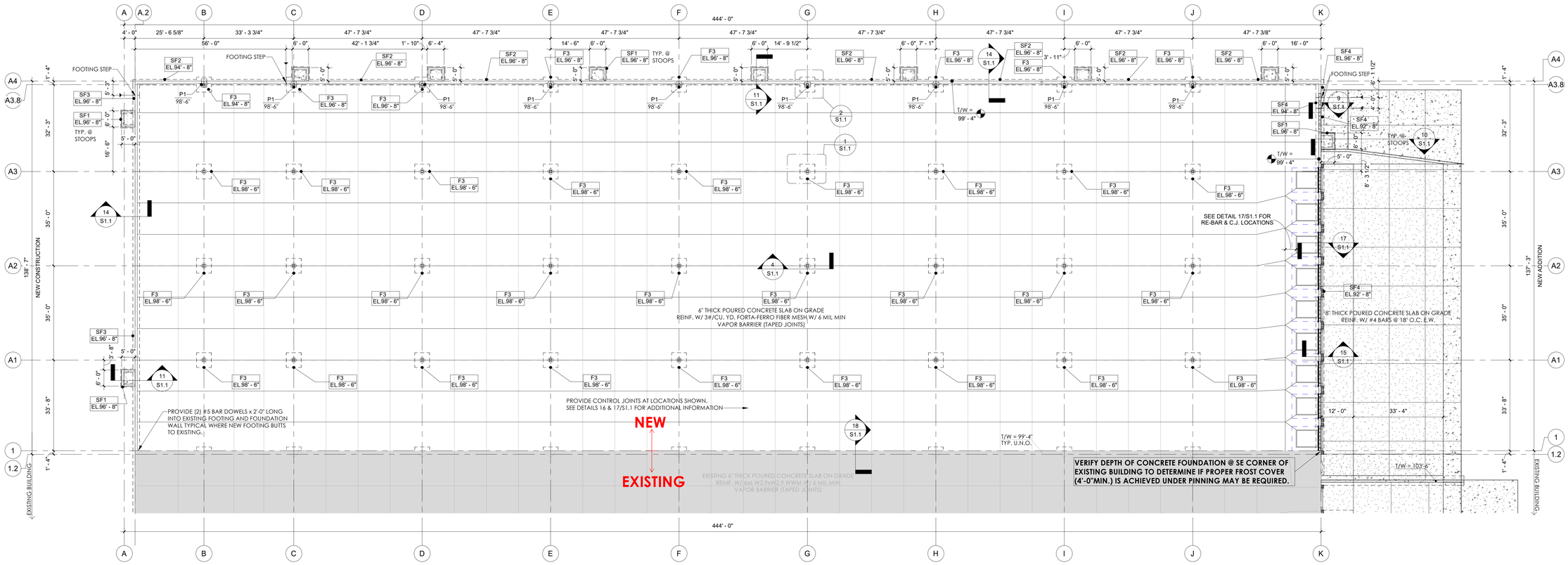
FOOTING NOTES:
- SOIL BEARING CAPACITY= 3000 PSF (VERIFIED BY SOILS ENGINEER) 2000 PSF @ PERIMETER WALL FOOTINGS
- SITE CLASS "D"

CONCRETE PIER SCHEDULE



MARK	TYPE	SIZE (L) IN INCHES	VERTICAL REINFORCEMENT (NOTE 2)	TIES	REMARKS
P1	B	24"	(8) - #7 BARS	#3 TIES @ 12"	

CONCRETE PIER NOTES:
- W = WALL WIDTH – SEE PLAN
- PROVIDE DOWELS OF SAME SIZE AND NUMBER AS VERTICAL REINFORCEMENT. MINIMUM LAP PER ACI 318-02 CHAPTER 12 WITH STANDARD ACI HOOK INTO FOOTING.
- RUN HORIZONTAL REINFORCEMENT THROUGH PIER.



1 FOUNDATION PLAN
1/16" = 1'-0"

APPLICABLE TO ALL PLAN VIEWS

BRIOHN
DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
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SHEET TITLE
FOUNDATION PLAN

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision	Date
CONSTRUCTION BULLETIN 1	08-08-17

JOB: 230119
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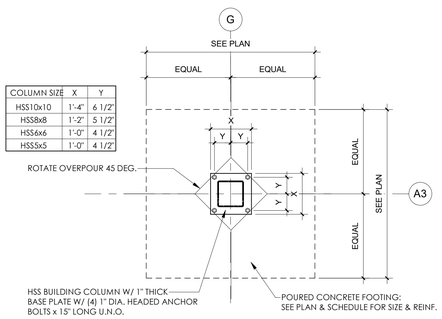
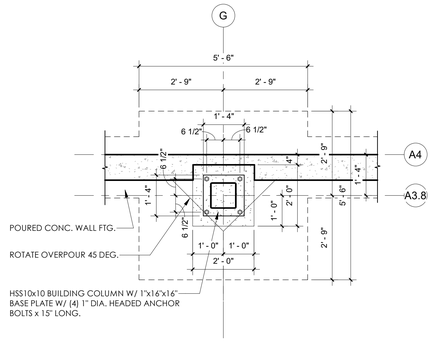
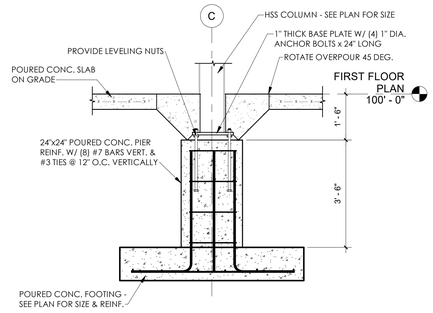


COLUMN SIZE	X	Y
HSS10x10	1'-4"	6 1/2"
HSS8x8	1'-2"	5 1/2"
HSS6x6	1'-0"	4 1/2"
HSS5x5	1'-0"	4 1/2"

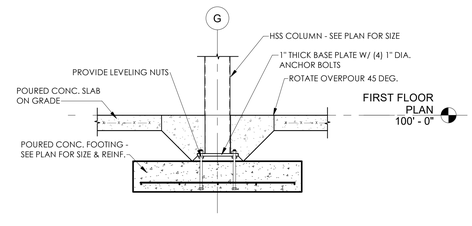
1 TYPICAL WAREHOUSE COLUMN SETTING
1/2" = 1'-0"



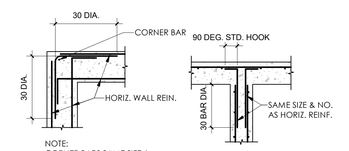
2 TYPICAL NORTH WALL COLUMN SETTING
1/2" = 1'-0"



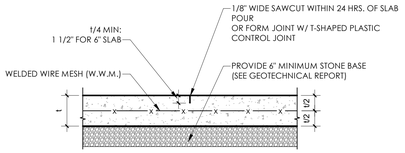
3 SECTION THROUGH PIER FOOTING
1/2" = 1'-0"



4 TYPICAL SECTION OF INT. FOOTING
1/2" = 1'-0"



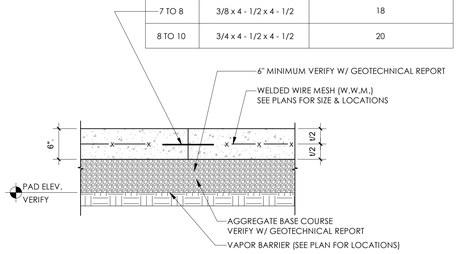
5 CONCRETE WALL CORNER & INTERSECTION
1/2" = 1'-0"



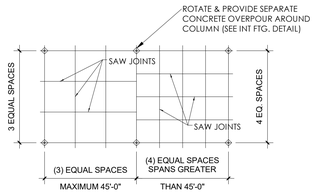
6 SLAB ON GRADE CONTROL JOINT
1/2" = 1'-0"

NOTES: TABLE VALUES BASED ON A MAXIMUM JOINT OPENING OF 0.20 IN. (5 MM).

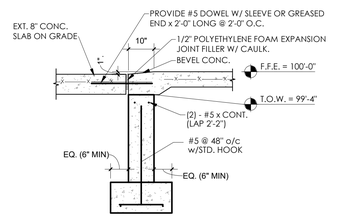
SLAB DEPTH, IN.	DIAMOND LOAD PLATE, DIMENSIONS, IN.	DIAMOND LOAD PLATE SPACING CENTER - TO - CENTER, IN.
5 TO 6	1/4 x 4 - 1/2 x 4 - 1/2	18
7 TO 8	3/8 x 4 - 1/2 x 4 - 1/2	18
8 TO 10	3/4 x 4 - 1/2 x 4 - 1/2	20



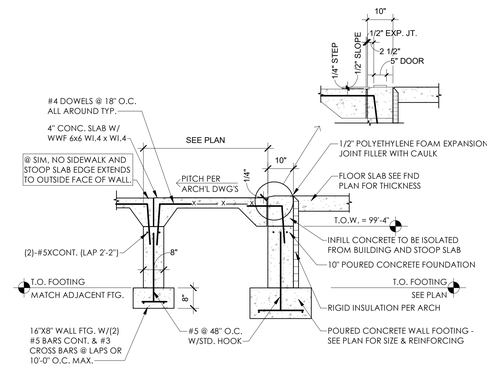
7 SLAB ON GRADE CONSTRUCTION JOINT
1/2" = 1'-0"



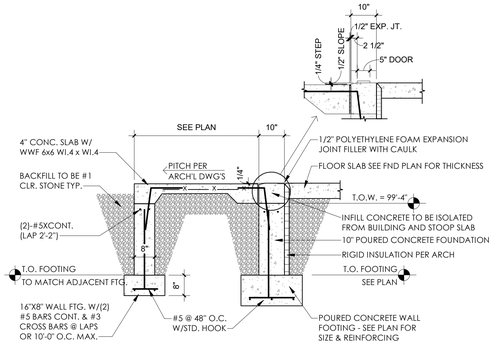
8 SLAB ON GRADE DETAIL
1/2" = 1'-0"



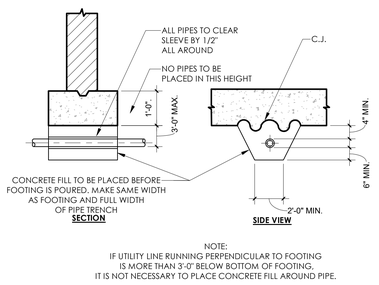
9 CONC. INFILL @ OVERHEAD DOORS
1/2" = 1'-0"



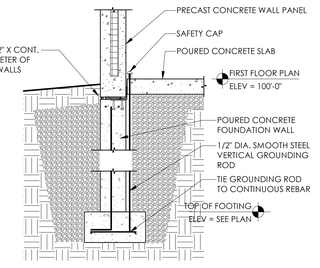
10 TYPICAL STOOP SECTION W/ SIDEWALK
1/2" = 1'-0"



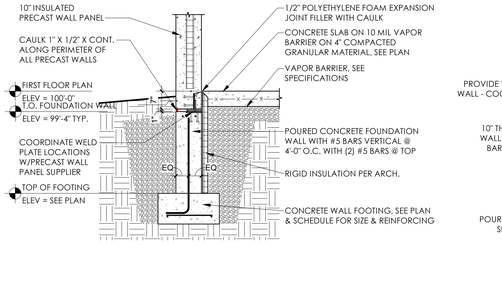
11 TYPICAL STOOP SECTION
1/2" = 1'-0"



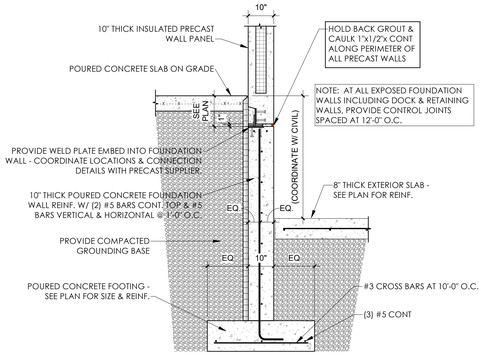
12 PIPE PENETRATION @ STRIP FOOTING
1/2" = 1'-0"



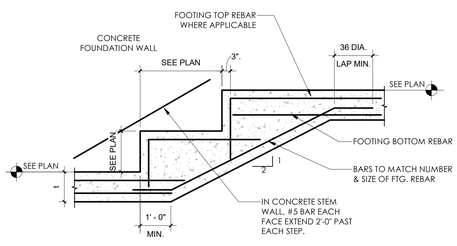
13 GROUNDING ROD DETAIL
1/2" = 1'-0"



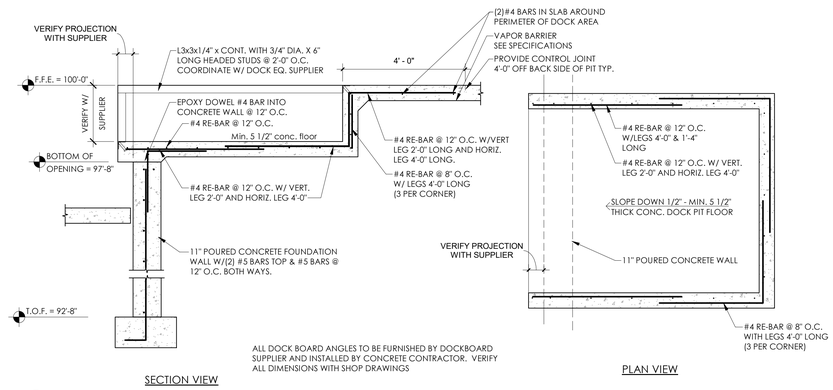
14 TYPICAL FOUNDATION WALL FOOTING
1/2" = 1'-0"



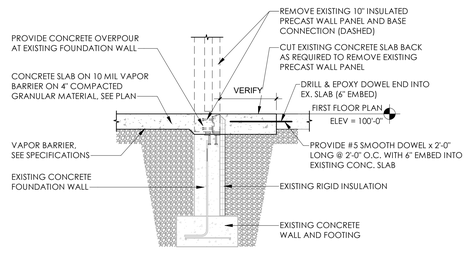
15 FOUNDATION WALL FOOTING @ LOADING DOCK
1/2" = 1'-0"



16 TYPICAL STEPPED WALL FOOTING
1/2" = 1'-0"



17 LOADING DOCK DETAILS
1/2" = 1'-0"



18 CONCRETE FLOOR CONNECTION TO EXISTING FLOOR
1/2" = 1'-0"

BRIOHN DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
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SHEET TITLE
FOUNDATION/FRAMING DETAILS

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision

Date

JOB:	230119
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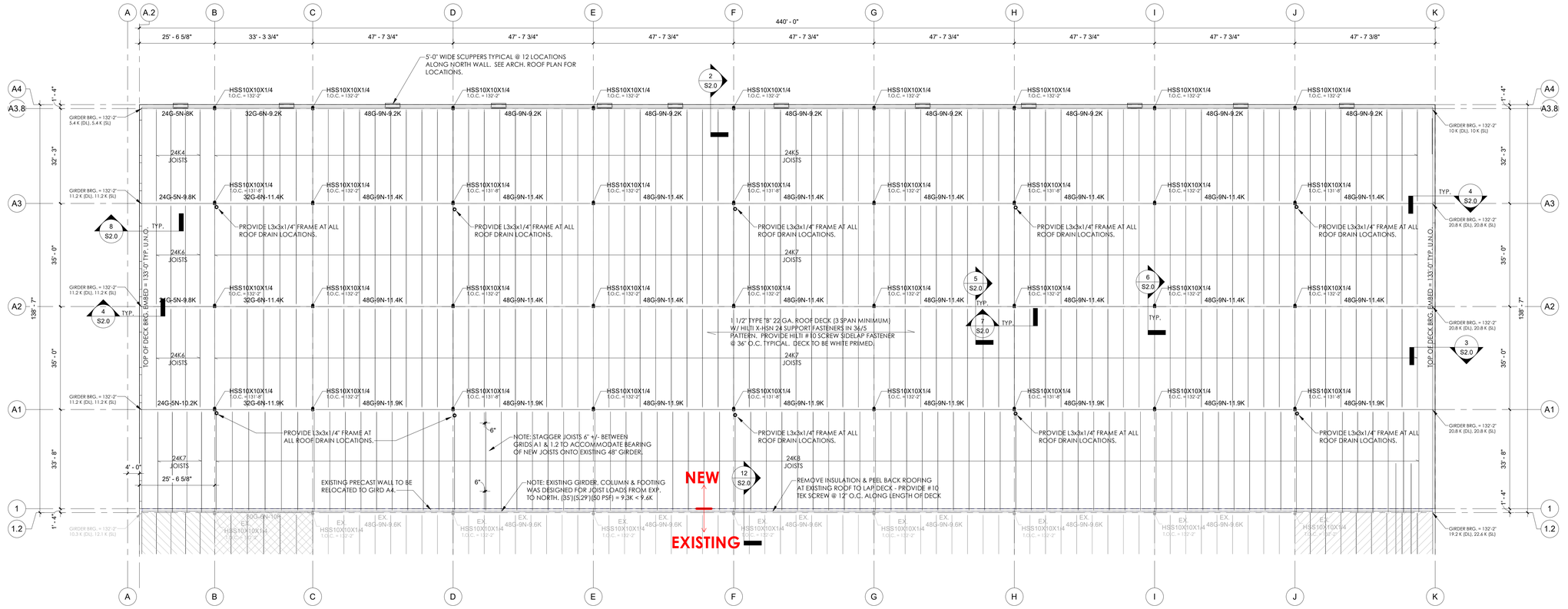
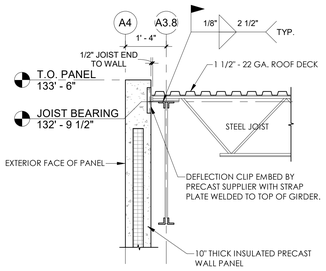
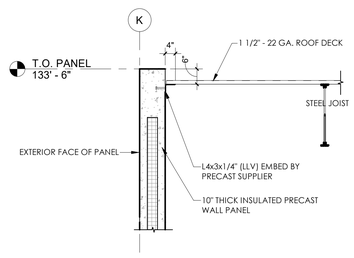


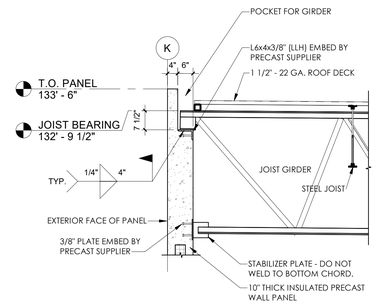
1 ROOF FRAMING PLAN
1/16" = 1'-0"



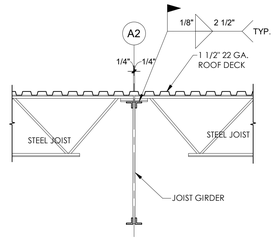
2 TYPICAL JOIST BEARING @ NORTH PANEL
1/2" = 1'-0"



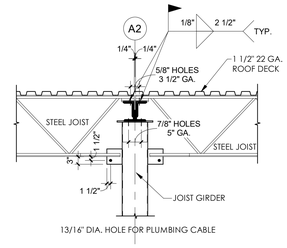
3 TYPICAL DECK BRG. @ PANEL
1/2" = 1'-0"



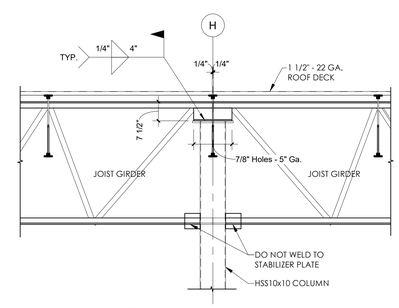
4 TYPICAL GIRDER BRG. @ PANEL
1/2" = 1'-0"



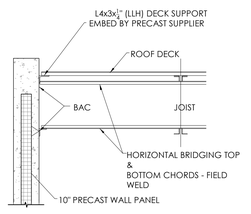
5 JOIST BEARING ON GIRDER
1/2" = 1'-0"



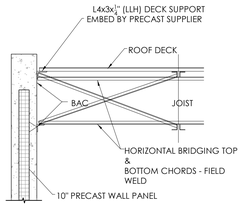
6 JOIST BEARING @ COLUMN
1/2" = 1'-0"



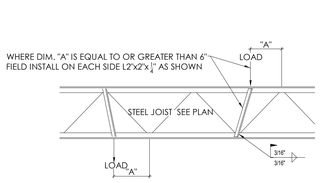
7 GIRDER BEARING ON COLUMN
1/2" = 1'-0"



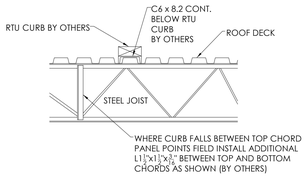
8 HORIZONTAL BRIDGING DETAIL
1/2" = 1'-0"



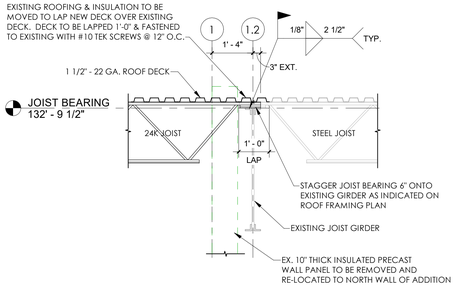
9 DIAGONAL BRIDGING DETAIL
1/2" = 1'-0"



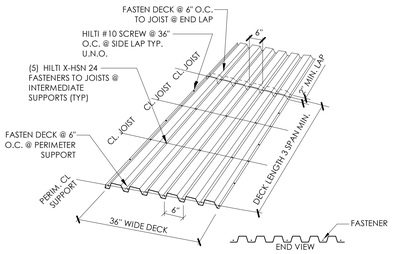
10 JOIST REINFORCEMENT @ CONCENTRATED LOADS
1/2" = 1'-0"



11 TYPICAL RTU SUPPORT DETAIL
1/2" = 1'-0"



12 JOIST BEARING @ EX. BUILDING
1/2" = 1'-0"



NOTE: 5 FASTENERS PER SHEET ARE REQUIRED IN EXACT LOCATIONS SHOWN OR ADDITIONAL FASTENING WILL BE REQUIRED
TYPICAL DECK FASTENING - SEE PLAN FOR ADDITIONAL FASTENING REQUIREMENTS @ END BAYS.

13 DECK FASTENING DETAIL
1/2" = 1'-0"

APPLICABLE TO ALL PLAN VIEWS

BRIOHN
DESIGN GROUP
3885 N BROOKFIELD ROAD, SUITE 200
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(262) 790-9500 PHONE
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SHEET TITLE
ROOF FRAMING PLAN & FRAMING DETAILS

PROPOSED ADDITION TO:
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BLUEMOUND ROAD
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Revision
Date

JOB:	230119
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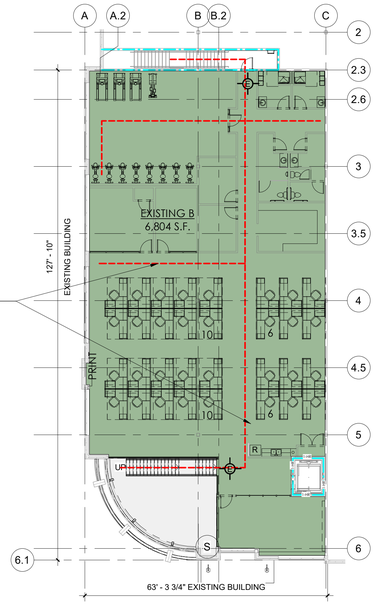
SHEET:
S2.0



2 SECOND FLOOR EGRESS PLAN
1/16" = 1'-0"

CODE CALCULATIONS AND ANALYSIS:

OCCUPANCY CALCULATION:

OCCUPANCY S-1 STORAGE (PRIMARY)
500 SQUARE FEET IS MAXIMUM FLOOR AREA ALLOWANCE PER OCCUPANT
66,662 (EXIST'G) + 60,161 (NEW) = 126,823 SF GROSS / 500 SF PER PERSON = 254 PEOPLE MAX.

OCCUPANCY B BUSINESS (SECONDARY)
100 SQUARE FEET IS MAXIMUM FLOOR AREA ALLOWANCE PER OCCUPANT
14,136 SF GROSS / 100 SF PER PERSON = 142 PEOPLE MAXIMUM

TOTAL OCCUPANCY = 396 PEOPLE MAXIMUM

PLUMBING FIXTURE CALCULATION:

BASED ON S-1 STORAGE OCCUPANCY = 254 PEOPLE

TOILET FIXTURES (WC) REQUIRED AND PROVIDED ARE AS FOLLOWS:
S-1 127 MEN = 1.27 FIXTURES (WC) REQUIRED
S-1 127 WOMEN = 1.27 FIXTURES (WC) REQUIRED
MEN FIXTURES (WC) REQUIRED 2 TOTAL
WOMEN FIXTURES (WC) REQUIRED 2 TOTAL

LAVATORY FIXTURES REQUIRED AND PROVIDED ARE AS FOLLOWS:
S-1 MEN AND WOMEN 254 = 4 LAVATORY FIXTURE REQUIRED
MEN AND WOMEN FIXTURES (LAV) REQUIRED 4 TOTAL

BASED ON B BUSINESS OCCUPANCY = 142 PEOPLE

TOILET FIXTURES (WC) REQUIRED AND PROVIDED ARE AS FOLLOWS:
B 71 MEN = 3 FIXTURES (WC) REQUIRED
B 71 WOMEN = 3 FIXTURES (WC) REQUIRED
MEN FIXTURES (WC) REQUIRED 3 TOTAL A
WOMEN FIXTURES (WC) REQUIRED 3 TOTAL

LAVATORY FIXTURES REQUIRED AND PROVIDED ARE AS FOLLOWS:
B MEN AND WOMEN 142 = 4 LAVATORY FIXTURE REQUIRED
MEN AND WOMEN FIXTURES (LAV) REQUIRED 4 TOTAL

TOTAL FIXTURES REQUIRED/TOTAL FIXTURES PROVIDED

TOILET FIXTURES (WC) REQUIRED: MEN 5: WOMEN 5 (WC) PROVIDED: MEN 6: WOMEN 5
LAVATORY FIXTURES REQUIRED: MEN 4: WOMEN 4 PROVIDED: MEN 3: WOMEN 3

OWNER WILL BE LIMITING THEIR OCCUPANT COUNT TO 176 PEOPLE
BASED ON THE NUMBER OF EXISTING PARKING STALLS YET STILL
MEETS PLUMBING COUNT REQUIREMENTS

EXIT WIDTH REQUIRED AND EXIT ACCESS TRAVEL DISTANCE:

EXIT WIDTH REQUIRED 298 x .20 = 59.6 INCHES OR 32 INCHES EACH MINIMUM CLEAR X (2) EXITS
EXIT WIDTH PROVIDED (10) 36" WIDE DOORS x 34" = 340" WIDTH
TOTAL EXIT WIDTH PROVIDED OF 340" EXCEEDS REQUIRED EXIT WIDTH CALCULATED (59.6")
TOTAL NUMBER OF EXISTING EXITS PROVIDED (10) MEETS THE NUMBER OF EXITS REQUIRED (2)
REFER TO SHEET A1.0 FOR ADDITIONAL INFORMATION

EXIT TRAVEL DISTANCE = LESS THAN 250'

AREA AND HEIGHT LIMITATION CALCULATIONS:

PER IBC TABLE 504.3 & 504.4 (HEIGHT & STORIES) & 506.2 (AREA)
FOR OCCUPANCY GROUP F1 (TYPE 2B CONSTRUCTION (INCLUDES AUTOMATIC SPRINKLER INCREASE) PLUS FRONTAGE INCREASE]
1 STORY AND 62,000 S.F. ALLOWED FROM TABLE 504.4 & 506.2 PLUS 46,500 S.F.
FRONTAGE INCREASE = 108,500 S.F.
THE ACTUAL SIZE IS 66,000 S.F. AND 1 (ONE) STORY.

THE BUILDING IS CLASSIFIED AS AN UNLIMITED AREA BUILDING PER SECTION 507

THE BUILDING AREA IS AT OR BELOW THE ALLOWABLE AREA LIMITS AND STORY LIMITS PER TABLE 506.2 WITH AUTOMATIC SPRINKLER AND FRONTAGE INCREASE. THE BUILDING IS BELOW ALLOWABLE HEIGHT LIMIT OF 55 FEET. THE ACTUAL HEIGHT IS 32.5 FEET. PER TABLE 504.3

MULTIPLE OCCUPANCIES:

BUILDING DESIGN IS BASED ON NON-SEPARATED OCCUPANCIES PER IBC 508.3.
THE ALLOWABLE AREA AND HEIGHT BELOW IS THE MORE RESTRICTIVE OCCUPANCY GROUP, WHICH IS F-1. REFER TO IBC TABLE 506.2

CONSTRUCTION CLASSIFICATION REQUIREMENTS:

PER IBC TABLE 601 AND TABLE 602:

TYPE IIB CONSTRUCTION:	
PRIMARY STRUCTURAL FRAME	"0" RATING REQUIRED
INTERIOR BEARING WALLS	"0" RATING REQUIRED
EXTERIOR BEARING WALLS (PER TABLE 602 > 30 FEET	"0" RATING REQUIRED
NONBEARING WALLS AND PARTITIONS	"0" RATING REQUIRED
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	"0" RATING REQUIRED
ROOF CONSTRUCTION AND SECONDARY MEMBERS	"0" RATING REQUIRED

EXTERIOR WALL OPENINGS ALLOWED:

PER IBC TABLE 705.8:
THE NEW WALLS OF THE PROPOSED ADDITION ARE GREATER THAN 30 FEET AWAY FROM THE PROPERTY LINE OR STREET; THEREFORE, THERE ARE NO RESTRICTIONS ON OPENINGS BOTH PROTECTED AND UNPROTECTED.

BUILDING ENVELOPE REQUIREMENTS:

BUILDING ENVELOPE REQUIREMENTS: PROPOSED TO USE PRECRIPTIVE METHOD. PER SPS 363.0402 BUILDING ENVELOPE REQUIREMENTS. (1) OPAQUE ASSEMBLIES, SUBSTITUE 2009 IECC TABLE 502.2 (1) PER SPS 363.5402 BUILDING ENVELOPE REQUIREMENTS. (1) INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT. REFER TO SHEET A5.1 EXTERIOR ELEVATIONS.

