



PUBLIC MEETING NOTICE AND AGENDA
PLANNING AND ZONING COMMISSION MEETING

July 15, 2024
7:30 P.M.

AGENDA

1. Call to Order
2. Roll Call
3. Consent Agenda
 - A. Motion to accept and place on file the minutes of the June 17, 2024 Planning and Zoning Commission meeting
4. New Business
 - A. Conditional Uses and Development Plan for the Outdoor Storage of Vehicles at 8907 S. IL Route 31
5. Old Business
6. Items for Discussion
7. Staff Report
8. Audience Participation
9. Trustee Liaison Report
10. Next Planning & Zoning meeting is scheduled for August 12, 2024
11. Adjournment

MEETING LOCATION
Lake in the Hills Village Hall
600 Harvest Gate
Lake in the Hills, IL 60156

The Village of Lake in the Hills is subject to the requirements of the Americans with Disabilities Act of 1990. Individuals with disabilities who plan to attend this meeting and who require certain accommodations so that they can observe and/or participate in this meeting, or who have questions regarding the accessibility of the meeting or the Village's facilities, should contact the Village's ADA Coordinator at (847) 960-7400 [TDD (847) 658-4511] promptly to allow the Village to make reasonable accommodations for those persons.

Posted by:

Date: July 12, 2024

Time:



Village of Lake in the Hills

600 Harvest Gate, Lake in the Hills, Illinois 60156

PLANNING AND ZONING

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Call to Order

The meeting was called to order at 7:32 p.m.

Roll call was answered by Commissioners Siakel, Walker, Murphy, Bolton, Dixon, Swanlund, and Chairman Esposito.

Also present were Director of Community Development John Svalenka, Trustee Bill Dustin, and Recording Secretary Laura Carpenter.

Approval of Meeting Minutes

Motion to accept the Planning and Zoning Commission meeting minutes from April 15, 2024 was made by Commissioner Siakel and seconded by Commissioner Walker. The motion was approved by a voice vote of 7-0.

New Business

Zoning Code Text Amendments to Section 12, Temporary Uses

Chairman Esposito asked for a motion to open the public hearing. Commissioner Swanlund made a motion to open the public hearing, and Commissioner Bolton seconded. On a voice vote, the entire commission voted Aye, no Nays. Chairman Esposito opened the public hearing at 7:33 p.m. and confirmed with staff that the public was given proper notice.

Director Svalenka reviewed the Request for Public Hearing and Commission Action dated June 17, 2024.

The Village has comprehensive regulations in Section 8.14 of the Lake in the Hills Municipal Code regarding special event permits for events in Village parks and rental facilities. These Special Event Permit regulations include requirements for sound amplification, food vendors, signage, tents, lighting, electrical systems, liquor licensing, raffle licensing, insurance, and public safety issues, and all such special event permits must be approved by the Village Board. These existing regulations have served the Village well for the review and approval of large events in Village parks, such as the annual Summer Sunset Festival and Rockin' Rib Fest.

Temporary outdoor events on private property are currently regulated by the temporary use regulations in Chapter 12 of the Zoning Code. This chapter primarily includes standards for the temporary outdoor activities of commercial businesses, such as outdoor sales and displays of merchandise, which can be reviewed and approved by Village staff. Section 12.3 lists tent meetings, carnivals, circuses and civic use of public property as special temporary uses, and these specific uses require additional approval by the Village Board. For example, Village Board approval was required for the carnival hosted by the Algonquin/Lake in the Hills Chamber of Commerce in April 2024 in the parking lot of the At Home store at 101 N. Randall Road.

While all carnivals and similar events require Village Board approval, carnivals operated on private property are not subject to the full list of standards in the Special Event Permit regulations that apply to carnivals operated in public parks. Village experience with existing annual events has shown that the Special Event Permit regulations are effective in ensuring that large public events are operated safely, in that the standards require submittal of an emergency



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action plan or incident action plan. Therefore, staff will propose several code amendments to make the same review standards apply to all large outdoor events. Specifically, staff will propose that the Special Event Permit regulations be moved to a separate chapter of the Municipal Code (a new Section 20), and be amended to apply throughout the Village. Also, staff has proposed amendments to Section 12 of the Zoning Code, as detailed below.

The Temporary Use Chart in Section 12.4 of the Zoning Code lists all of the authorized temporary uses, and Section 12.3 lists the "special" temporary uses that require additional Village Board approval. Currently the list of special temporary uses in Section 12.3 only includes tent meetings, carnivals, circuses and civic use of public property. Staff has proposed amending Section 12.3 by expanding this list to match the list of uses in the Special Event Permit regulations. As proposed, carnivals, circuses, car shows, races, and parades would always require approval of a Special Event Permit instead of a temporary use permit, regardless of the anticipated number of attendees. A list of other similar events would require approval of a Special Event Permit when the anticipated number of attendees will exceed 100 people. On residential properties, a Special Event Permit would only be required for outdoor events that are operated for profit and when the anticipated number of attendees will exceed 100 people.

Within the Temporary Use Chart in Section 12.4, carnivals are listed as only being allowed in the B-2, B-3, B-4 and M-1 zoning districts, subject to limits on the time, days, number, and parking. Since carnivals would always require a Special Event Permit under the proposed regulations, they are proposed to be deleted from the chart in Section 12.4. Further, the language in the first row of the Temporary Use Chart in Section 12.4 has been completely revised to clarify the types of outdoor shows and sales that are subject to temporary use regulations.

Director Svalenka recommended approval of the zoning code text amendments to Section 12, Temporary Uses, per the findings noted in the staff report dated June 17, 2024.

Commissioner Siakel inquired if food vendors include food trucks. Director Svalenka stated that food vendors do include food trucks, and those on private property would require a Temporary Use Permit. Those on the Village's park property would require a Special Use Permit. In the future, staff will bring to the Commission text amendments regarding food trucks. Director Svalenka responded to Chairman Esposito's question about large events such as Sunset Fest. He clarified that all the events within the Sunset Fest will be under one Special Use Permit. Commissioner Dixon asked if the attendance is a static or an accumulative number of people? Director Svalenka clarified that it is the anticipated number of attendees, which is open for staff interpretation. Commissioner Siakel asked about event security, and Director Svalenka clarified that these new regulations require proper security for large crowds. Commissioner Swanlund asked for clarification about large indoor events and attendance size. Director Svalenka clarified that those events would be regulated by the occupancy code, and large outdoor events would be covered under these permits.

There being no further public comments or discussion, Chairman Esposito asked for a motion to close the public hearing. Commissioner Siakel made a motion to close the public hearing, and Commissioner Walker seconded. On a voice vote, the entire commission voted Aye, no Nays. Chairman Esposito closed the public hearing at 7:42 p.m.

Commissioner Walker made a motion to recommend approval of the proposed amendments to Section 12, Temporary Uses, as noted in the staff report dated June 17, 2024. Commissioner Murphy seconded the motion. On



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a roll call vote, Commissioners Siakel, Walker, Murphy, Bolton, Dixon, Swanlund, and Esposito voted Aye. No Nays. Motion to approve passed 7-0.

Old Business

None

Item for Discussion

None

Staff Report

Director Svalenka reported that the Village Board approved Consumers Credit Union's petition for a Conditional Use for a drive-through and variations, with a condition regarding obtaining the easement. Commissioner Dixon inquired about Doerner Jewelers. Director Svalenka said there have been no complaints.

Trustee Liaison

Trustee Dustin spoke about the Village's recent press release about mask wearing at Village festivals and the proposed safety fence around the carnival.

Adjournment

A motion to adjourn the meeting was made by Commissioner Siakel and seconded by Commissioner Walker. The motion was approved on a voice vote of 7-0.

There being no further business to discuss, the meeting of the Lake in the Hills Planning & Zoning Commission was adjourned at 7:50 p.m. The next Planning and Zoning Commission meeting is scheduled for July 15, 2024.

Submitted by,

A handwritten signature in blue ink that reads "Laura Carpenter".

Laura Carpenter
Recording Secretary

REQUEST FOR PUBLIC HEARING AND COMMISSION ACTION



PLANNING AND ZONING COMMISSION

MEETING DATE: July 15, 2024

DEPARTMENT: Community Development

SUBJECT: Conditional Uses and Development Plan for the Outdoor Storage of Vehicles at 8907 S. IL Route 31

EXECUTIVE SUMMARY

General Information

- Requested Action:*
- Conditional Use Permit to allow outdoor storage of vehicles as principal use.
 - Conditional Use Permit to allow a Planned Development, with exceptions
 - Development Plan for a Planned Development
- Owner:* Southwind Industries, Inc. (Creek Partners, L.L.C.)
- Applicant:* Rich Guerard, attorney at Guerard, Kalina & Butkus (on behalf of John Harris from Southwind Industries)
- Purpose:* To allow the temporary outdoor storage of vehicles on a temporary type of pavement without all required permanent landscaped screening.
- Location and Size:* 8907 IL Route 31. Approximately 75.2 acres.
- Zoning and Land Use:*
- | | |
|------------------|---|
| Site: | M-1 Limited Manufacturing. Clean Construction or Demolition Debris Fill Operation |
| North: | M-1 Limited Manufacturing. Recycled asphalt shingle plant / truck parking / auto repair |
| East: | Village of Cary, B-2 Shopping Center. One homestead and farmland |
| South: | Village of Cary, PO Park and Open Space. Crystal Lake Park District Racket Club |
| West: | M-1 Limited Manufacturing. Quarry lands |
| Future Land Use: | Commercial |

Background

Attorney Rich Guerard has submitted applications to the Village on behalf of Southwind Industries, Inc. to allow for the outdoor storage of vehicles on a group of parcels totaling 75.2 acres on the west side of Illinois Route 31, approximately one-quarter of a mile north of Trinity Drive. The owner, Southwind Industries, commonly operates the site under the name Bluff City Materials. Significant portions of the property have been mined for sand and gravel, and the owner has a permit from the Illinois EPA to fill the quarried areas with Clean Construction or Demolition Debris (CCDD). CCDD materials typically consist of broken concrete and asphalt. After filling of the quarry site, the property can be made ready for future development. However, in the interim, the owner wishes to lease portions of the property to individual tenants for outdoor truck and trailer storage to supplement the property owner's income. Available aerial photos indicate that the owner began allowing vehicle storage on the property in 2021 without the necessary zoning approvals and permits from the Village. Community Development Department staff became aware of the unauthorized vehicle storage earlier this year after the Police Department responded to the site multiple times for reports of burglary to motor vehicles and the theft of motor vehicles from the property. Therefore, Southwind Industries is now requesting the necessary zoning approvals to make the existing outdoor storage legal and to gain approval to expand the storage areas in the future as additional areas of the quarry are filled.

The subject property is within the M-1 Limited Manufacturing zoning district. In accordance with the Permitted and Conditional Use Chart in Section 11 of the Zoning Code, the "outdoor storage of vehicles as a principal use" is allowed in the M-1 zoning district only with the approval of a conditional use. Therefore, the applicant has requested approval of this conditional use.

As noted in the definition of "Planned Development" in Section 3 of the Zoning Code, if land is zoned for manufacturing and is greater than five (5) acres in size it shall be developed as a Planned Development. Therefore, the applicant has requested approval of a conditional use for a planned development on the subject property in the manufacturing zoning district. In accordance with Section 25.5 of the Zoning Code, a Development Plan must be prepared and submitted for any Planned Development. Therefore, the applicant has also requested approval of a development plan. As allowed by Section 25.4 of the Zoning Code, the development will also require the approval of several exceptions from the Zoning Code regulations as part of the planned development, as detailed below.

Analysis - Conditional Uses

Per Section 24.6 of the Zoning Code, there are seven factors that shall be considered by the Planning and Zoning Commission regarding how they are relevant to the specific conditional uses being requested. The applicant has indicated on their submitted application forms how they believe these factors are met for both of the requested conditional uses. Staff will provide a detailed analysis below of all factors for the two requests.

In the review of whether the proposed uses are necessary or desirable to provide a service or facility which is in the interest of public convenience and will contribute to the general welfare, the submitted application forms generally state that the proposed outdoor storage use and Planned Development will benefit the community because they will provide a local parking option for small businesses and residents who cannot store their commercial vehicles in residential areas. However, staff finds that the trend of development along Route 31 in the vicinity has been commercial

development, and that the current Comprehensive Plan indicates that the subject property is likely to be rezoned to a commercial zoning district when water and sanitary sewer utilities become available in the future regardless of whether the proposed outdoor storage use is approved. However, in consideration of the fact that water and sanitary sewer utilities are not yet available to the subject property, staff has examined whether the proposed uses might be necessary or desirable on a temporary basis.

Regarding the outdoor storage of vehicles as a principal use, staff finds that such a use might provide a public convenience if the vehicles were to be linked to some other principal use elsewhere in the Village. For example, if a manufacturing business in the Village determined that they needed extra space to store vehicles on a remote lot, such an outdoor vehicle storage lot would provide a convenience to that business and contribute to the welfare of the Village. In the case of the submitted applications, staff notes that semi-trucks and semi-trailers to be stored on the property are not known to be linked to any specific existing business in the Village and, therefore, would not likely provide any permanent convenience or benefit to the Village. Instead, staff anticipates that the need for the proposed semi-truck and semi-trailer storage would ebb and flow with the demand for shipping as the economy rises and falls. Specifically, vehicle storage is generally not needed during good economic times because most trucks and trailers are in regular use, but the vehicle storage need grows during economic down times when less products are being shipped. Essentially, staff finds that the proposed use is temporary and transient in nature, and would not benefit the Village as a permanent use. However, staff finds that the proposed truck and trailer storage use would at least be more beneficial than a vacant un-used property while the CCDD filling operation is ongoing, and that the proposed use might be acceptable on a temporary basis subject to certain conditions to ensure that the temporary uses are required be removed in the future when appropriate.

Regarding the requested conditional use for a Planned Development, staff notes that this is required by the Zoning Code based on the acreage of the property, and the Planned Development offers the Village the flexibility to approve the proposed storage use on a temporary basis.

Based on the above analysis, staff finds that the proposed outdoor storage use and Planned Development at the particular location requested are necessary and desirable to provide a service or a facility which is in the interest of public convenience and that will contribute to the general welfare of the neighborhood or community, subject to condition that the use only be allowed on a temporary basis. The Village made similar findings last year when it approved a temporary outdoor vehicle storage use on the 23.53-acre property owned by Plote located just to the north at 8525 S. Route 31. Therefore, if the Planning and Zoning Commission recommends approval of the conditional uses, staff suggests that the recommendation include conditions similar to those for the property at 8525 S. Route 31, as listed below:

- The requested conditional uses shall be initially approved for a period not to exceed ten years, and the approval shall automatically be void after ten years. However, upon the written request by the applicant, the President and Board of Trustees may approve additional five-year extensions of the uses without the need for additional public hearings.
- One year after operable public water lines and public sanitary sewer lines are installed within 100 feet of the boundaries of the subject property, the conditional use approval shall automatically be void, and all outdoor storage shall be removed from the entirety of the property within that one-year period.

- The temporary outdoor storage of semi-trucks and semi-trailers shall be the principal use of the property, and the outdoor storage of any other vehicles shall not cover more than 50 percent of the area of the approved storage areas.

Next, staff has reviewed whether the proposed uses will be detrimental to the health, safety, morals or general welfare of persons residing or working in the vicinity, or injurious to property values or improvements in the vicinity. The nearest occupied residential property is a farm homestead located on the east side of Route 31 direct east of the property. While trucks and trailers currently stored on the property are visible from the residence, the view is softened by an existing hedgerow along the front of the property, and the noise of traffic on Route 31 is louder than any anticipated noise from vehicles operating on the subject property. Therefore, staff finds that the proposed vehicle storage use is not likely to be detrimental to the welfare of people residing in this home. Otherwise, the next-nearest residences are located over 2000 feet away to the south and such residences would not be affected by the propose use. The properties directly to the north include an asphalt shingle recycling plant that involves regular truck traffic, a truck storage area that was approved by the Village at the same time as the shingle facility, and small automotive repair businesses. Workers at those facilities would be accustomed to seeing regular truck traffic similar to the trucks that would be stored on the subject property. The Crystal Lake Park District Racket Club is located directly to the south of the proposed storage area, but the storage use is screened from view by an existing dense row of trees and vegetation. Therefore, staff generally finds that the outdoor storage of empty semi-trucks and semi-trailers on the subject property would not be detrimental to the welfare of persons working in the adjacent areas. However, based on feedback received during the public hearing for the similar truck parking facility approved at 8525 S. Route 31, staff notes that some potential items to be stored on the property may have the potential to be detrimental to health and safety or injurious to property values. Specifically, since there will be no manned building on site and the driving surface is proposed to be a mixture of asphalt grindings and broken concrete without pavement striping, the storage may take place in a somewhat haphazard manner and lead to the potential for more accidents. Therefore, to mitigate the potential for the spilling of large quantities of hazardous materials, staff recommends that any approval of the uses be subject to the condition that fuel storage tanks and fueling pumps be prohibited on the property. Also, staff recommends the condition that no vehicles used to transport fuels or other hazard materials may be stored on the property.

Additionally, the Police Department has documented significant criminal activity that has taken place on the property over many months, and this activity would be detrimental to the safety and general welfare of the public if allowed to continue unchecked. The property owner has committed to monitor the site more closely than in the past, and requests for service from the Police have decreased since the filing of the subject zoning applications. Regardless, if the Planning and Zoning Commission recommends approval of the conditional uses, staff recommends that the approval include several additional conditions to discourage such activity, as detailed below.

In the last 12 months the Police Department has reported eight incidents of burglary from trucks and theft of trucks on the property. In many of these incidents, parts from trucks were stolen. Upon recent visits to the property, staff witnessed several crews performing what appeared to be large repairs to trucks and trailers. As the site is open to access by the public, there is no easy way to know if the repair work was authorized by the owners of the vehicles. Further, vehicle repair is likely to cause additional noise not associated with simple vehicle storage, and may also result in the spilling of vehicle fluids. Therefore, staff recommends a condition that the repairing and servicing of

vehicles and trailers be prohibited on the subject property. Staff notes that there are several existing truck repair businesses in brick-and-mortar buildings within Lake in the Hills, and vehicles needing repair can be driven or towed to those legitimate businesses.

At an incident in April the Police Department was called to the property to investigate a strong foul odor. The Police found a trailer full of rotting chicken meat, which would certainly be detrimental to the health and general welfare of persons residing or working in the vicinity. While this particular situation might be unusual, the storage of other items within trailers may also cause noxious odors. For example, landscape waste such as grass clippings and mulch piles tend to cause offensive odors if they are store for any period of time. Therefore, if the Planning and Zoning Commission recommends approval of the conditional uses, staff suggests that the recommendation include the following conditions:

- All trailers and vehicles with storage compartments must be empty while stored on the property.
- The dumping of landscape waste or other waste shall be prohibited on the property, and the bulk storage of mulch shall be prohibited.

While the property owner would ultimately be responsible for complying with all conditions of approval, staff notes that the owner is not likely to visit the property on a daily basis and from a practical standpoint the tenants may experience a lot of freedom to decide what specific vehicles and materials are stored on the property. In order to assist the Village in enforcing compliance with the above conditions, staff finds that it would be helpful for the Village to have contact info available for all of the tenants. Therefore, if the Planning and Zoning Commission recommends approval of the conditional uses, staff suggests that the recommendation include the condition that all tenants on the property must register with the Village in accordance with the business regulations in Chapter 32 of the Municipal Code, unless the tenant already has a valid business registration for a location elsewhere in the Village.

Third, staff has reviewed whether the establishment of the outdoor storage use will impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district. The property is within the M-1 Limited Manufacturing zoning district, and the surrounding properties to the north and west are also in the M-1 zoning district. Staff finds that the proposed storage use would not impede the development of other industrial uses on the adjacent properties. Due to the existing tree line and vegetation along the southern and eastern lot lines, and due to the proposed additional landscaped berm along Route 31, the proposed use is likely to have only a minimal impact on the development of properties to the east across Route 31. The property to the south is already fully developed with the Crystal Lake Park District Racket Club. Therefore, staff finds that the establishment of the proposed temporary uses will not impede the normal and orderly development and improvement of the surrounding property.

In the review of the extent to which the conditional uses are harmonious and compatible with the goals and objectives of the Village's comprehensive planning documents, staff notes that the future land use map calls for commercial development on all properties in the Village along both sides of Route 31. Those commercial uses are anticipated to happen after public water and sanitary sewer service becomes available. The proposed outdoor storage use is industrial in nature, and staff finds that the proposed industrial use would not be compatible with the goals and objectives of the Village's comprehensive plan on a permanent basis. However, staff finds that the proposed uses

would not interfere with the goals of the plan if they were only allowed on a temporary basis subject to the conditions noted above.

Next, staff has considered the amount of traffic congestion or hazards, if any, that may occur as a result of the proposed conditional uses, as well as the extent and adequacy of pedestrian and vehicular access and circulation. As noted on the submitted application forms, tenants of the vehicle storage area will access the site from one existing vehicular access drive from Route 31, and the drive includes a permanent asphalt paving area that provides enough space for semi-trucks and trailers to stop without blocking traffic. Staff notes that the applicant has submitted a one-page statement from their design engineer that summarizes the existing conditions and the previous IDOT approval for the driveway. The Village's engineering consultant has reviewed the submitted traffic report and found that it does not include any analyses of existing, no-build, and proposed conditions, and recommends that a formal Traffic Impact Study be submitted for review that describe the impact the proposed redevelopment would have on adjacent roadways at full capacity. Therefore, if the Planning and Zoning Commission recommends approval of the conditional uses, staff suggests that the recommendation include the condition that a formal traffic impact study must be submitted to the Village and be revised as needed to comply with the all of the Village's engineering consultant's review comments prior to consideration of the proposed uses by the Board of Trustees.

Regarding the adequacy of pedestrian access, staff notes that no pedestrian improvements are proposed. When this area develops with commercial uses in the future, it will be important to provide sidewalk along the entire length of the frontage along Route 31 and to provide pedestrian connections between that sidewalk and the future developments. However, staff notes that pedestrian improvements would not be necessary for the temporary outdoor storage of vehicles as noted above.

In review of the extent that the conditional uses can be adequately served by essential public facilities and services and private utilities, the submitted application states that public utilities are not necessary for the proposed outdoor storage. Certainly, as no buildings are proposed to be constructed, sewer and water service is not needed. The proposed use is only for storage, which means that the tenants should only be visiting the site to drop off or pick up vehicles, and not working on the site for long periods of time. The applicant has not requested approval to allow outdoor repair of vehicles and staff has recommended that such repair work be prohibited, so there should not regularly be mechanics working on site. Therefore, staff finds that there is no need for bathroom facilities on site, and no need for sewer and water services. Further, staff notes that electric utility lines run along the east side of Route 31 across the front of the subject property, so electricity is available to power the lighting shown on the submitted plans.

Finally, staff has examined whether the proposed uses will comply with the regulations and conditions specified in the Zoning Code for such uses. The Zoning Code allows a maximum of ten percent of the areas in the M-1 or M-2 Manufacturing Districts used strictly for the outdoor storage of vehicles to be treated with gravel, ground asphalt, crushed limestone or other material as approved by the Community Development Department. However, the applicant has proposed to cover 100 percent of the surface of the storage areas with a composition of recycled asphalt and concrete pavements blended with recycled asphalt shingles. The applicant has requested approval through the Planned Development to allow the granting of an exception from the above code requirement. All of the specifics regarding this code exception are analyzed towards the end of this report in the section regarding the development plan for the Planned Development. If the Planning

and Zoning Commission recommends approval of the development plan, then staff would find that the proposed use would comply with the regulations and conditions specified in the Zoning Code for such uses.

Findings – Summary, Conditional Uses

Based on the analysis noted above, staff offers draft findings that support the approval of the requested conditional uses on a temporary basis. The Planning and Zoning Commission’s decision must be consistent with the findings, otherwise the commissioners should deliberate new findings at the public hearing.

Findings – Detail, Conditional Uses

The commissioners shall arrive at findings relevant to the conditional use requests. There are seven review factors listed in the Zoning Code that need to be addressed by the applicant. Below are the seven criteria and staff findings for each based on the applications:

1. The Planning and Zoning Commission may recommend and the Board of Trustees shall find that the proposed use at the particular location requested is necessary or desirable to provide a service or a facility which is in the interest of public convenience and will contribute to the general welfare of the neighborhood or community: *The requested conditional uses on the property at 8907 S. Route 31 are necessary or desirable only on a temporary basis to provide a service or a facility which is in the interest of public convenience and will contribute to the general welfare of the neighborhood or community, subject to the conditions: that the requested conditional uses shall be initially approved for a period not to exceed ten years and the approval shall automatically be void after five years, and upon the written request by the applicant the President and Board of Trustees may approve additional five-year extensions of the uses without the need for additional public hearings; that one year after operable public water lines and public sanitary sewer lines are installed within 100 feet of the boundaries of the subject property, the conditional use approval shall automatically be void, and all outdoor storage shall be removed from the entirety of the property within that one-year period; and, that the temporary outdoor storage of semi-trucks and semi-trailers shall be the principal use of the property, and the outdoor storage of any other vehicles shall not cover more than 50 percent of the approved storage areas on the property.*
2. The Planning and Zoning Commission may recommend and the Board of Trustees shall find that the proposed use will not, under the circumstances of the particular case, be detrimental to the health, safety, morals or general welfare of persons residing or working in the vicinity, or injurious to property values or improvements in the vicinity: *If allowed only on a temporary basis, the requested conditional uses will not be detrimental to the health, safety, morals or general welfare of persons residing or working in the vicinity, or injurious to property values or improvements in the vicinity, in that the proposed outdoor storage use is similar in nature to the existing industrial business taking place on the adjacent properties to the north and west, that the proposed use will include landscaped screening along Route 31 to the east and will preserve existing vegetative screening along the eastern and southern lot lines, subject to the conditions that: fuel storage tanks and fueling pumps shall be prohibited on the subject property; any vehicles used to transport fuels or other hazardous materials shall be prohibited from being stored on the property; the repairing and servicing of vehicles and trailers shall be prohibited on the subject property; all trailers and vehicles with storage compartments must be empty while stored on the property; the dumping of landscape waste or other waste shall be prohibited on the subject property; the bulk storage of mulch shall be prohibited on the subject property; all vehicles used for landscaping*

purposes must be empty while stored on the subject property; and, all tenants on the property must register with the Village in accordance with the business regulations in Chapter 32 of the Municipal Code.

3. The Planning and Zoning Commission may recommend and the Board of Trustees shall find that the establishment of the conditional use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district: *The requested conditional uses will not impede the normal and orderly development and improvement of surrounding properties for uses permitted in the district in that the temporary industrial use is adjacent to similar industrial uses to the north and west, in that a landscaped berm and preserved vegetation along the west side of Route 31 will mitigate potential impacts to the properties on the east side of Route 31, and in that preserved vegetation along the southern lot line will mitigate potential impacts to the existing park district racket club on the property to the south.*
4. The Planning and Zoning Commission and the Board of Trustees shall consider the extent to which the conditional use is harmonious and compatible with the goals and objectives of the Village's comprehensive planning documents: *The requested conditional uses would not be harmonious and compatible with the goals and objectives of the Village's comprehensive planning documents on a permanent basis in that the proposed uses are industrial in nature and the Future Land Use Map calls for commercial development on the subject property, but the proposed uses would not interfere with the goals of the comprehensive plan if they were only allowed on a temporary basis subject to certain conditions to ensure that the proposed uses are required to be removed in the future when appropriate.*
5. The Planning and Zoning Commission and the Board of Trustees shall consider the amount of traffic congestion or hazards, if any, that may occur as a result of the conditional use, as well as the extent and adequacy of pedestrian and vehicular access and circulation: *The requested conditional uses are likely to include adequate measures so designed as to minimize traffic congestion, subject to the condition that a formal traffic impact study must be submitted to the Village and be revised as needed to comply with the all of the Village's engineering consultant's review comments prior to consideration of the proposed uses by the Board of Trustees. The requested conditional uses would not include adequate pedestrian access and circulation on a permanent basis, but lack of pedestrian access is sufficient for the proposed temporary outdoor storage uses subject to certain conditions to ensure that the proposed uses are required to be removed in the future when appropriate.*
6. The Planning and Zoning Commission and the Board of Trustees shall consider the extent that the conditional use can be adequately served by essential public facilities and services, and by private utilities: *The requested temporary conditional uses do not require public water and sanitary sewer facilities and services, and the property is adequately served by private electrical utility service.*
7. The Planning and Zoning Commission may recommend and the Board of Trustees shall find that the proposed use will comply with the regulations and conditions specified in this Zoning Code for such use, and with the stipulations and conditions made a part of the authorization granted by the Board of Trustees: *The requested conditional uses will comply with the applicable regulations for outdoor storage in the district, subject to compliance with all of the recommended conditions and subject to the granting of exceptions from the Zoning Code through a Planned Development.*

Analysis - Development Plan

The applicant has submitted engineering drawings along with landscaping plans to demonstrate the proposed design. As noted above, the property was previously used as a sand and gravel quarry, and the owner is currently filling the property with Clean Construction or Demolition Debris (CCDD). The oldest fill materials have been placed at the eastern end of the property near Route 31, and additional fill materials continue to be placed such that the ground level is raised up to grade moving from east to west. The submitted plans call for a rectangular "truck parking area" of approximately 12.2 acres. The area is not dimensioned on the plans, but appears to measure approximately 880 feet wide from north to south, and approximately 700 feet long from east to west. This 880-foot by 700-foot storage area is set back approximately 185 feet from the eastern lot line along Route 31, and is set back approximately 90 feet from the southern lot line adjacent to the Crystal Lake Park District Racket Club property. In the existing condition, the eastern approximately 250 feet of the 880-foot by 700-foot storage area has already been filled and covered with a surface of asphalt grindings and broken concrete, and is already being leased for truck and trailer storage. Vehicles access the storage area by driving along an existing east-west driveway along the northern property line that was constructed about ten years ago to accommodate the recycled asphalt shingle plant and the CCDD fill operations. The submitted plans show the proposed grading for the 12.2-acre storage area, which include the construction of a stormwater detention basin at the southwest corner of the storage area.

The proposed design, including the stormwater management design, has been reviewed by the Village's engineering consultant, Baxter & Woodman. The engineering review letter is attached to this report for review, which includes a list of 15 comments that need to be addressed before the Development Plan can be approved. While some of the comments address minor details, the stormwater management design requires significant additional details, and the landscape berm at the northeast corner of the property may need IDOT approval due to its proximity to Route 31. Staff finds that all of the review items must be addressed. Therefore, if the Planning and Zoning Commission recommends approval of the development plan, staff suggests that the recommendation include the condition that the engineering plans must be revised to comply with the all of the Village's engineering consultant's review comments prior to consideration of the proposed uses by the Board of Trustees.

The submitted plans show eight light poles to be installed on the site, with a row of four light poles along the eastern edge of the storage area, and a second row of four light poles to the west of the existing westernmost row of trucks. The submitted photometric plan demonstrates that the proposed lighting levels will comply with the code requirements, and appears to show that necessary illumination will be provide for the existing vehicles stored on the property. However, the applicant has not provided any details about the lighting for the remaining portions of the 12.2-acre storage area to the west of the existing storage. Therefore, if the Planning and Zoning Commission recommends approval of the development plan, staff suggests that the recommendation include the condition that the applicant must submit photometric site plans to demonstrate the proposed lighting for the full extent of the requested outdoor storage area prior to consideration of the proposed uses by the Board of Trustees.