March 04, 2024

Vince Schmidt
Lakeland Supply Co., Inc.
N17W25081 W. Bluemound Road
Pewaukee, WI 53072

RE: Occupant load for new addition

To Whom it may concern,

We are adding onto our Lakeland Supply Company in Pewaukee. The new 60,400 s.f. addition will be added to our Warehouse (S-1) portion of our existing building with the Office portion (B) remaining the same. The new warehouse addition will be used solely for storage and therefore we will not be increasing our current number of employees. The existing building has allowed an occupancy of 275 people. The total actual number of existing plumbing fixtures exceeds the total number of required plumbing fixtures per Chapter 29 Plumbing Systems of the 2015 IBC for the existing building.

Fixture	Required Fixtures	Provided Fixtures
Water Closets:	10 Total	11 Total (8WC/3Urinals)
Lavatories	6 Total	6 Total

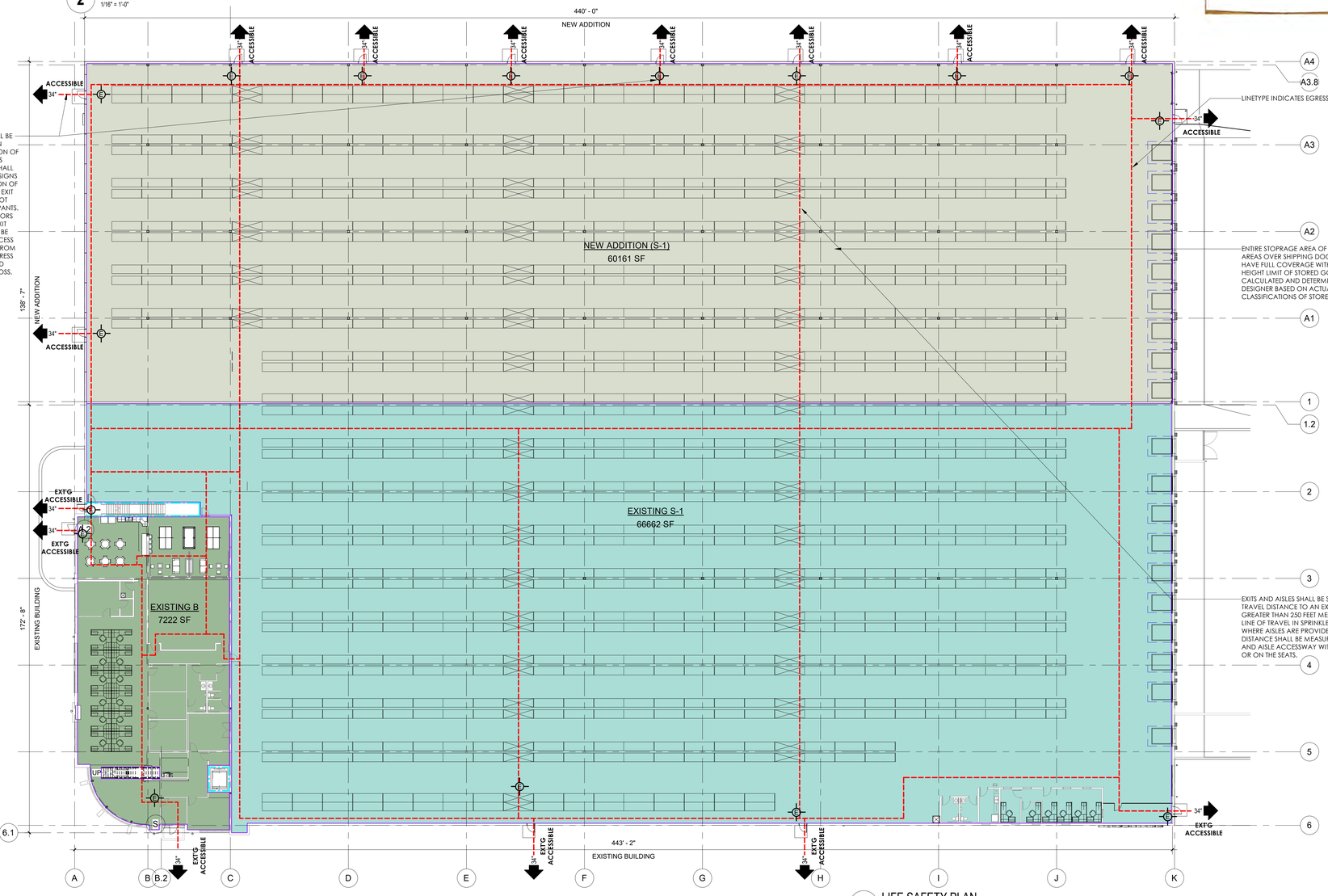
There is currently a Breakroom provided for each the Office portion and for the Warehouse portion as well as a drinking fountain provided in the Warehouse. Lakeland Supply Company currently employs 34 people. With the addition, the increase of allowed occupancy is 121 people with a total allowed number of 396 occupants for the entire building including the addition which is far beyond the maximum occupancy our company would employ. Lakeland Supply Company would like to limit the occupancy of the building to 176 people, which aligns with the number of existing parking stalls and complies with the number of existing plumbing fixtures.

Sincerely,

Lakeland Supply Company, Inc.

Vince Schmidt

Date: 3/5/24



1 LIFE SAFETY PLAN
1" = 20'-0"

GENERAL NOTES - CODE PLAN

Key Name	Comments
1	EXITS AND AISLES SHALL BE SO LOCATED THAT THE TRAVEL DISTANCE TO AN EXIT DOOR SHALL NOT BE GREATER THAN 250 FEET MEASURED ALONG THE LINE OF TRAVEL IN SPRINKLERED BUILDINGS. WHERE AISLES ARE PROVIDED FOR SEATING, THE DISTANCE SHALL BE MEASURED ALONG THE AISLES AND AISLE ACCESSWAY WITHOUT TRAVEL OVER OR ON THE SEATS.
2	EGRESS ROUTE & ACCESSIBLE ROUTE SHALL BE RE-EVALUATED FOR FUTURE TENANTS NEEDS IN TENANT SPACES.
3	EXITS AND EXIT ACCESS DOORS SHALL BE MARKED BY AN APPROVED EXIT SIGN READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. THE PATH OF EGRESS TRAVEL TO EXITS AND WITHIN EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGNS TO CLEARLY INDICATE THE DIRECT ON EGRESS TRAVEL IN CASES WHERE THE EXIT OR THE PATH OF EGRESS TRAVEL IS NOT IMMEDIATELY VISIBLE TO THE OCCUPANTS. INTERVENING MEANS OF EGRESS DOORS WITHIN EXITS SHALL BE MARKED BY EXIT SIGNS. EXIT SIGN PLACEMENT SHALL BE SUCH THAT NO POINT IN AN EXIT ACCESS CORRIDOR IS MORE THAN 100 FEET FROM THE NEAREST VISIBLE EXIT SIGN. ADDRESS THE NEED FOR 90 MINUTE CONTINUED ILLUMINATION IN CASE OF POWER LOSS. PROVIDE EXTERIOR SIDE LIGHT FIXTURES FOR EXITS. REFER TO ELECTRICAL DRAWINGS.
4	OWNER SHALL PROVIDE ACCESSIBLE DRINKING WATER FACILITIES.
5	EXIT TRAVEL DISTANCE IS LESS THAN 250 FEET.

RATED PARTITION LEGEND

1 FB — 1 HOUR RATED FIRE BARRIER WALL

CODE PLAN LEGEND

- EXIT ACCESS
- 34" EXIT WIDTH
- E EXIT LIGHT
- FE FIRE EXTINGUISHER BRACKET MTD.
- FEC FIRE EXTINGUISHER CABINET

OCCUPANCY LEGEND

- EXISTING B
- EXISTING S-1
- NEW ADDITION (S-1)

APPLICABLE TO ALL PLAN VIEWS

BRIOHN DESIGN GROUP
3880 N BROOKFIELD ROAD, SUITE 200
BROOKFIELD WISCONSIN 53045-1950
(262) 790-9500 PHONE
(262) 790-9505 FAX

LIFE SAFETY PLAN

SHEET TITLE

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision

Date

JOB:	230119
DRAWN:	CJR
CHECKED:	CW
DATE:	03-05-2024
SHEET:	A0.1

FIG. 302.2
CARPET ON FLOOR SURFACES

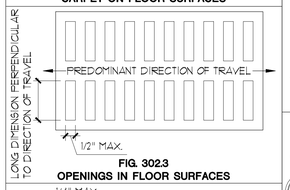
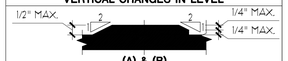
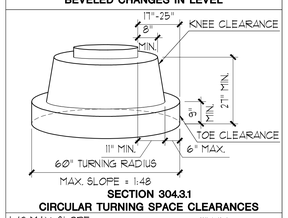


FIG. 302.3
OPENINGS IN FLOOR SURFACES

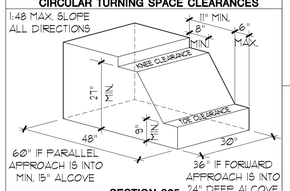
FIG. 303.2
VERTICAL CHANGES IN LEVEL



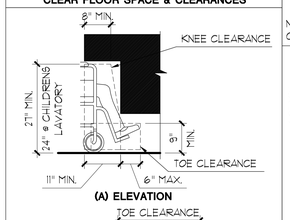
(A) & (B)
FIG. 303.3
BEVELED CHANGES IN LEVEL



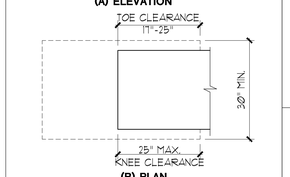
SECTION 304.3.1
CIRCULAR TURNING SPACE CLEARANCES



SECTION 305
CLEAR FLOOR SPACE & CLEARANCES



(A) ELEVATION



(B) PLAN
FIGS. 306.2 & 306.3
TOE AND KNEE KNEE CLEARANCES

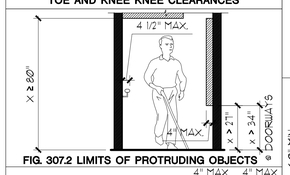


FIG. 307.2 LIMITS OF PROTRUDING OBJECTS

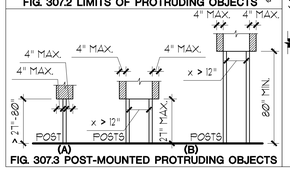


FIG. 307.3 POST-MOUNTED PROTRUDING OBJECTS

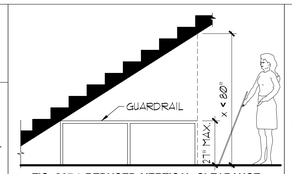


FIG. 307.4 REDUCED VERTICAL CLEARANCE

FIG. 308.2.1
UNOBSTRUCTED FORWARD REACH

FIG. 308.3.1
UNOBSTRUCTED SIDE REACH

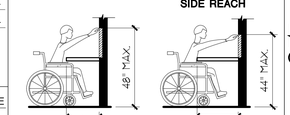
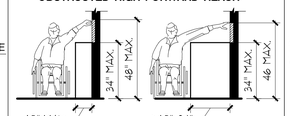


FIG. 308.2.2
OBSTRUCTED HIGH FORWARD REACH



NOTE: ALL OPERABLE PARTS REQUIRED TO BE ACCESSIBLE SHALL BE WITHIN THE RANGES OF FIGURES 308.2.1 THRU 308.3.2.

FIG. 308.3.2 OBSTRUCTED HIGH SIDE REACH

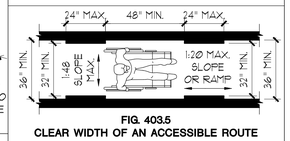
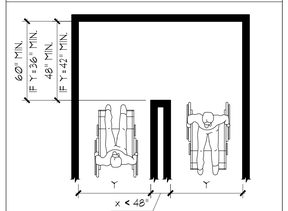


FIG. 403.5
CLEAR WIDTH OF AN ACCESSIBLE ROUTE

NOTE: PROTRUDING OBJECTS SHALL NOT REDUCE THE CLEAR WIDTH REQUIRED FOR ACCESSIBLE ROUTES



(A) 180 DEGREE TURN AND
(B) 180 DEGREE TURN (EXCEPTION)
FIG. 403.5.1 CLEAR WIDTH AT TURN

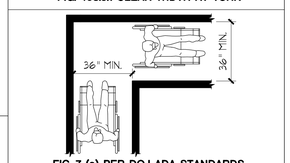
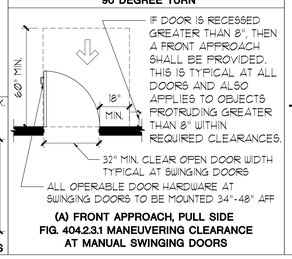
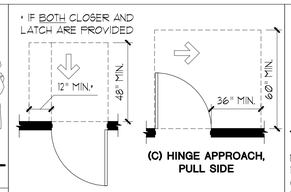
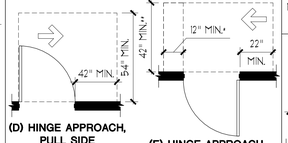


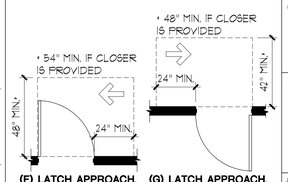
FIG. 7 (a) PER DOJ ADA STANDARDS
90 DEGREE TURN



(A) FRONT APPROACH, PULL SIDE
FIG. 404.2.3.1 MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS

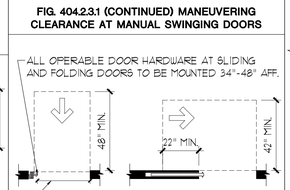


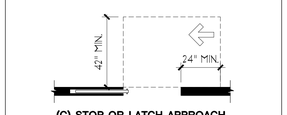




* IF BOTH CLOSER AND LATCH ARE PROVIDED
** 48" MIN. IF BOTH CLOSER AND LATCH ARE PROVIDED

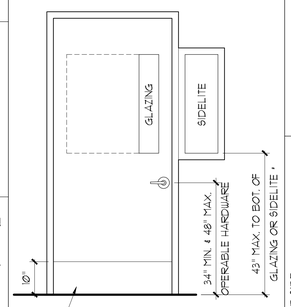
FIG. 404.2.3.1 (CONTINUED) MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS





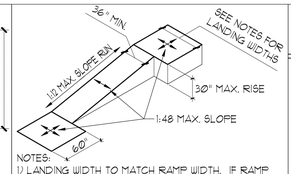
(C) STOP OR LATCH APPROACH

FIG. 404.2.3.2 MANEUVERING CLEARANCE AT SLIDING AND FOLDING DOORS



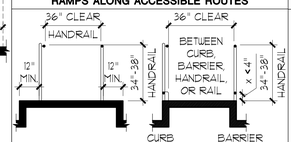
* VISION LITES WITH THE LOWEST PART MORE THAN 66" ABOVE THE FLOOR ARE EXEMPT FROM MAX. HEIGHT REQUIREMENT.

SECTIONS 404.2.6, 404.2.9, & 404.2.10
DOOR HARDWARE, SURFACE, & VISION LITES



NOTES:
1) LANDING WIDTH TO MATCH RAMP WIDTH. IF RAMP CHANGES DIRECTION, THEN LANDING MUST BE 60" WIDE. IF LANDING IS AT DOOR, THEN LANDING WIDTH MUST ACCOMMODATE REQUIRED DOOR CLEARANCES.
2) CLEAR FLOOR AREAS REQUIRED AT DOORS STILL APPLY AT DOORS ON LANDINGS, BUT MAY OVERLAP LANDING DIMENSIONS.
3) HANDRAILS REQUIRED FOR RAMPS RISING 6" OR MORE.

SECTION 405
RAMPS ALONG ACCESSIBLE ROUTES



(A) EXTENDED SURFACE (B) CURB OR BARRIER

NOTE: IF GRADE DIFFERENCE ADJACENT TO RAMP IS GREATER THAN 30", THEN A GUARDRAIL IS ALSO REQUIRED PER INTERNATIONAL BUILDING CODE

FIG. 405.9 RAMP EDGE PROTECTION

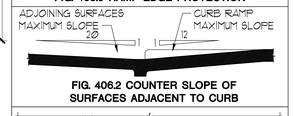
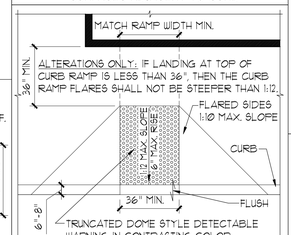
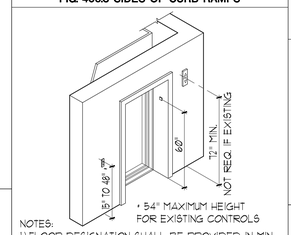


FIG. 406.2 COUNTER SLOPE OF SURFACES ADJACENT TO CURB



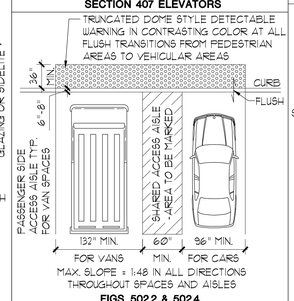
NOTE: REFER TO CODE FOR RAMPS IN SERIES, CORNER, DIAGONAL, AND ISLAND RAMPS.

FIG. 406.3 SIDES OF CURB RAMPS



NOTES:
1) FLOOR DESIGNATION SHALL BE PROVIDED IN MIN. 2" TACTILE CHARACTERS ON BOTH JAMBS OF HOISTWAY ENTRANCE.
2) 30"x48" PARALLEL APPROACH CLEARANCE REQUIRED AT CALL BUTTONS.
3) MINIMUM DOOR WIDTH DETERMINED BY DOOR LOCATION RELATIVE TO ELEVATOR CAR. REFER TO ANSI A117.1-2003 TABLE 407.4.1 FOR WIDTHS.

SECTION 407 ELEVATORS



FIGS. 502.2 & 502.4
VEHICLE PARKING SPACE SIZE AND ACCESS AISLE

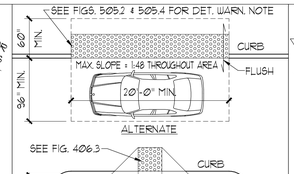
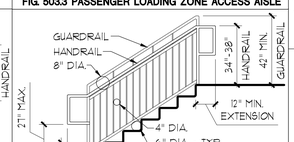
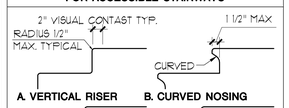


FIG. 503.3 PASSENGER LOADING ZONE ACCESS AISLE



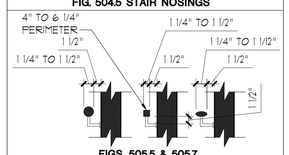
NOTES:
1) EXTENSIONS SHALL RETURN TO A WALL, GUARD, OR THE LANDING, OR SHALL BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT STAIR FLIGHT.
2) GUARDRAILS REQUIRED WHERE ADJACENT GRADE CHANGES ARE 30 INCHES OR GREATER.
3) GUARDRAIL SPINDLES TO BE SPACED TO PREVENT THE PASSAGE OF A FOUR (4) INCH DIA. SPHERE. THIS SHALL APPLY UP TO A MINIMUM HEIGHT OF 34 INCHES. GUARDRAIL CONSTRUCTION TO PREVENT THE PASSAGE OF AN EIGHT (8) INCH DIA. SPHERE, AT HEIGHTS ABOVE 34", TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD, AND BOTTOM RAIL OF THE GUARDRAIL SHALL BE CONSTRUCTED TO PREVENT THE PASSAGE OF A SIX (6) INCH SPHERE TYP. 4 3/8 INCH SPHERE @ DWELLING UNITS

FIGS. 504.2, 505.4, 505.10.2, & 505.10.3
TREADS, RISERS, AND HANDRAILS
FOR ACCESSIBLE STAIRWAYS



NOTE: MAXIMUM SLOPE OF 1:48 ANY DIRECTION

FIG. 504.5 STAIR NOSINGS



FIGS. 505.5 & 505.7
HANDRAIL CLEARANCE AND CROSS SECTION

NOTE: SEE FIG. 405.9 FOR GUARDRAIL REQUIREMENTS

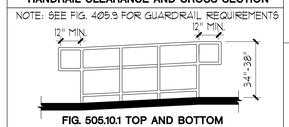
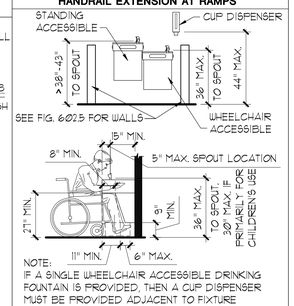


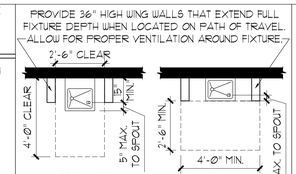
FIG. 505.10.1 TOP AND BOTTOM
HANDRAIL EXTENSION AT RAMPS



NOTE:
IF A SINGLE WHEELCHAIR ACCESSIBLE DRINKING FOUNTAIN IS PROVIDED, THEN A CUP DISPENSER MUST BE PROVIDED ADJACENT TO FIXTURE

SECTION 602 DRINKING FOUNTAIN REQUIREMENTS

PROVIDE 36" HIGH WING WALLS THAT EXTEND FULL FIXTURE DEPTH WHEN LOCATED ON PATH OF TRAVEL. ALLOW FOR PROPER VENTILATION AROUND FIXTURE.

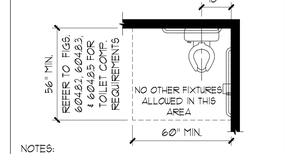


(A) FORWARD APPROACH W/ KNEE/TOE CLEARANCES
(B) PARALLEL APPROACH W/O KNEE/TOE CLEARANCES

NOTES:
1) FORWARD APPROACH TO BE PROVIDED (TYP.)
2) PARALLEL APPROACH MAY ONLY BE PROVIDED WHEN USE IS PRIMARILY FOR CHILDREN, OR IF AN EXISTING DRINKING FOUNTAIN CURRENTLY PROVIDES A PARALLEL APPROACH.

FIG. 602.5
DRINKING FOUNTAIN SPOUT LOCATION

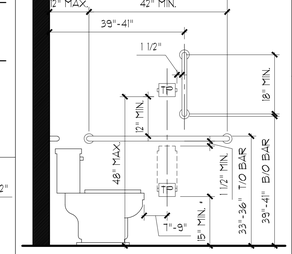
* ACCESSIBLE WATER CLOSET PRIMARILY FOR CHILDREN'S USE TO BE MOUNTED 12"-18" FROM ADJACENT WALL



NOTES:
1) WATER CLOSET CONTROL ON OPEN SIDE
2) IF SIX OR MORE WATER CLOSETS AND URINALS ARE PROVIDED IN ONLY ONE TOILET ROOM, THEN AN AMBULATORY ACCESSIBLE STALL SHALL BE PROVIDED, REFER TO BUILDING CODE FOR SPECIFICATIONS.

FIGS. 604.2 (A), 604.3, & 604.10.2
LOCATION AND SIZE OF CLEARANCE FOR WATER CLOSETS.

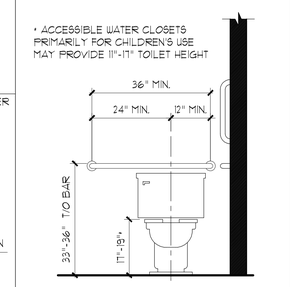
* ACCESSIBLE WATER CLOSETS PRIMARILY FOR CHILDREN'S USE MAY PROVIDE 14"-19" DISPENSER HEIGHT



NOTE:
TISSUE DISPENSER MUST ALLOW FOR CONTINUOUS PAPER FLOW

FIGS. 604.5.1, 604.7, & 604.10.7
WATER CLOSET HEIGHTS, GRAB BARS, & TISSUE DISPENSERS

* ACCESSIBLE WATER CLOSETS PRIMARILY FOR CHILDREN'S USE MAY PROVIDE 11"-17" TOILET HEIGHT



NOTE:
1) FLUSH CONTROLS TO BE WITHIN REACH RANGES OF FIGURES 308.2.1 THRU 308.3.2
2) CHILDREN'S FLUSH CONTROLS TO BE MOUNTED AT A MAX. HEIGHT OF 36" AFF

FIGS. 604.4, 604.5.2, & 604.10.4
WATER CLOSET HEIGHTS & GRAB BARS

(C) PLAN

* 56" MIN. CLEARANCE APPLIES TO BOTH FLOOR AND WALL MOUNTED WATER CLOSETS WHEN THE PRIMARY USE IS BY CHILDREN

NOTES:
1) DOOR TO BE SELF CLOSING
2) PROVIDE ACCESSIBLE PULL ON BOTH SIDES OF DOOR ADJACENT TO ACCESSIBLE LATCH

FIGS. 604.8.2, 604.8.3, & 604.8.5 WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

* IF MIRROR IS NOT MOUNTED ABOVE LAVATORIES, SINKS, OR COUNTERS THEN MIRROR IS TO BE MOUNTED 35" MAX. AFF
** 31" MAX. IF USED BY CHILDREN AGES 6-12

SECTION 603.3 & FIG. 606.3
HEIGHT OF LAVATORIES, SINKS, AND MIRRORS

FIG. 605.2
HEIGHT OF URINALS

FIG. 609.2
SIZE OF GRAB BARS

FIG. 609.3
SPACING OF GRAB BARS

FIG. 903 BENCHES

SECTION 902
DINING SURFACES AND WORK SURFACES

SECTION 904
SALES & SERVICE COUNTERS

FIG. 904.4.2
HEIGHT OF CHECKOUT COUNTERS

NOTE:
REFER TO 305.2.2 & 308.3.2 FOR MORE STRICT HEIGHT REQUIREMENTS DUE TO APPROACH AND OBSTRUCTIONS

MISCELLANEOUS EQUIPMENT
MOUNTING HEIGHTS

THIS SHEET FOR REFERENCE ONLY:
ITEMS SHOWN ON THIS SHEET DO NOT NECESSARILY REPRESENT WORK BEING COMPLETED UNDER THIS CONTRACT. SEE OTHER SHEETS FOR SCOPE OF WORK.

MATERIAL ON THIS SHEET IS TAKEN DIRECTLY FROM THE FOLLOWING SOURCES:
-ICC/ANSI A117.1-2003
INTERNATIONAL CODE COUNCIL
AMERICAN NATIONAL STANDARD INSTITUTE
-2010 ADA STANDARDS - SEP. 15TH, 2010
DEPARTMENT OF JUSTICE
CODE OF FEDERAL REGULATIONS
ADA STANDARDS FOR ACCESSIBLE DESIGN
-ACCESSIBILITY GUIDELINES JULY 23, 2004
UNITED STATES ACCESS BOARD
AMERICANS WITH DISABILITIES ACT AND ARCHITECTURAL BARRIERS ACT
ACCESSIBILITY GUIDELINES

THE MATERIAL THOUGH IS NOT IN ITS ORIGINAL ENTIRETY AND THE INTENT OF THIS PAGE IS TO POINT OUT THE MOST IMPORTANT & PREVALENT ISSUES STATED IN THE ABOVE MENTIONED SOURCES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW THE ORIGINAL SOURCES TO THEIR ENTIRETY.

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SHEET TITLE
ADA GUIDELINES

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision
Date

JOB: 230119
DRAWN: CJR
CHECKED: CW
DATE: 03-05-2024
SHEET:
A0.2

KEYNOTE LEGEND

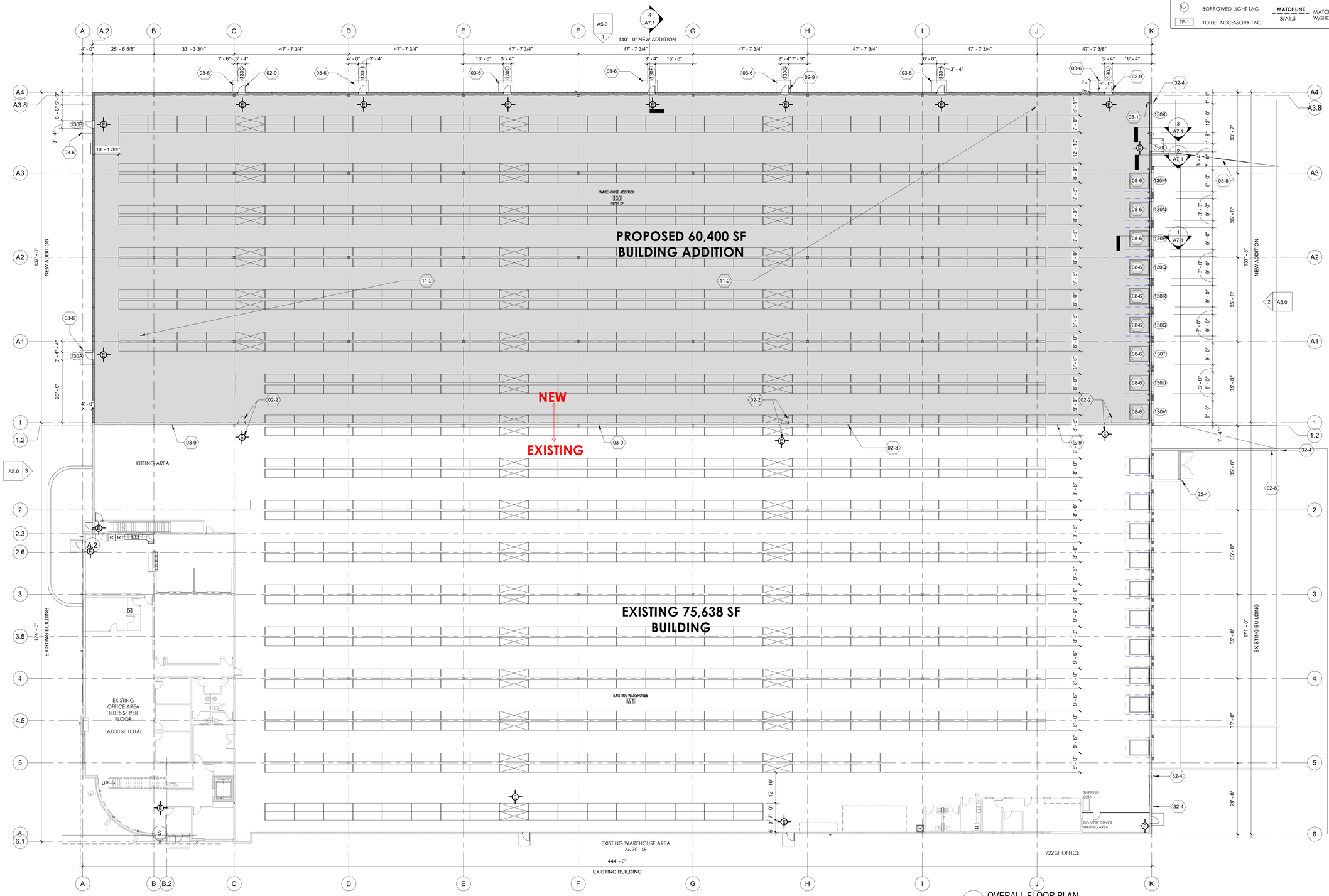
VALUE	FLOOR PLAN CODED NOTES
02-2	REMOVE EXISTING DOOR, FRAME & HARDWARE. STOOP AND RELATED EXIT AND EXTERIOR LIGHTING. CARE TO BE TAKEN IN REMOVAL OF DOOR/FRAME AS IT WILL BE RELOCATED TO GRID A4 WA:/
02-3	EXISTING PRECAST WALL PANEL TO BE RELOCATED TO GRID A4
02-8	EXISTING RETAINING WALL
02-9	RELOCATED DOOR/FRAME FROM GRID 1
03-6	6'-0" WIDE BY 5'-0" DEEP CONCRETE STOOP. PROVIDE 24" FROM EDGE OF STOOP TO PRECAST DOOR OPENING AT LATCH SIDE.
03-9	NEW CONCRETE FLOOR SYSTEM TO TIE INTO EXISTING - SEE STRUCTURAL DWGS.
05-1	3' GUARD TRACK PROTECTORS EACH SIDE OF DOOR
05-8	PAINTED STEEL PIPE GUARD RAIL (SEE CIVIL DWGS)
08-6	INSULATED OH DOOR FACTORY FINISHED WITH VISION WINDOWS, DOCK LEVELERS, DOCK SEALS, AND BUMPERS AND 3' GUARD TRACK PROTECTORS EACH SIDE - ALL TO MATCH EXISTING.
11-2	PROPOSED RACKING LAYOUT BY OWNER
32-4	6" DIAMETER X 4'-0" TALL CONCRETE FILLED STEEL PIPE BOLLARD(S), PAINTED SAFETY YELLOW. COORDINATE WITH CIVIL PLANS. COORDINATE PLACEMENT WITH GROUND-MOUNTED MECHANICAL EQUIPMENT.