In accordance with Section 25.4 of the Zoning Code, the Village may authorize exceptions to the applicable bulk regulations of the Zoning Code within the boundaries of the subject property as part

of the Planned Development. The proposed design would require the approval of several code exceptions, as detailed below.

Along the southern property line adjacent to Crystal Lake Park District Racket Club, and along the front (eastern) property line adjacent to Route 31, the plans call for preservation of existing rows of trees and brush to screen the view of the storage area. Sections 26.7 of the Zoning Code requires landscape screening along these lot lines with a specific number of overstory trees, understory trees, evergreen trees, and shrubs (large and small) per every 100 lineal feet. Therefore, the development requires approval of an exception from Sections 26.7 to allow the existing preserved vegetation to meet the requirement for landscape screening along the south side lot line and the front lot line. Staff supports this request, as the existing landscape is dense and provides substantial screening.

There is an existing gap in the landscaping at the northeast corner of the site, and the plans show the installation of a landscaped berm to fill in the screening. The landscaping on the berm generally complies with the intent of the screening requirements in Sections 26.4-2 & Table 26.5 of the Zoning Code, but does not match the specific number of required understory trees and shrubs. Instead, the plan includes a much larger number of evergreen trees. Therefore, the development requires approval of an exception from Sections 26.4-2 & Table 26.5 to reduce the required number of understory trees and shrubs along Route 31 in exchange for an increase number of evergreen trees. Staff recommends the approval of the exception.

Per Section 18.2-7 of the Zoning Code, areas in the M-1 Manufacturing District used strictly for the outdoor storage of equipment or vehicles that are treated with ground asphalt or concrete must not exceed ten percent of the total storage area. The development requires approval of an exception to increase the percentage of ground asphalt and broken concrete from ten percent to 100 percent of the 12.2-acre storage area. Staff finds the proposed surface is certainly strong enough to support the weight of semi-trucks if they are properly installed with the correct thickness, but it has been the Village's experience that they cause dust issues similar to gravel pavements. Therefore, staff finds that covering 100 percent of the storage area with asphalt grindings would not be appropriate on a permanent basis, as the dust would interfere with the future development of commercial properties in the vicinity. However, staff recommends the approval of the exception subject to the conditions noted above that the use be temporary in duration.

ATTACHMENTS

1. Exhibits
2. Applications and Narrative
3. Engineering review letter
4. Engineering plans
5. Landscape plans
6. Photometric plan
7. Traffic letter

RECOMMENDED ACTION

Staff recommends that the Planning and Zoning Commission (PZC) review, deliberate, and make the following motion:

A motion to recommend approval of the requested Conditional Use Permit to allow outdoor storage of vehicles as a principal use, approval of the requested Conditional Use Permit to allow a Planned Development, and approval of the requested development plan, all on the property at 8907 S. Route 31, per the findings in the staff report dated July 15, 2024, and subject to the 13 conditions and with the granting of the three exceptions noted in the staff report dated July 15, 2024.

Staff recommends that the approvals noted above be subject to compliance with the following 13 conditions:

1. The requested conditional uses shall be initially approved for a period not to exceed ten years, and the approval shall automatically be void after ten years. However, upon the written request by the applicant, the President and Board of Trustees may approve additional five-year extensions of the uses without the need for additional public hearings.
2. One year after operable public water lines and public sanitary sewer lines are installed within 100 feet of the boundaries of the subject property, the conditional use approval shall automatically be void, and all outdoor storage shall be removed from the entirety of the property within that one-year period.
3. The temporary outdoor storage of semi-trucks and semi-trailers shall be the principal use of the property, and the outdoor storage of any other vehicles shall not cover more than 50 percent of the approved storage areas on the property.
4. Fuel storage tanks and fueling pumps shall be prohibited on the subject property.
5. Any vehicles used to transport fuels or other hazardous materials shall be prohibited from being stored on the property.
6. The repairing and servicing of vehicles and trailers shall be prohibited on the subject property.
7. All trailers and vehicles with storage compartments must be empty while stored on the property.
8. The dumping of landscape waste or other waste shall be prohibited on the subject property.
9. The bulk storage of mulch shall be prohibited on the subject property.
10. All tenants on the property must register with the Village in accordance with the business regulations in Chapter 32 of the Municipal Code, unless the tenant already has a valid business registration for a location elsewhere in the Village.
11. A formal traffic impact study must be submitted to the Village and be revised as needed to comply with the all of the Village's engineering consultant's review comments prior to consideration of the proposed uses by the Board of Trustees.
12. Final engineering plans shall be submitted to the Village for review and must be revised to comply with the all of the Village's engineering consultant's review comments prior to consideration of the proposed uses by the Board of Trustees.
13. The applicant must submit photometric site plans to demonstrate the proposed lighting for the full extent of the requested outdoor storage area prior to consideration of the proposed uses by the Board of Trustees.

Staff recommends that the approval of the requested conditional use for a Planned Development include the granting of the following exceptions from the applicable bulk regulations of the Zoning Code:

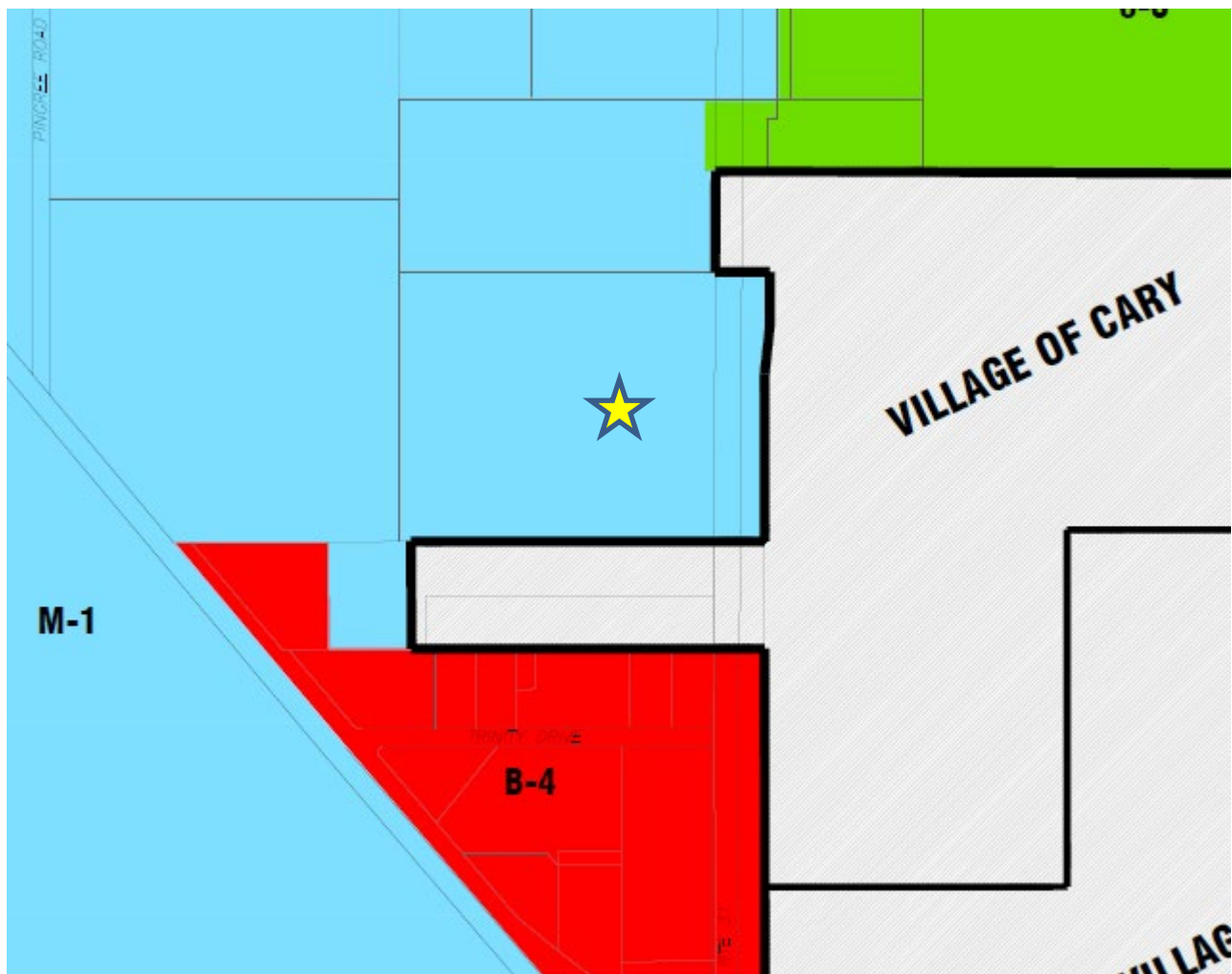
1. Exceptions from Sections 26.4-2 & Table 26.5 of the Zoning Code to reduce the required number of understory trees and shrubs along Route 31 in exchange for an increase number of evergreen trees.
2. An exception from Sections 26.7 of the Zoning Code to eliminate the required landscape screening along the north side lot line and rear lot line, and to allow existing preserved vegetation to meet the requirement for landscape screening along the south side lot line and the front lot line.
3. An exception from Section 18.2-7 of the Zoning Code to allow the percentage of ground asphalt / broken concrete to exceed ten percent of the storage area.

Conditional Uses and Development Plan for the Outdoor Storage of Vehicles at 8907 S. IL Route 31

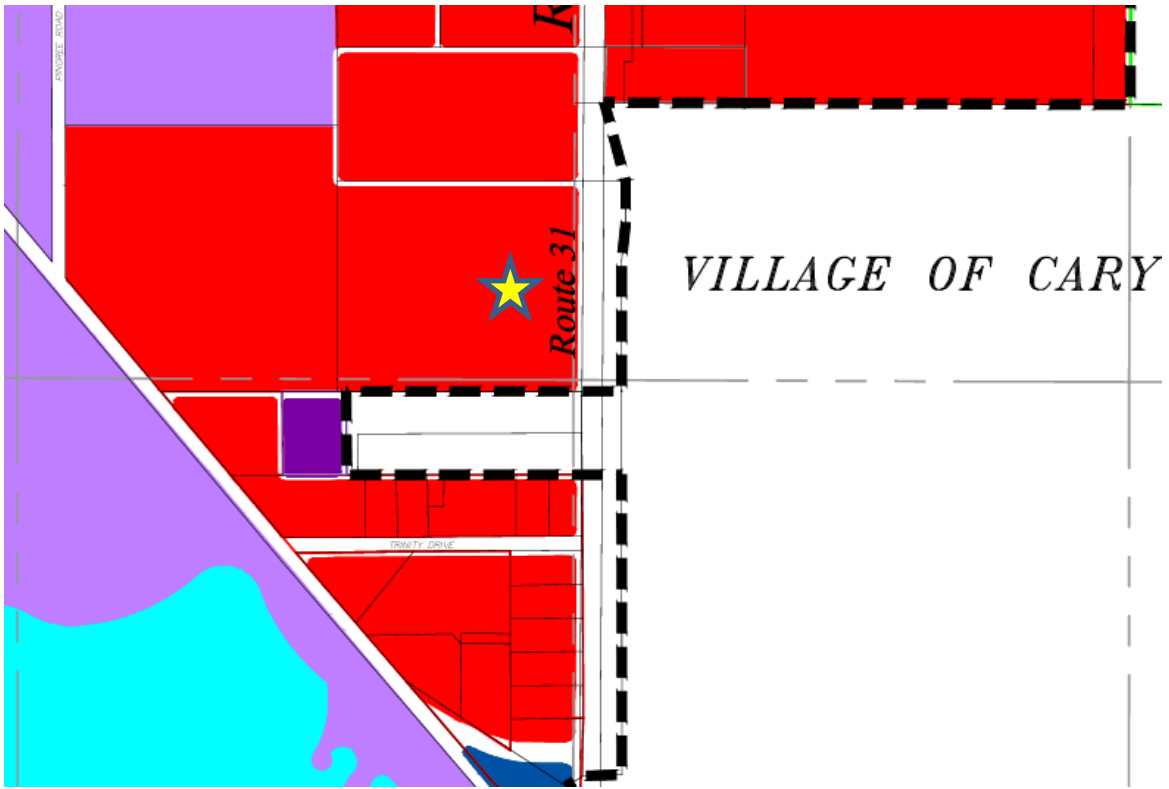


1. EXHIBITS

ZONING MAP



FUTURE LAND USE MAP



AERIAL PHOTO



SITE PHOTOS

View of existing storage, looking south from northern lot line.



View of property from homestead on east side of Route 31 (nearest residence)



View of repair work
taking place on the
property





PLANNING & ZONING APPLICATION

Property Information

Common street address: 8813 Illinois Route 31

PIN (Property Index Number): 19-15-300-013, 19-15-300-002

Current Zoning: M-1

Proposed Zoning: M-1

Current Use: Mining

Proposed Use: Outdoor Storage of Vehicles

Is the request consistent with the Comprehensive Plan? Yes

Number of Acres: 75.2 +/- If greater than 4 acres, 2 acres for government property or 5 acres for manufacturing zoned land, application shall be processed as a Planned Development as a Conditional Use. See definition of Planned Development and PD Section of Zoning Ordinance.

Legal description of the property (print or attach exhibit): See attached

Property Owner Information

Name(s): John Harris

Business/Firm Name (if applicable): Southwind Industries, Inc.

Address: 2250 Southwind Boulevard

City/State/Zip: Bartlett, IL 60103

Phone Number: 630-497-8700

Email: jharris@grp7.com

Applicant Information

Name(s): Rich Guerard

Business/Firm Name (if applicable): Guerard, Kalina & Butkus

Address: 310 S. County Farm Road, Suite H

City/State/Zip: Wheaton, IL 60187


Phone Number: 630-698-4700

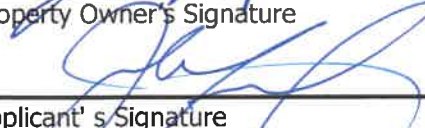
Email: rich@wypd.com

PLANNING & ZONING APPLICATION
Page Two

1	2	3	4	5	6
Request	Select Request with "X"	Required Fee ac = acre	For Requirements See Appendix	Public Hearing Required See Appendix A2	Total Fee (enter amount per column 3)
Annexation		\$1,000/ac payable upon annexation	D	Yes	
Sketch Plan		\$0	E	No	
Tentative Plan		\$500 + \$10/ac	F	No	
Final Plat		\$500 + \$10/ac	G	No	
Plat of Vacation and/or Resubdivision Plat		\$500 + \$10/ac	H	No	
Conditional Use	*	\$500 + \$10/ac over 2 ac	I	Yes	\$1,250.00
Rezoning		\$500 + \$10/ac over 2 ac	J	Yes	
Text Amendment		\$500	K	Yes	
Variance – Residential		\$100	L	Yes	
Variance – Non-Residential		0-2 ac = \$250 Over 2 ac = \$500	L	Yes	
Development Plan Review	*	\$500 + \$10/ac	M	No	\$1,250.00
Total Fees – add column 6 (Separate Check)					\$2,500.00
Additional Fees					
Stormwater Permit Application Fee to be paid at time of permit issuance (Separate Check)					
Minor = \$250 Intermediate or Major = \$1,000					
Reimbursement of Fees Required Appendix B = \$2,000 + \$100/acre for every acre over 5 acres (Separate Check)					\$9020.00

If the Village provides a sign to publicize a public hearing related to this application, the applicant accepts responsibility to ensure the sign is returned within one week after completion of the hearing. The applicant further agrees that if the sign is not returned, they will compensate the Village \$75.00 to allow for a replacement of the lost sign and agrees the Village may withhold approval of their application until payment is received.


5/31/24
If Owner/Applicant is a School District please, fill out and submit Appendix N
 Property Owner's Signature Date


MAY 31 2024
 Applicant's Signature Date

All required appendices and documentation shall be submitted with this application. Incomplete applications will not be processed.

Appendix I Conditional Use

Complete and submit the following information along with the Development and Zoning Application. For more information, refer to the Village's published municipal and zoning codes at:

<http://www.lith.org/administration/page/municipal-code-zoning>

1. Read Appendix A regarding public notice and hearing requirements
2. Plat of Survey
3. Current Deed to verify property ownership
4. Development Plans (if applicable) that comply with the Zoning Ordinance and all other Village ordinances to include:
 - a. Existing Conditions Plan
 - b. Site Plan
 - c. Utility Plan
 - d. Grading Plan
 - e. Landscape Plan
 - f. Lighting Plan
 - g. Color Building Elevations
 - h. Sign Plan
 - i. Detail Page
5. Appendix C -- Stormwater Application and associated reports, if applicable.
6. List of property owners within 250 feet in all directions (list parcel identification number, name, and street address) submitted. List of owners may be obtained from the Township Assessors Office. The number for Algonquin Township is (847) 639-2700 with offices at 3702 U.S. Highway 14, Crystal Lake. Grafton Township's phone number is (847) 669-3383 and its office is at 10109 North Vine Street, Huntley.
7. All documents and information necessary to comply with Village Ordinances.
8. Appendix B —Escrow (Reimbursement of Fees Agreement)
At the public hearing, please provide the Affidavit of Notice Certification of Newspaper Publication

Submit 1 printout of each report and a PDF of each report.

Submit 1 Full Size (minimum 24" x 36") hard copy and a full size PDF of each required plan.

Appendix I
Conditional Use

Conditional Use Applying For: Outdoor Storage of Vehicles as a Principal Use, Planned Development

**Standards and Findings of Facts
Per Section 24.6 of the Zoning Ordinance**

Before recommending any Conditional Use, the Planning and Zoning Commission and the Board of Trustees shall consider the following factors and how they are relevant to the specific conditional use being requested.

1. That the proposed use at the particular location requested is necessary or desirable to provide a service or a facility which is in the interest of public convenience and will it contribute to the general welfare of the neighborhood or community? **Explain how this standard is met.**

The proposed outdoor vehicle storage provides a local parking and storage option for small businesses and residents who may not be permitted to store commercial vehicles in residential communities.

2. That the proposed use, under the circumstances of the particular case, will not be detrimental to the health, safety, morals or general welfare of persons residing or working in the vicinity, or injurious to property values or improvements in the vicinity. **Explain how this standard is met.**

The site is located in an industrial area where the predominant uses are mining. Vehicular access to the property will be direct to and from a state highway. Revenues from the parking will directly benefit the ongoing reclamation and future redevelopment.

3. That the establishment of the conditional use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district. **Explain how this standard is met.**

The majority of surrounding properties are either active mining operations or have been previously approved for similar outdoor storage and vehicle parking. The parking revenue is a vital component to the reclamation and future re-development.



Bluff City Materials, Inc.

May 31, 2024

Bluff City Materials Proposed Development Plans and Progression Schedule

Bluff City's mining and reclamation operations are directly dependent on seasonal and regional construction projects, defining a progression schedule is somewhat difficult. However if we use historical trends weighted against customer forecasts we can anticipate that approximately 4.5 acres of quarry area reach restoration grades annually. The progression plan developed includes reclaiming the mined area from east to west in an effort to establish sufficient area for the interim parking use and to preserve the remaining aggregate reserves that are primarily in the west central region of the property. This progression also allows for a more economical means of accessing a greater quantity of aggregates.

Existing trees and perimeter vegetation have been preserved for the dual purposes of aesthetic screening and as a deterrent to pedestrian or small vehicle access. The topographical design will be completed in stages using the concept grading plan associated with our CCDD permits. This design relies on an inward gradient and limited discharge to assure that adequate monitoring and containment of potential sediment or contaminants. Once the CCDD design has been achieved and the permit closure final development plans will be completed and submitted.

Based on the anticipated reclamation rate operations will continue through 2032 before reaching a level of substantial completion allowing a practical preparation of a full scope development plan. It is our intention that the proposed interim use for outdoor storage and vehicle parking will continue until such time that the full scope development is available.

The parking site is available for immediate use. Plans are in development for the creation of a secondary stormwater basin, additional pavement construction and site lighting. Upon approval construction may begin immediately. The construction activities will have varying durations, however we would anticipate that the first phase of site development, lighting and landscape work could be completed within 120 days from plan approval. Additional development would progress as fill operations allow with completion expected by July 2026.



Bluff City Materials, Inc.

May 31, 2024

Overview of Bluff City Materials Lake in the Hills Mining and Reclamation Operation

Bluff City Materials operates within the business model of full cycle mining. This includes the initial mining and gravel processing operations, but also includes the reclamation and redevelopment of the quarried properties. During the mining process, as mineral reserves have been depleted in a region of the quarry, Bluff City coordinates the import of clean-fill materials under an approved EPA CC/DD Permit. Clay soil fill materials are placed to reclaim the excavated quarry in an effort to ready the property for future development. Bluff City has successfully completed, or is in process of completing, more than twelve of these full cycle mining operations in Cook and Kane Counties. The end result is more than 1,150 acres of formerly surfaced mined real estate has been redeveloped into productive commercial, industrial or residential properties.

Bluff City Materials acquired the subject property in 2014. At the time of the purchase a significant portion of the sand and gravel had been previously mined. Bluff City Materials purchased the property to supplement existing operations and facilities, and to broaden our mining operations by expanding to new regional markets. Sand and gravel mining operations continue on the property, however the recovery and processing costs are significant relative to the market value of the finished products.

In addition to mining virgin aggregates, Bluff City also recycles broken concrete and asphalt. There is a considerable demand for recycled aggregates, but conversely there is significant competition for the raw broken concrete in this market. The mining and material recycling operations generate revenue, however each are seasonally cyclical and the materials are only economically practical for local construction projects.

In an effort to utilize reclaimed portions of the mined property, and to provide a more consistent year round revenue source to support the mining operation, Bluff City Materials constructs and operates commercial parking and outdoor storage lots. These lots operate as an interim use for those portions of the property until such time that overall operations have been substantially completed and marketable redevelopment is possible.

Clay fill materials are densified as they are placed into the excavation, however as a practical matter these materials are not immediately able to support common infrastructure such as storm sewers, sidewalks and pavement. Depending on multiple factors; including seasonal moisture, material composition and fill depth, it may take several years for the soils to reach an adequate stability necessary to construct upon them.

Bluff City's parking facilities provide a distinct benefit to their communities by affording a regional location for small businesses and owner operators to park their commercial trucks and equipment in an industrial area. Municipalities and private homeowner's associations have limitations on what types of vehicles and equipment can be parked or stored in residential neighborhoods or on public streets. These parking facilities provide an affordable alternative for these businesses and residents. Bluff City's parking facilities operate on a parking space license agreements, each agreement has a 30 day minimum term and there are specific restrictions regarding types of equipment or activities that can be on property.

Considering these parking facilities are intended to provide an interim use for portions of a property during the reclamation, and considering the fill materials are not immediately suitable for permanent construction, there are some limitations to the installation of permanent infrastructure. As an example, in anticipation of irregular ground settlement it would be impractical to construct underground storm sewers, other utilities or pavements which may be damaged or displaced. Additionally, design standards or changing market conditions may render infrastructure elements incompatible with future redevelopment.

Bluff City Materials parking sites employ grading designs that alleviate the need for underground conveyance pipes, and there is little need for permanent utility services. Bluff City uses a composition of recycled asphalt and concrete pavements blended with recycled asphalt roof shingles to construct the parking surfaces. The combination of materials provides a solid support surface while maintaining some permeability, and the recycled shingles add a dust mitigation component. This product has been approved for use and installed at parking facilities in Elgin, Bartlett, Lyons and Thornton.

The duration of the site restoration process is difficult to define. Multiple factors including the amount or scope of regional construction projects with surplus clay soils, the net volume of materials removed, and market competition all play a factor. It is reasonable to expect that a quarry of this size and depth may take fifteen years or more to fully reclaim. During the initial restoration operation, a concept plan for the future development is contemplated to help strategize the restoration process. This development plan strives to anticipate future needs of the community and how the property will integrate with the surrounding properties. Provided the amount of time that is involved, the concept plan needs to be flexible to adapt to changing market and regulatory conditions.

Specific to this site, based on the annual sales averages, the restoration operations will continue for eight to ten years. This property does not have immediate access to public utilities and it is difficult to anticipate when connection would be available. Based on these and other factors, it is impractical to commit to a full development plan at this early stage in the restoration process. Bluff City has prepared and submitted a closure plan specific to the permitted CCDD fill operations. This plan addresses the proposed elevations and topography of the completed project, the on-site stormwater management, and post fill site closure plans which include landscape and surfacing materials. Once the site restoration reaches substantial completion such that a projected timeline for re-development can be established, a full scope site development plan can be prepared to supplement and eventually replace the existing closure plan.

Bluff City Materials submits this statement to supplement the Development and Zoning Applications with the intention of providing a better understanding of our co-dependent business operations but also to provide an understanding of why at this time a conventional development, stormwater or landscape plans may be premature. Our application requests include a conditional use permitting for the outdoor storage of vehicles as a principal use and specific deviations from the planned development standards. This use would have an initial term of ten years with an option to extend for an additional five years. The use would be specific to an identified 12.2 acre region of the property which will be isolated from other ongoing functions. The requested development standard deviations include; the use of blended recycled aggregates as the primary paving materials, limiting landscape improvements specifically intended to provide vision screening where voids in the existing tree line exist adjacent to the IL31 right of way, and the acceptance of a progressive stormwater management plan by which capacity is added in tandem with the progression of the reclamation. The interim development plan includes appropriate fencing and or physical barriers to control vehicular access, security camera coverage of access points and general lighting, each of which will be expanded as development progresses.

July 9, 2024

Mr. John Svalenka
Director of Community Development
Village of Lake in the Hills
600 Harvest Gate
Lake in the Hills, IL 60156

Subject: Village of Lake in the Hills – Bluff City Vehicle Storage Plan Review

Dear Mr. Svalenka:

In accordance with the Village of Lake in the Hills request, we have completed a review of the following documents for the Bluff City Vehicle Storage to be located at 8907 S Route 31:

- *(240617-Plan Set.pdf)*, Final Engineering Plans prepared by Steven R. Kaminski, P.E. of Mackie Consultants, LLC dated June 17, 2024;
- *(Berm Grading Exhibit, Preliminary landscaping, dated 05312024.pdf)*, Berm Grading Exhibit, prepared by Bluff City Materials, Inc., dated May, 31, 2024;
- *(Development Plan and Schedule.pdf)*, Proposed Development Plans & Progress Schedule narrative, prepared by Bluff City Materials, Inc., dated May 31, 2024;
- *(Preliminary Stormwater Report, dated 05312024.pdf)*, Preliminary Stormwater Report, prepared by Steven R. Kaminski, P.E. of Mackie Consultants, LLC dated May 31, 2024;
- *(Project overview narrative.pdf)*, narrative Overview of Bluff City Materials Lake In The Hills Mining and Reclamation Operation, prepared by Bluff City Materials, dated May 31, 2024;
- *(Stormwater Permit Application, with owner signature scan.pdf)*, Stormwater Management Permit Application, prepared by Steven R. Kaminski, P.E. of Mackie Consultants, LLC dated June 14, 2024;
- *(Traffic report, dated 05312024.pdf)*, IL Route 31 traffic data prepared by Steven R. Kaminski, P.E. of Mackie Consultants, LLC dated May 31, 2024 and a copy of IDOT permit, dated September 25, 2024 for existing truck entrance; and
- *(Zoning application, partial)*, Lake In The Hills Planning & Zoning Application.

Our review is to determine compliance with Village ordinances and good engineering design practices. The submittal is preliminary in nature, for purposes of a Zoning Application. Detailed plans, specification and reports will be needed for plan and permit approval. We have the following comments and recommendations:

General

1. Per Chapter 18, section 2.7 of the Village Zoning Ordinance, the parking surface of areas for the outdoor storage of vehicles may consist of asphalt grindings with the

approval of the Community Development Department. However, the same section says that such areas shall not exceed 10% of the total site area and shall not be located in a front yard. Further, the vehicle storage area of 12.2 acres described in the *Project Overview Narrative*, must be clearly shown and labeled on the plans.

Engineering Plans

2. We recommend that the plans include an exhibit showing the boundary limits of the entire 40.7 acres and the location of the 14.2 acres that encompass the truck storage development project within the entire site.
3. The final plans should include additional dimensions and spot elevations suitable for construction.
4. We recommend the engineer review the specifications listed on plan Sheet-6 and remove those that do not apply to this project (e.g. clay embankment for stormwater storage areas, pavement construction, sanitary sewer, water main, etc.).
5. The detention basin overflow location and elevation should be labeled on the plan. An overflow detail and cross-section should be included as well.
6. The west limit of topsoil placement, as labeled on Detention Basin detail (6" Topsoil), should be shown on the plan.
7. The Outlet Control Structure Detail shown on plan Sheet-5 should be reviewed. The plan view shows three pipe connections to the structure whereas plan Sheets 2 & 3 show only two pipe connections. Also, the frame elevation is 0.50' above proposed grade on all sheets.
8. The McHenry County Standard Soil Erosion and Sediment Control Notes should be included in the plans.

The Berm Grading Exhibit

9. The exhibit depicts a landscaped berm near the northeast corner of the property. Trees and other landscape plantings should be identified by species, size and quantity.
10. The exhibit shows more than six feet of fill adjacent to Route 31 right of way. Per State Statutes, if the toe of berm is within 20' of the right of way, the highway jurisdiction must approve. Therefore, IDOT approval is required.

Stormwater Report

11. The preliminary stormwater report states that Appendix 6 was used to estimate required detention volumes. We take no exception with this for preliminary estimating purposes. However, the SMO clearly states that the nomograph is only applicable for tributary areas of less than 10 acres. An alternate method will be required for final permit submittal. The applicant should also be reminded that Appendix 6 has not been updated to incorporate Bulletin 75 rainfall data.

12. The preliminary stormwater report describes the 100-year detention volume requirement of 7.11 acre-feet with the proposed detention pond providing 5.12 acre-feet, and the deficit of 1.99 acre-feet being provided in the existing mine lake to the west. Since the estimated volume requirement is based on Appendix 6 which uses Bulletin 70 rainfall data, the actual required volume may be 30% higher and thus a greater percentage of detention would be provided 'offsite'. However, the mine lake to the west is being filled in as part of the mine reclamation process. There must be a mechanism that allocates the rights to this additional required detention volume (the preliminary estimate of which is 1.99 acre-feet) to the parcel that is the subject of this development and prevents the lake from being completely filled.
13. A Maintenance Plan is required, per §17.60.050.E.3.j of the Stormwater Management Ordinance. The Maintenance Plan must meet the requirements as defined in Appendix 12 of the SMO.

Traffic Report

14. The Traffic Report provides existing conditions, but no analyses of existing, no-build, and proposed conditions. A Traffic Impact Study should describe the impact the proposed redevelopment would have on adjacent roadways. Therefore, a Traffic Impact Study should be provided.
15. The 9/17/2014 IDOT permit states that a new commercial access permit shall be required if in the future, the sites served by this access ever commercially redevelop. Therefore, the applicant should contact IDOT to confirm whether the permit remains valid. Copies of approvals or confirmation from IDOT should be provided to the Village.

This review does not include any additional comments or issues that may be raised by other Village departments or reviewing entities. The Owner and design engineers are not relieved of any responsibility for the correctness of the existing field conditions and the design of the project improvements because of our review and the subsequent approval of the plans and specifications by the Village.

If you have any questions or need additional information, please contact me at (815) 444-3313 or kbaumann@baxterwoodman.com.

Sincerely,

BAXTER & WOODMAN, INC.
CONSULTING ENGINEERS



Kurt M. Baumann, P.E.