GENERAL NOTES - NEW FLOOR PLAN

1	VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIOHN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
2	VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
3	AREA SHALL BE KEPT BROOM CLEAN AND FREE OF DEBRIS DURING CONSTRUCTION.
4	SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES.
5	SEE SHEET A0.1 FOR ADA REQUIREMENTS AND MOUNTING HEIGHTS
6	SEE SHEET A1.2 FOR PARTITION TYPE.
7	EXTERIOR WALLS IN OFFICE AREA TO BE FURRED OUT WITH STUD HELD 1" OFF FACE OF EXTERIOR WALL. CAVITY FILLED WITH BATT INSULATION. SEE FLOOR PLAN FOR PARTITION TYPE.
8	FURNITURE AND APPLIANCES PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.
9	ALL WALLS TO BE PAINTED PROVIDING FRP WAINSCOT WHERE CALLED FOR.
10	ALL FLOORS THROUGH OUT ARE TO BE SEALED CONCRETE WITH CAULKED CONTROL JOINTS.
11	EXPOSED STEEL DECK, JOISTS, GIRDERS AND COLUMNS ARE TO BE PRIME GREY.
12	LOCKERS AND BENCHES IN LOCKER ROOMS ARE PROVIDED BY OWNER AND ARE SHOWN FOR REFERNCE ONLY.

FLOOR PLAN LEGEND

- ROOM — ROOM NAME
- 100 — ROOM NUMBER
- 100 — DOOR NUMBER
- A — PARTITION TYPE
- 1 — KEYNOTES
- F.E. — SURFACE MOUNTED FIRE EXTINGUISHER
- F.E.C. — RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER
- EXIT LIGHT
- EXIT LIGHT (DIRECTIONAL)
- BL-1 — BORROWED LIGHT TAG
- TP-1 — TOILET ACCESSORY TAG
- PARTITION TO BE DEMOLISHED
- DOOR AND FRAME TO BE REMOVED
- EXISTING PARTITION TO REMAIN
- EXISTING DOOR TO REMAIN
- NEW CONSTRUCTION
- NEW DOOR & FRAME
- MATCHLINE — MATCHLINE W/SHEET REFERENCE



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

APPLICABLE TO ALL PLAN VIEWS

BRIOHN DESIGN GROUP
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BROOKFIELD WISCONSIN 53045-1950
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SHEET TITLE
PROPOSED ADDITION
FLOOR PLAN

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision

Date

JOB: 230119
DRAWN: CJR
CHECKED: CEW
DATE: 03-05-2024
SHEET: A1.0

KEYNOTE LEGEND

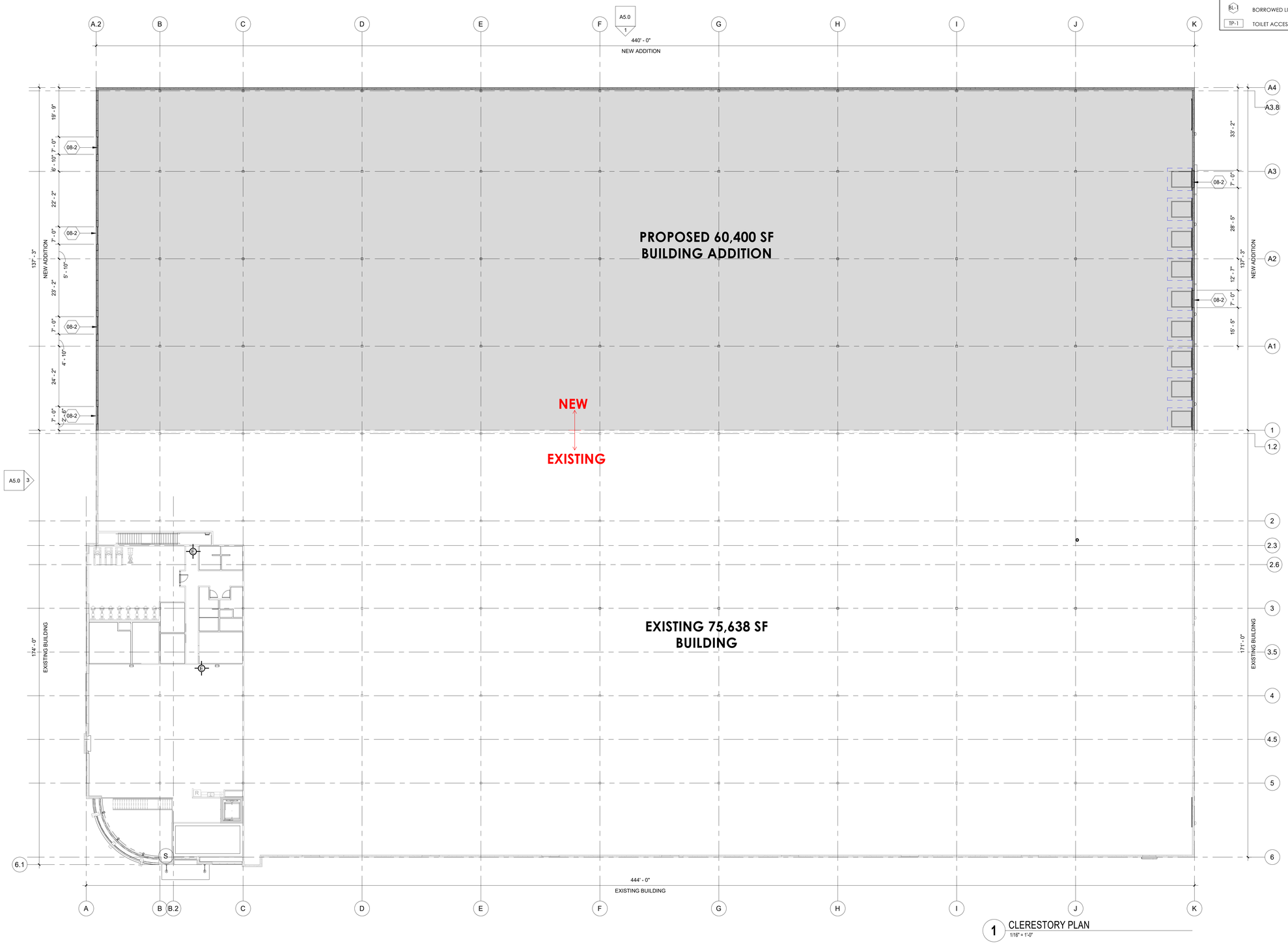
VALUE	FLOOR PLAN CODED NOTES
08-2	ALUMINUM STOREFRONT

GENERAL NOTES - NEW FLOOR PLAN

1	VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIOHN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
2	VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
3	AREA SHALL BE KEPT BROOM CLEAN AND FREE OF DEBRIS DURING CONSTRUCTION.
4	SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES.
5	SEE SHEET A0.1 FOR ADA REQUIREMENTS AND MOUNTING HEIGHTS
6	SEE SHEET A1.2 FOR PARTITION TYPE.
7	EXTERIOR WALLS IN OFFICE AREA TO BE FURRED OUT WITH STUD HELD 1" OFF FACE OF EXTERIOR WALL. CAVITY FILLED WITH BATT INSULATION. SEE FLOOR PLAN FOR PARTITION TYPE.
8	FURNITURE AND APPLIANCES PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.
9	ALL WALLS TO BE PAINTED PROVIDING FRP WAINSCOT WHERE CALLED FOR.
10	ALL FLOORS THROUGH OUT ARE TO BE SEALED CONCRETE WITH CAULKED CONTROL JOINTS.
11	EXPOSED STEEL DECK, JOISTS, GIRDERS AND COLUMNS ARE TO BE PRIME GREY.
12	LOCKERS AND BENCHES IN LOCKER ROOMS ARE PROVIDED BY OWNER AND ARE SHOWN FOR REFERNCE ONLY.

FLOOR PLAN LEGEND

- ROOM — ROOM NAME
- 100 — ROOM NUMBER
- 100 — DOOR NUMBER
- A — PARTITION TYPE
- 1 — KEYNOTES
- F.E. — SURFACE MOUNTED FIRE EXTINGUISHER
- F.E.C. — RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER
- EXIT LIGHT
- EXIT LIGHT (DIRECTIONAL)
- BL-1 — BORROWED LIGHT TAG
- TP-1 — TOILET ACCESSORY TAG
- PARTITION TO BE DEMOLISHED
- DOOR AND FRAME TO BE REMOVED
- EXISTING PARTITION TO REMAIN
- EXISTING DOOR TO REMAIN
- NEW CONSTRUCTION
- NEW DOOR & FRAME
- MATCHLINE 3/A1.5 — MATCHLINE W/SHEET REFERENCE



1 CLERESTORY PLAN
1/16" = 1'-0"

APPLICABLE TO ALL PLAN VIEWS

BRIOHN
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SHEET TITLE
CLERESTORY PLAN

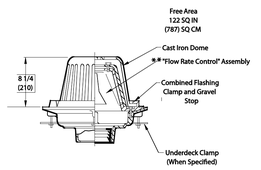
PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

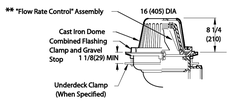
Revision	Date
REVISION 1 - 07.17.17 - ADD WIDTHS	

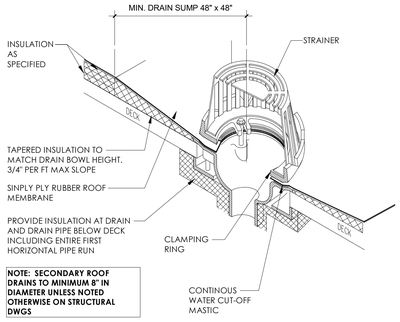
JOB:	230119
DRAWN:	CJR
CHECKED:	CW
DATE:	03-05-2024

SHEET:
A1.1

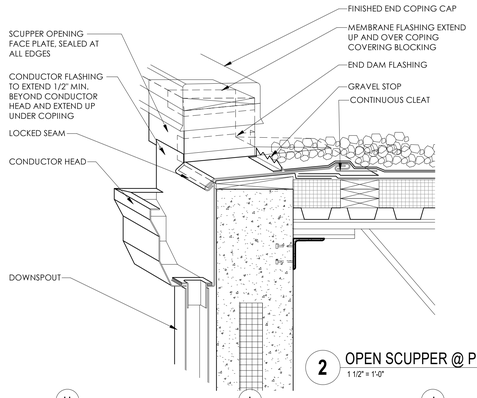
RAINTROL * ROOF DRAIN







NOTE: SECONDARY ROOF DRAINS TO MINIMUM 8" IN DIAMETER UNLESS NOTED OTHERWISE ON STRUCTURAL DWGS



KEYNOTE LEGEND

VALUE	FLOOR PLAN CODED NOTES
02-10	EXISTING PAVERS, REMOVE AND RELOCATE TO NEW NORTH CORNERS
02-20	EXISTING ROOF HATCH
07-4	NEW ROOF SYSTEM TO TIE INTO EXISTING - SEE DETAIL AND STRUCTURAL DWGS. (NOTE: EXISTING MEMBRANE TO BE ROLLED BACK 10' TO ALLOW FOR REPLACEMENT/TIE IN OF EXISTING INSULATION AS REQUIRED)
07-5	RELOCATED CONCRETE BALLAST PAVERS-2' X 2' X 2" W/ PROTECTION SHEET
07-6	ROOF SCUPPER - SEE DETAIL (SEE STRUCTURAL FOR SIZE) CENTERED IN PRECAST WALL PANEL (SEE EXTERIOR NORTH ELEVATION)
07-10	BALLASTED ROOF ASSEMBLY (SEE EXTERIOR BUILDING SYSTEMS LEGEND).
22-1	PRIMARY ROOF DRAIN

EXTERIOR BUILDING SYSTEMS LEGEND

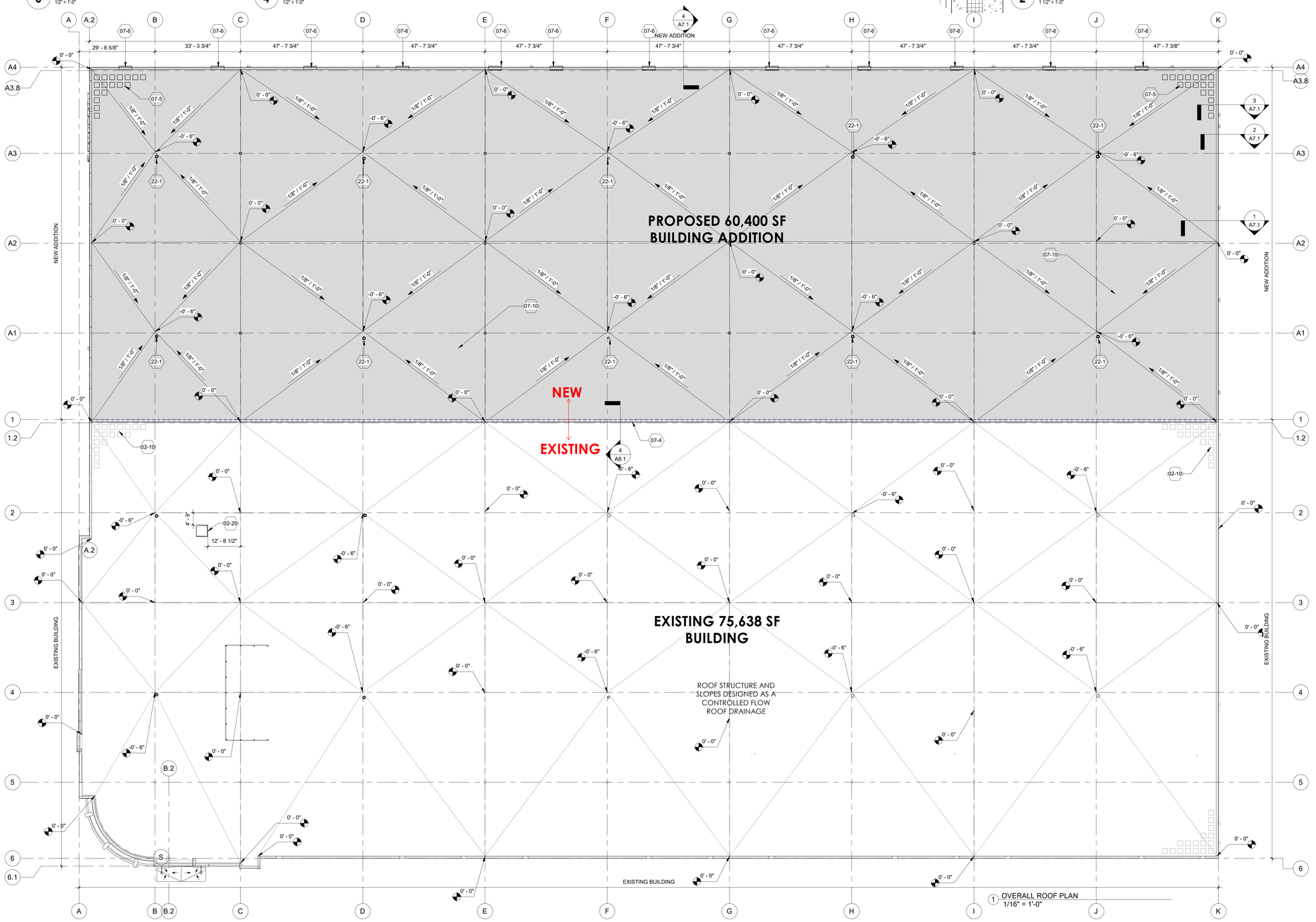
BALLASTED ROOF ASSEMBLY: BALLASTED 45 MIL EPDM ROOF MEMBRANE ON 5" DIRECT TO DECK APPROVED EPS TYPE II INSULATION (R20 MIN. - TWO LAYERS, STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

INSULATED PRECAST WALL PANEL SYSTEM: 10" INSULATED PRECAST CONCRETE WALL PANEL (R-14)

5 ROOF DRAIN DETAIL - RAINTROL
1/2" = 1'-0"

4 ROOF DRAIN DETAIL
1/2" = 1'-0"

2 OPEN SCUPPER @ PRECAST
1 1/2" = 1'-0"



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

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SHEET TITLE
OVERALL ROOF PLAN

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision

Date
CBI - 08-08-17

JOB:	230119
DRAWN:	CW
CHECKED:	DF
DATE:	03-05-2024

SHEET:
A4.0

APPLICABLE TO ALL PLAN VIEWS

PRECASTER NOTE:

PRECASTER TO PROVIDE COVERS FOR ALL ROUND RECESSED POCKETS AND PROVIDE CLOSED CELL SPRAY FOAM INSULATION WITH STEEL PREFINISHED METAL COVER PLATES FOR ALL OTHER SHAPE OPENINGS OR RECESSED AREAS (BEAM, LINTEL, JOIST, GIRDER BEARING OR OTHER POCKETED CONDITIONS) ON INTERIOR SIDE OF THE PRECAST WALL PANELS

EXTERIOR BUILDING SYSTEMS LEGEND

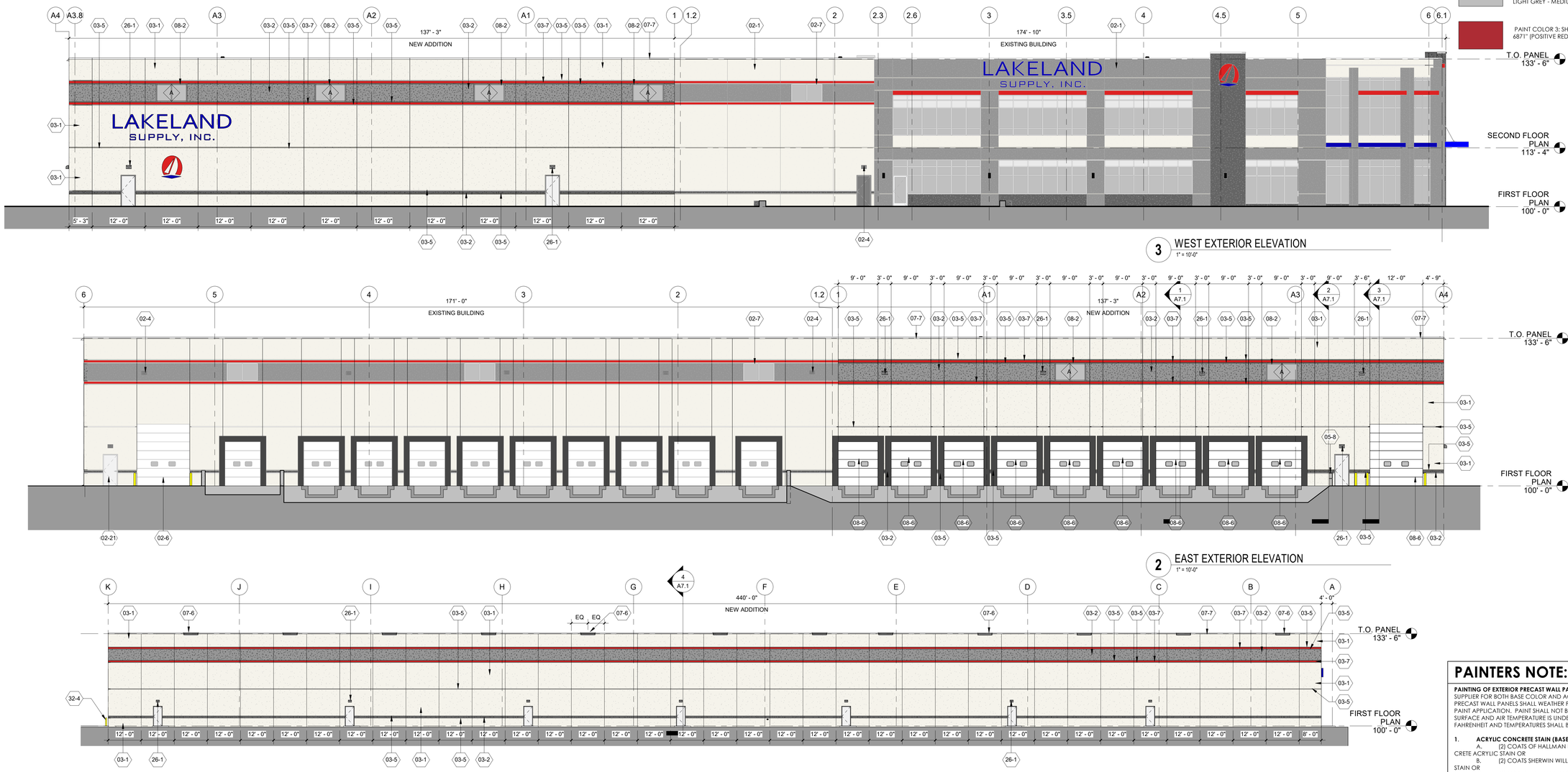
BALLASTED ROOF ASSEMBLY: BALLASTED 45 MIL EPDM ROOF MEMBRANE ON 5" DIRECT TO DECK APPROVED EPS TYPE II INSULATION (R20 MIN. - TWO LAYERS, STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

INSULATED PRECAST WALL PANEL SYSTEM: 10" INSULATED PRECAST CONCRETE WALL PANEL (R-14)

KEYNOTE LEGEND

VALUE	FLOOR PLAN CODED NOTES
02-1	EXISTING CONSTRUCTION TO REMAIN
02-4	EXISTING EXTERIOR LIGHT FIXTURE
02-6	EXISTING OVERHEAD DOOR
02-7	EXISTING STOREFRONT
02-21	EXISTING DOOR
03-1	EXTERIOR PRE CAST CONCRETE WALL PANEL SHALL BE INSULATED WITH PAINTED FINISH - FIELD COLOR (SEE ELEVATION PAINT COLOR LEGEND.
03-2	EXTERIOR PRE CAST CONCRETE WALL PANEL SHALL BE INSULATED WITH PAINTED FINISH - MEDIUM ACCENT (SEE ELEVATION PAINT COLOR LEGEND.
03-5	REVEAL TO MATCH ADJACENT REVEAL IN COLOR, SIZE, DEPTH AND PROFILE
03-7	EXTERIOR PRE CAST CONCRETE WALL PANEL SHALL BE INSULATED WITH PAINTED FINISH - RED ACCENT (SEE EXTERIOR PAINT COLOR LEGEND.
05-8	PAINTED STEEL PIPE GUARD RAIL (SEE CIVIL DWGS)
07-6	ROOF SCUPPER - SEE DETAIL (SEE STRUCTURAL FOR SIZE) CENTERED IN PRECAST WALL PANEL (SEE EXTERIOR NORTH ELEVATION)
07-7	PRE FINISHED METAL 24 GA. GRAVEL STOP COLOR & PROFILE TO MATCH EXISTING ADJACENT GRAVEL STOP.
08-2	ALUMINUM STOREFRONT
08-6	INSULATED OH DOOR FACTORY FINISHED WITH VISION WINDOWS, DOCK LEVELERS, DOCK SEALS, AND BUMPERS AND 3' GUARD TRACK PROTECTORS EACH SIDE - ALL TO MATCH EXISTING.
26-1	EXTERIOR LIGHT FIXTURE - CUT-OFF LED WALLPACK - MATCH EXISTING IN FIXTURE AND MOUNTING HEIGHT
32-4	6" DIAMETER X 4'-0" TALL CONCRETE FILLED STEEL PIPE BOLLARD(S). PAINTED SAFETY YELLOW. COORDINATE WITH CIVIL PLANS. COORDINATE PLACEMENT WITH GROUND-MOUNTED MECHANICAL EQUIPMENT.

4 EXTERIOR PERSPECTIVE LOOKING NORTHEAST



3 WEST EXTERIOR ELEVATION
1" = 10'-0"

2 EAST EXTERIOR ELEVATION
1" = 10'-0"

1 NORTH EXTERIOR ELEVATION
1/16" = 1'-0"

ELEVATION PAINT COLOR LEGEND:

- PAINT COLOR 1: SHERWIN WILLIAMS "SW 6231" WHITE (ROCK CANDY) - FIELD COLOR
- PAINT COLOR 2: SHERWIN WILLIAMS "SW CUSTOM MATCH" (PMS COOL GRAY 6) LIGHT GREY - MEDIUM ACCENT
- PAINT COLOR 3: SHERWIN WILLIAMS "SW 6871" (POSITIVE RED) - RED ACCENT

PAINTERS NOTE:

PAINTING OF EXTERIOR PRECAST WALL PANELS: CHOOSE ONE SUPPLIER FOR BOTH BASE COLOR AND ACCENT COLORS. PRECAST WALL PANELS SHALL WEATHER FOR 90 DAYS PRIOR TO PAINT APPLICATION. PAINT SHALL NOT BE APPLIED WHEN SURFACE AND AIR TEMPERATURE IS UNDER 45 DEGREES FAHRENHEIT AND TEMPERATURES SHALL BE RISING.

1. **ACRYLIC CONCRETE STAIN (BASE COLOR):**
   A. (2) COATS OF HALLMAN LINDSAY #167 GRIP CRETE ACRYLIC STAIN OR
   B. (2) COATS SHERWIN WILLIAMS LOXON VERTICAL STAIN OR
   C. (2) COATS BENJAMIN MOORE TUFFCRETE WB CONCRETE STAIN.

2. **ACCENT COLOR:**
   A. (2) COATS OF HALLMAN LINDSAY #174 WEATHER GUARD SATIN 100% ACRYLIC HOUSE PAINT OR
   B. (2) COATS SHERWIN WILLIAMS SUPER PAINT SATIN HOUSE PAINT OR
   C. (2) COATS BENJAMIN AURA SATIN 100% ACRYLIC HOUSE PAINT.

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SHEET TITLE: EXTERIOR ELEVATIONS

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision	Date

JOB:	230119
DRAWN:	CEW/CJR
CHECKED:	CEW
DATE:	03-05-2024

SHEET: A5.0

1 LAKELAND ADDITION - VIEW LOOKING EAST
1/2" = 1'-0"

2 LAKELAND ADDITION - VIEW LOOKING SOUTHEAST
1/2" = 1'-0"

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SHEET TITLE
EXTERIOR BUILDING RENDERINGS

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision

Date

JOB: 230119
DRAWN: CW
CHECKED: CW
DATE: 03-05-2024
SHEET:
A5.1

PAINTERS NOTE:

PAINTING OF EXTERIOR PRECAST WALL PANELS: CHOOSE ONE SUPPLIER FOR BOTH BASE COLOR AND ACCENT COLORS. PRECAST WALL PANELS SHALL WEATHER FOR 90 DAYS PRIOR TO PAINT APPLICATION. PAINT SHALL NOT BE APPLIED WHEN SURFACE AND AIR TEMPERATURE IS UNDER 45 DEGREES FAHRENHEIT AND TEMPERATURES SHALL BE RISING.

1. **ACRYLIC CONCRETE STAIN (BASE COLOR):**
   A. (2) COATS OF HALLMAN LINDSAY #167 GRIP CRETE ACRYLIC STAIN OR
   B. (2) COATS SHERWIN WILLIAMS LOXON VERTICAL STAIN OR
   C. (2) COATS BENJAMIN MOORE TUFFCRETE WB CONCRETE STAIN.

2. **ACCENT COLOR:**
   A. (2) COATS OF HALLMAN LINDSAY #174 WEATHER GUARD SATIN 100% ACRYLIC HOUSE PAINT OR
   B. (2) COATS SHERWIN WILLIAMS SUPER PAINT SATIN HOUSE PAINT OR
   C. (2) COATS BENJAMIN AURA SATIN 100% ACRYLIC HOUSE PAINT.