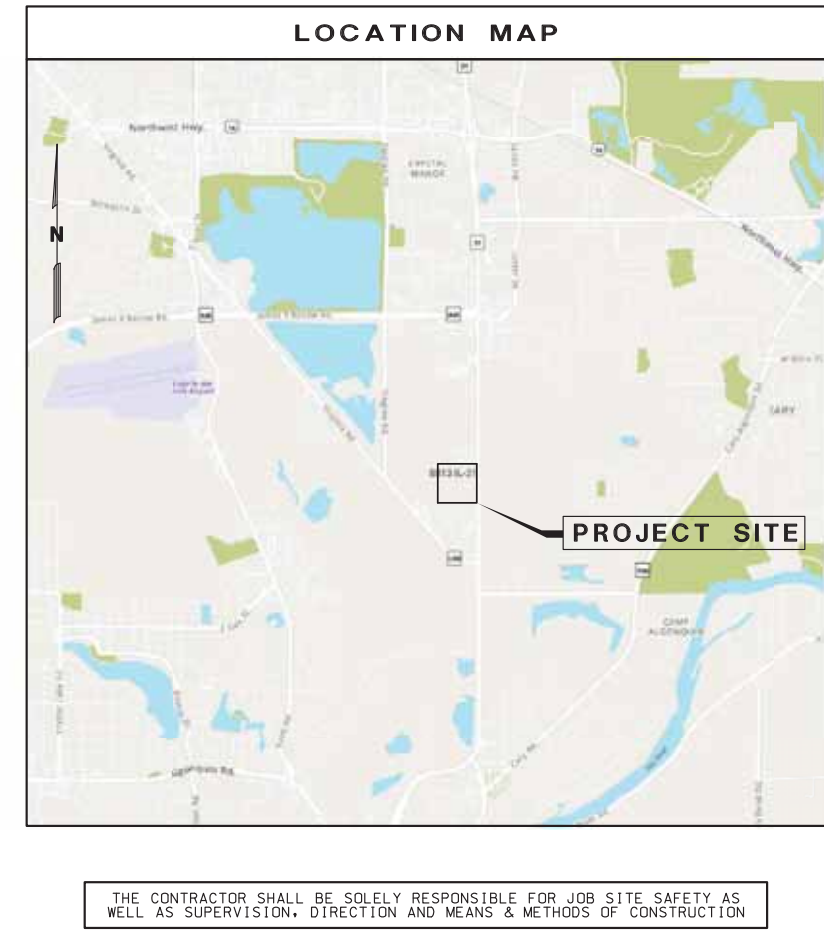
FINAL ENGINEERING PLANS

SOUTH LOT TRUCK PARKING

LAKE IN THE HILLS, ILLINOIS

LEGEND	
EXISTING	PROPOSED
SANITARY SEWER 8" PVC	8" PVC
FORCE MAIN FM	FM
STORM SEWER 12" RCP	12" RCP
UNDERDRAIN UD	UD
MANHOLE	⊙
CATCH BASIN	○
INLET	□
CLEANOUT	⊙
WATER MAIN WM	WM
VALVE VAULT	⊕
VALVE BOX	⊕
FIRE HYDRANT	⊕
FLARED END SECTION	△
COMBINED SEWER	→
STREET LIGHT/PARKING LOT LIGHT	⊗
POWER POLE	⊕
STREET SIGN	⊕
FENCE	—x—x—
GAS MAIN	—G—G—
OVERHEAD LINE	—OH—OH—
TELEPHONE LINE	—T—T—
ELECTRIC LINE	—E—E—
CABLE TV LINE	—CATV—CATV—
HIGH WATER LEVEL	HWL XXX
NORMAL WATER LEVEL	NWL XXX
CONTOUR LINE	XXX.XX
TOP OF CURB ELEVATION	TC XXX.XX
TOP OF DEPRESSED CURB	TDC XXX.XX
PAVEMENT ELEVATION	P XXX.XX
SPOT ELEVATION	XXX.XX
FINISHED FLOOR ELEVATION	FF = XXX.XX
TOP OF FOUNDATION	TF = XXX.XX
GRADE AT FOUNDATION	GF = XXX.XX
HIGH OR LOW POINT	⊕ ⊖
OVERLAND FLOOD ROUTE	⬇
PAVEMENT FLOW DIRECTION	→
SWALE FLOW DIRECTION	~
DEPRESSED CURB AND GUTTER	▬▬▬▬▬
REVERSE CURB AND GUTTER	▬▬▬▬▬

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ABBREVIATIONS					
AC	ACRE	HWL	HIGH WATER ELEVATION	SAN	SANITARY SEWER
BC	BACK OF CURB	INL	INLET	SMH	SANITARY MANHOLE
BTM	BOTTOM	INW	INVERT	STA	STATION
CB	CATCH BASIN	LF	LINEAL FEET/FOOT	STM	STORM SEWER
CFS	CUBIC FEET PER SECOND	LP	LIGHT POLE	SY	SQUARE YARD
CY	CUBIC YARD	LT	LEFT	SWPP	STORMWATER POLLUTION PREVENTION PLAN
DIA	DIAMETER	L/W	LOWEST GRADE ADJACENT TO RETAINING WALL	TDC	TOP OF DEPRESSED CURB
DIWM	DUCTILE IRON WATER MAIN	MAX	MAXIMUM	TC	TOP OF CURB
EL	ELEVATION	MH	STORM MANHOLE	TF	TOP OF FOUNDATION
EP	EDGE OF PAVEMENT	MIN	MINIMUM	T/W	TOP OF RETAINING WALL
FF	FINISHED FLOOR	NWL	NORMAL WATER ELEVATION	TYP	TYPICAL
FES	FLARED END SECTION	OCS	OUTLET CONTROL STRUCTURE	VB	VALVE BOX
FT	FOOT/FEET	P	PAVEMENT ELEVATION	VC	VERTICAL CURVE
G	GUTTER ELEVATION	PVC	POLYVINYL CHLORIDE PIPE	VV	VALVE VAULT
GF	GRADE AT FOUNDATION	R	RADIUS	W	WALK ELEVATION
GR	GRADE RING ELEVATION	RCP	REINFORCED CONCRETE PIPE	WM	WATER MAIN
HDPE	HIGH DENSITY POLYETHYLENE PIPE	RIM	RIM ELEVATION	VPI	VERTICAL POINT OF INTERSECTION
HYD	FIRE HYDRANT	RT	RIGHT		
HMA	HOT MIX ASPHALT	ROW	RIGHT OF WAY		

BENCHMARKS	
BENCHMARKS ARE IN ACCORDANCE WITH NAVD88 DATUM	
BENCHMARK 1:	RAILROAD SPIKE IN THE EAST FACE OF UTILITY POLE AT THE NORTHEAST CORNER OF PROPERTY. ELEVATION = 877.15 FT.
BENCHMARK 2:	RAILROAD SPIKE IN THE EAST FACE OF UTILITY POLE OF SOUTH DRIVEWAY, WEST SIDE OF IL ROUTE 31. ELEVATION = 897.91 FT.



NOTES:

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:

- STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
- STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
- VILLAGE CODE OF LAKE IN THE HILLS, ILLINOIS

IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

DRAINAGE CERTIFICATION

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DRAINAGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE CONSTRUCTION OF SAID IMPROVEMENTS OR ANY PART THEREOF, OR, THAT IF SUCH SURFACE WATER DRAINAGE WILL BE CHANGED, REASONABLE PROVISION HAS BEEN MADE FOR COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREA, OR DRAINS WHICH THE SUBDIVIDER HAS A RIGHT TO USE AND THAT SUCH SURFACE WATERS WILL BE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGE TO THE ADJOINING PROPERTY BECAUSE OF THE CONSTRUCTION OF THE IMPROVEMENTS.

John M. Weis
LICENSED ENGINEER

ENGINEER'S SEAL

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DATE	DESCRIPTION OF REVISION	BY	DESIGNED	SRK
			DRAWN	JK
			APPROVED	SRK
			DATE	6/17/2024
			SCALE	N.T.S.

COVER SHEET
8813 IL ROUTE 31
LAKE IN THE HILLS, IL

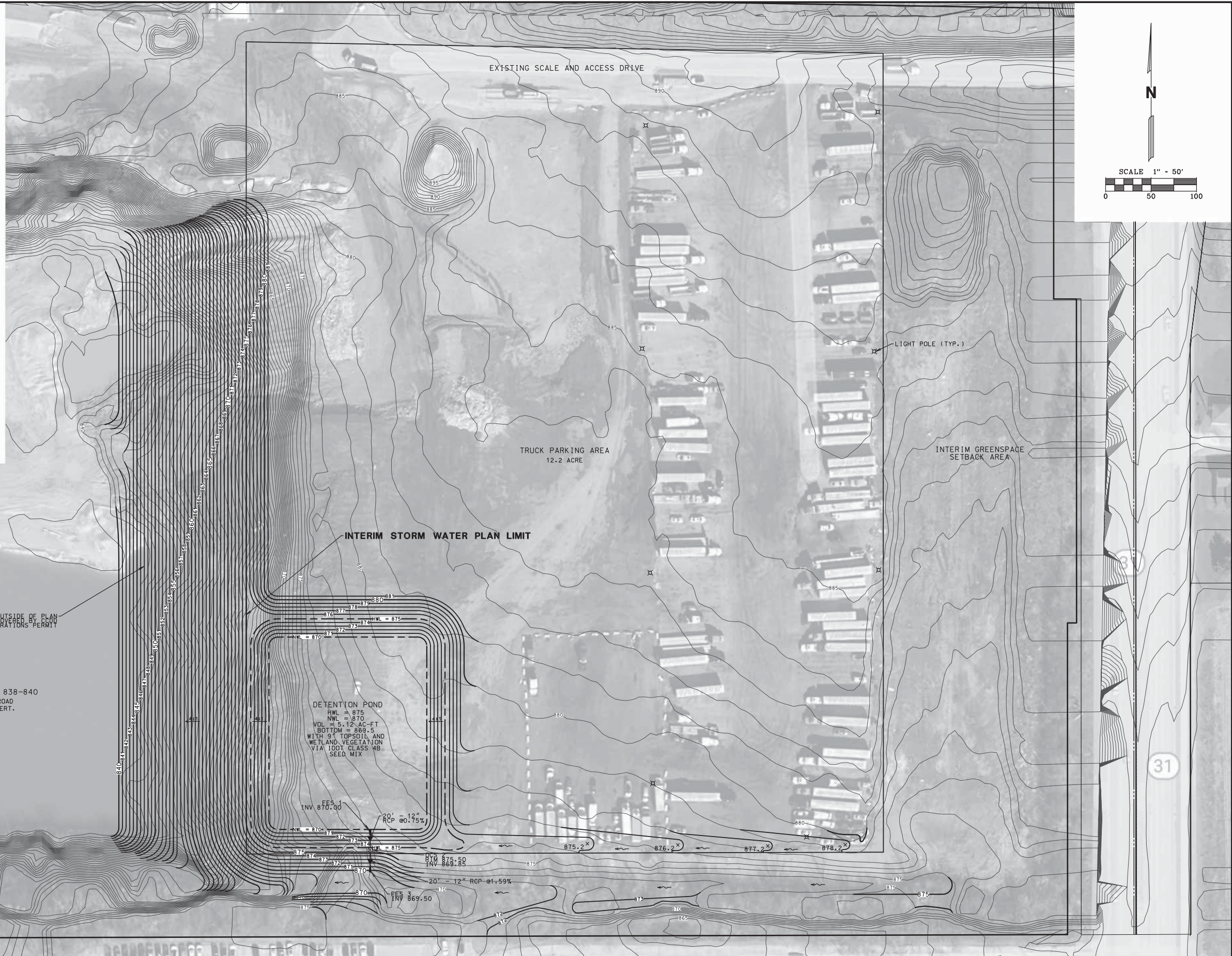
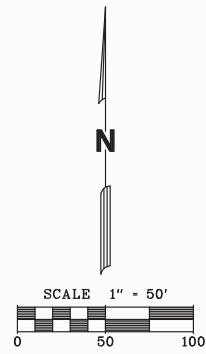
SHEET	
1	OF 6
PROJECT NUMBER:	2152
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UNDERGROUND UTILITY GENERAL NOTES

1. ALL MANHOLES AND CATCH BASINS SHALL BE 48-INCH DIAMETER, UNLESS OTHERWISE INDICATED.
2. ALL STORM SEWERS SHALL BE REINFORCED CONCRETE PIPE, MINIMUM CLASS III, WITH ASTM C76 PIPE AND C443 JOINTS, UNLESS OTHERWISE INDICATED. ALL STORM SEWERS WHICH ARE LOCATED IN THE SIDE YARD SHALL HAVE 90°-RING GASKETED JOINTS. ALL OTHER SEWERS SHALL HAVE BITUMINOUS MASTIC JOINTS.
3. ALL DRAIN TILES ENCOUNTERED DURING MASS GRADING UTILITY WORK MUST BE CONNECTED TO THE PROPOSED STORM SEWER SYSTEM. A RECORD MUST BE KEPT OF ANY DRAIN TILE ENCOUNTERED, TO BE INCLUDED WITH THE RECORD DRAWINGS.
4. ALL UNDERGROUND UTILITY INFORMATION NOTED ON THE PLANS IS BASED ON INFORMATION OBTAINED FROM THE MUNICIPALITY, UTILITY COMPANIES OR FIELD MEASUREMENTS. THIS INFORMATION, WHILE BELIEVED TO BE COMPLETE AND ACCURATE, CANNOT BE GUARANTEED.
5. CONTRACTOR SHALL CONTACT JULIE (1-800-892-0123) PRIOR TO START OF CONSTRUCTION TO LOCATE ALL UTILITIES WITHIN THE RIGHT-OF-WAY.
6. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING UTILITIES AT ALL PROPOSED CONNECTIONS PRIOR TO START OF CONSTRUCTION AND NOTIFY THE ENGINEER AND OWNER OF ANY DISCREPANCIES.
7. IN CASE OF CONFLICTS, THE MUNICIPALITY STANDARDS AND NOTES SHALL TAKE PRECEDENCE.
8. PROPOSED OUTLET CONTROL STRUCTURE REQUIRING OVER 12-INCHES OF ADJUSTMENT RINGS SHALL USE AN ADDITIONAL BARREL SECTION TO MAINTAIN A MAXIMUM OF 12-INCH TOTAL ADJUSTMENT RING DEPTH.

GRADING PLAN GENERAL NOTES

1. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS ON 5/13/2024. CONTRACTOR SHALL FIELD CHECK EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION AND NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES.
2. ALL DISTURBED AREAS SHALL BE RESTORED WITH 6-INCHES OF TOPSOIL AND SEEDED.
3. EXCAVATION AND EMBANKMENT SHALL BE PERFORMED PER THE DETAILED SPECIFICATIONS AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
4. GRADING INDICATED MAY NEED TO BE ADJUSTED BASED ON FIELD CONDITIONS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITH FIELD CONDITIONS PRIOR TO FINE GRADING.
5. OVERFLOW DRAINAGE ROUTES AND SWALES MUST BE INSTALLED AT THE ELEVATION AND LOCATION SHOWN.
6. DO NOT INTERRUPT DRAINAGE FROM OFF SITE DURING CONSTRUCTION OPERATIONS. PROVIDE TEMPORARY DRAINAGE DITCHES WHERE REQUIRED.
7. CONTRACTOR SHALL MEET EXISTING GROUND ELEVATIONS AT PROPERTY LINE, UNLESS OTHERWISE NOTED AND THE APPROPRIATE EASEMENTS OR PERMISSION HAS BEEN OBTAINED.



GRADING OUTSIDE OF PLAN
LIMITING COVER BY PERMIT

MINE LAKE WATER LEVEL 838-840
OUTFALL IS VIRGINIA ROAD
CULVERT AT 854.0' INVERT.

DETENTION POND
HWL = 875
NWL = 870
VOL = 5.12 AC-FT
BOTTOM = 869.5
WITH 9" TOPSOIL AND
WETLAND VEGETATION
VIA 100T GLASS WB
SEED MIX

FES 1
INV 870.00
20' - 12" RCP @ 0.15%

FES 3
INV 869.50
20' - 12" RCP @ 1.59%

6/17/2024 Mackie, LLC 14252 Engineering, Inc. Interim Road and Parking Lot 2 - Site Plan.dwg

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BARTLETT, IL 60103

DATE	DESCRIPTION OF REVISION	BY

DESIGNED	SRK
DRAWN	JK
APPROVED	SRK
DATE	6/17/2024
SCALE	1" = 50'

SITE PLAN
8813 IL ROUTE 31
LAKE IN THE HILLS, IL

SHEET
2 OF 6
PROJECT NUMBER: 2152
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SWPPP LEGEND

- INLET PROTECTION - FILTER BASKET
- INLET PROTECTION - SILT FENCE BOX
- CONCRETE WASH-OUT
- STABILIZED CONST. ENTRANCE
- SILT FENCE
- RIP-RAP
- EROSION CONTROL BLANKET
- TREE PROTECTION FENCE
- TOPSOIL STOCKPILE

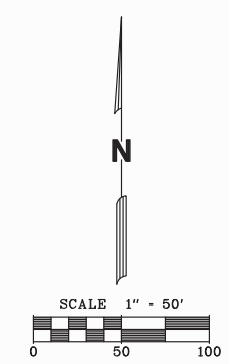
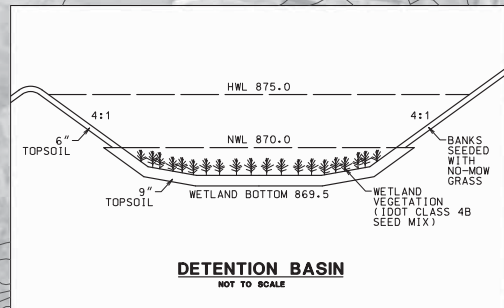
THE FOLLOWING ITEMS HAVE NOT BEEN SPECIFICALLY SHOWN BUT ARE REQUIRED AS PART OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND MUST BE INCORPORATED DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED.

- TEMPORARY AND/OR PERMANENT STABILIZATION
- WASTE MANAGEMENT
- CONCRETE WASTE MANAGEMENT (CONCRETE WASH-OUT FACILITY)
- SEDIMENT TRAPS
- DUST CONTROL
- ALLOWABLE DEWATERING OPERATIONS.

DETAILS AND INFORMATION REGARDING THESE MEASURES HAVE BEEN PROVIDED ON SHEET 4.

THE OWNER AND CONTRACTORS SHALL ALSO REVIEW ALL CONSTRUCTION PRACTICES TO MINIMIZE THE POTENTIAL IMPACTS TO STORMWATER DISCHARGES FROM THE SITE. SPECIFIC CONSIDERATIONS ARE PROVIDED ON PAGE 4 FOR THE FOLLOWING ACTIVITIES:

- CONCRETE CUTTING
- VEHICLE STORAGE AND MAINTENANCE
- MATERIAL STORAGE
- SANITARY STATIONS
- SPILL PREVENTION



GENERAL INFORMATION
THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO FULFILL ONE OF THE REQUIREMENTS OF THE GENERAL NPDES PERMIT NO. ILR10 FOR THE DISCHARGE OF STORM WATER ASSOCIATED WITH CONSTRUCTION PROJECTS DISTURBING ONE ACRE OR MORE. THE OWNER AND CONTRACTORS SHALL COMPLY WITH ALL REQUIREMENTS OF THE ILR10 FOR ALL SUCH CONSTRUCTION PROJECTS. THE STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY FROM THIS SITE ARE SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE ILR10 GENERAL NPDES PERMIT, MODIFIED DATE AUGUST 3, 2018.

ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH "PROCEDURES AND STANDARDS FOR URBAN SOIL AND EROSION AND SEDIMENTATION CONTROL IN ILLINOIS" AND THE "ILLINOIS URBAN MANUAL."

THE EXECUTED OWNER CERTIFICATION AND THE CONTRACTOR CERTIFICATIONS SHALL BE KEPT ONSITE WITH THE APPROVED SWPPP.

SWPPP AVAILABILITY
THE OWNER SHALL RETAIN A COPY OF THE SWPPP AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

KEEPING PLANS CURRENT
THE PERMITTEE SHALL AMEND THE PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE STATE AND WHICH HAS NOT OTHERWISE BEEN ADDRESSED IN THE PLAN OR IF THE PLAN PROVES TO BE INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SITE ACTIVITY. IN ADDITION, THE PLAN SHALL BE AMENDED TO IDENTIFY ANY NEW CONTRACTOR AND/OR SUBCONTRACTOR THAT WILL IMPLEMENT A MEASURE OF THE PLAN. AMENDMENTS TO THE PLAN MAY BE REQUIRED BY THE MUNICIPALITY, OWNER, OR OTHER REVIEWING AGENCY. COPIES OF THE AMENDMENTS SHALL BE KEPT ONSITE AS PART OF THE SWPPP.

RETENTION OF RECORDS
THE OWNER SHALL RETAIN COPIES OF THIS PLAN AND ALL REPORTS AND NOTICES REQUIRED BY THIS PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT, FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE PERMIT COVERAGE EXPIRES OR IS TERMINATED. THIS PERIOD MAY BE EXTENDED BY THE REQUEST OF THE AGENCY AT ANY TIME. IN ADDITION, THE OWNER SHALL RETAIN A COPY OF THE PLAN REQUIRED BY THIS PERMIT AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

ILR10 NOTICE OF TERMINATION GUIDANCE
WHEN A SITE HAS BEEN FINALLY STABILIZED AND ALL STORM WATER DISCHARGES FROM CONSTRUCTION SITES THAT ARE AUTHORIZED BY THE ILR10 PERMIT ARE ELIMINATED, THE OWNER OF THE FACILITY MUST SUBMIT A COMPLETED NOTICE OF TERMINATION THAT IS SIGNED IN ACCORDANCE WITH PART 11.1.1-a (SIGNATORY REQUIREMENTS) OF THE PERMIT.

BEST MANAGEMENT PRACTICES FOR POST CONSTRUCTION STORMWATER MANAGEMENT
THE FOLLOWING POST-CONSTRUCTION PRACTICES HAVE BEEN INCLUDED WITHIN THIS STORMWATER POLLUTION PREVENTION PLAN TO CONTROL POLLUTION UPON COMPLETION OF CONSTRUCTION ACTIVITIES:

- WATER-QUALITY DETENTION BASIN WITH EMERGENT AND NATIVE PLANTINGS;
- VEGETATED SWALES WITH NATIVE PLANTINGS;
- VEGETATED SWALES WITH TURF GRASSES;
- INFILTRATION BASINS;
- RIP RAP AT STORMWATER DISCHARGE POINTS;



6/17/2024 10:57 AM
M:\2024\Engineering\Instruments Road and Parking Lot1 - SWPPP.dwg

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DATE	DESCRIPTION OF REVISION	BY

DESIGNED	SRK
DRAWN	JK
APPROVED	SRK
DATE	6/17/2024
SCALE	1" = 50'

STORMWATER POLLUTION PREVENTION PLAN
8813 IL ROUTE 31
LAKE IN THE HILLS, IL

SHEET
3 OF 6
PROJECT NUMBER: 2152
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GENERAL INFORMATION

- SITE DESCRIPTION
A. THIS PLAN COVERS THE DEVELOPMENT OF CDD RECLAMATION TRUCK PARKING LOT.
B. THE FOLLOWING IS A DESCRIPTION OF THE INTENDED SEQUENCE OF CONSTRUCTION ACTIVITIES:
1. INSTALL PERIMETER SOIL EROSION AND SEDIMENT CONTROL MEASURES
- SELECTIVE VEGETATION REMOVAL FOR SILT FENCE INSTALLATION
- PERIMETER SILT FENCE
- CONSTRUCTION FENCING AROUND AREAS NOT TO BE DISTURBED
- STABILIZED CONSTRUCTION ENTRANCE
- INLET FILTER BASKETS AND INLET SILT FENCE BOXES ON ADJACENT SITE AREAS
2. DEMOLITION OF EXISTING STRUCTURES.
3. TREE REMOVAL WHERE NECESSARY (CLEAR & GRUB).
4. CONSTRUCT SEDIMENT TRAPPING DEVICES (SEDIMENT TRAPS, BASINS).
5. CONSTRUCTION DETENTION FACILITIES AND OUTLET CONTROL STRUCTURE WITH OUTLET PROTECTION NOTED ON PLAN.
6. STRIP TOPSOIL, STOCKPILE TOPSOIL AND GRADE SITE.
7. TEMPORARY STABILIZE TOPSOIL STOCKPILES (INCLUDING SEED AND SILT FENCE AROUND THE PERIMETER).
8. INSTALL STORM SEWER, SANITARY SEWER, AND WATER MAIN.
9. INSTALL INLET PROTECTION WITHIN ALL STORM STRUCTURES WITH OPEN GRATES.
10. PERMANENTLY STABILIZE DETENTION BASINS WITH SEED AND EROSION CONTROL BLANKET OR AS SHOWN ON THE APPROVED LANDSCAPE PLAN.
11. TEMPORARY STABILIZE ALL AREAS INCLUDING AREAS THAT HAVE REACHED TEMPORARY GRADE WITHIN 7 DAYS OF LAST CONSTRUCTION ACTIVITY IN THAT AREA.
12. INSTALL ROADWAYS.
13. PERMANENTLY STABILIZE GRASSY AREAS.
14. REMOVE ALL TEMPORARY CONTROL MEASURES AFTER SITE IS STABILIZED AND RE-SEED AREAS DISTURBED BY THEIR REMOVAL.
C. THE SITE HAS A TOTAL ACREAGE OF APPROXIMATELY 14.2 ACRES. CONSTRUCTION ACTIVITY WILL DISTURB APPROXIMATELY 14.2 ACRES OF THE SITE.
D. THE RUNOFF COEFFICIENT FOR THE SITE FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES IS COMPOSITE "C"= 0.90. THE EXISTING SOILS FROM THE SITE MAINLY CONSIST OF SILT LOAM.
E. PLEASE REFER TO PAGE 2 FOR A MAP INDICATING DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED BEFORE AND AFTER MAJOR GRADING ACTIVITIES. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AND CONTROLS TO PREVENT OFF-SITE SEDIMENT TRACKING, AREAS OF SOIL DISTURBANCE, THE LOCATION OF MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS IDENTIFIED IN THE PLAN, THE LOCATIONS OF AREAS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR, SURFACE WATERS (INCLUDING WETLANDS), AND LOCATIONS WHERE STORM WATER IS DISCHARGED TO A SURFACE WATER.
F. THE RECEIVING WATER OF THE PROPOSED DEVELOPMENT IS FOX RIVER.
G. POTENTIAL SOURCES OF POLLUTION ASSOCIATED WITH THIS CONSTRUCTION ACTIVITY MAY INCLUDE:
- SEDIMENT FROM DISTURBED SOILS
- SANITARY STATIONS
- FUEL TANKS
- STAGING AREAS
- WASTE CONTAINERS
- RAW MATERIALS (IE BAGGED PORTLAND CEMENT)
- OIL OR OTHER PETROLEUM PRODUCTS
- ADHESIVES
- TAR
- SOLVENTS
- DETERGENTS
- FERTILIZERS
- PAINTS
- LITTER
- CONSTRUCTION DEBRIS
- LANDSCAPE WASTE
- CONCRETE AND CONCRETE TRUCKS

- ADDITIONAL MEASURES REQUIRED:
1. STABILIZATION: STABILIZATION PRACTICES MUST BE INITIATED WITHIN ONE (1) WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE BUT NOT LATER THAN 14 DAYS FROM THE INITIATION OF STABILIZATION WORK IN ANY AREA. EXCEPTIONS TO THESE TIME FRAMES ARE SPECIFIED AS PROVIDED BELOW:
A. WHERE THE INITIATION OF STABILIZATION MEASURES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
B. ON AREAS WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED AND WILL RESUME AFTER 14 DAYS, A TEMPORARY STABILIZATION METHOD CAN BE USED.
C. THE FOLLOWING PRACTICES ARE ACCEPTABLE STABILIZATION MEASURES:
- PERMANENT SEEDING: IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN.
- TEMPORARY SEEDING: MAY CONSIST OF SPRING OATS (100 LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150 LBS/ACRE).
- MULCHING
- GEOTEXTILES
- SODDING
- VEGETATIVE BUFFER STRIPS
- PROTECTION OF TREES
- PRESERVATION OF MATURE VEGETATION
- STAGED OR STAGGERED DEVELOPMENT

THE APPROPRIATE STABILIZATION MEASURE SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME THE CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE.

- 2. WASTE MANAGEMENT
NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT. ALL WASTE MATERIALS SHOULD BE COLLECTED AND STORED IN APPROVED RECEPTACLES. NO WASTES SHOULD BE PLACED IN ANY LOCATION OTHER THAN IN THE APPROVED CONTAINERS APPROPRIATE FOR THE MATERIALS BEING DISCARDED. THERE SHOULD BE NO LIQUID WASTES DEPOSITED INTO DUMPSTERS OR OTHER CONTAINERS WHICH MAY LEAK. RECEPTACLES WITH DEFICIENCIES SHOULD BE REPLACED AS SOON AS POSSIBLE AND THE APPROPRIATE CLEAN-UP PROCEDURE SHOULD TAKE PLACE, IF NECESSARY. CONSTRUCTION WASTE MATERIAL IS NOT TO BE BURIED ONSITE. WASTE DISPOSAL SHOULD COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS
ONSITE HAZARDOUS MATERIAL STORAGE SHOULD BE MINIMIZED AND STORED IN LABELED, SEPARATE RECEPTACLES FROM NON-HAZARDOUS WASTE. ALL HAZARDOUS WASTE SHOULD BE STORED AND DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL, STATE, AND FEDERAL REGULATION OR BY THE MANUFACTURER.

- 3. CONCRETE WASTE MANAGEMENT
CONCRETE WASTE OR WASHOUT SHOULD NOT BE ALLOWED IN THE STREET OR ALLOWED TO REACH A STORM WATER DRAINAGE SYSTEM OR WATERCOURSE. A SIGN SHOULD BE POSTED AT EACH LOCATION TO IDENTIFY THE WASHOUT. TO THE EXTENT PRACTICABLE, CONCRETE WASHOUT AREAS SHOULD BE LOCATED A REASONABLE DISTANCE FROM A STORM WATER DRAINAGE INLET OR WATERCOURSE. CONCRETE WASHOUT AREAS SHOULD BE LOCATED AT LEAST 10 FEET BEHIND THE CURB, IF THE WASHOUT AREA IS ADJACENT TO A PAVED ROAD. A STABILIZED ENTRANCE THAT MEETS ILLINOIS URBAN MANUAL STANDARDS SHOULD BE INSTALLED AT EACH WASHOUT AREA.
THE CONTAINMENT FACILITIES SHOULD BE OF SUFFICIENT VOLUME TO COMPLETELY CONTAIN ALL LIQUID AND CONCRETE WASTE MATERIALS INCLUDING ENOUGH CAPACITY FOR ANTICIPATED LEVELS OF RAINWATER. THE DRIED CONCRETE WASTE MATERIAL SHOULD BE PICKED UP AND DISPOSED OF PROPERLY WHEN 75% CAPACITY IS REACHED. HARDENED CONCRETE CAN BE PROPERLY RECYCLED AS APPROVED BY THE MUNICIPALITY AND USED AGAIN ONSITE OR HAULED OFFSITE TO AN APPROPRIATE LANDFILL.