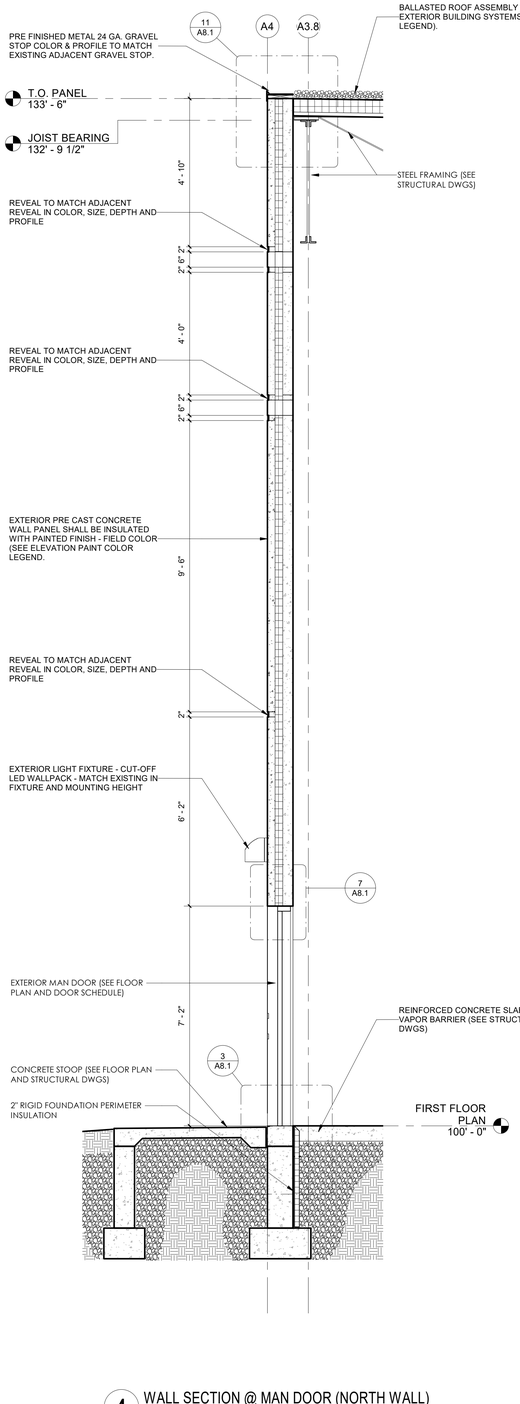
PRECASTER NOTE:

PRECASTER TO PROVIDE COVERS FOR ALL ROUND RECESSED POCKETS AND PROVIDE CLOSED CELL SPRAY FOAM INSULATION WITH STEEL PREFINISHED METAL COVER PLATES FOR ALL OTHER SHAPE OPENINGS OR RECESSED AREAS (BEAM, LINTEL, JOIST, GIRDER BEARING OR OTHER POCKETED CONDITIONS) ON INTERIOR SIDE OF THE PRECAST WALL PANELS

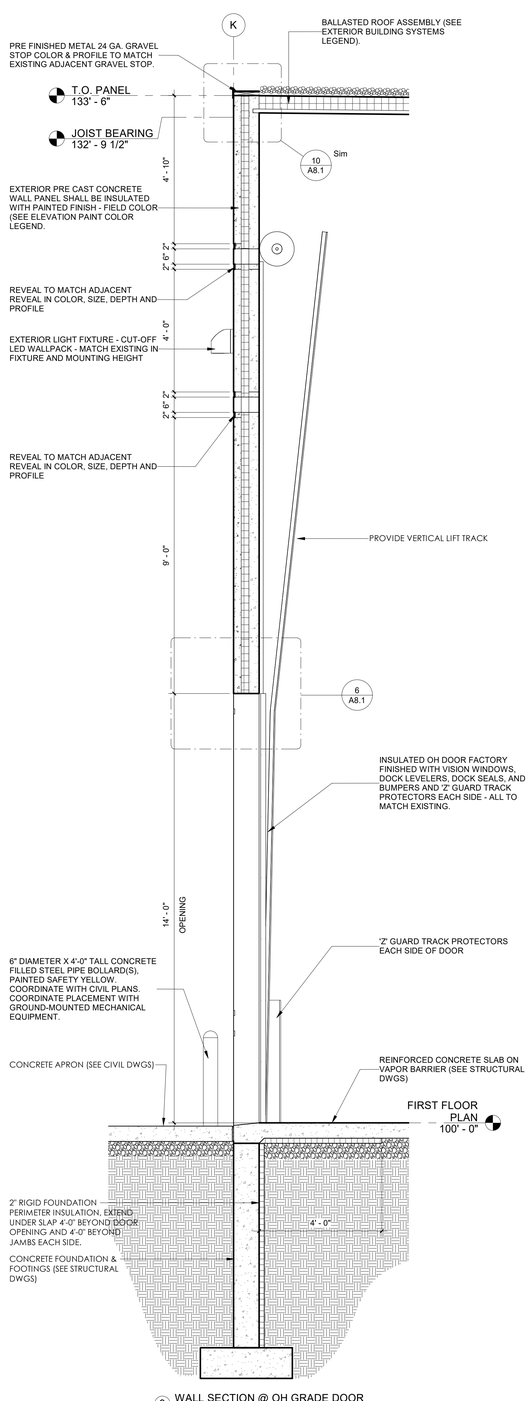
EXTERIOR BUILDING SYSTEMS LEGEND

BALLASTED ROOF ASSEMBLY: BALLASTED 45 MIL EPDM ROOF MEMBRANE ON 5" DIRECT TO DECK APPROVED EPS TYPE II INSULATION (R20 MIN. - TWO LAYERS, STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

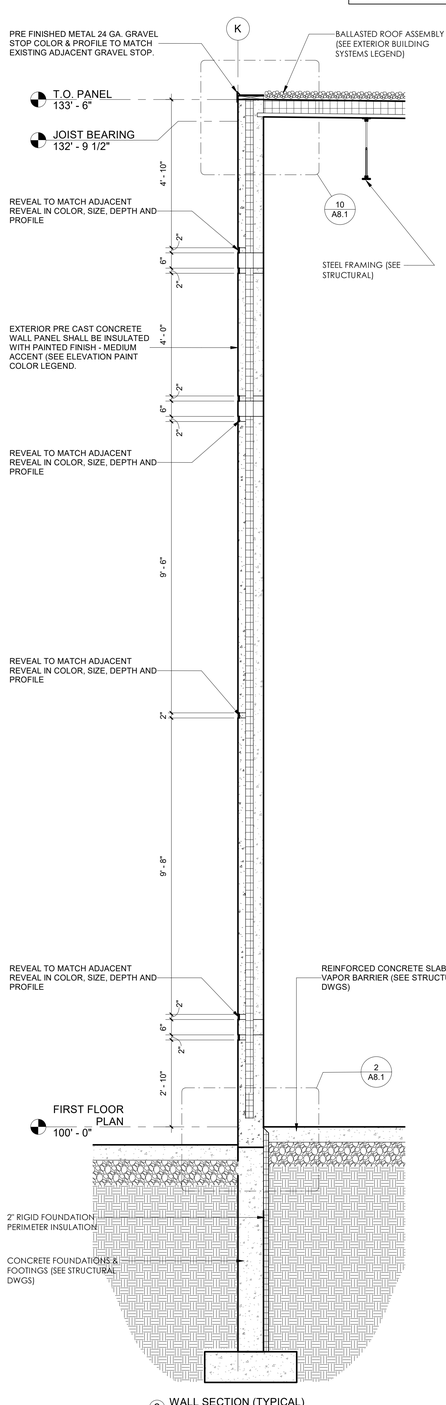
INSULATED PRECAST WALL PANEL SYSTEM: 10" INSULATED PRECAST CONCRETE WALL PANEL (R-14)



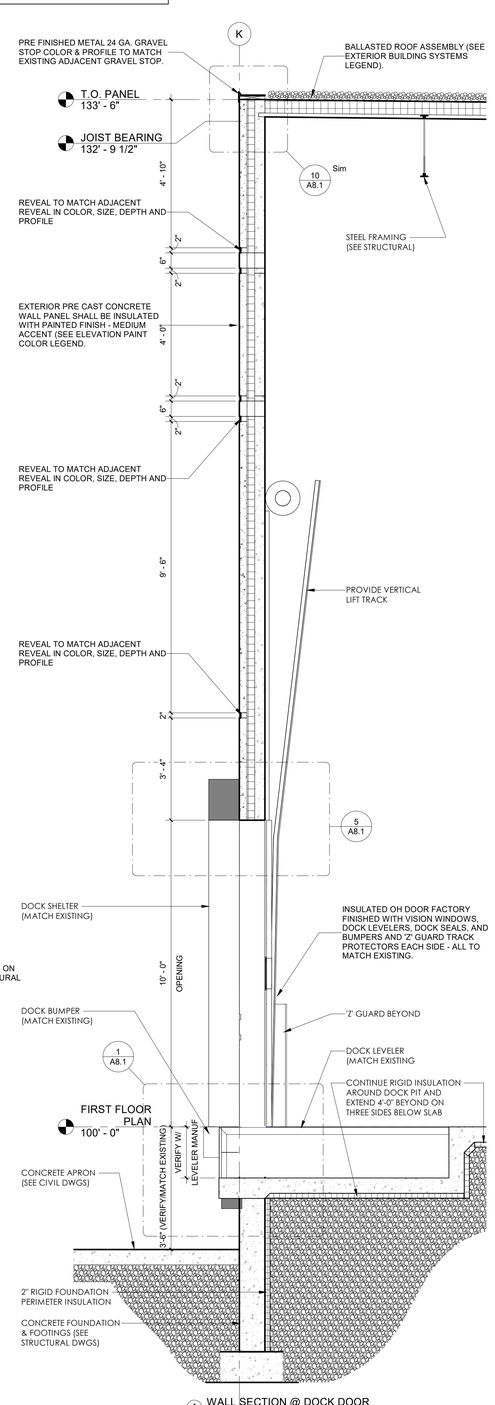
4 WALL SECTION @ MAN DOOR (NORTH WALL)
1/2" = 1'-0"



3 WALL SECTION @ OH GRADE DOOR
1/2" = 1'-0"



2 WALL SECTION (TYPICAL)
1/2" = 1'-0"



1 WALL SECTION @ DOCK DOOR
1/2" = 1'-0"

REFER TO SHEET A5.1 FOR BUILDING ENVELOPE REQUIREMENTS AND PAINT FINISH.

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WALL SECTIONS

SHEET TITLE

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision

Date

JOB:	230119
DRAWN:	CJR
CHECKED:	CW
DATE:	03-05-2024

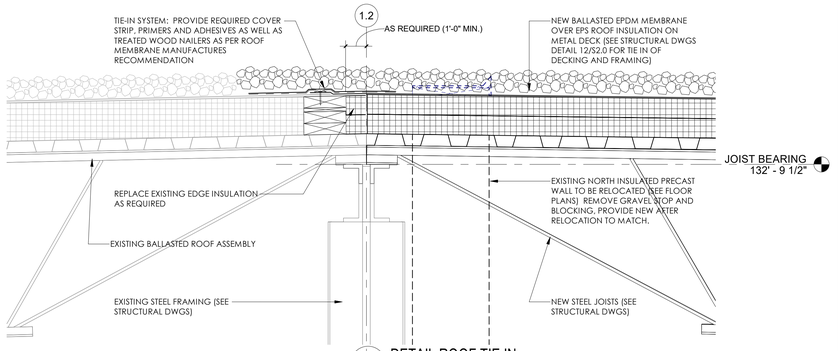
SHEET:

A7.1

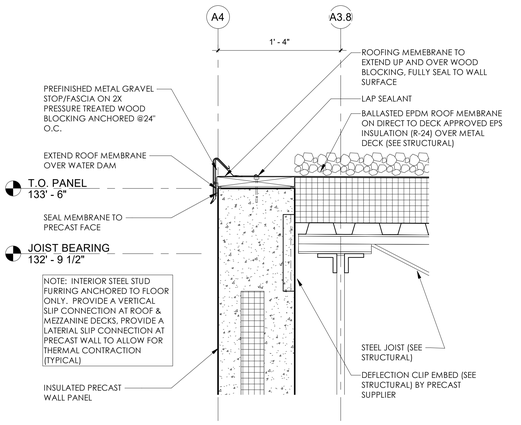
EXTERIOR BUILDING SYSTEMS LEGEND

BALLASTED ROOF ASSEMBLY: BALLASTED 45 MIL EPDM ROOF MEMBRANE ON 5" DIRECT TO DECK APPROVED EPS TYPE II INSULATION (R20 MIN. - TWO LAYERS, STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

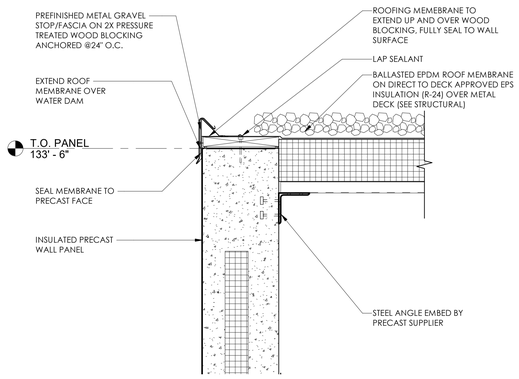
INSULATED PRECAST WALL PANEL SYSTEM: 10" INSULATED PRECAST CONCRETE WALL PANEL (R-14)



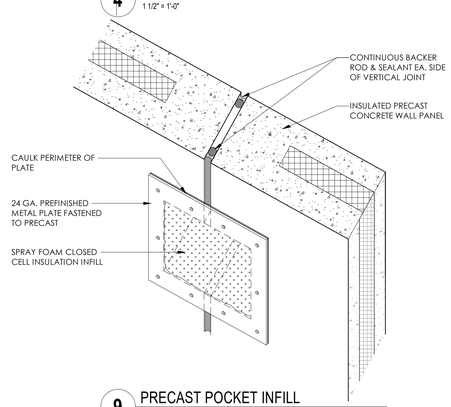
4 DETAIL ROOF TIE IN
1 1/2" = 1'-0"



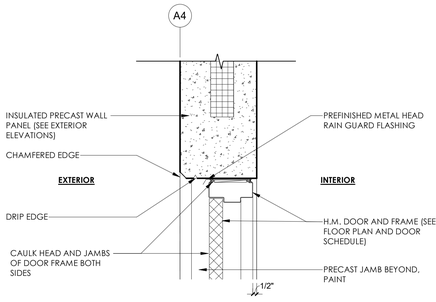
11 DETAIL TOP OF WALL - NON-BEARING
1 1/2" = 1'-0"



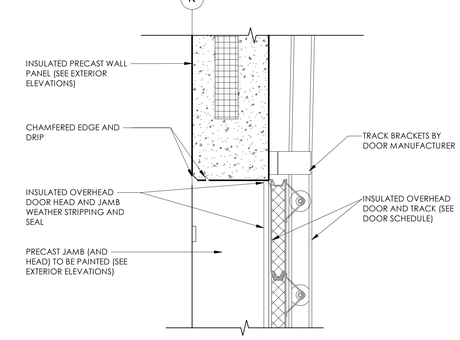
10 ROOF EDGE @ DECK BEARING ANGLE
1 1/2" = 1'-0"



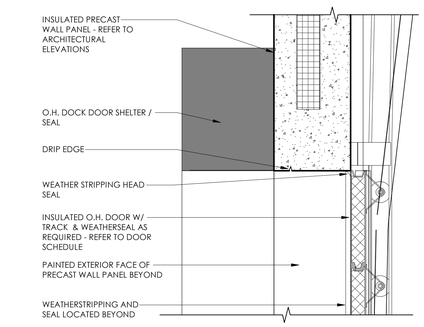
9 PRECAST POCKET INFILL
1 1/2" = 1'-0"



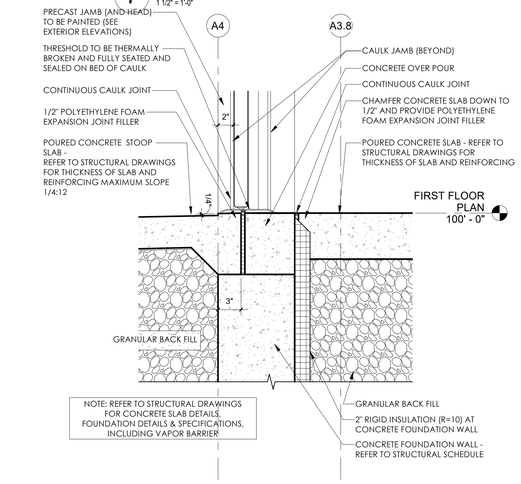
7 DETAIL @ DOOR HEAD
1 1/2" = 1'-0"



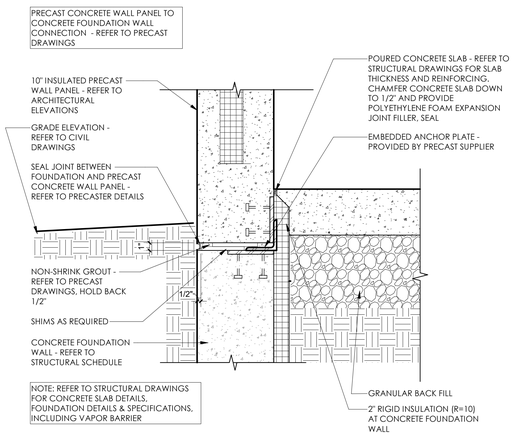
6 OH DOOR HEAD
1 1/2" = 1'-0"



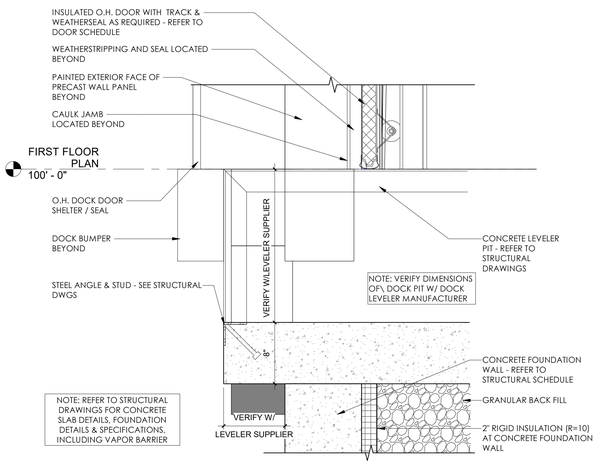
5 OH DOOR HEAD W/ SHELTER
1 1/2" = 1'-0"



3 DETAIL @ DOOR SILL
1 1/2" = 1'-0"



2 DETAIL @ PRECAST BASE
1 1/2" = 1'-0"



1 OH DOOR @ RECESSED DOCK
1 1/2" = 1'-0"

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DETAILS

SHEET TITLE

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision	Date

JOB: 230119
DRAWN: CW
CHECKED: CW
DATE: 03-05-2024
SHEET: A8.1

DOOR & DOOR HARDWARE NOTES:

1. ALL HANDLES, PULLS, LATCHES, LOCKS, AND OTHER PARTS ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE. SUCH HARDWARE SHALL BE 34 INCHES MINIMUM TO 48 INCHES MAXIMUM ABOVE THE FLOOR OR GROUND. WHERE SLIDING DOORS ARE IN THE FULLY OPEN POSITION, OPERATING HARDWARE SHALL BE EXPOSED AND USABLE FROM BOTH SIDES.
2. DOORS CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES SHALL BE 5 SECONDS MINIMUM.
3. DOOR SPRING HINGES SHALL BE ADJUSTED SO THAT THE OPEN POSITION OF 70 DEGREES, THE DOOR SHALL MOVE TO THE CLOSED POSITION IN 1.5 SECONDS MINIMUM, MEASURED UNDER AMBIENT CONDITIONS.
4. FIRE DOORS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE AUTHORITY. THE MAXIMUM FORCE FOR PUSHING OPEN OR PULLING OPEN DOORS OTHER THAN FIRE DOORS SHALL BE AS FOLLOWS:
A. INTERIOR HINGED DOOR: 5.0 POUNDS (22.2N)
B. SLIDING OR FOLDING DOOR: 5.0 POUNDS (22.2N)
THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT HOLD THE DOOR IN A CLOSED POSITION.
5. DOOR SURFACE WITHIN 10 INCHES OF THE FLOOR OR GROUND MEASURED VERTICALLY SHALL BE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR. PARTS CREATING HORIZONTAL OR VERTICAL JOINTS IN SUCH SURFACE SHALL BE WITHIN 1/16 INCH OF THE SMA PLANE AS THE OTHER. CAVITIES CREATED BY ADDED KICK PLATE SHALL BE CAPPED.
EXCEPTIONS:
A. SLIDING DOORS
B. TEMPERED GLASS DOORS WITHOUT STILES AND HAVING A BOTTOM RAIL OR SHOE WITH THE TOP LEADING EDGE TAPERED AT NO LESS THAN 60 DEGREES FROM THE HORIZONTAL SHALL NOT BE REQUIRED TO MEET THE 10 INCH BOTTOM RAIL HEIGHT REQUIREMENT.
C. DOORS WHICH DO NOT EXTEND TO WITHIN 10 INCHES OF THE FLOOR OR GROUND.
6. DOORS AND SIDELIGHTS ADJACENT TO DOORS CONTAINING ONE OR MORE GLAZING PANELS THAT PERMIT VIEWING THROUGH THE PANELS SHALL HAVE THE BOTTOM OF AT LEAST ONE PANEL 43 INCHES MAXIMUM ABOVE THE FLOOR OR GROUND.
7. PROVIDE 48" HIGH METAL 'Z' TRACK GUARDS AT ALL OVERHEAD DOORS.
8. PROVIDE BLOCKING IN STUD CAVITY FOR ALL WALL MOUNTED DOOR STOPS.

HARDWARE GROUPS

GROUP 1
STANDARD WEATHER STRIPPING
CLOSER
EXIT HARDWARE
THRESHOLD
12" LOCK GUARD
HINGES

GROUP 2
HARDWARE BY DOOR MANUFACTURE
PROVIDE VERTICAL LIFT TRACKS, WEATHERSTRIPPIING, DOCK SEALS AND 'Z' GUARD TRACK PROTECTORS

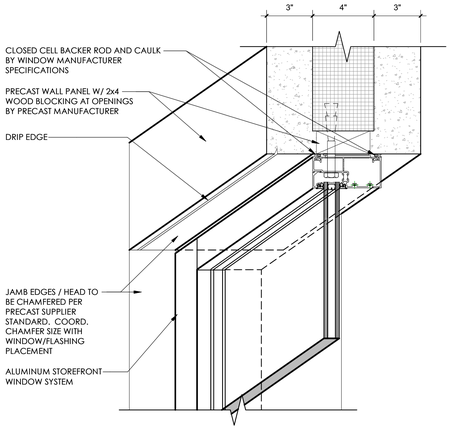
GROUP 3
HARDWARE BY DOOR MANUFACTURE
PROVIDE VERTICAL LIFT TRACKS, WEATHERSTRIPPIING, ELECTRICAL OPERATOR AND 'Z' GUARD TRACK PROTECTORS

DOOR SCHEDULE (ABBREVIATED)

	DOOR						FRAME			HARDWARE		
NUMBER	WIDTH	HEIGHT	DOOR MATERIAL	DOOR FINISH	DOOR TYPE	FIRE LABEL	FRAME MATERIAL	FRAME FINISH	FRAME TYPE	GROUP NO.	KICK PLATE	NOTES
130A	3' - 0"	7' - 0"	HM	PT	F		HM	PT	1	1		
130B	3' - 0"	7' - 0"	HM	PT	F		HM	PT	1	1		
130C	3' - 0"	7' - 0"	HM	PT	F		HM	PT	1	1		
130D	3' - 0"	7' - 0"	HM	PT	F		HM	PT	1	1		
130E	3' - 0"	7' - 0"	HM	PT	F		HM	PT	1	1		
130F	3' - 0"	7' - 0"	HM	PT	F		HM	PT	1	1		
130G	3' - 0"	7' - 0"	HM	PT	F		HM	PT	1	1		
130H	3' - 0"	7' - 0"	HM	PT	F		HM	PT	1	1		
130J	3' - 0"	7' - 0"	HM	PT	F		HM	PT	1	1		
130K	12' - 0"	14' - 0"	INS STEEL	FACTORY	OHD		---	---	---	3		
130L	3' - 0"	7' - 0"	HM	PT	F		HM	PT	1	1		
130M	9' - 0"	10' - 0"	INS STEEL	FACTORY	OHDD		---	---	---	2		
130N	9' - 0"	10' - 0"	INS STEEL	FACTORY	OHDD		---	---	---	2		
130P	9' - 0"	10' - 0"	INS STEEL	FACTORY	OHDD		---	---	---	2		
130Q	9' - 0"	10' - 0"	INS STEEL	FACTORY	OHDD		---	---	---	2		
130R	9' - 0"	10' - 0"	INS STEEL	FACTORY	OHDD		---	---	---	2		
130S	9' - 0"	10' - 0"	INS STEEL	FACTORY	OHDD		---	---	---	2		
130U	9' - 0"	10' - 0"	INS STEEL	FACTORY	OHDD		---	---	---	2		
130V	9' - 0"	10' - 0"	INS STEEL	FACTORY	OHDD		---	---	---	2		

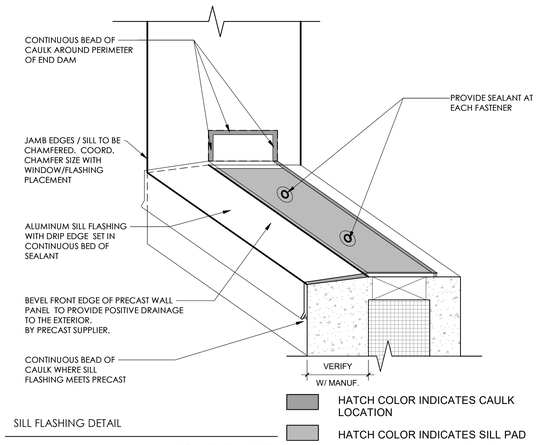
DOOR SCHEDULE GENERAL NOTES:

1. ALL HOLLOW METAL FRAMES TO BE PAINTED TO MATCH EXISTING ADJACENT FRAMES.
2. ALL HOLLOW METAL DOORS TO BE PAINTED TO MATCH EXISTING ADJACENT DOORS.
3. ALL EXTERIOR DOORS TO BE INSULATED.
4. ALL HOLLOW METAL EXTERIOR DOORS/FRAMES TO BE GALVANIZED WITH CURRIESEAL KERF FRAMES.
5. PROVIDE BLOCKING IN STUD WALL CAVITY FOR ANY WALL STOPS WHERE PROVIDED.



WINDOW HEAD DETAIL

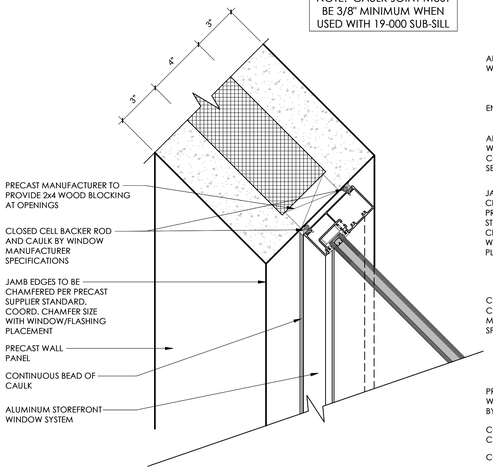
SCALE: 3" = 1'-0"



SILL FLASHING DETAIL

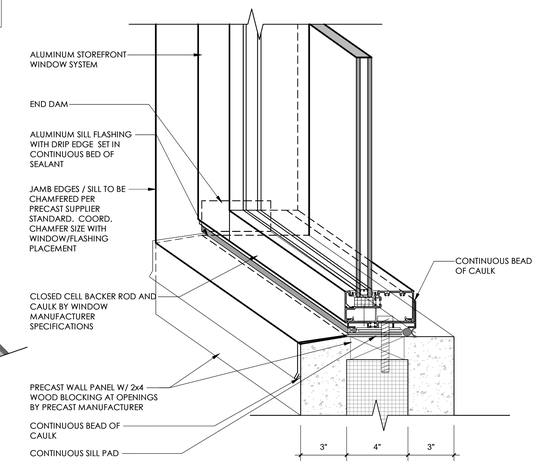
SCALE: 3" = 1'-0"

NOTE: CAULK JOINT MUST BE 3/8" MINIMUM WHEN USED WITH 19-000 SUB-SILL



WINDOW JAMB DETAIL

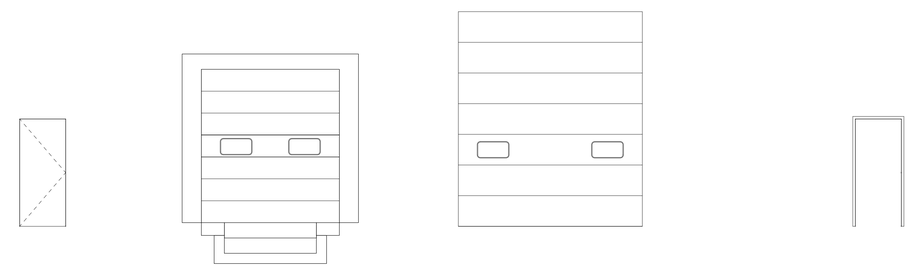
SCALE: 3" = 1'-0"



WINDOW SILL DETAIL

SCALE: 3" = 1'-0"

WINDOW DETAILS - STOREFRONT PRECAST (WITH WOOD BLOCKING)



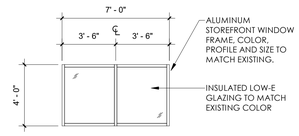
DOOR AND FRAME SCHEDULE

1/4" = 1'-0"

WINDOW TYPES LEGEND

T	DENOTES TEMPERED GLAZING
	DENOTES INSULATED 1" LOW 'E' ANNEALED GLAZING - MATCH EXISTING TYPE AND TINT

1. ALL STOREFRONTS TO BE THERMALLY BROKEN **PITTCO TMS 114XT** SYSTEM. CENTER SET FLUSH GLAZED. FRAMES TO BE 2" X 4 1/2" PROFILE U.N.O. REFER TO EXTERIOR ELEVATIONS FOR FRAME FINISH/COLOR.
2. EXTERIOR WINDOW GLAZING TO BE 1" INSULATED LOW 'E' ANNEALED GLAZING.
3. INTERIOR GLAZING TO BE CLEAR PLATE GLASS UNLESS NOTED OTHERWISE.
4. ALL BORROWED LIGHT INTERIOR WINDOWS TO BE HOLLOW METAL FRAMES TO BE PAINTED UNLESS NOTED OTHERWISE/
5. ALL DOOR GLAZING TO BE TEMPERED.
6. REFER TO DOOR SCHEDULE FOR DOOR STYLE, FRAME TYPE, MATERIAL AND FINISH.
7. ALL GLAZING PROVIDED SHALL COMPLY WITH 2015 IBC SECTION 2406.4 SAFETY GLAZING.