- 4. DEWATERING OPERATIONS
DURING DEWATERING/PUMPING OPERATIONS, ONLY UNCONTAMINATED WATER SHOULD BE ALLOWED TO DISCHARGE TO PROTECTED NATURAL AREAS, WATERS OF THE STATE, OR TO A STORM SEWER SYSTEM (IN ACCORDANCE WITH LOCAL PERMITS). DISCHARGES SHALL BE TREATED TO MINIMIZE DISCHARGE OF POLLUTANTS. INLET HOSES SHOULD BE PLACED IN A STABILIZED SUMP PIT OR FLOATED AT THE SURFACE OF THE WATER IN ORDER TO LIMIT THE AMOUNT OF SEDIMENT INTAKE. DISCHARGE OF VISIBLE SOLIDS OR FOAMS IS NOT PERMITTED. PUMPING OPERATIONS SHOULD BE DISCHARGED TO A STABILIZED AREA THAT CONSISTS OF AN ENERGY DISSIPATING DEVICE (I.E. STONE, SEDIMENT FILTER BAG, OR BOTH). WHEN NECESSARY, STABILIZED CONVEYANCE CHANNELS SHOULD BE INSTALLED TO DIRECT WATER TO THE DESIRED LOCATION. ADDITIONAL BMP'S MAY BE REQUIRED AT THE OUTLET AREA AS REQUESTED BY THE MUNICIPALITY, OR OTHER REVIEWING AGENCY.

- 5. DUST CONTROL
DUST SHALL BE MINIMIZED ON AREAS OF EXPOSED SOILS THROUGH THE APPROPRIATE APPLICATION OF WATER OR OTHER DUST SUPPRESSION TECHNIQUES AS LISTED BELOW:
- SPRINKLING/IRRIGATION
- VEGETATIVE COVER
- MULCH
- SPRAY-ON SOIL TREATMENTS
- TILLAGE
- STONE
- WATER TRUCK

- 6. OFF-SITE VEHICLE TRACKING
STABILIZED CONSTRUCTION ENTRANCE(S) SHOULD BE INSTALLED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS, TO REDUCE EXCESS SEDIMENT, DIRT OR STONE TRACKED FROM THE SITE. SEDIMENT TRACKED OFFSITE ONTO ADJACENT ROADWAYS SHALL BE CLEANED BY THE END OF THE SAME BUSINESS DAY IN WHICH THE TRACK-OUT OCCURS OR BY THE END OF THE NEXT BUSINESS DAY IF TRACK-OUT OCCURS ON A NON-BUSINESS DAY. ACCUMULATED SEDIMENT AND STONE SHOULD BE REMOVED FROM THE STABILIZED ENTRANCE AS NEEDED. VEHICLES HAULING ERODIBLE MATERIAL TO AND FROM THE CONSTRUCTION SITE SHOULD BE COVERED WITH A TARP, HOISING OR SWEEPING SEDIMENT INTO THE STORMWATER SYSTEM OR WATERS OF THE U.S. IS NOT PERMITTED.

- 7. CONCRETE CUTTING
CONCRETE WASTE MANAGEMENT SHOULD BE IMPLEMENTED TO CONTAIN AND DISPOSE OF SAW-CUTTING SLURRIES. CONCRETE CUTTING SHOULD NOT TAKE PLACE DURING OR IMMEDIATELY AFTER A RAINFALL EVENT. WASTE GENERATED FROM CONCRETE CUTTING SHOULD BE CLEANED-UP AND DISPOSED INTO THE CONCRETE WASHOUT FACILITY AS DESCRIBED ABOVE.

- 8. VEHICLE STORAGE AND MAINTENANCE
WHEN NOT IN USE, VEHICLES UTILIZED IN THE DEVELOPMENT OPERATIONS OF THE SITE SHOULD BE STORED IN A DESIGNATED UPLAND AREA AWAY FROM ANY NATURAL OR CREATED WATERCOURSE, POND, DRAINAGE-WAY OR STORM DRAIN. WHENEVER POSSIBLE VEHICLE MAINTENANCE, FUELING, AND WASHING SHOULD OCCUR OFFSITE. IF ALLOWED ON-SITE; VEHICLE MAINTENANCE (INCLUDING BOTH ROUTINE MAINTENANCE AS WELL AS ON-SITE REPAIRS) SHOULD BE MADE WITHIN THE DESIGNATED AREA TO PREVENT THE MIGRATION OF MECHANICAL FLUIDS (OIL, ANTIFREEZE, ETC.) INTO WATERCOURSES, WETLANDS OR STORM DRAINS. DRIP PANS OR ABSORBENT PADS SHOULD BE USED FOR ALL VEHICLE AND EQUIPMENT MAINTENANCE ACTIVITIES THAT INVOLVE GREASE, OIL, SOLVENTS, OR OTHER VEHICLE FLUIDS. CONSTRUCTION VEHICLES SHOULD BE INSPECTED FREQUENTLY TO IDENTIFY ANY LEAKS; LEAKS SHOULD BE REPAIRED IMMEDIATELY OR THE VEHICLE SHOULD BE REMOVED FROM SITE. DISPOSE OF ALL USED OIL, ANTIFREEZE, SOLVENTS AND OTHER AUTOMOTIVE-RELATED CHEMICALS ACCORDING TO MANUFACTURER OR MSDS INSTRUCTIONS. CONTRACTORS SHOULD IMMEDIATELY REPORT SPILLS TO THE OWNER FOR PROPER REMEDIATION.

WASH WATERS, FROM EQUIPMENT OR VEHICLE WASHING, WHEEL WASH WATER AND OTHER WASH WATERS, MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.

- 9. MATERIAL STORAGE
MATERIALS AND OR CONTAMINANTS SHOULD BE STORED IN A MANNER THAT MINIMIZES THE POTENTIAL TO DISCHARGE INTO STORM DRAINS OR WATERCOURSES. AN ONSITE AREA SHOULD BE DESIGNATED FOR MATERIAL DELIVERY AND STORAGE. ALL MATERIALS KEPT ONSITE SHOULD BE STORED IN THEIR ORIGINAL CONTAINERS WITH LEGIBLE LABELS, AND IF POSSIBLE UNDER A ROOF OR OTHER ENCLOSURE. LABELS SHOULD BE REPLACED IF DAMAGED OR DIFFICULT TO READ. BERMED-OFF STORAGE AREAS ARE AN ACCEPTABLE CONTROL MEASURE TO PREVENT CONTAMINATION OF STORM WATER. MSDS SHEETS SHOULD BE AVAILABLE FOR REFERENCING CLEAN UP PROCEDURES. ANY RELEASE OF CHEMICALS OR CONTAMINANTS SHOULD BE IMMEDIATELY CLEANED UP AND DISPOSED OF PROPERLY. CONTRACTORS SHOULD IMMEDIATELY REPORT ALL SPILLS TO THE OWNER, WHO SHOULD NOTIFY THE APPROPRIATE AGENCIES, IF NEEDED.

TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS ONSITE, HAZARDOUS PRODUCTS SHOULD BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RE-SEALABLE. THE ORIGINAL LABELS AND MSDS DATA SHOULD BE RETAINED ONSITE AT ALL TIMES. HAZARDOUS MATERIALS AND ALL OTHER MATERIAL ONSITE SHOULD BE STORED IN COVERED OR DESIGNATED CONTAINMENT AREAS IN ACCORDANCE WITH MANUFACTURER OR MSDS SPECIFICATIONS. WHEN DISPOSING OF HAZARDOUS MATERIALS, FOLLOW MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS.

- 10. SANITARY STATIONS
TO THE EXTENT PRACTICABLE, PORT-A-POTTIES SHOULD BE LOCATED AT A MINIMUM 8 FEET BEHIND THE CURB AND QUITTER OF THE INTERNAL ROADS AND BE LOCATED IN AN AREA THAT DOES NOT DRAIN TO ANY PROTECTED NATURAL AREAS, WATERS OF THE STATE, OR STORM WATER STRUCTURES AND SHOULD BE ANCHORED TO THE GROUND TO PREVENT FROM TIPPING OVER. PORT-A-POTTIES LOCATED ON IMPERVIOUS SURFACES SHOULD BE PLACED ON TOP OF A SECONDARY CONTAINMENT DEVICE, OR BE SURROUNDED BY A CONTROL DEVICE (I.E. GRAVEL-BAG BERM).

- 11. SPILL PREVENTION
DISCHARGES OF A HAZARDOUS SUBSTANCE OR OIL CAUSED BY A SPILL (E.G., A SPILL OF OIL INTO A SEPARATE STORM SEWER OR WATERS OF THE STATE) ARE NOT AUTHORIZED BY THIS PERMIT. IF A SPILL OCCURS, NOTIFY THE OWNER IMMEDIATELY. THE CONSTRUCTION SITE SHOULD HAVE THE CAPACITY TO CONTROL, CONTAIN, AND REMOVE SPILLS IF THEY OCCUR. SPILLS SHOULD BE CLEANED IMMEDIATELY AFTER DISCOVERY IN ACCORDANCE WITH MSDS AND NOT BURIED ON SITE OR WASHED INTO STORM DRAINS OR WATERS OF THE STATE.

SPILLS IN EXCESS OF FEDERAL REPORTABLE QUANTITIES (AS ESTABLISHED UNDER 40 CFR PARTS 110, 117, OR 302), SHOULD BE REPORTED TO THE NATIONAL RESPONSE CENTER BY CALLING (800) 424-9802. MSDS OFTEN INCLUDE INFORMATION ON FEDERAL REPORTABLE QUANTITIES FOR MATERIALS. SPILLS OF TOXIC OR HAZARDOUS MATERIALS SHOULD BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF SIZE. WHEN CLEANING UP A SPILL, THE AREA SHOULD BE KEPT WELL VENTILATED AND APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT SHOULD BE USED TO MINIMIZE INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

IN ADDITION TO PROPER WASTE MANAGEMENT, CONCRETE WASTE MANAGEMENT, CONCRETE CUTTING, VEHICLE STORAGE AND MAINTENANCE, MATERIAL STORAGE, AND SANITARY STATION PROTECTION, THE FOLLOWING MINIMUM PRACTICES SHOULD BE FOLLOWED TO REDUCE THE RISK OF SPILLS:
- ON-SITE VEHICLES SHOULD BE MONITORED FOR LEAKS AND SHOULD RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE.
- PETROLEUM PRODUCTS SHOULD BE STORED IN TIGHTLY SEALED AND CLEARLY LABELED CONTAINERS.
- ALL PAINT CONTAINERS SHOULD BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHOULD BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS, AND SHOULD NOT BE DISCHARGED TO THE STORM SEWER.
- CONTRACTORS SHOULD FOLLOW THE MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL OF MATERIALS.

MAINTENANCE
THE FOLLOWING IS A DESCRIPTION OF PROCEDURES THAT SHOULD BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATION CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES, STORMWATER UTILITY STRUCTURES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN AND STANDARD SPECIFICATIONS.

STABILIZED CONSTRUCTION ENTRANCE: THE ENTRANCES SHOULD BE MAINTAINED TO PREVENT TRACKING OF SEDIMENT ONTO PUBLIC STREETS. MAINTENANCE INCLUDES TOP DRESSING WITH ADDITIONAL STONE AND REMOVING TOP LAYERS OF STONES AND SEDIMENT. THE SEDIMENT RUN-OFF ONTO THE PUBLIC RIGHT OF WAY SHOULD BE REMOVED IMMEDIATELY.

RIPRAP OUTLET PROTECTION: RIPRAP SHOULD BE INSPECTED FOR ANY SCOUR BENEATH THE RIPRAP OR FOR STONES THAT HAVE BEEN DISLODGED. SEDIMENT ACCUMULATION IN THE OUTFALL AREA SHOULD BE REMOVED AS NEEDED.

CONCRETE WASHOUT AREA: EXISTING FACILITIES SHOULD BE CLEANED OUT, OR NEW FACILITIES SHOULD BE CONSTRUCTED AND OPERATIONAL ONCE THE EXISTING WASHOUT IS 75% FULL. WASHOUTS SHOULD BE INSPECTED FREQUENTLY TO ENSURE THAT PLASTIC LININGS ARE INTACT AND SIDEWALLS HAVE NOT BEEN DAMAGED BY CONSTRUCTION ACTIVITIES. WHEN THE WASHOUT AREA IS ADJACENT TO A PAVED ROAD, THE PAVED ROAD SHOULD BE INSPECTED FOR ACCUMULATED CONCRETE WASTE. ANY ACCUMULATED CONCRETE WASTE ON THE ROAD, CURB, OR GUTTER SHOULD BE REMOVED AND PROPERLY DISPOSED.

EROSION CONTROL BLANKET: THE BLANKET AND STAPLES SHOULD BE INSPECTED FREQUENTLY AND SHALL BE INSTALLED TO THE ILLINOIS URBAN MANUAL, UNLESS OTHERWISE INSTRUCTED BY THE MANUFACTURER. EROSION OCCURRING UNDERNEATH THE BLANKET SHOULD BE BACK-FILLED AND SEEDED WITH THE APPROPRIATE SEED MIX. ADDITIONAL BMP'S MAY NEED TO BE INSTALLED TO REDUCE EROSION UNDER THE BLANKET.

SILT FILTER FENCE: SILT FENCES SHOULD BE INSPECTED REGULARLY FOR UNDERCUTTING WHERE THE FENCE MEETS THE GROUND, OVERTOPPING, AND TEARS ALONG THE LENGTH OF THE FENCE. DEFICIENCIES SHOULD BE REPAIRED IMMEDIATELY. REMOVE ACCUMULATED SEDIMENTS FROM THE FENCE BASE WHEN THE SEDIMENT REACHES ONE-HALF THE FENCE HEIGHT. DURING FINAL STABILIZATION, PROPERLY DISPOSE OF ANY SEDIMENT THAT HAS ACCUMULATED ON THE SILT FENCE. INSTANCES WHEN AREAS OF SILT FENCE CONTINUALLY FAIL, REPLACE SILT FENCE WITH ANOTHER BMP AS SEEN FIT.

INLET PROTECTION: INLET FILTERS SHOULD BE INSPECTED FOR PROPER FILTERING, STORMWATER INLET STRUCTURE PROTECTION MEASURES SHALL BE CLEANED OR REMOVED AND REPLACED AS SEDIMENT ACCUMULATES, FILTERS BECOME CLOGGED, FILTER BAGS ARE MORE THAN 50% FILLED, OR PERFORMANCE IS COMPROMISED. SEDIMENT ACCUMULATIONS ADJACENT TO INLET PROTECTION MEASURES SHALL BE CLEANED BY THE END OF THE SAME BUSINESS DAY ON WHICH IT IS FOUND OR BY THE END OF THE FOLLOWING BUSINESS DAY IF REMOVAL IN THE SAME BUSINESS DAY IS NOT FEASIBLE. DO NOT PUNCTURE HOLES IN FILTERS IF PONDING OCCURS.

SEDIMENT BASIN: SEDIMENT BASINS SHALL BE CLEANED WHEN ACCUMULATED SEDIMENT HAS REACHED 50% CAPACITY. POST CONSTRUCTION CLEANING OF ACCUMULATED SEDIMENT SHALL BE CONDUCTED IF THE BASIN IS TO REMAIN AFTER CONSTRUCTION IS COMPLETE.

INSPECTIONS
THE OWNER SHALL DESIGNATE A QUALIFIED PERSONNEL TO BE RESPONSIBLE FOR SEDIMENT AND EROSION CONTROL OBSERVATION REPORTING. THIS QUALIFIED PERSONNEL SHALL MEET THE REQUIREMENTS NOTED IN THE ILR10 PERMIT CONDITIONS AND LOCAL CODES. SITE OBSERVATIONS SHOULD OCCUR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM OR BY THE END OF THE FOLLOWING BUSINESS OR WORK DAY THAT IS 0.5 INCHES OR GREATER, OR EQUIVALENT SNOWFALL. OBSERVATIONS MAY BE REDUCED TO ONCE A MONTH WHEN CONSTRUCTION ACTIVITIES HAVE CEASED DUE TO FROZEN CONDITIONS, WEEKLY OBSERVATIONS SHOULD RESUME WHEN CONSTRUCTION ACTIVITIES ARE CONDUCTED, OR IF THERE IS 0.5" OR GREATER RAIN EVENT, OR A DISCHARGE DUE TO SNOWMELT OCCURS. AREAS INACCESSIBLE DURING INSPECTIONS DUE TO FLOODING OR OTHER UNSAFE CONDITIONS SHALL BE INSPECTED WITHIN 72 HOURS OF BECOMING ACCESSIBLE.