SF 'A'

STOREFRONT TYPES

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SHEET TITLE
SCHEDULES AND WINDOW TYPES

PROPOSED ADDITION TO:
LAKELAND SUPPLY, INC.
BLUEMOUND ROAD
PEWAUKEE, WI

Revision

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JOB: 230119
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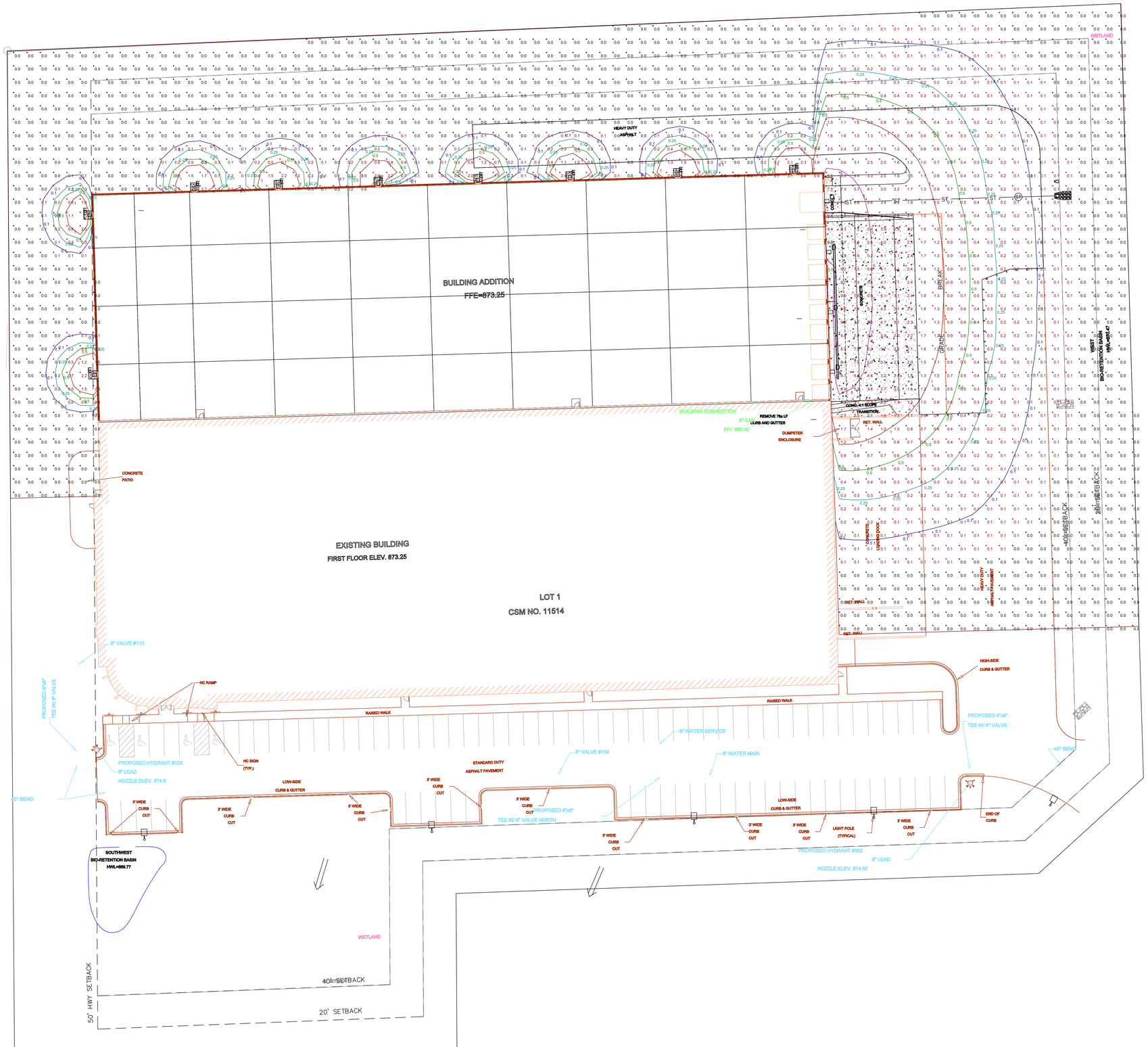
A9.0



Schedule						
Symbol	Label	QTY	Manufacturer	Catalog Number	Lumens per Lamp	Wattage
	D	4	RAB Lighting Inc.	A17-4T150N Wall Mount Fixture at 20' 4000K color temperature	21204	149.17
	E	9	RAB Lighting Inc.	WPLED10N Wall Mount Fixture at 12' 4000K color temperature	1297	12.1

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	0.9 fc	9.9 fc	0.0 fc	N/A	N/A

HFR electric
ELECTRICAL CONTRACTOR
RESIDENTIAL · COMMERCIAL · INDUSTRIAL

Lakeland Supply Addition

Pewaukee

Exterior Photometric Lighting Plan

DATE:
2-29-2024

REVISIONS:

E-1.0

HFR electric inc
RESIDENTIAL · COMMERCIAL · INDUSTRIAL
227 Weil Drive · Slinger, WI 53086
Phone(262)644-6940 · Fax(262)644-7647

Lakeland Addition

Exterior Lighting Submittal 2-9-2024

A17-4T150N+A17-WM

Type: D

Color: Bronze

Weight: 13.2 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	1.50A
208V	0.80A
240V	0.70A
277V	0.06A
Input Watts	149.17W

LED Info

Watts	150W
Color Temp	3500K
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	21204.1
Efficacy	142.1 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PL7C2E05FQ0M

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 1.50A, 208V: 0.70A, 240V: 0.70A, 277V: 0.60A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.85% at 120V, 9.26% at 277V

Power Factor:

99.8% at 120V, 93.2% at 277V

Surge Protection:

10kV

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

Housing:

Die-cast aluminum housing, lens frame and mounting arm

IP Rating:

Ingress protection rating of IP65 for dust and water

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

1 Fixture: 0.46
2 Fixtures at 90°: 0.60
2 Fixtures at 180°: 0.93
3 Fixtures at 90°: 0.93
4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)
1 Fixture: 0.66
2 Fixtures at 90°: 0.80
2 Fixtures at 180°: 1.32
3 Fixtures at 90°: 1.32
4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

Technical Specifications (continued)

Construction

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

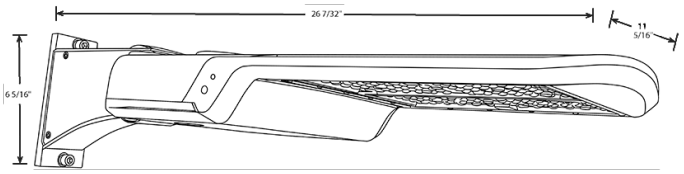
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions: A17-4T150N



Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, Limited Warranty

Ordering Matrix

Family		Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	–	4T	150		N		
		3T = Type III **4T =** Type IV **5T =** Type V	**70 =** 70W/10,000LM **100 =** 100W/15,000LM **150 =** 150W/22,500LM **200 =** 200W/30,000LM **240 =** 240W/36,000LM **300 =** 300W/45,000LM **375 =** 375W/51,800LM	**Blank =** Universal Pole Mount **SF =** Slipfitter (Factory installed SF available in 150W)	**Blank =** 5000K Cool **N =** 3500K	**Blank =** 120-277V, 0-10V Dimming **/480 =** 480V, 0-10V Dimming	**Blank =** No Option **/3PRS =** 3-pin Receptacle and Shorting Cap **/7PRS =** 7-pin Receptacle and Shorting Cap **/MVS =** Microwave Motion Sensor **/LC =** Lightcloud® Controller

WPLED10N

Type: E

RAB

LED 10W & 13 Wall packs. patent-pending thermal management system. 100,000 hour L70 lifespan. 5-year, no-compromise warranty.

Color: Bronze

Weight: 3.3 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	0.09A
208V	0.05A
240V	0.05A
277V	0.04A
Input Watts	12.1W

LED Info

Watts	10W
Color Temp	3500K (Warm)
Color Accuracy	71 CRI
L70 Lifespan	100,000 Hours
Lumens	1,297
Efficacy	107.2 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for Wet Locations as a Downlight. Suitable for Damp Locations as an Uplight. Wall Mount only. Suitable for Mounting within 4ft. of ground.

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: P5NSZ02C

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 0.09A, 208V: 0.05A, 240V: 0.05A, 277V 0.04A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

6.51% at 120V, 13.57% at 277V

Power Factor:

99% at 120V, 90.6% at 277V

Construction

Finish:

Formulated for high durability and long-lasting color

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Housing:

Precision die-cast aluminum housing, lens frame

Mounting:

Surface plate and Junction box

Green Technology:

Mercury and UV free. RoHS-compliant components.

Technical Specifications (continued)

Construction

Gaskets:

High-temperature Silicone

LED Characteristics

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Lumen Maintenance:

The LED will deliver 70% of its initial lumens at 100,000 hours of operation

Other

Patents:

The design of the LPACK is protected by U.S. Pat. D604,004 and patents pending in Canada, China and Taiwan.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Equivalency:

Equivalent to 70W Metal Halide

Buy American Act Compliance:

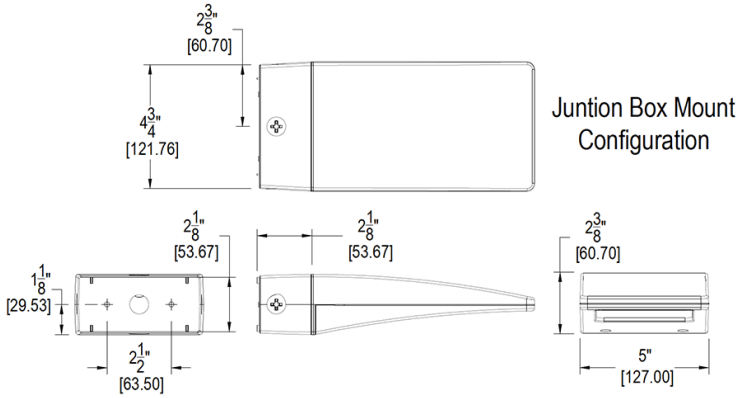
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Optical

BUG Rating:

B1 U0 G0

Dimensions



Features

- High performance LED light engine
- Maintains 70% of initial lumens at 100,000-hours
- Weatherproof high temperature silicone gaskets
- Superior heat sinking with die cast aluminum housing and external fins
- 5-Year, No-Compromise Warranty

BRIOHN BUILDING CORPORATION

DESIGN / BUILD CONSTRUCTION

ARCHITECTURAL DESIGN

DEVELOPMENT

PROPERTY MANAGEMENT

Briohn Building Corporation
c/o Caitlin LaJoie
3885 N Brookfield Road
Brookfield, WI 53045

March 1, 2024

City of Pewaukee
Office of the Planner and Community Development Director
W240N3065 Pewaukee Road
Pewaukee, WI 53072

Nick & Staff,

Thank you for reviewing and providing feedback on the proposed Lakeland Addition. Below please find responses in blue. We look forward to continued collaboration with Staff in advance of the March 21, 2024 Plan Commission meeting.

Comments and Recommendations: [Comments received from the City on February 22, 2024.]

Below are comments and recommendations for the proposed development application for property located at N17W25081 Bluemound Road (Tax Key No. PWC 0948985001).

1. Site Plan
   a. Please revise the greenspace and impervious surface calculations as previously discussed.
      RESPONSE: Site Data Table on Sheet C1.0 revised per email communication with Nick Fuchs.

2. Parking
   a. Staff recommends addressing parking in the project narrative. The Zoning Code suggests "One (1) space for each two (2) employees in 12 hour period." Is this currently met? It was noted that additional employees are not anticipated currently, but will employees likely be added in the future? Please provide a brief parking explanation and analysis for Plan Commission

3885 N Brookfield Rd Suite 200 Brookfield, WI 53045 262.790.0500 FAX: 262.790.0505 www.briohn.com

consideration, particularly as it does not appear feasible to add parking in the future.
RESPONSE: The existing parking lot contains 88 parking spaces. When the building was designed, there were 34 full-time employees and 7 part-time employees. The employee count will not be changing with this addition as the existing staff will utilize the additional warehouse space as a part of their current/existing operations. The existing parking quantity exceeds the current and planned employee count requirements, even with future growth taken into account.

3. Natural Resources
   a. Staff recommends re-delineating the wetland along the north property line, prior to any land disturbance.
   RESPONSE: Briohn has engaged Heartland Ecological to complete a wetland delineation along the north property line. An updated wetland report will be submitted to the City once completed.

   b. Please illustrate the 25-foot wetland setback on the site plan.
   RESPONSE: Wetland setbacks added on Sheets C1.0, C2.0, and C3.3.

4. Landscaping
   a. The existing tree line is on the adjacent residential parcel to the north. Is there sufficient area to plant additional evergreens on the subject property as well?
   RESPONSE: Additional wet tolerant trees have been added to complement the openings in the bermed landscaping on the property to the north of this site.

   b. In general, staff recommends additional plantings along the west elevation, adjacent to HWY 16. Plantings should also be specifically located to screen service door locations.
   RESPONSE: Additional upright evergreens (upright juniper specifically) have been added to the west side, specifically at the northwest of the building expansion.

   c. It is recommended that shrubs be planted at the base of the building along the west and north elevations consistent with the existing foundation plantings around the west and south sides of the building.
   RESPONSE: Plantings have been added to the west foundation, wrapping the northwest corner of the proposed building addition.

5. Lighting
   a. Please note the mounting height for both building lights on the Lighting Plan. It is recommended that mounting heights not exceed 20-feet.
   RESPONSE: A revised lighting plan has been provided with the fixture mounting height of 20' noted in the fixture schedule for the Type D fixtures, and a mounting height of 12' noted for the Type E fixtures.

6. Engineering Department review and Stormwater Management
   a. Please contact the Engineering Department directly to discuss the proposed building addition if you have not already.
      RESPONSE: See attached letter to Maggie Wagner. Briohn will continue to work with City Engineering to finalize the stormwater management plan.

7. Architecture
   a. Are there any additional rooftop mechanicals? Please confirm these will be screened.
      RESPONSE: There are no rooftop mechanicals. Unit heaters are provided for the warehouse and there is no AC.

   b. Staff recommend adding windows on the north elevation, matching the south elevation.
      RESPONSE: The panels on the north elevation are existing panels being relocated which currently do not have any windows, similar to the current condition. Please refer to Sheet A1.0 for the racking plan indicating the suggested windows would be in conflict with the floor plan.

   c. It is recommended that service doors be the same color as the building.
      RESPONSE: Acknowledged; service door paint color revised to match the building color.

Please do not hesitate to contact me with additional questions. We look forward to collaborating with the City of Pewaukee on this proposed Addition.

Thank you,

Caitlin LaJoie
Director of Land Development
clajoie@briohn.com
262-307-8792

CITY OF PEWAUKEE
PLAN COMMISSION AGENDA ITEM 5.

DATE: March 21, 2024

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

Discussion and Action Regarding the Site and Building Plans for Scot Industries for Property Located at N13 W24600 Scot Drive for the Purpose of Constructing a Building Addition and a New Parking Lot (PWC 0951999)

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Scot Industries staff report 3.21.24

Scot Industries narrative & views

Scot Industries architectural set

Scot Industries plat of survey

Scot Industries grading & erosion control plan

Office of the Planner & Community Development Director
W240 N3065 Pewaukee Road
Pewaukee, Wisconsin 53072
Phone (262) 691-0770 Fax (262) 691-1798
fuchs@pewaukee.wi.us

REPORT TO THE PLAN COMMISSION

Meeting of March 21, 2024

Date: March 14, 2024

Project Name: Scot Industries Site & Building Plan Review

Project Address/Tax Key No.: N13W24600 Scot Drive / PWC 0951999

Applicant: Mike Sambs, Scot Industries

Property Owner: Scot Industries Inc

Current Zoning: M-1 General Wholesale Business/Warehouse District and M-2 Limited Industrial District, LC Lowland Conservancy District, and F-1 Floodplain District

2050 Land Use Map Designation: Manufacturing/Fabrication/Warehousing

Use of Surrounding Properties: Single-family residential to the north, I-94 to the south, Pewaukee River and B-4 zoned properties to the east, and M-2, B-6, and M-1 District zoned properties to the west.

Introduction

The applicant has filed a Site & Building Plan Review Application for a proposed building addition and new parking lot upon property located at N13W24600 Scot Drive. Note Scot industries also owns the abutting properties to the north, south, and west.

The subject site has an area of approximately 60-acres and is zoned M-1 General Wholesale Business/Warehouse District and M-2 Limited Industrial District, LC Lowland Conservancy District, and F-1 Floodplain District. The property is designated as Manufacturing/Fabrication/Warehousing on the City's Year 2050 Land Use/Transportation Plan map.

The current building addition does not require a rezoning as all setbacks are met; however, staff does suggest that the property be rezoned to a single zoning district to eliminate the existing M-1 District and M-2 District split zoning on the property. The applicant has been told that future site improvements may require this to be done in addition to combining all lands owned by Scot Industries.

Project Description/Analysis

The proposed addition has an area of 19,075 square feet and will extend the building to the south over an existing parking lot. The addition is about 45-feet from the south property line, in conformance with the M-2 minimum side yard setback of 25-feet.

Natural Resources

The building and new parking lot are over 450-feet from the Pewaukee River and roughly 325 feet from the WDNR mapped wetlands. The storm water pond is also about 75-feet from a SEWRPC Environmental Corridor. With that said, hydric soils are shown adjacent to the building addition and

within the area of the new parking lot. As such, *staff recommends that wetland delineations be completed within 100-feet of the limits of disturbance required for the construction of the building addition, parking lot, and storm water management facilities, prior to any land disturbance*.

Architecture
The addition consists of corrugated metal siding on the east elevation as well as the majority of the south elevation. Precast concrete panels are located on the west wall and wrap around a portion of the south elevation. The west elevation includes the addition of a new overhead door and service door. Two metal service doors with a metal canopy and light above are located on the south elevation and one service door is also on the east elevation. The building addition consists of a metal roof.

The proposed building materials match and are consistent with the existing building. The applicant is utilizing the existing concrete panels and shifting them south for the expansion.

The applicant has provided additional reasoning related to the use of metal siding within their project narrative. The subject building is located on a large parcel of land and the building is setback roughly 650 feet from Bluemound Road and over 550 feet from I-94. With these setbacks and the existing wooded area to the south, there is little visibility of this building. Furthermore, the building materials proposed are consistent with the existing materials. As such, staff does not object to the metal siding being utilized in this unique situation.

Parking
The proposed parking lot is located to the north of the building and will replace the parking lot being removed to accommodate the building addition. *Staff recommends that parking spaces shall be no less than 180 square feet in accordance with Section 17.0601(a) of the City's Zoning Ordinance*.

Lighting
The only lighting proposed are the lights above the service doors as shown on the elevations. Staff does not have any objections or concerns regarding this lighting.

Landscaping
No landscaping is currently proposed. *Staff recommends that a Landscape Plan be submitted, for City Planner review and approval, prior to issuance of a Building Permit, that includes evergreen trees planted on the property in a location and manner to assist in screening the overhead doors on the west elevations*.

Engineering
The site plan provided shows the general location and size of the storm water management pond. *Staff recommends that final grading, erosion control, utilities, and storm water management plans shall be approved by the Engineering Department prior to issuance of a Building Permit*.

Recommendation

Staff recommends approval of the Site & Building Plan Review Application for the Scot Industries building addition and new parking lot, subject to the staff recommended conditions of approval noted in this report.

Date: March 11, 2024

Attention: Nick Fuchs, Planner & Community Dev. Dir.
Transmitting To: Pewaukee Planning & Community Development
Transmitting Via: Email

RE: **Scot Industries Building Addition – Site & Building Plan Review**
Project Narrative
Quorum Architect's Project Number: 23037.00

Nick,

Scot Industries, a premier supplier of specialty tubing and bar products, would like to expand their existing Pewaukee R&D machine building facility to increase production capability and add new high skilled Journeyman Machinist and Journeyman Electricians to their local workforce.

The existing building at N13W24600 Bluemound Road has 4,140 square feet of office area and approximately 40,000 square feet of IBC Group F-2, low-hazard factory Use in a construction Type IIB structure. The existing building is not covered by an automatic sprinkler system, but the building has fire-separated uses in that the office & storage area above are separated from the factory floor by a 2-hour vertical fire separation. The original building was built in 1979 for Scot Industries. The original structure was masonry with brick veneer and metal mansard roof over the second floor at the office area and manufactured metal building with painted steel siding at the factory portion. Additions were added to the east of the office block and west of the factory floor in 2009. The office addition matched the existing construction/exterior finish, and the factory addition was built with precast concrete tilt-up panel exterior and metal roof.

The proposed addition would add 19,075 square feet of additional factory space to the south of the existing factory floor. Construction is proposed as painted metal formed siding at the east wall addition, painted metal formed siding at approximately two-thirds of the length of the south wall on the east end, and precast concrete tilt-up panels on the west wall and west one-third of the south wall. The concrete tilt-up panels will match the finish and color of the existing pre-cast exterior. The Owner is requesting that the Pewaukee Planning Commission allow the use of metal panels at a portion of the south elevation and at the addition wall at the east elevation for the following reasons:

1. The east and south elevations of the building are not readily viewable from adjacent properties or roadways (*See the key plan and photos accompanying the Planning Review submittal for photos of the available views)*. The east end of the building faces the Pewaukee River conservancy area and is shielded from view by forested areas on both sides of the river (*Figure 01*). The south elevation faces Interstate Highway I-94 and is shielded by a forested area that will never be built on due to DNR considerations (*Figures 07-14*). The portion of the south elevation that faces Bluemound Road is likewise shielded from view by trees (*Figures 02-04*).
2. The building is set back from the adjoining roadways so far that the materiality of the south elevation is difficult to ascertain. The material of the existing metal panels reads as a color and not as a formed metal panel façade.
3. The existing addition to the Bluemound Road-facing west elevation will be constructed from precast concrete tilt-up wall panels that match the existing west and southwest panels. A portion of the south elevation that is nearest to Bluemound Road will likewise be constructed with precast concrete panels.

4. Due to the proximity of the building addition being adjacent to grade drop-offs and wetland areas further out to the east and south side of the building area, use of cranes and heavy equipment to set concrete tilt-up pads is limited. Keeping the precast portions of the exterior cladding to the west end allows for picking the panels and setting them from a crane located in the west loading dock area.

Quorum Architects, Inc.

There is no change in use related to the addition. The additional production floor will continue the existing Type F-2, low-hazard factory use. The addition will match the existing Type IIB, non-combustible construction and will be adding a partial NFPA 13 sprinkler system to provide coverage for the factory portion of the building. The existing ground floor office and second floor storage areas at the office block are not required to be sprinklered at this time as they are not part of the proposed alteration area and are separated from the rest of the altered area and addition by a 2-hour fire-resistance rated fire barrier.

If there are any additional questions regarding the proposed scope and use of the proposed building addition, please contact me or Mike Sambs, the Owner's representative. Thank you.

Mark W. Knapp, AIA
Principal Project Architect
Quorum Architects, Inc.

Via: Hand delivered

"We Recycle Buildings"℠

March 7, 2024

Re: Scot Industries, Building Addition Application Photos

Quorum Architects, Inc.

"We Recycle Buildings"℠

Architectural Design • Interior Design • Site Design
3112 West Highland Blvd • Milwaukee, Wisconsin 53208 • ph. 414-265-9265 • fax. 414-265-9465 • www.quorumarchitects.com

Figure 01: Aerial view of existing building, site, and surrounding properties looking towards the North.


Figure 02: View of existing building on site from Bluemound Rd

Figure 03: View of existing building on site from west on Bluemound Rd.

Figure 04: View of existing building on site from east on Bluemound Rd.

Figure 05: Close-up view of existing building from North

Figure 06: Close-up view of existing building from South.

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Figure 07: View of site and existing building from I-94W

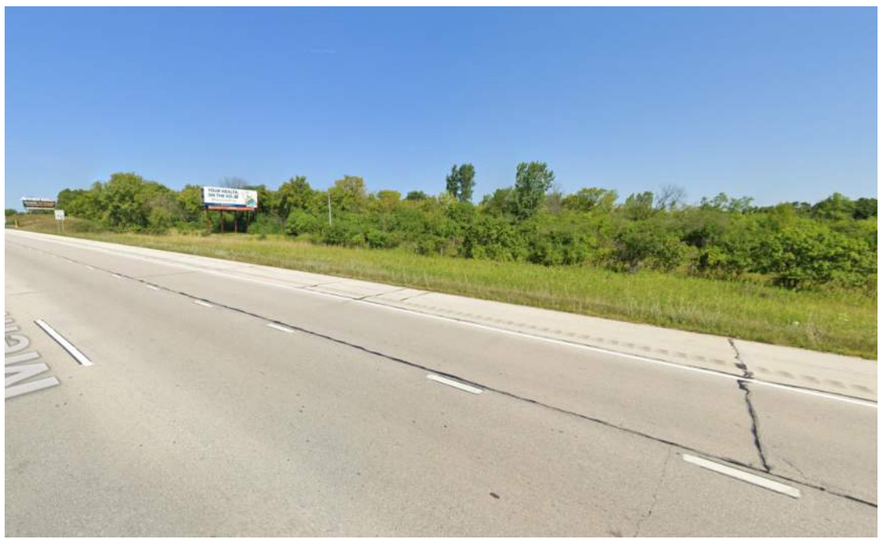


Figure 08: View of site and existing building from I-94W

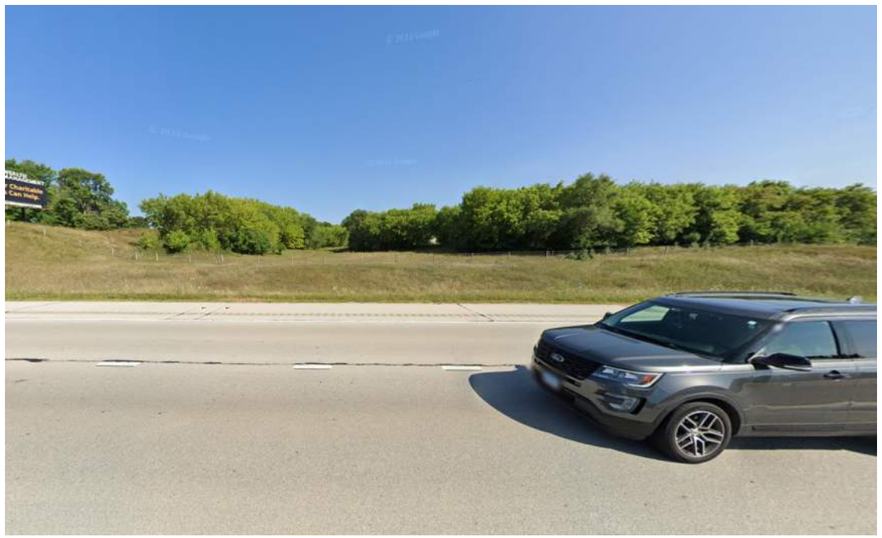


Figure 09: View of site and existing building from I-94W

Figure 10: View of site and existing building from I-94W

Figure 11: View of site and existing building from I-94E

Figure 12: View of site and existing building from I-94E

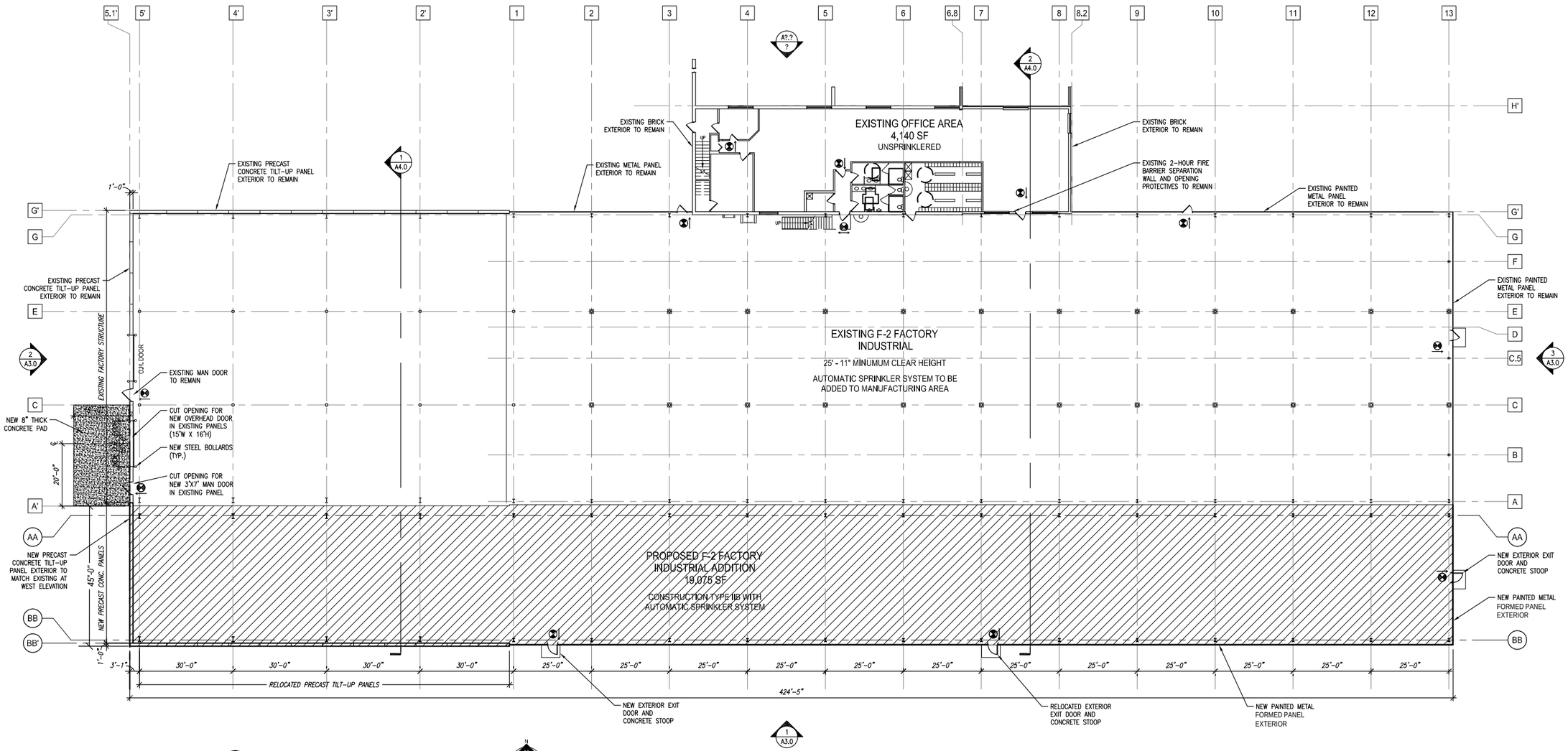
Figure 13: View of site and existing building from I-94E

Figure 14: View of site and existing building from I-94E

LEGEND

EXISTING WALLS TO REMAIN
NEW FULL HEIGHT WALLS
NEW PARTIAL HEIGHT WALLS
EXISTING DOORS TO REMAIN
NEW DOORS
EXISTING COLUMN
EXISTING EXIT SIGNS
NEW EXIT SIGNS

EXISTING AND PROPOSED RELOCATED PARKING - REFER TO SITE PLAN



1 GROUND FLOOR PLAN
SCALE: 1/16" = 1'-0"

DRAWING REDUCED. NOT PRINTED TO SCALE.

Quorum Architects, Inc.
3112 West Highland Boulevard
Milwaukee, Wisconsin 53208
Phone: 414.265.9265
Fax: 414.265.9465
www.quorumarchitects.com

SCOT INDUSTRIES

PRELIMINARY
NOT FOR CONSTRUCTION
QUORUM ARCHITECTS, INC.

SCOT INDUSTRIES - PEWAUKEE PRODUCTION FLOOR ADDITION

N13W24600 BLUEMOUND ROAD
Pewaukee, Wisconsin 53072

Revisions:

Sheet Name:
GROUND FLOOR PLAN

Date: 02/15/2024
Drawn By: AB/MK
Project No.: 23037.00

Sheet No.
A1.1

Feb 15, 2024 - 4:10pm
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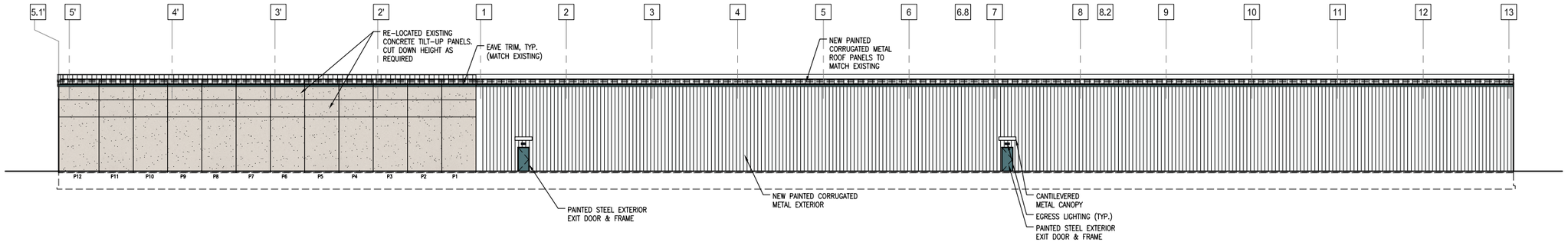
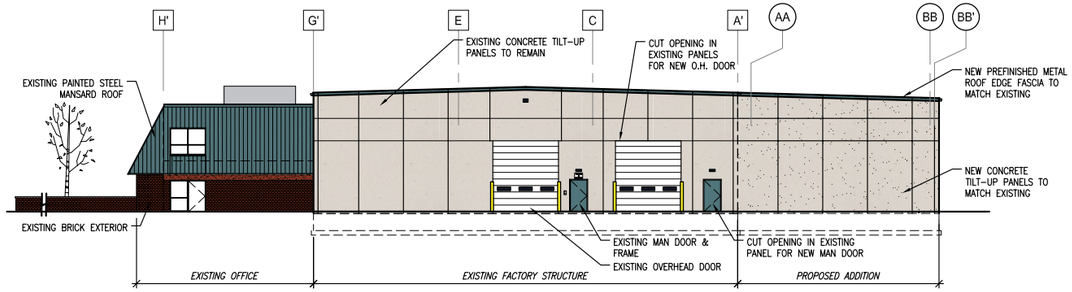
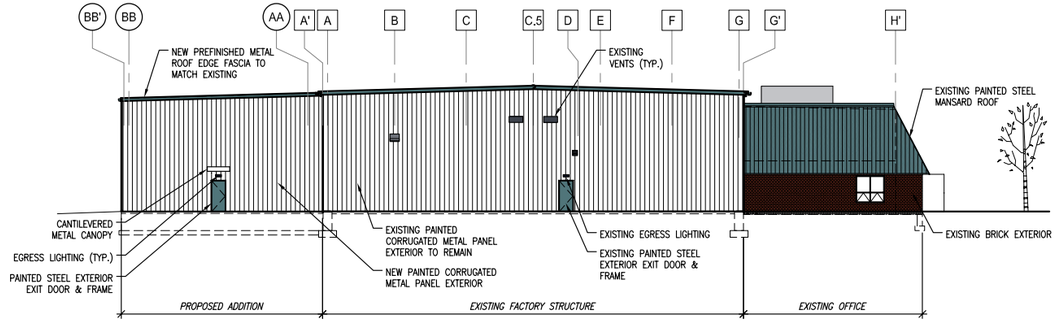


1 SOUTH ELEVATION AT PROPOSED ADDITION
SCALE: 1/16" = 1'-0"



2 WEST ELEVATION
SCALE: 1/16" = 1'-0"



3 EAST ELEVATION
SCALE: 1/16" = 1'-0"

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SCOT INDUSTRIES

PRELIMINARY
NOT FOR CONSTRUCTION
QUORUM ARCHITECTS, INC.

SCOT INDUSTRIES - PEWAUKEE PRODUCTION FLOOR ADDITION

N13W24600 BLUEMOUND ROAD
Pewaukee, Wisconsin 53072

Revisions:

Sheet Name:
ELEVATIONS

Date: 02/15/2024
Drawn By: AB/MK
Project No.: 23037.00

Sheet No.
A3.0

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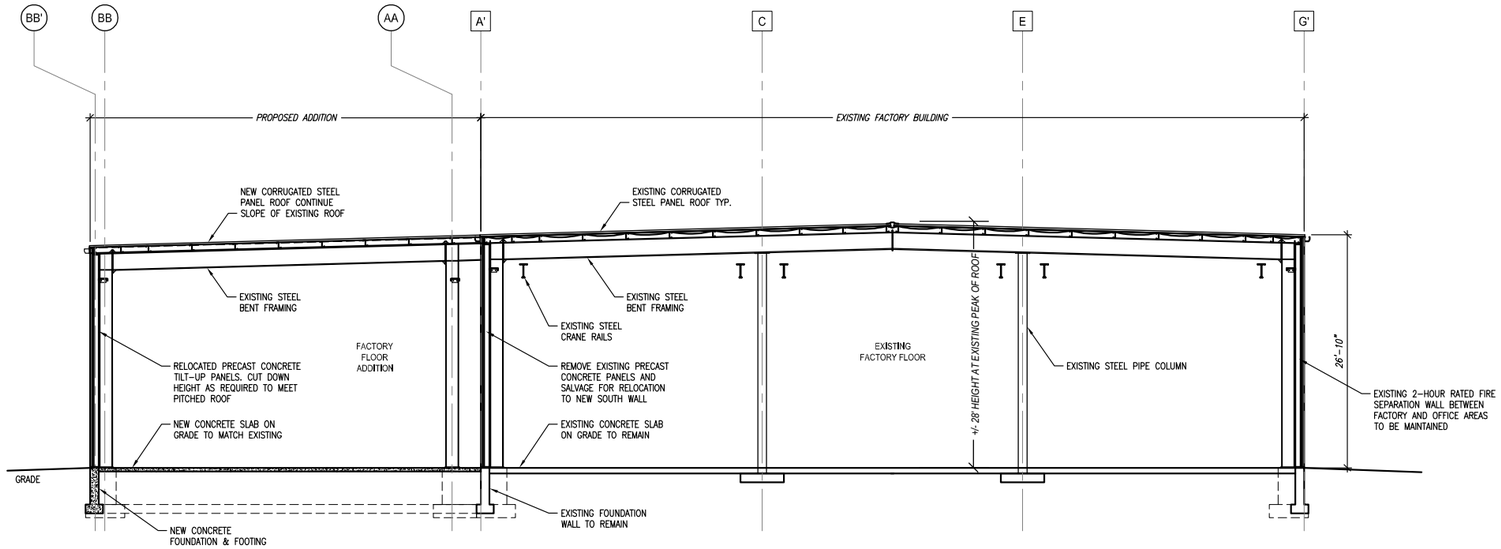
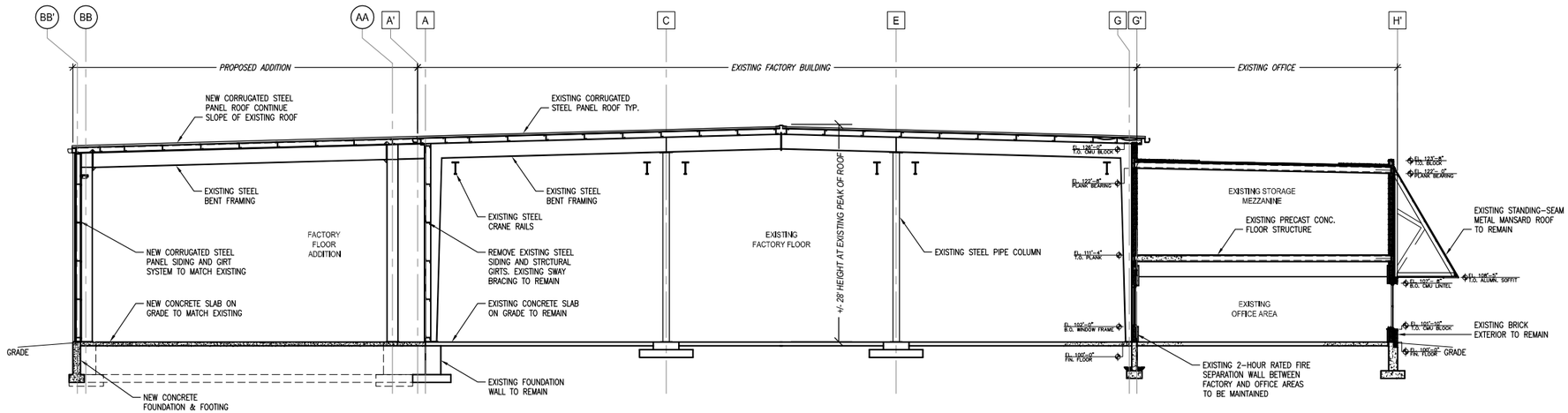


1 NORTH-SOUTH SECTION AT WEST END
SCALE: 1/8" = 1'-0"



2 NORTH-SOUTH SECTION AT OFFICES AND FACTORY
SCALE: 1/8" = 1'-0"

Quorum Architects, Inc.
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SCOT INDUSTRIES

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QUORUM ARCHITECTS, INC.

SCOT INDUSTRIES - PEWAUKEE
PRODUCTION FLOOR ADDITION

N13W24600 BLUEMOUND ROAD
Pewaukee, Wisconsin 53072

Revisions:

Sheet Name:
SECTIONS

Date: 02/15/2024
Drawn By: AB/MK
Project No.: 23037.00

Sheet No.
A4.0

DRAWING REDUCED. NOT PRINTED TO SCALE.

PLAT OF SURVEY

BEING A PART OF THE EAST 1/2 OF THE SW. 1/4 OF SECTION 22, AND THE WEST 1/2 OF THE SE 1/4 OF SECTION 22, T.7N., R.19E., CITY OF PEWAUKEE, WAUKESHA COUNTY, WISCONSIN

LANDMARK ENGINEERING SCIENCES, INC.

119 COOLIDGE AVE., SUITE 100
WAUKESHA, WI 53186
(414) 719-2769
landmark-engineering@live.com

SURVEYOR:
MARK AUGUSTINE, PLS

SURVEY FOR:
SCOT INDUSTRIES INC

PROPERTY:
N13W24600 SCOT DR
PEWAUKEE, WI 53072

LEGAL DESCRIPTION

PER DOCMENT NO: 1086842

All that part of the Southwest ¼ and part of the Southeast ¼ of Section 22, Town 7 North, Range 19 East, Town of Pewaukee, County of Waukesha, State of Wisconsin, bounded and described as follows:
Commencing at the South ¼ of said Section 22; thence North 00°48'40"East along the South ¼ line of said Section 22, 864.81 feet to a corner of the property recorded in Volume 721 of Deeds on Page 541 as Document No. 448169, 508.46 feet to the place of beginning of the land herein described; thence North 82° 49'40"East 1316.46 feet to the meander line along the West side of the Pewaukee River; thence along said meander line on the West side of the Pewaukee River the following bearings and distances; thence North 14° 20'20"West 72.00 feet; thence North 87° 24'20"West 159.43 feet; thence North 00° 35'50"West, 351.05 feet; thence South 78° 40'10"West 208.50 feet; thence North 22° 49'20"West 315.25 feet; thence North 77° 13'20" West 290.30 feet; thence North 19° 11'50"West, 353.45 feet; thence North 15° 06'10"East 217.10 feet to the 89° 58'20"West along the North line of said Southwest ¼, 14198.55 feet to the eighth corner of said Section 22; thence South 00° 23'40"West, 1237.35 feet to the centerline of U.S. Highway "16"; thence South 47° 27'20"East along said centerline, 691.35 feet; thence North 42° 57'40"East 60.00 feet; thence South 47° 27'20"East along the Easterly right-of-way line of said U.S.H. "16", 110.00 feet the Westerly corner of the property described in the Land Contract recorded in Volume 1058 of Deeds of on Page 122 as Document No. 668309, 54.49 feet to the place of beginning. Also, including all lands between the above described meander line and the centerline of the Pewaukee River between the Northerly and Southerly lines of the above described property extended to said river centerline. Excepting those lands lying within the U.S.H. "16"right-of-way.

NOTES:

1. EASEMENTS NOT SHOWN. NO EASEMENTS OR TITLE COMMITMENT PROVIDED TO SURVEYOR.
2. THE SURVEYOR TAKES NO RESPONSIBILITY FOR ANY UNDERGROUND STRUCTURES OR BURIED MATERIALS SUCH AS FOUNDATIONS, WELLS, SEPTIC, HOLDING TANKS, UTILITIES, HAZARDOUS MATERIALS, OR ANY OTHER ITEMS OF WHICH NO EVIDENCE CAN BE FOUND ON THE SURFACE BY A VISUAL INSPECTION.
3. UNDERGROUND UTILITY LOCATIONS MARKED BY DIGGER'S HOTLINE PER TICKET #20240104366, DATED JANUARY 2024. SURVEYOR TAKES NO RESPONSIBILITY FOR UTILITIES NOT MARKED IN FIELD BY DIGGERS HOTLINE.
4. SURVEY FIELD WORK COMPLETED JANUARY 5, 2023.
5. VERTICAL DATUM: NAVD88.
6. TOTAL PARCEL AREA = 2,708,412 S.F. (62.18 AC)

IMPERVIOUS SURFACE	EXISTING AREA	PROPOSED AREA
DRIVEWAY, PARKING & WALKWAY	59,141 SF (2.18%)	53,402 SF (1.97%)
BUILDING WITH ROOF OVERHANG	45,980 SF (1.70%)	64,779 SF (2.39%)
RETAINING WALLS	58 SF (.002%)	162 SF (.006%)
TOTAL:	105,179 SF (3.88%)	118,343 SF (4.37%)

SURVEYOR'S CERTIFICATE:

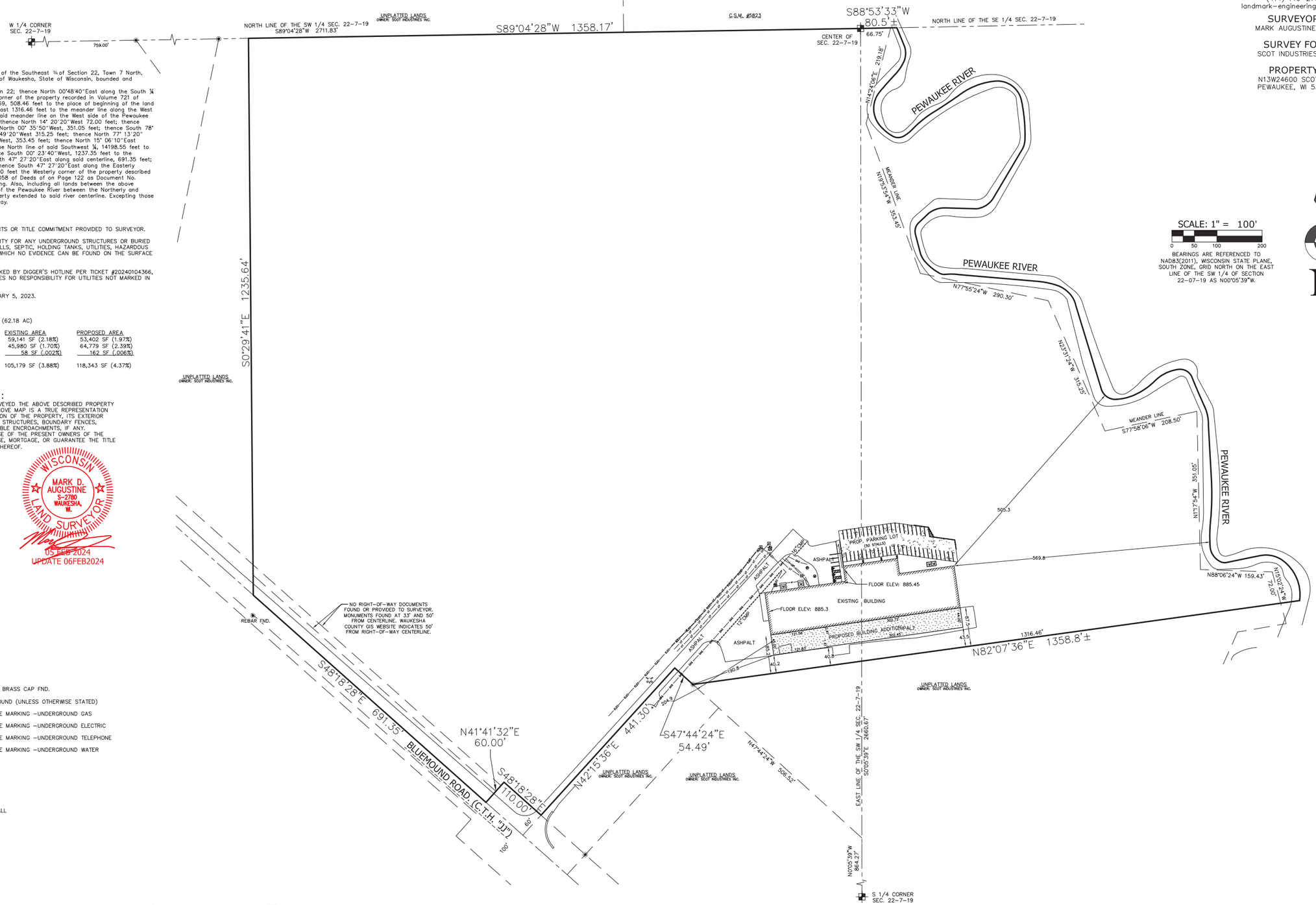
I HEREBY CERTIFY THAT I HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY AND, IN MY PROFESSIONAL OPINION, THE ABOVE MAP IS A TRUE REPRESENTATION THEREOF AND SHOWS THE SIZE AND LOCATION OF THE PROPERTY, ITS EXTERIOR BOUNDARIES, THE LOCATION OF ALL VISIBLE STRUCTURES, BOUNDARY FENCES, APPARENT EASEMENTS, ROADWAYS AND VISIBLE ENCROACHMENTS, IF ANY.
THIS SURVEY IS MADE FOR THE USE OF THE PRESENT OWNERS OF THE PROPERTY, AND ALSO THOSE WHO PURCHASE, MORTGAGE, OR GUARANTEE THE TITLE THERETO WITHIN ONE (1) YEAR FROM DATE HEREOF.

WISCONSIN
MARK D. AUGUSTINE
S-2780
WAUKESHA, WI.
LAND SURVEYOR

05 FEB 2024
UPDATE 06FEB2024

LEGEND

- ⊕ – CONC. MON. W/ BRASS CAP FND.
- ◉ – 1" IRON PIPE FOUND (UNLESS OTHERWISE STATED)
- GAS GAS – DIGGERS HOTLINE MARKING –UNDERGROUND GAS
- ELEC ELEC – DIGGERS HOTLINE MARKING –UNDERGROUND ELECTRIC
- UT UT UT – DIGGERS HOTLINE MARKING –UNDERGROUND TELEPHONE
- WTR WTR – DIGGERS HOTLINE MARKING –UNDERGROUND WATER
- TB – TELE BOX
- Ⓜ – MANHOLE
- ⋈ – WATER VALVE
- ⋇ – HYDRANT
- Ⓟ – PVC PIPE, 6' TALL
- Ⓜ – MECHANICALS

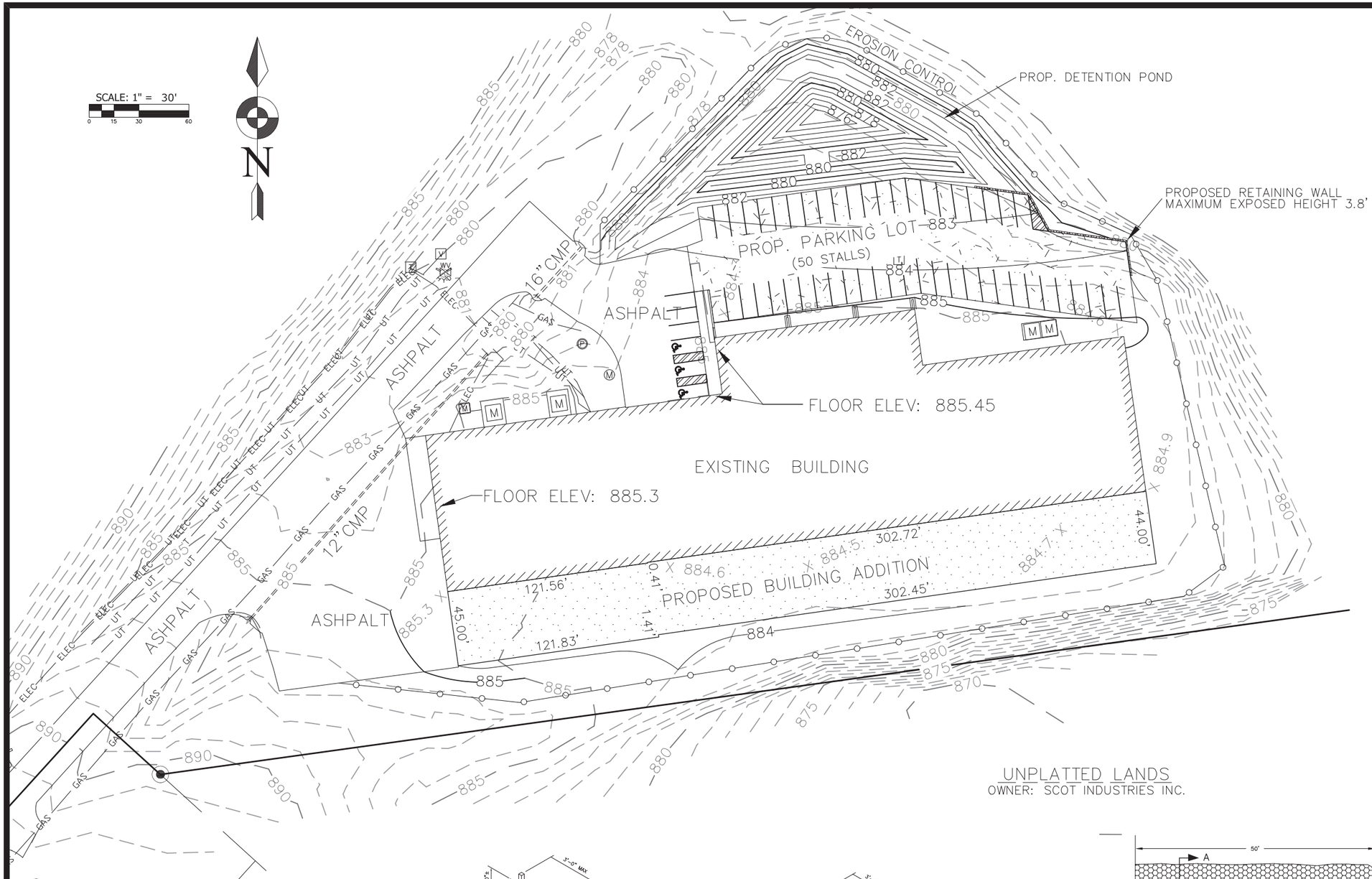


SCALE: 1" = 100'
0 50 100 200

BEARINGS ARE REFERENCED TO NAD83(2011), WISCONSIN STATE PLANE, SOUTH ZONE, GRID NORTH ON THE EAST LINE OF THE SW 1/4 OF SECTION 22-07-19 AS N00°05'39"W.

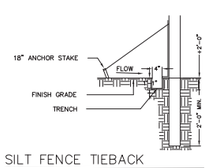
N

PROJECT # 3904.00

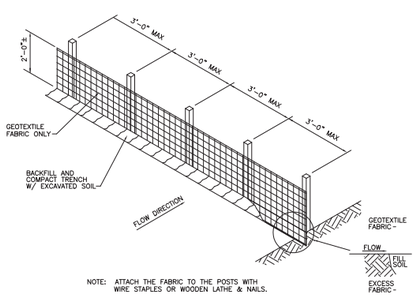


CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

"THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDER-GROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINA-TIONS AS TO THE TYPE AND LOCATION OF UNDER-GROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO."

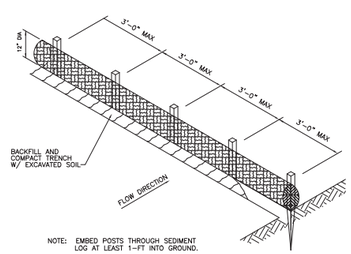


SILT FENCE TIEBACK
NOT TO SCALE



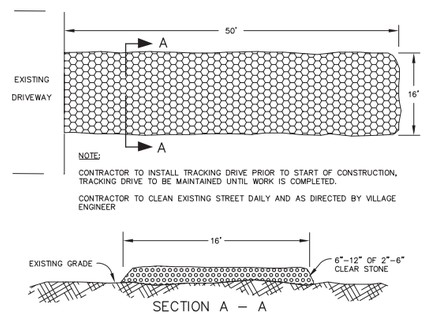
NOTE: ATTACH THE FABRIC TO THE POSTS WITH WIRE STAPLES OR WOODEN LATHE & NAILS.

SILT FENCE INSTALLATION DETAIL
NOT TO SCALE
NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED



NOTE: EMBED POSTS THROUGH SEDIMENT LOG AT LEAST 1-FT INTO GROUND.

SEDIMENT LOG INSTALLATION DETAIL
NOT TO SCALE
NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED



NOTE:
CONTRACTOR TO INSTALL TRACKING DRIVE PRIOR TO START OF CONSTRUCTION. TRACKING DRIVE TO BE MAINTAINED UNTIL WORK IS COMPLETED.

CONTRACTOR TO CLEAN EXISTING STREET DAILY AND AS DIRECTED BY VILLAGE ENGINEER

TEMPORARY GRAVEL TRACKING DRIVE
NOT TO SCALE

DRAFT
WISCONSIN
MARK A. ANDERSON
PROFESSIONAL ENGINEER

LANDMARK
ENGINEERING SCIENCES, INC.
119 COOLIDGE AVE., SUITE 100, WAUKESHA, WI 53186
PHONE: 414-719-2769

SCOT INDUSTRIES INC.
N13W24600 SCOT DRIVE
PEWAUKEE, WI 53072

GRADING & EROSION CONTROL

PROJECT #	3904.00
DATE	05 FEB 2024
DRAWN BY	MA
DESIGNED BY	MA
REVISIONS	06FEB2024
	14MAR2024
SHEET NUMBER	C-1
OF	1 SHEETS

CITY OF PEWAUKEE
PLAN COMMISSION AGENDA ITEM 6.

DATE: March 21, 2024

DEPARTMENT: Planning

PROVIDED BY:

SUBJECT:

Discussion And Possible Action Regarding a Conceptual Review for Shorepoint Church for Property Located at the Southwest Corner of Capitol Drive and Duplainville Road for the Purpose of Constructing and Operating a New Church (PWC 0912983, PWC 0912984, and PWC 0912985)

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Shorepoint Church staff report 3.21.24
Revised Shorepoint Church plans 3.21.24
Shorepoint Church narrative
Shorepoint Church floor plan
Shorepoint Church site plan
Shorepoint Church land survey
Shoreland Church comments

Office of the Planner & Community Development Director
W240 N3065 Pewaukee Road
Pewaukee, Wisconsin 53072
Phone (262) 691-0770 Fax (262) 691-1798
fuchs@pewaukee.wi.us

REPORT TO THE PLAN COMMISSION

Meeting of March 21, 2024

Date: March 13, 2024

Project Name: Shorepoint Church Conceptual Review

Project Address/Tax Key No.: Approximately N34W22407 Capitol Drive / PWC 0912983, 0912984, and 0912985

Applicant: Shorepoint Church

Property Owner: Duplainville LLC (PWC 0912983), Oscar E Picado Diaz (PWC 0912985), and IHNEN Properties, LLC (PWC 0912984)

Current Zoning: Rs-1 Single Family Residential (PWC 0912983 & 0912985) and B-3 General Business District (PWC 0912984)

2050 Land Use Map Designation: Medium Density Residential (6,500 Sq. Ft. - 1/2 Ac. / D.U.) and Floodplains, Lowland, & Upland Conservancy and Other Natural Areas

Use of Surrounding Properties: Capitol Drive and Two-Family Residential to the north, Quad Graphics to the south, M-1 District properties to the east, and agricultural land to the west.

Project Description

The applicant submitted conceptual plans for Plan Commission review of a proposed church use and development of properties located at the southwest corner of Capitol Drive and Duplainville Road. The three properties consist of an old vacant residential home, a single-family home, and vacant land. The applicant would raze all existing structures.

The building has an area of approximately 27,745 square feet and includes a 600-capacity worship space, office space, a 1,350 square foot multi-purpose room with a stage, and classrooms.

The three properties have an area of approximately 10.7-acres. The proposed development includes 300 parking spaces and a driveway extending through the north end of the site connecting a Duplainville Road access and a Capitol Drive access. The conceptual plan illustrates the building location, exterior parking areas, and a storm water pond location.

The subject properties are currently zoned Rs-1 Single Family Residential (PWC 0912983 & 0912985) and B-3 General Business District (PWC 0912984). The applicant will be required to rezone all three properties to the I-1 Institutional District and UC Upland Conservancy District for the remaining woodland area. All three properties are designated as Medium Density Residential and Floodplains, Lowland, & Upland Conservancy and Other Natural Areas. Therefore, a Comprehensive Master Plan Amendment Application will be required as well to amend this future land use designation to Government/Institutional. Staff will recommend the entire wooded area to be Floodplains, Lowland & Upland Conservancy and Other Natural Areas.

Architectural and building details have not yet been provided. This is a prominent corner from a visibility standpoint, so a high-quality architectural standard should be considered.

The applicant has indicated materials will include glass, wood-looking materials, and precast concrete panels. A forty-five-to-fifty-foot cross projecting from the roof of the building is also stated as proposed. Although details have not yet been provided, staff anticipate concerns and likely objecting to such a large feature.

Access

The City discussed the Capitol Drive access with the Wisconsin Department of Transportation. It was discussed that, in the future, with the development of the property to the west, a preferred access to these properties would be from the property to the west, utilizing a shared access point aligning with Wethersfield Road.

With that, staff will recommend that any development of these properties will include a condition requiring cross-access with the property to the west to allow for the abandonment of the access to Capitol Drive to allow for the access point across from Wethersfield Road on the property to the west.

At the time of development, the property to the west would then be required to provide cross-access to the church in order for access improvements to Capitol Drive.

Attached are also comments from the Wisconsin Department of Transportation.

Traffic

As noted above, the site is accessible from both Capitol Drive and Duplainville Road. Traffic exiting onto Capitol Drive must turn right and head east. If a car wishes to travel west on Capitol Drive, a U-turn is needed at Springdale Road.

There may be traffic issues with this in conjunction with Spring Creek Church, which likely has similar peak traffic times.

Staff recommends that a Traffic Impact Analysis be required.

Parking

The Zoning Ordinance suggests a minimum parking ratio of one space for each two seats. In addition, one space for each two employees for school use.

The 600-seat worship space requires 300 parking spaces. Staff would not recommend additional parking for the classrooms assuming the classrooms are primarily utilized at different times than the worship space. If anything, staff would prefer to see areas of the site designated as future parking and only improved if necessary.

Natural Resources

In review of the DNR Surface Water Data Viewer, no wetlands exist onsite and only a small portion of the northwest corner of the site shows hydric soils. The southern portion of the site is wooded, and the site is steeply sloped.

No portion of the site is identified as a SEWRPC environmental corridor, and no floodplain is located on the property.

Staff recommends that the wooded areas not be impacted.

I-1 District
The proposed uses are permitted under the I-1 District. The I-1 District development standards also appear to be met with this development. In addition, the site will maintain a minimum of 40% greenspace.

Process/Next Steps
If the applicant chooses to move forward, as currently designed, it is anticipated that the project will require a Certified Survey Map, Rezoning, Comprehensive Master Plan Amendment, and a Site & Building Plan Review Application.

Recommendation

No action required.

It is recommended that sufficient feedback be provided to allow the applicant to determine whether to proceed or not with detailed site and building plans as well as the Rezoning, Comprehensive Master Plan Amendment, if required, Conditional Use Permit, and Site & Building Plan Review applications.

Shorepoint City Process

STEP ONE

1. Application for Conceptual Review (Advised) $200

   Due 30 days prior to Meeting date
   Submittal Date = February 21st
   Conceptual Review Date = March 21st

NOTE: Planning Commission Meets – 3rd Thursday of the month

STEP TWO

2. Application for Rezone - $400
3. Application for Site and Building Plan Review - $500
4. Certified Survey Map Application to Combine the Properties - $410
5. Comprehensive MasterPlan Amendment - $400

   NOTE: The City will also invoice the applicant for the cost of publishing public hearing notices for the rezoning and comprehensive master plan amendment. Engineering reviews are also charged back to the applicant.

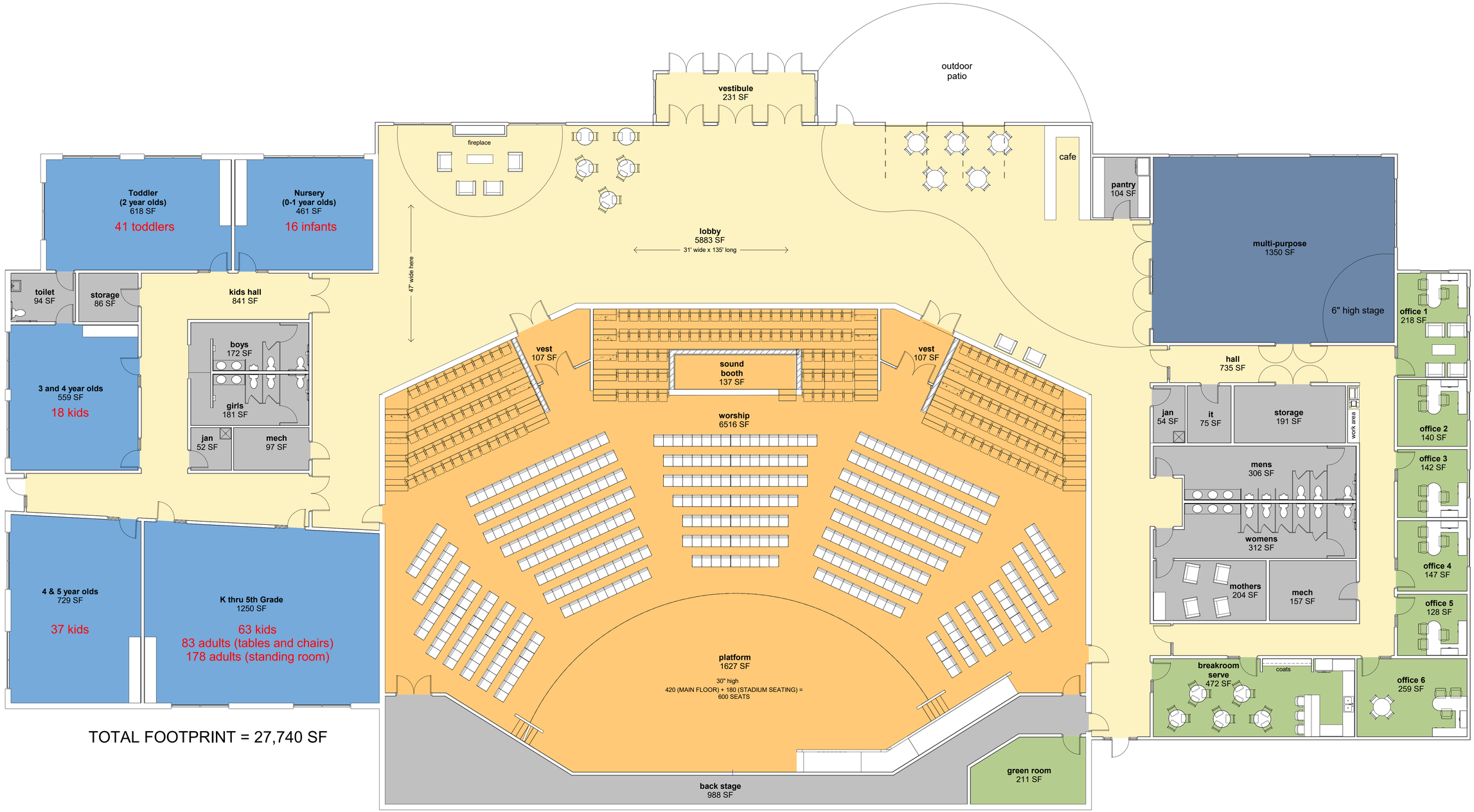
   Due 45 days prior to meeting date
   Submittal Date = April 1st
   Common Council Approval = June 3rd

April 1st Initial Submittal (5 sets of full-sized plans and a pdf)
April 15th Staff Comments sent to applicant
April 25th Comment Review meeting (optional)
May 6th Final Plan Commission submittal due (12 sets of reduced plans and a pdf)
May 16th Plan Commission meeting
June 3rd Common Council meeting

The Common Council meets the 1st and 3rd Monday of each month. Note that if Plan Commission meets the week before, the applications are not typically forwarded to the Council meeting for the immediately following week.

Wisconsin DOT

Paul Imig working on Application process



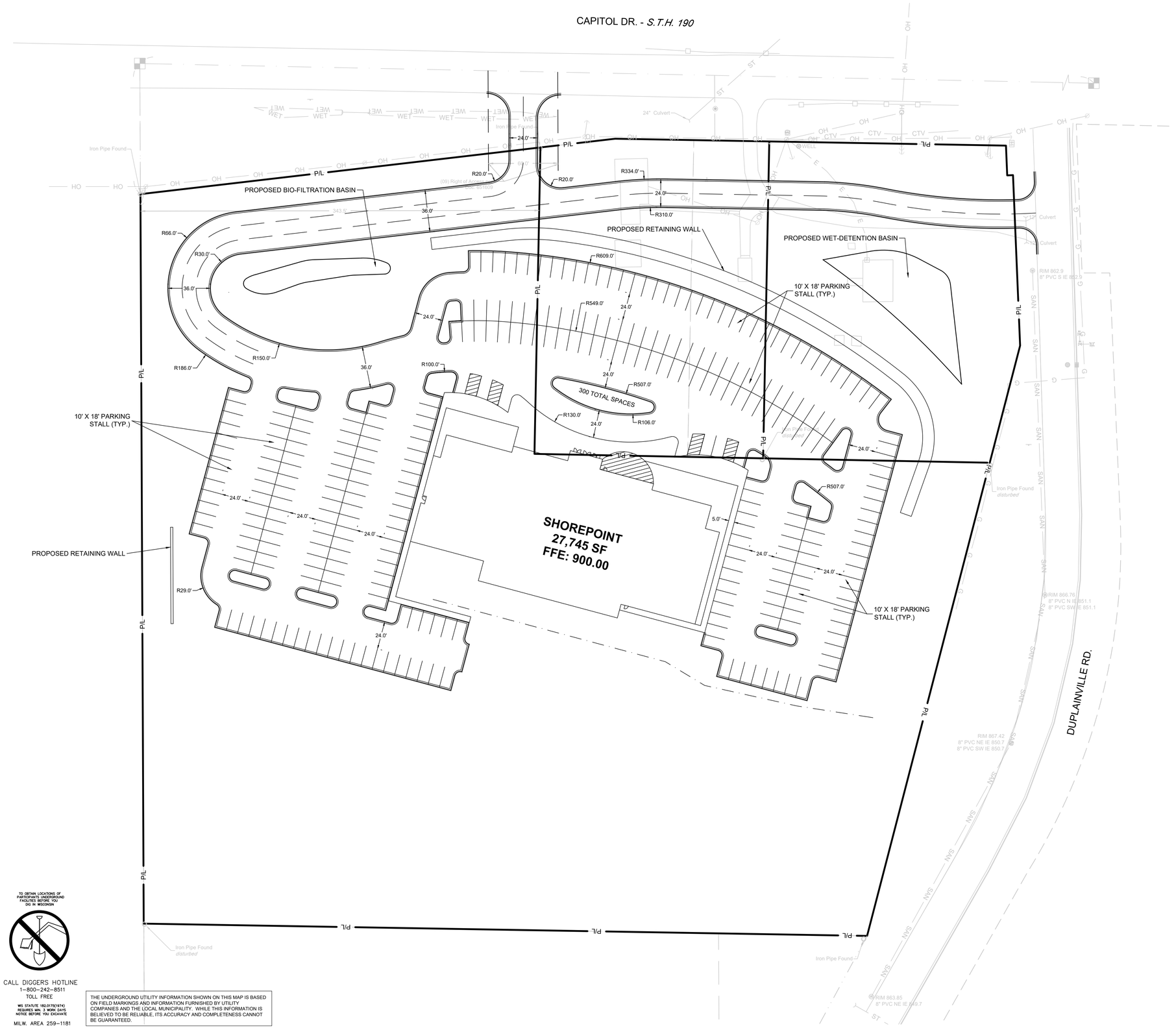
TOTAL FOOTPRINT = 27,740 SF

SHOREPOINT CHURCH

February 8, 2024

VANMAN
architects and builders

2024.02.16



SITE INFORMATION			
SITE AREA	471061	10.814 AC	
SITE DISTURBED AREA	363493	8.345 AC	
EXISTING IMPERVIOUS AREA	6756	0.155 AC	1.4 %
PROPOSED IMPERVIOUS AREA	178014	4.087 AC	37.8 %
TOTAL PARKING SPACES	300		
ADA PARKING SPACES	7		

LEGEND:

- 5" THICK CONCRETE WALK
- CONCRETE PAVEMENT
- ASPHALT SURFACE
- HEAVY-DUTY ASPHALT SURFACE
- MILL/PULVERIZE AND OVERLAY
- POROUS SURFACE
- CURB & GUTTER (ACCEPT)
- CURB & GUTTER (REJECT)

GENERAL NOTES:

1. THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
2. VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
3. WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
4. ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
5. DIMENSIONS ARE FROM FACE OF CURB OR EDGE OF PAVEMENT.
6. WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO DRIVEWAY OPENINGS, SIDEWALK AND RAMPS, PAVING, AND CURB AND GUTTER SHALL BE COMPLETED PER MUNICIPAL AND/OR COUNTY REQUIREMENTS AND STANDARDS.
7. EARTHWORK SHALL BE IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

THE SIGMA GROUP
Single Source. Sound Solutions.
www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210

GRAPHIC SCALE
0 40 80

SHOREPOINT CHURCH
N34W22407 CAPITOL DRIVE
PEWAUKEE, WI 53072

SITE PLAN

PRELIMINARY NOT FOR CONSTRUCTION

ISSUANCE	DATE

NO.	REVISION	DATE

PROJECT NO:	22074
DESIGN DATE:	2023.11.16
PLOT DATE:	2024.02.16
DRAWN BY:	KJB
CHECKED BY:	PJI
APPROVED BY:	----

SHEET NO:
C100

TO OBTAIN LOCATIONS OF PARTICIPATING UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

WIS. STATUTE 182.0175(1974) REQUIRES MIN. 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

MILW. AREA 259-1181

THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD MARKINGS AND INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.

KBAFFIN
C100
22074

I:\Vanman Architects\22074- Shorepoint Church Brookfield\000 CAD\030_Production Sheets\100_Civil\C100 Site Plan.dwg

Option F

SHOREPOINT CHURCH

March 19, 2024

VANMAN
architects and builders

Option F

SHOREPOINT CHURCH

March 19, 2024

VANMAN
architects and builders

Option F

SHOREPOINT CHURCH

March 19, 2024

VANMAN
architects and builders

Option F

view from south west corner

view from south east corner

SHOREPOINT CHURCH

March 19, 2024

VANMAN
architects and builders

interior view

SHOREPOINT CHURCH

March 19, 2024

VANMAN
architects and builders

February 21, 2024

City of Pewaukee
Attn: Nick Fuchs, Planner and Community Development Director
W240N3065 Pewaukee Road
Pewaukee, WI 53072 MN 5427

RE: Project Narrative Concerning Shorepoint Church

A. CONTACT INFORMATION:

Shorepoint Church Contact:
Pastor Brian Engl
PO Box 41
Pewaukee, WI 53072
brian@shorepoint.cc

Vanman Architects and Builders Contact:
Angie Knodel, AIA
6701 West 23rd Street
St. Louis Park, MN 55426
angie@vanmanab.com
612-965-8570

B. LEGAL DESCRIPTION / SITE DATA:

The site is located at the corner of Capitol Drive and Duplainville Road. This consists of three separate properties to be combined as one.

PWC 0912983 (8.1878 Acres) Current Zoning is RS-1 Residential District

PWC 0912984 (1.2244 Acres) Current Zoning is B-3 General Business

PWD 0912985 (1.3061 Acres) Current Zoning is RS-1 Residential District

The church would like to combine the (3) properties to be one property and Re-Zone that property to be I-1 Urban Institutional District.

C. HISTORY NARRATIVE:

Pastor Brian and his wife Bethany started Shorepoint Church in 2015, almost 20 years after God gave them a dream to plant a life-giving church in the Milwaukee area. Their heart is that everyone that walks through the doors of Shorepoint would find true community and a place to call home. They are currently holding services at Sharon Lynn Wilson Center for the Arts and with the current growth, they are ready to build their own building in Pewaukee.

D. PROPOSED PROJECT AND USES:

The proposed plan for Shorepoint Church is to construct a slab-on-grade building on the southwest corner of Capitol Drive and Duplainville Road. The building will be approximately 27,000 sf and will include a 600-seat worship space. As you enter the main entry a large lobby/fellowship space will provide an opportunity to grab a coffee or sit by the fireplace to connect with others before and/or after services. The building will include five classrooms, a bank of offices and a multi-purpose space for classes and meetings. Utility spaces including ADA toilets, storage and mechanical rooms will be included in this new building.

The building would be occupied primarily on Sunday Mornings, from 8 am to 1 pm. The building would also be used throughout the week for classes and events. Office hours would be kept during the week from 8 am to 5 pm.

E. BUILDING AESTHETICS:

The building exterior façade is still under design, but will provide a welcoming, inviting entry with a large outdoor patio next to the main entry. The Worship Auditorium is intended to have parapet walls at approximately thirty feet tall while the adjacent classroom and lobby exterior walls will be approximately twenty-five feet tall. The office wing will have walls approximately twenty feet tall. Exterior materials are still being determined and anticipated to be glass and wood look materials as well as precast concrete panels. The building will have a forty-five to fifty foot tall cross projecting above the roof line.

F. EXISTING SITE

The new site plan will accommodate three hundred parking spaces and a drop-off at the main entry. The engineer is working to create parking at grade as close as possible to the main entrance.

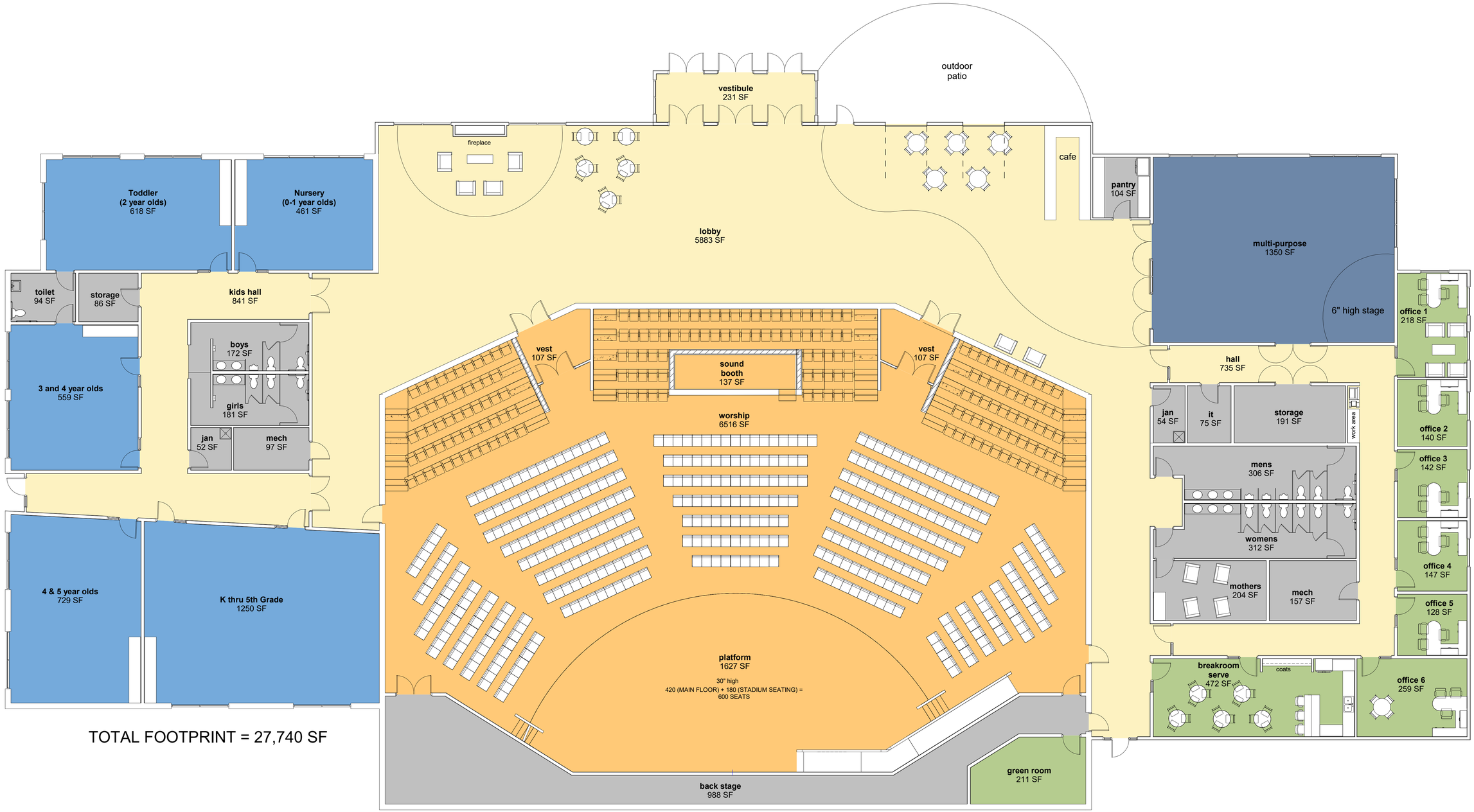
G. NEXT STEPS

We understand the next steps are to submit the following by April 1st for an anticipated June 3rd Common Council Approval.

- Application for ReZone
- Application for Site and Building Plan Review
- Certified Survey Map Application to Combine the Properties
- Comprehensive Masterplan Amendment

END OF NARRATIVE

6701 West 23rd Street | St. Louis Park, MN 55426
Phone: (763) 541-9552 | Fax (763) 541-9857
www.vanmanab.com



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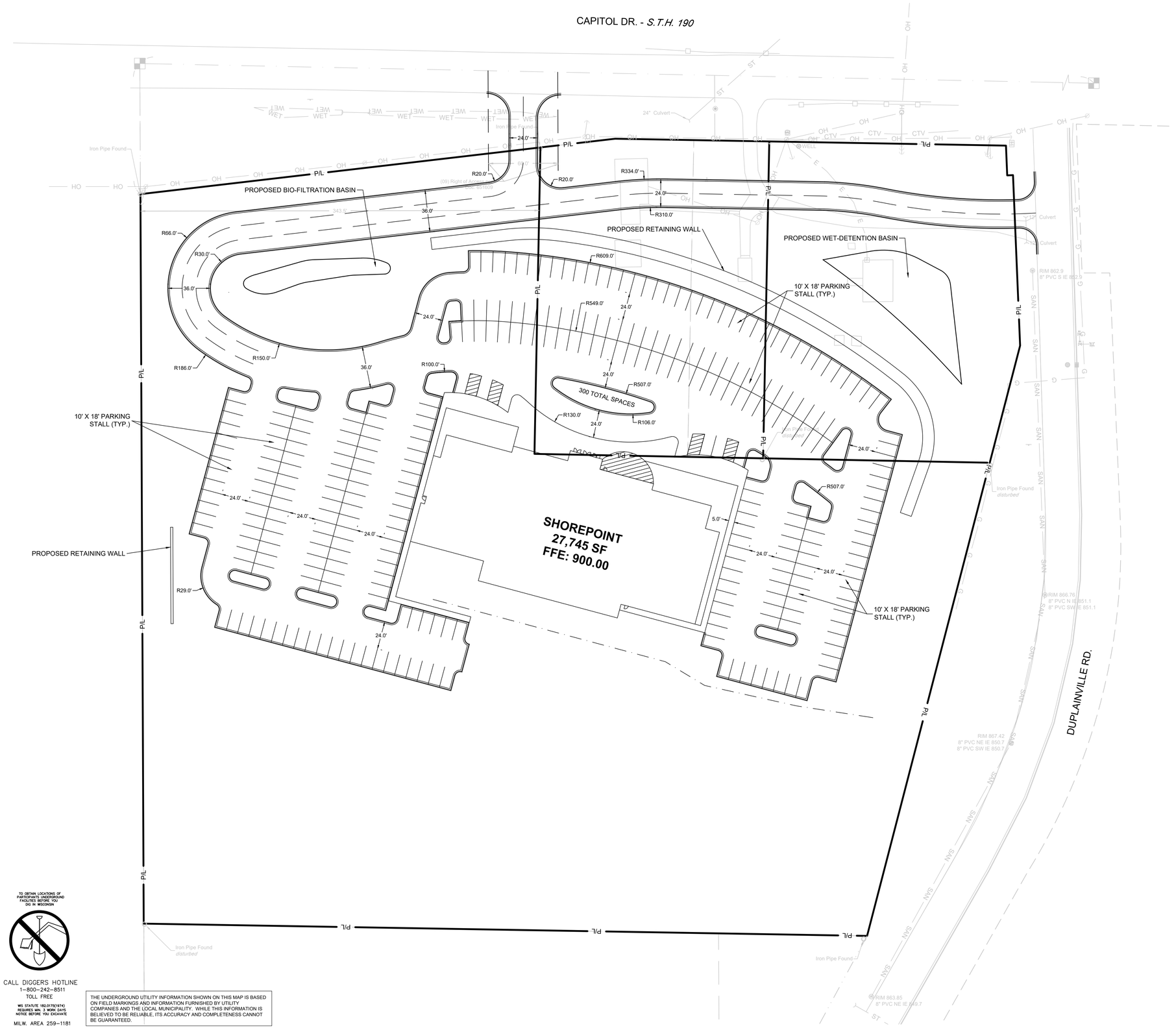

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6. WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO DRIVEWAY OPENINGS, SIDEWALK AND RAMPS, PAVING, AND CURB AND GUTTER SHALL BE COMPLETED PER MUNICIPAL AND/OR COUNTY REQUIREMENTS AND STANDARDS.
7. EARTHWORK SHALL BE IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

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CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

WIS STATUTE 182.0175(1974) REQUIRES MIN. 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

MILW. AREA 259-1181

THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD MARKINGS AND INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.

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www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210

GRAPHIC SCALE
0 40 80

SHOREPOINT CHURCH
N34W22407 CAPITOL DRIVE
PEWAUKEE, WI 53072

SITE PLAN

PRELIMINARY NOT FOR CONSTRUCTION

ISSUANCE	DATE

NO. REVISION	DATE

PROJECT NO:	22074
DESIGN DATE:	2023.11.16
PLOT DATE:	2024.02.16
DRAWN BY:	KJB
CHECKED BY:	PJI
APPROVED BY:	----

SHEET NO:
C100

KBAFFIN
C100
22074

I:\Vanman Architects\22074- Shorepoint Church Brookfield\000_CAD\030_Production Sheets\100_Civil\C100 Site Plan.dwg

Legal description per First American Title Insurance Company Commitment No. 23401622W, with an effective date of July 12, 2023:
All that part of the Southeast One-quarter (1/4) of Section Twelve (12), Township Seven (7) North, Range Nineteen East, City of Pewaukee, Waukesha County, Wisconsin, bounded and described as follows, to-wit:
Commencing at a point on the West line of the said 1/4 Section distant North 1° 01' 22" East, 1,978.27 feet from the Southwest corner thereof; thence North 1° 01' 22" East along said West line 628.53 feet to the South line of S.T.H. "190"; thence North 84° 37' 43" East along said South line 346.86 feet; thence South 2° 24' 09" West 264.05 feet; thence South 87° 35' 51" East 132.00 feet; thence North 2° 24' 09" East, 272.94 feet to a point on the aforementioned South line of S.T.H. "190"' thence South 87° 42' 01" East along said South line 268.89 feet; thence South 1° 05' 51" East, 25.66 feet; thence North 88° 54' 09" East 5.00 feet to a point on the West line of Duplainville Road; thence South 1° 05' 51" East along said West line 147.00 feet; thence South 15° 49' 13" West along said West line 525.35 feet; thence North 87° 44' 20" West; 623.14 feet to the point of beginning.

Excepting therefrom those lands conveyed by deed recorded December 15, 1970 in Volume 1213 of Deeds at Page 187, as Document No. 775083 and those lands now known as Certified Survey Map No. 1295, conveyed by deed recorded December 24, 1970 in Volume 1213 of Deeds at Page 660, as Document No. 775694.

Also excepting those portions conveyed for road purposes for Capitol Drive aka STH 190 and for Duplainville Road fka STH "164" by Document Nos. 620057, 651609 and 369840.

For informational purposes only:
Address: Situated on Capitol Drive
Parcel Identification No.: **PWC 0912983**

Per First American Title Insurance Company Commitment No. 23401622W, with an effective date of July 12, 2023, the following items appear in Schedule B II as exceptions:

9. The right of access between the land described in Schedule A hereof to State Trunk Highway 190 has been limited by Award of Damages recorded as Document No. 625057 and re-recorded as Document No. 651609. ***Affects property as shown.***

10. Easement(s) reserved in Warranty Deed recorded as Document No. 713829. ***Affects property. Cannot be depicted graphically. Not able to locate specified well or 60' access strip.***

Legal description per First American Title Insurance Company Commitment No. 23401784W, with an effective date of July 28, 2023:
All that part of the Southeast One-quarter (1/4) of Section Twelve (12), in Township Seven (7) North, Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin, bounded and described as follows, to wit:
Commencing at the South 1/4 corner of the said Section; thence North 1° 01' 22" East along the North-South line, to a point on the Southerly line of S.T.H. "190"; thence North 84° 37' 43" East along said Southerly line 411.66 feet; thence South 87° 42' 01" East along said Southerly line, 67.78 feet to the point of beginning of the lands herein described; thence continuing South 87° 42' 01" East along said Southerly line 65.00 feet; thence South 2° 24' 09" West 273.05 feet; thence North 87° 35' 51" West 65.00 feet; thence North 2° 24' 09" East 272.94 feet to the point of beginning.

ALSO part of the Southeast One-quarter (1/4) of Section Twelve (12), in Township Seven (7) North, Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin, bounded and described as follows, towit: Commencing in the center of the highway running along the North line of said Southeast 1/4 of said Section, at a point situated 346.5 feet East of the Northwest corner of said Southeast 1/4 of said Section 12 and from said point running East along center of said highway 132 feet; thence South 330 feet; thence West 132 feet; and thence North 330 feet to the place of beginning. Excepting therefrom that part taken in Award of Damages recorded on December 2, 1964 in Volume 999 of Deeds at Page 428, as Document No. 625057, and Award of Damages recorded on December 9, 1965 in Volume 1034 of Deeds on Page 256, as Document No. 651609.

For informational purposes only:
Address: N34W22407 Capitol Drive
Parcel Identification No.: **PWC 0912 985**

Per First American Title Insurance Company Commitment No. 23401784W, with an effective date of July 28, 2023, the following items appear in Schedule B II as exceptions:

9. The right of access between the land described in Schedule A hereof to State Trunk Highway 190 has been limited by Award of Damages recorded as Document No. 625057 and re-recorded as Document No. 651609. ***Affects property as shown.***

10. Easement(s) reserved in Warranty Deed recorded as Document No. 713829. ***Affects property. Cannot be depicted graphically. Not able to locate specified well or 60' access strip.***

11. Right(s) and Easement(s) contained in Warranty Deed recorded as Document No. 713829, Quit Claim Deed recorded as Document No. 713830, and Quit Claim Deed recorded as Document No. 226149. ***Affects property. Cannot be depicted graphically. Not able to locate specified well. Document No. 226149 does not affect the property.***

12. Possible shared driveway as disclosed by GIS Map. ***Affects property as shown.***

Legal description per First American Title Insurance Company Commitment No. 23402334W, with an effective date of October 11, 2023:

Certified Survey Map No. 1295, recorded in the Office of Register of Deeds for Waukesha County, Wisconsin on November 23, 1970, in Volume 8 of Certified Survey Maps, Page 313, as Document No. 773811, being a part of the Southeast One-quarter (1/4) of Section Twelve (12), Township Seven (7) North, Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin.

Address: W223N3481 Duplainville Road
Pewaukee, WI 53072
Parcel Identification No.: **PWC 0912984**

Per First American Title Insurance Company Commitment No. 23402334W, with an effective date of October 11, 2023, the following items appear in Schedule B II as exceptions:

9. The right of access between the land described in Schedule A hereof to State Trunk Highway 190 has been limited by Award of Damages recorded as Document No. 625057 and re-recorded as Document No. 651609. ***Affects property as shown.***

10. Easement(s) reserved in Warranty Deed recorded as Document No. 713829. ***Affects property. Cannot be depicted graphically. Not able to locate specified well or 60' access strip.***

GENERAL NOTES:

1. The underground utility information shown on this drawing is based on field locations and/or records furnished by municipalities and utility companies, the location and accuracy of which cannot be guaranteed. There may be additional underground utility installations within the project area that are not shown.
2. Bearings are referenced to the Wisconsin State Plane Coordinate System, South Zone, NAD 1983
3. Vertical datum for the project survey is USGS NAVD 88
4. No zoning report or letter was provided.
5. Site contains no parking spaces.
6. Wetland shown as delineated by K. Sherfinski, November 10, 2023.

Surveyor's Certification:

To:

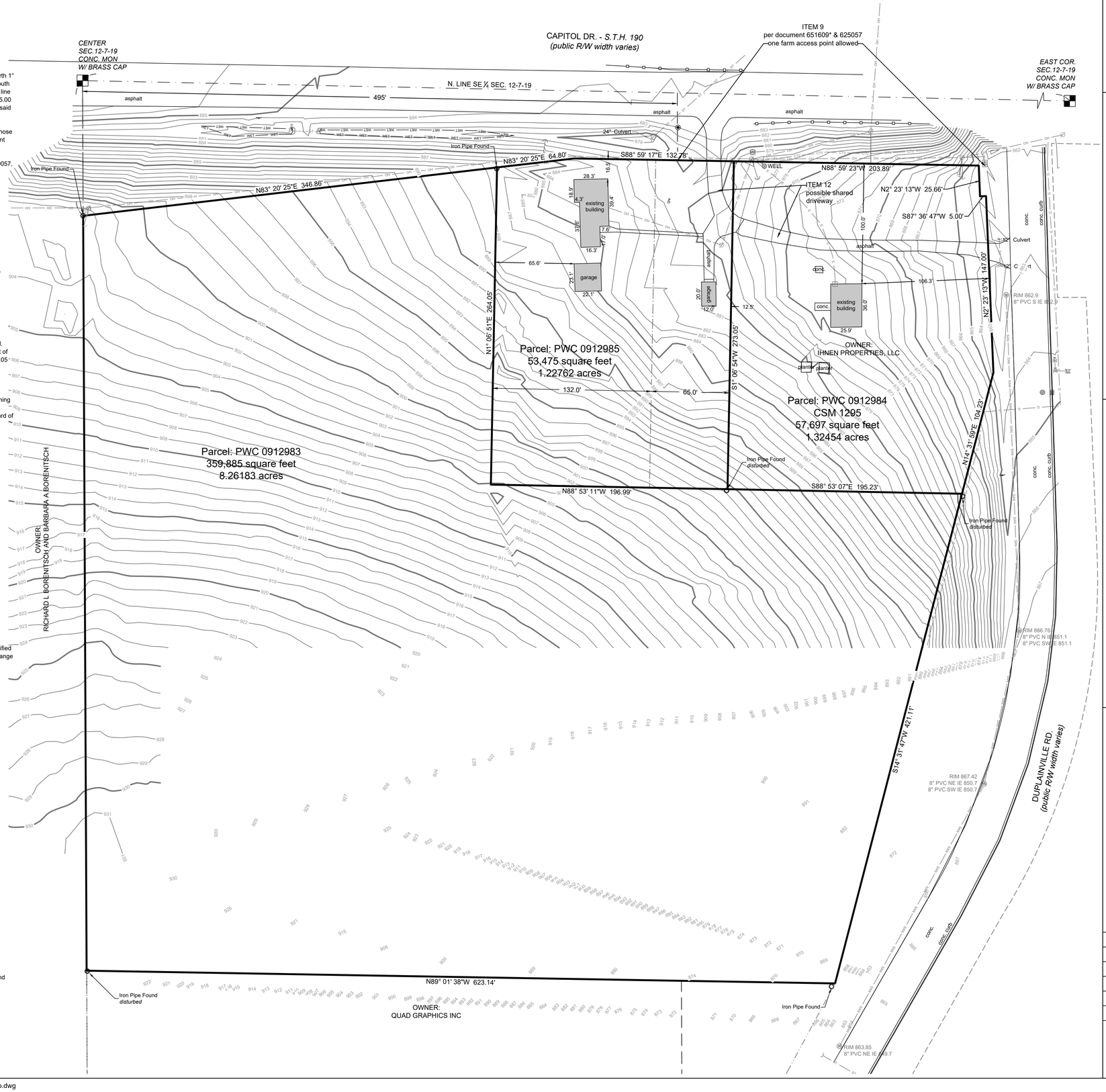
This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 5, 7, 8, 9, 11 and 13 of Table A thereof.

The field work was completed in October 2023.

Date of Map December 29, 2023

WISCONSIN KEVIN A. SLOTTKE 2503 MENOMONEE FALLS, WI PROFESSIONAL LAND SURVEYOR

Kevin A. Slottke, PLS No. 2503



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Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210

LEGEND

- SECTION 1/4 SECTION LINE
- PROPERTY LINE
- EASEMENT
- CHAIN LINK FENCE
- GUARD RAIL
- METAL FENCE
- WOOD FENCE
- TREE LINE
- OVERHEAD UTILITY LINE
- ELECTRIC
- TELEPHONE
- FIBER OPTIC
- CABLE TV
- SANITARY SEWER
- FORCE MAIN
- MILWAUKEE INTERCEPTOR SEWER
- COMBINED SANITARY & STORM SEWER
- STORM SEWER
- WATER MAIN
- GAS
- WETLAND
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- UNKNOWN MANHOLE
- SANITARY MANHOLE
- STORM MANHOLE
- ELECTRIC MANHOLE
- MMSD MANHOLE
- TELEPHONE MANHOLE
- CATCH BASIN
- CATCH BASIN (ROUND)
- ROOF DRAIN
- HYDRANT
- WATER VALVE
- GAS VALVE
- UTILITY POLE
- GUY WIRE
- GUY POLE
- GAS METER
- ELECTRIC METER
- UTILITY PEDESTAL
- HANDHOLE
- IRON PIPE FOUND/SET
- REBAR FOUND/SET
- CHISELED CROSS FOUND/SET
- PK NAIL FOUND/SET
- SPIKE/NAIL
- MONUMENT
- BENCHMARK
- SIGN
- DECIDUOUS TREE (Diameter)
- CONIFEROUS TREE (Diameter)
- BUSH
- POST
- SOIL BORING
- MONITORING WELL
- CULVERT END
- LIGHT POLE
- PARKING METER
- FLAG POLE
- TRAFFIC SIGNAL

Pewaukee, Wisconsin

ALTA/NSPS LAND TITLE SURVEY

0 40' 80'

NO.	REVISION	DATE	BY
DRAWING NO.	22074		
DRAWN BY:	NGC		
DATE:	12/29/2023		
PROJECT NO:	22074		
CHECKED BY:	KAS		
APPROVED BY:	---		
SHEET NO.:			

1 OF 1

From:	Koehnke, Kevin F - DOT
To:	Paul Imig
Cc:	Elkin, Robert - DOT; Baumann, Art - DOT; Fuchs, Nick
Subject:	RE: [EXT] RE: Capitol Drive Access - Pewaukee
Date:	Tuesday, March 5, 2024 5:15:25 PM
Attachments:	image005.png Pages from 2023-12-12 22974 Concept Plans.pdf 22074-ALTA-12-29-23.pdf

---

Paul,

After discussing access for the church and lands to the west with our Central Office access management folks and the city, we have the following comments on the proposed plan:

- Remove the corner parcel driveway.
- Move the proposed temporary main driveway access to the west to fall within the 60-ft area where there is no access restriction.
- The proposed driveway will be considered temporary until such time that development of the property to the west moves forward. At that time, the west parcel property owner will need to request an access modification to change the allowable use at the existing median opening from residential only to public road or commercial driveway. They would need to show a benefit to the public for that access modification approval. One benefit would be the physical removal of the temporary church driveway. If approval of the access modification is granted, the west property owner will be required to provide dedicated right of way or easement rights to the church parcel to allow for church traffic to use the access location through the west parcel. It would be at this time that the temporary church driveway connection to WIS 190 would need to be removed.
- Submit a draft of a cross access easement through the church property that would allow cross access rights to the west parcel to utilize the church driveway in the event that the access modification does not get approved. The required easement through the church parcel may extend to Duplainville Road for access from the church driveway and/or the median access through the west parcel. The city would need to weigh in on their preference of whether access through the church parcel to Duplainville is desired.
- The temporary driveway will require the addition of 4-ft of pavement to the existing 8-ft paved shoulder for 300-ft. to get right turners out of the through lane. So, 12-ft wide for 300-ft from the driveway.

After verifying with the city for potential connection to Duplainville Road from the median opening location through the church parcel, please send revised plans showing how the site would function in the “temporary condition” with the proposed church driveway and also the future condition without the church driveway connection to Capital.

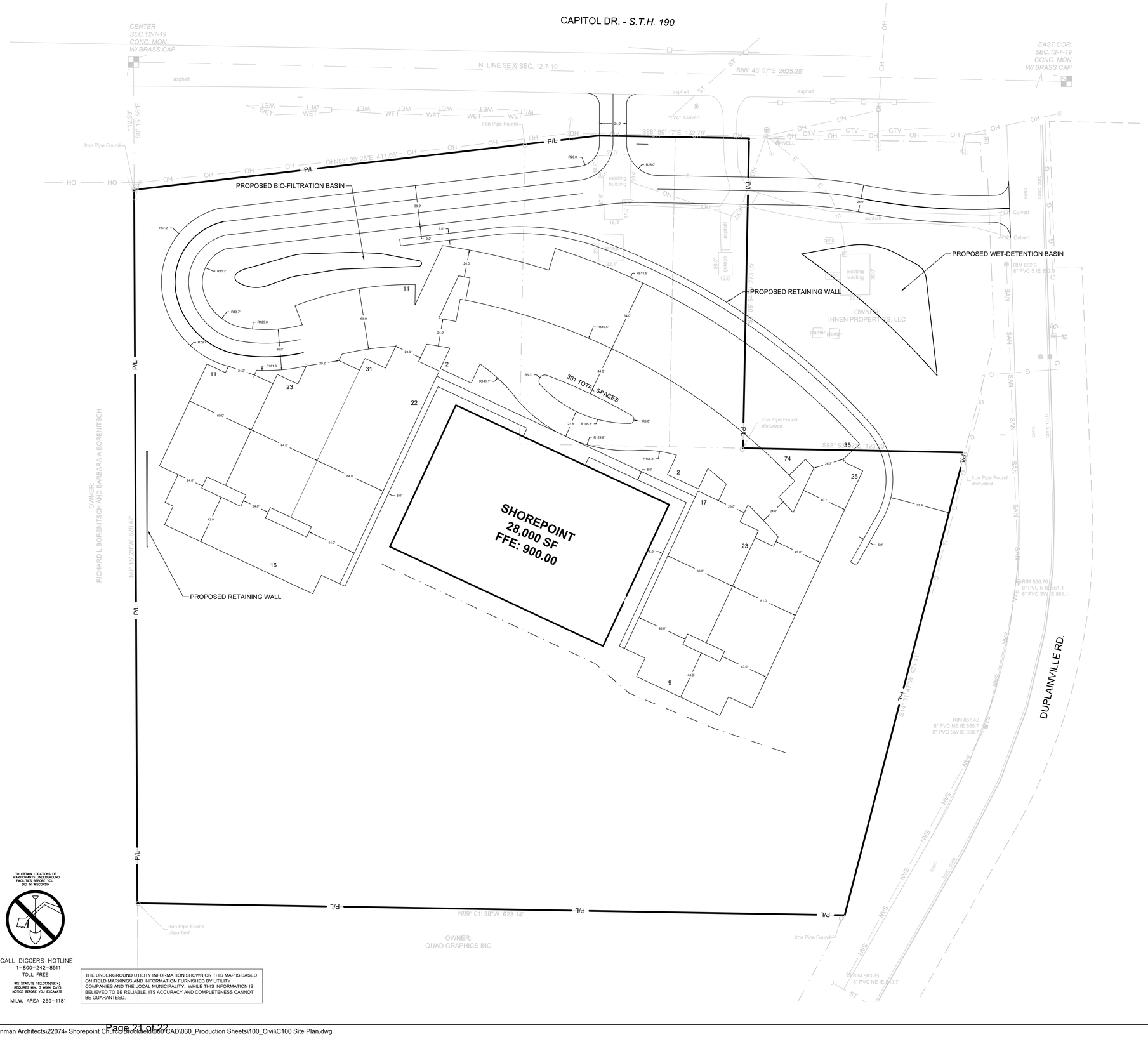
Sincerely,

Kevin Koehnke, PE

Permits Coordinator

141 NW Barstow Street
Waukesha WI 53187
kevin.koehnke@dot.wi.gov
262-548-5891

2023.12.11



SITE INFORMATION			
SITE AREA	----	#####	
SITE DISTURBED AREA	----	#####	
EXISTING IMPERVIOUS AREA	----	#####	####
PROPOSED IMPERVIOUS AREA	----	#####	####
TOTAL PARKING SPACES	210		
ADA PARKING SPACES	----		

LEGEND:

- 5" THICK CONCRETE WALK
- CONCRETE PAVEMENT
- ASPHALT SURFACE
- HEAVY-DUTY ASPHALT SURFACE
- MILL/PULVERIZE AND OVERLAY
- POROUS SURFACE
- CURB & GUTTER (ACCEPT)
- CURB & GUTTER (REJECT)

GENERAL NOTES:

1. THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
2. VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
3. WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
4. ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
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7. EARTHWORK SHALL BE IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

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GRAPHIC SCALE
0 40 80

SHOREPOINT CHURCH

PEWAUKEE, WI 53072

SITE PLAN

PRELIMINARY NOT FOR CONSTRUCTION

ISSUANCE	DATE

NO.	REVISION	DATE

PROJECT NO:	22074
DESIGN DATE:	----
PLOT DATE:	2023.12.11
DRAWN BY:	JTR
CHECKED BY:	----
APPROVED BY:	----

SHEET NO:
C100

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MILW. AREA 259-1181

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KBAFFIN
C100
22074

I:\Vanman Architects\22074- Shorepoint Church Brookfield\060_CAD\030_Production Sheets\100_Civil\C100 Site Plan.dwg

Legal description per First American Title Insurance Company Commitment No. 23401622W, with an effective date of July 12, 2023:
All that part of the Southeast One-quarter (1/4) of Section Twelve (12), Township Seven (7) North, Range Nineteen East, City of Pewaukee, Waukesha County, Wisconsin, bounded and described as follows, to-wit:
Commencing at a point on the West line of the said 1/4 Section distant North 1° 01' 22" East, 1,978.27 feet from the Southwest corner thereof; thence North 1° 01' 22" East along said West line 628.53 feet to the South line of S.T.H. "190"; thence North 84° 37' 43" East along said South line 346.86 feet; thence South 2° 24' 09" West 264.05 feet; thence South 87° 35' 51" East 132.00 feet; thence North 2° 24' 09" East, 272.94 feet to a point on the aforementioned South line of S.T.H. "190"' thence South 87° 42' 01" East along said South line 268.89 feet; thence South 1° 05' 51" East, 25.66 feet; thence North 88° 54' 09" East 5.00 feet to a point on the West line of Duplainville Road; thence South 1° 05' 51" East along said West line 147.00 feet; thence South 15° 49' 13" West along said West line 525.35 feet; thence North 87° 44' 20" West; 623.14 feet to the point of beginning.

Excepting therefrom those lands conveyed by deed recorded December 15, 1970 in Volume 1213 of Deeds at Page 187, as Document No. 775083 and those lands now known as Certified Survey Map No. 1295, conveyed by deed recorded December 24, 1970 in Volume 1213 of Deeds at Page 660, as Document No. 775694.

Also excepting those portions conveyed for road purposes for Capitol Drive aka STH 190 and for Duplainville Road fka STH "164" by Document Nos. 620057, 651609 and 369840.

For informational purposes only:
Address: Situated on Capitol Drive
Parcel Identification No.: **PWC 0912983**

Per First American Title Insurance Company Commitment No. 23401622W, with an effective date of July 12, 2023, the following items appear in Schedule B II as exceptions:

9. The right of access between the land described in Schedule A hereof to State Trunk Highway 190 has been limited by Award of Damages recorded as Document No. 625057 and re-recorded as Document No. 651609. ***Affects property as shown.***

10. Easement(s) reserved in Warranty Deed recorded as Document No. 713829. ***Affects property. Cannot be depicted graphically. Not able to locate specified well or 60' access strip.***

Legal description per First American Title Insurance Company Commitment No. 23401784W, with an effective date of July 28, 2023:
All that part of the Southeast One-quarter (1/4) of Section Twelve (12), in Township Seven (7) North, Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin, bounded and described as follows, to wit:
Commencing at the South 1/4 corner of the said Section; thence North 1° 01' 22" East along the North-South line, to a point on the Southerly line of S.T.H. "190"; thence North 84° 37' 43" East along said Southerly line 411.66 feet; thence South 87° 42' 01" East along said Southerly line, 67.78 feet to the point of beginning of the lands herein described; thence continuing South 87° 42' 01" East along said Southerly line 65.00 feet; thence South 2° 24' 09" West 273.05 feet; thence North 87° 35' 51" West 65.00 feet; thence North 2° 24' 09" East 272.94 feet to the point of beginning.

ALSO part of the Southeast One-quarter (1/4) of Section Twelve (12), in Township Seven (7) North, Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin, bounded and described as follows, towit: Commencing in the center of the highway running along the North line of said Southeast 1/4 of said Section, at a point situated 346.5 feet East of the Northwest corner of said Southeast 1/4 of said Section 12 and from said point running East along center of said highway 132 feet; thence South 330 feet; thence West 132 feet; and thence North 330 feet to the place of beginning. Excepting therefrom that part taken in Award of Damages recorded on December 2, 1964 in Volume 999 of Deeds at Page 428, as Document No. 625057, and Award of Damages recorded on December 9, 1965 in Volume 1034 of Deeds on Page 256, as Document No. 651609.

For informational purposes only:
Address: N34W22407 Capitol Drive
Parcel Identification No.: **PWC 0912 985**

Per First American Title Insurance Company Commitment No. 23401784W, with an effective date of July 28, 2023, the following items appear in Schedule B II as exceptions:

9. The right of access between the land described in Schedule A hereof to State Trunk Highway 190 has been limited by Award of Damages recorded as Document No. 625057 and re-recorded as Document No. 651609. ***Affects property as shown.***

10. Easement(s) reserved in Warranty Deed recorded as Document No. 713829. ***Affects property. Cannot be depicted graphically. Not able to locate specified well or 60' access strip.***

11. Right(s) and Easement(s) contained in Warranty Deed recorded as Document No. 713829, Quit Claim Deed recorded as Document No. 713830, and Quit Claim Deed recorded as Document No. 226149. ***Affects property. Cannot be depicted graphically. Not able to locate specified well. Document No. 226149 does not affect the property.***

12. Possible shared driveway as disclosed by GIS Map. ***Affects property as shown.***

Legal description per First American Title Insurance Company Commitment No. 23402334W, with an effective date of October 11, 2023:

Certified Survey Map No. 1295, recorded in the Office of Register of Deeds for Waukesha County, Wisconsin on November 23, 1970, in Volume 8 of Certified Survey Maps, Page 313, as Document No. 773811, being a part of the Southeast One-quarter (1/4) of Section Twelve (12), Township Seven (7) North, Range Nineteen (19) East, in the City of Pewaukee, Waukesha County, Wisconsin.

Address: W223N3481 Duplainville Road
Pewaukee, WI 53072
Parcel Identification No.: **PWC 0912984**

Per First American Title Insurance Company Commitment No. 23402334W, with an effective date of October 11, 2023, the following items appear in Schedule B II as exceptions:

9. The right of access between the land described in Schedule A hereof to State Trunk Highway 190 has been limited by Award of Damages recorded as Document No. 625057 and re-recorded as Document No. 651609. ***Affects property as shown.***

10. Easement(s) reserved in Warranty Deed recorded as Document No. 713829. ***Affects property. Cannot be depicted graphically. Not able to locate specified well or 60' access strip.***

GENERAL NOTES:

1. The underground utility information shown on this drawing is based on field locations and/or records furnished by municipalities and utility companies, the location and accuracy of which cannot be guaranteed. There may be additional underground utility installations within the project area that are not shown.
2. Bearings are referenced to the Wisconsin State Plane Coordinate System, South Zone, NAD 1983
3. Vertical datum for the project survey is USGS NAVD 88
4. No zoning report or letter was provided.
5. Site contains no parking spaces.
6. Wetland shown as delineated by K. Sherfinski, November 10, 2023.

Surveyor's Certification:

To:

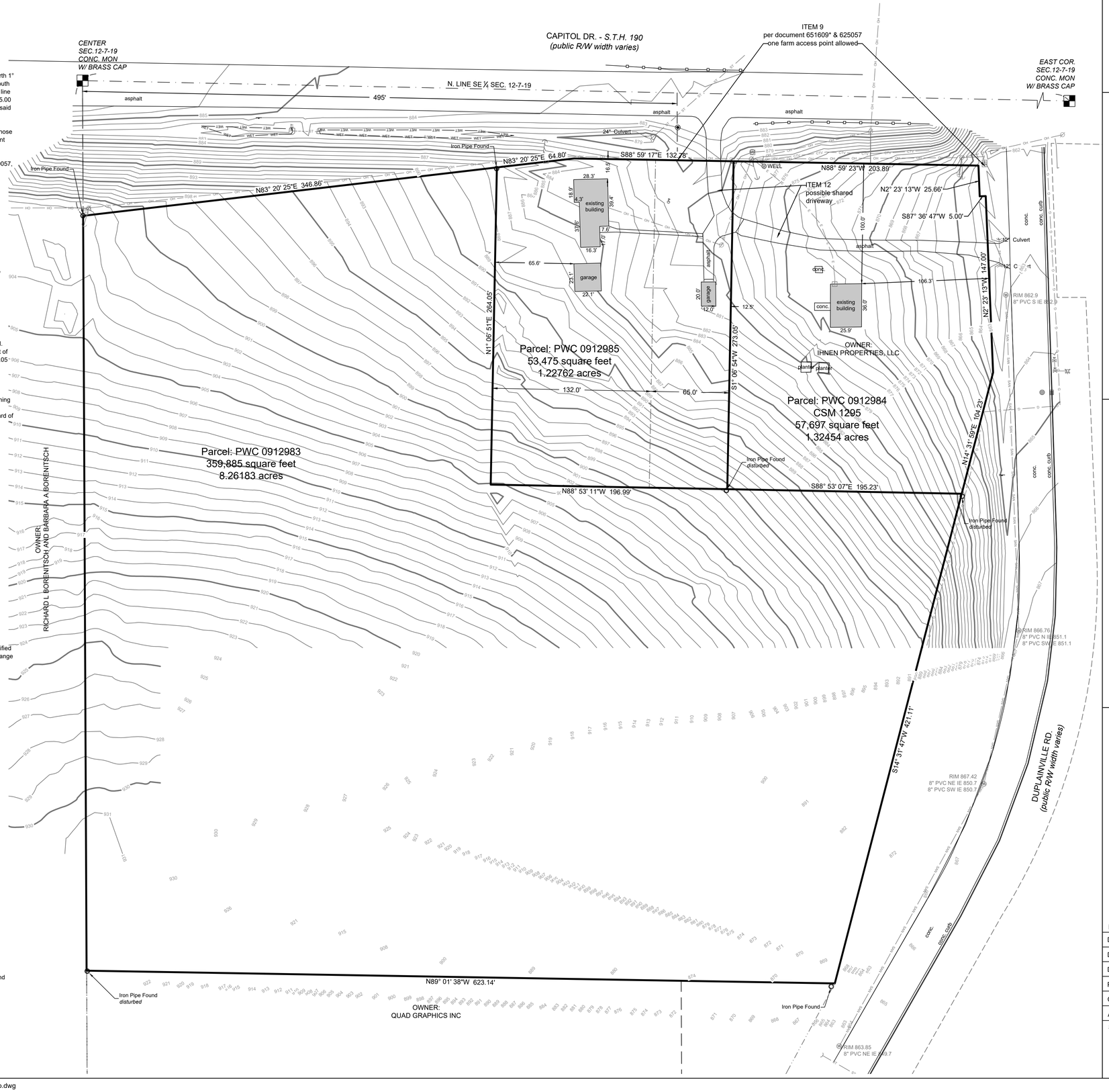
This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1, 2, 3, 4, 5, 7, 8, 9, 11 and 13 of Table A thereof.

The field work was completed in October 2023.

Date of Map December 29, 2023

WISCONSIN KEVIN A. SLOTTKE 2503 MENOMONEE FALLS, WI PROFESSIONAL LAND SURVEYOR

Kevin A. Slottke, PLS No. 2503



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LEGEND

- SECTION 1/4 SECTION LINE
- PROPERTY LINE
- EASEMENT
- CHAIN LINK FENCE
- GUARD RAIL
- METAL FENCE
- WOOD FENCE
- TREE LINE
- OVERHEAD UTILITY LINE
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- FIBER OPTIC
- CABLE TV
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- COMBINED SANITARY & STORM SEWER
- STORM SEWER
- WATER MAIN
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- GUY POLE
- GAS METER
- ELECTRIC METER
- UTILITY PEDESTAL
- HANDHOLE
- IRON PIPE FOUND/SET
- REBAR FOUND/SET
- CHISELED CROSS FOUND/SET
- PK NAIL FOUND/SET
- SPIKE/NAIL
- MONUMENT
- BENCHMARK
- SIGN
- DECIDUOUS TREE (Diameter)
- CONIFEROUS TREE (Diameter)
- BUSH
- POST
- SOIL BORING
- MONITORING WELL
- CULVERT END
- LIGHT POLE
- PARKING METER
- FLAG POLE
- TRAFFIC SIGNAL

Pewaukee, Wisconsin

ALTA/NSPS LAND TITLE SURVEY

NO. REVISION	DATE BY
DRAWING NO.	22074
DRAWN BY:	NGC
DATE:	12/29/2023
PROJECT NO:	22074
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APPROVED BY:	---
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1 OF 1