SITE OBSERVATION REPORTS SHOULD BE MAINTAINED ONSITE AS PART OF THE SWPPP. EACH SITE OBSERVATION SHALL INCLUDE THE FOLLOWING COMPONENTS:
A. DISTURBED AREAS AND AREAS USED FOR THE STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE CHECKED FOR EVIDENCE OF, OR POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. THE EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY HAVE BEEN INSTALLED AND ARE OPERATING CORRECTLY. WHERE DISCHARGE POINTS ARE ACCESSIBLE, THEY SHOULD BE CHECKED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHOULD BE CHECKED FOR OFF-SITE SEDIMENT TRACKING. ALL PUMPING OPERATIONS AND ALL OTHER POTENTIAL NON-STORM WATER DISCHARGES SHOULD BE OBSERVED.

B. BASED ON THE RESULTS OF THE SITE OBSERVATION, THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES IDENTIFIED, AND THE POLLUTION PREVENTION MEASURES DESCRIBED IN THIS PLAN SHALL BE REVISED AS APPROPRIATE, AS SOON AS PRACTICABLE AFTER THE OBSERVATION. THE MODIFICATIONS, IF ANY, SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE PLAN WITHIN 7 CALENDAR DAYS FOLLOWING THE SITE OBSERVATION.

C. A REPORT SUMMARIZING THE SCOPE OF THE OBSERVATION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE OBSERVATION, THE DATE(S) OF THE OBSERVATION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PARAGRAPH B ABOVE SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE OF FINAL STABILIZATION OR PERMIT COVERAGE IS TERMINATED. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI.G (SIGNATORY REQUIREMENTS) OF THE ILR10 NPDES PERMIT.

D. THE OWNER SHALL NOTIFY THE APPROPRIATE AGENCY FIELD OPERATIONS SECTION OFFICE BY EMAIL AT EPA-SWNONCOM@ILLINOIS.GOV, TELEPHONE, OR FAX WITHIN 24 HOURS OF ANY INCIDENCE OF NONCOMPLIANCE FOR ANY VIOLATION OF THE STORM WATER POLLUTION PREVENTION PLAN OBSERVED DURING A SITE OBSERVATION, OR FOR VIOLATIONS OF ANY CONDITION OF THE PERMIT. THE OWNER SHALL COMPLETE AND SUBMIT WITHIN 5 DAYS AN INCIDENCE OF NONCOMPLIANCE (ION) REPORT FOR ANY VIOLATION OF THE STORM WATER POLLUTION PREVENTION PLAN OBSERVED DURING AN INSPECTION CONDUCTED. SUBMISSION SHALL BE ON FORMS PROVIDED BY THE AGENCY AND INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NONCOMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT, WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE.

E. ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY AS DEFINED IN PART VI.G OF THE ILR10 NPDES PERMIT (SIGNATORY REQUIREMENTS).

F. ALL REPORTS OF NONCOMPLIANCE SHALL BE MAILED TO THE AGENCY AT THE FOLLOWING ADDRESS: ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF WATER POLLUTION CONTROL COMPLIANCE ASSURANCE SECTION 1021 NORTH GRAND AVENUE EAST POST OFFICE BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276

NON-STORM WATER DISCHARGES

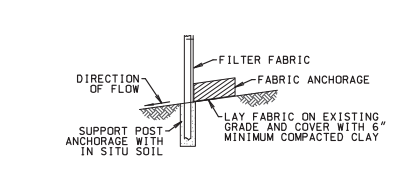
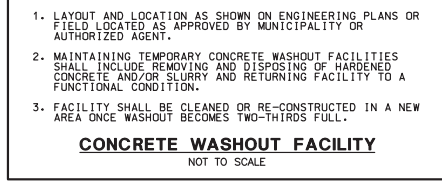
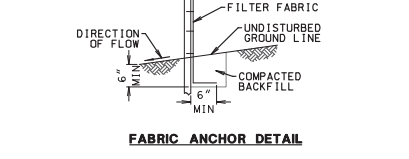
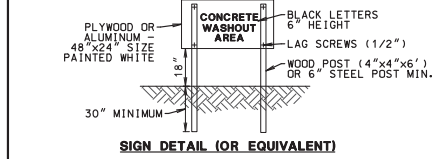
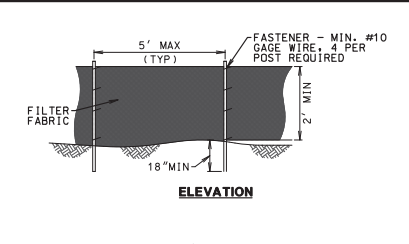
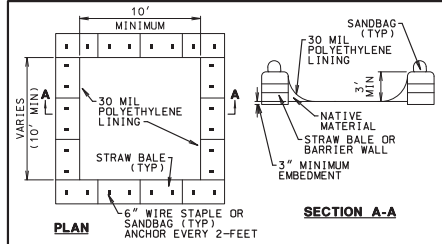
NON-STORM WATER FLOWS THAT MAY BE COMBINED WITH STORM WATER DISCHARGES ARE INCLUDED WITHIN THIS PLAN. THESE DISCHARGES INCLUDE: DISCHARGES FROM FIRE FIGHTING ACTIVITIES; FIRE HYDRANT TO BE PROTECTED AND FLUSHINGS; WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED; WATERS USED TO CONTROL DUST; POTABLE WATER SOURCES INCLUDING UNCONTAMINATED WATERLINE FLUSHINGS; LANDSCAPE IRRIGATION DRAINAGES; ROUTINE EXTERNAL BUILDING WASHDOWN WHICH DOES NOT USE DETERGENTS; PAVEMENT WASH WATERS WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED (UNLESS ALL SPILLED MATERIAL HAS BEEN REMOVED) AND WHERE DETERGENTS ARE NOT USED; UNCONTAMINATED AIR CONDITIONING CONDENSATE; UNCONTAMINATED SPRING WATER; UNCONTAMINATED GROUND WATER; AND FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS.

THE FOLLOWING NON-STORM WATER DISCHARGES ARE PROHIBITED: CONCRETE AND WASTEWATER FROM WASHOUT OF CONCRETE (UNLESS MANAGED BY AN APPROPRIATE CONTROL), WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS, FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE, SOAPS, SOLVENTS, OR DETERGENTS, TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE, OR ANY OTHER POLLUTANT THAT COULD CAUSE OR TEND TO CAUSE WATER POLLUTION.

DISCHARGES FROM DEWATERING ACTIVITIES, INCLUDING DISCHARGES FROM DEWATERING TRENCHES AND EXCAVATIONS ARE ALLOWABLE IF MANAGED BY APPROPRIATE CONTROLS.

NATURAL BUFFERS

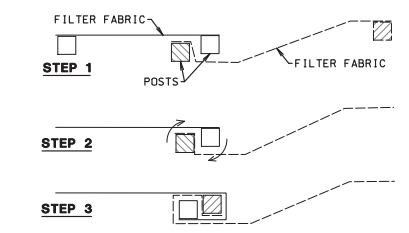
PROTECTS WITHIN 50 FEET OF WATERS OF THE UNITED STATES MUST PROVIDE AN UNDISTURBED NATURAL 50 FOOT BUFFER OR OTHER EROSION AND SEDIMENT CONTROL MEASURES AS IDENTIFIED OR OTHERWISE COORDINATED WITH APPLICABLE LOCAL AND STATE PERMITTING AGENCIES.



NOTES:
1. LAYOUT AND LOCATION AS SHOWN ON ENGINEERING PLANS OR FIELD LOCATED AS APPROVED BY MUNICIPALITY OR AUTHORIZED AGENT.
2. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE REMOVING AND DISPOSING OF HARDENED CONCRETE AND/OR SLURRY AND RETURNING FACILITY TO A FUNCTIONAL CONDITION.
3. FACILITY SHALL BE CLEANED OR RE-CONSTRUCTED IN A NEW AREA ONCE WASHOUT BECOMES TWO-THIRDS FULL.

ATTACHING TWO SILT FENCES

- NOTES:
1. TEMPORARY SEDIMENT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. SILT FENCE SHALL BE REMOVED IN CONJUNCTION WITH FINAL GRADING AND SITE STABILIZATION.
2. FILTER FABRIC SHALL MEET THE REQUIREMENTS AS SET FORTH BY AASHTO M-288-00, CHAPTER 9.
3. FENCE POST SHALL EITHER BE STANDARD STEEL POST OR WOOD POST WITH A MINIMUM SECTIONAL AREA OF 3.0 SQ. IN.



SILT FENCE DETAIL

- NOTES:
1. PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE.
2. ROTATE BOTH POSTS AT LEAST 90 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL.
3. DRIVE BOTH POSTS A MINIMUM OF 18 INCHES INTO THE GROUND AND BURY THE FLAP.

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Table with columns: CLIENT, DESIGNED, DRAWN, APPROVED, DATE, SCALE, DESCRIPTION OF REVISION, BY

SWPPP NOTES
8813 IL ROUTE 31
LAKE IN THE HILLS, IL

Table with columns: SHEET, PROJECT NUMBER, ILLINOIS FIRM LICENSE

GENERAL NOTES

A. REFERENCED SPECIFICATIONS

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
- STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
- STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION
- MCHENRY COUNTY STORMWATER ORDINANCE
- VILLAGE CODE OF LAKE IN THE HILLS, ILLINOIS

B. NOTIFICATIONS

- 1. THE VILLAGE OF LAKE IN THE HILLS MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.
2. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF THE UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

- 1. THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.
2. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.
3. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY THE MUNICIPALITY OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.
4. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR SEWER DISTRICT AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.
5. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY UNPOLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.
6. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY AND/OR SEWER DISTRICT.
7. THE LOCATION OF VARIOUS EXISTING UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.
8. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
9. NO FINAL CONNECTION SHALL BE MADE TO THE EXISTING WATER MAIN SYSTEM UNTIL THE WATER MAIN HAS BEEN PRESSURE TESTED AND CHLORINATED.
10. ALL NON-PAVING CONCRETE USED ON THE PROJECT SHALL BE IDOT CLASS S1.
11. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY AND OWNER.
12. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.
13. ALL EXISTING FIELD DRAINAGE TILE ENCOUNTERED OR DAMAGED DURING CONSTRUCTION WHICH DRAIN OFFSITE PROPERTY SHALL BE CONNECTED TO THE STORM SEWER SYSTEM. ALL EXISTING FIELD DRAINAGE TILE ENCOUNTERED OR DAMAGED DURING CONSTRUCTION THAT SERVES ON-SITE PROPERTY CAN BE CAPPED AND/OR REMOVED FROM THE SITE.
14. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.
15. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.
16. TRAFFIC CONTROL SIGNS SHALL BE INSTALLED DURING CONSTRUCTION IN ACCORDANCE WITH THE IDOT SS AND IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THE SAFE AND ORDERLY PASSAGE OF TRAFFIC AND PEDESTRIANS SHALL BE MAINTAINED AT ALL TIMES.

D. EXCAVATION AND SITE GRADING

- 1. EXCAVATION AND EMBANKMENT REQUIRED FOR SITE GRADING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SOILS REPORTS PREPARED FOR THIS SITE. COPIES OF THE SOILS REPORTS ARE AVAILABLE FROM THE OWNER.
2. BUILDING PAD, BUILDING FOOTING, AND PAVEMENT SUBGRADES SHALL BE CONSTRUCTED OF SUITABLE FILL MATERIAL, AS DETERMINED BY THE SOILS ENGINEER, AND COMPACTED TO A MINIMUM BEARING CAPACITY OF 3,000 PSF IN BUILDING PAD AREAS AND 95% MODIFIED PROCTOR DENSITY WITHIN (PUBLIC, PARKING LOT) PAVEMENT AREAS OR PUBLIC RIGHT-OF-WAYS.)

3. ALL CLAY EMBANKMENT NECESSARY FOR STORMWATER MANAGEMENT AREAS AS NOTED ON THE CROSS SECTION SHALL CONSIST OF COHESIVE SOIL TYPES WITH LESS THAN 25% SAND AND GRAVEL. MATERIAL SHALL HAVE A COEFFICIENT OF PERMEABILITY OF LESS THAN 10^-7 CM/SEC. MAXIMUM PARTICLE SIZE SHALL BE 4-INCHES. THESE MATERIALS WILL BE PRACTICALLY IMPERVIOUS. MATERIAL SHALL BE TESTED FOR CLASSIFICATION, COMPACTION CHARACTERISTICS, PERMEABILITY CHARACTERISTICS AND UNCONFINED COMPRESSIVE STRENGTH, IN ORDER TO ENSURE THAT THEY MEET THE ABOVE REQUIREMENTS.

THE MATERIAL SHALL BE CL TYPE (USING THE USC CLASSIFICATION SYSTEM, ASTM D2487) AND FREE FROM GRAVEL, ROOTS, ORGANIC MATTER, AND ANY OTHER OBJECTIONABLE MATERIALS.

THE EMBANKMENT SHALL BE PLACED IN ESSENTIALLY HORIZONTAL LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS. EACH LIFT SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED IN THE LABORATORY BY THE MODIFIED PROCTOR COMPACTION TEST (ASTM D1557). EACH LIFT TO BE COMPACTED TO SPECIFIED DENSITY PRIOR TO THE PLACEMENT OF ADDITIONAL FILL. MOISTURE CONTROL IS IMPORTANT IN THE COMPACTION OF COHESIVE SOIL TYPES, AND THE WATER CONTENT OF THE EMBANKMENT FILL SHALL BE WITHIN 4 PERCENTAGE POINTS OF OPTIMUM MOISTURE AS ESTABLISHED BY THE LABORATORY COMPACTION CURVE.

- 4. COMPACTION TESTING SHALL MEET THE REQUIREMENTS OF THE MUNICIPALITY AND THE OWNER.
5. NO EQUIPMENT, MATERIAL OR WORK IS TO BE PERFORMED OUTSIDE THE LIMITS OF CONSTRUCTION.
6. THE CONTRACTOR IS REQUIRED TO MEET ALL SOIL EROSION CONTROL AND SEDIMENTATION REQUIREMENTS AS SET FORTH IN THE IEPA STANDARDS, MUNICIPAL ORDINANCES, COUNTY ORDINANCES, AND THE ENGINEERING PLANS.
7. ALL PAVEMENT SUBGRADES SHALL BE PROOF-ROLLED WITH A FULLY LOADED TEN WHEEL TRUCK. ANY SOFT YIELDING AREAS SHALL BE REMOVED AND REPLACED WITH COMPACTED CA-6 CRUSHED STONE.
8. ALL UNSUITABLE MATERIAL, AS DETERMINED BY THE SOILS ENGINEER, SHALL BE REMOVED AND (A.) DISC-DRIED AND RECOMPACTED, OR (B.) FINE OR CEMENT DRIED AND RECOMPACTED, OR (C.) REPLACED WITH CRUSHED STONE, IDOT CA-6 GRADATION. ALL OPTIONS MEETING COMPACTION REQUIREMENTS AS SPECIFIED EARLIER IN THESE SPECIFICATIONS.
9. LIMITS OF BUILDING PAD SHALL EXTEND FIVE (5) FEET BEYOND PROPOSED BUILDING WALLS. LIMITS OF SUITABLE PAVEMENT SUBGRADE SHALL EXTEND TWO (2) FEET BEYOND BACK OF PROPOSED CURB, OR EDGE OF PAVEMENT.
10. ALL REMOVAL OR EXCAVATION ITEMS BEING DISPOSED OF AT AN UNCONTAMINATED SOIL FILL OPERATION OR CLEAN CONSTRUCTION AND DEMOLITION DEBRIS (CCDD) FILL SITE SHALL MEET THE REQUIREMENTS OF PUBLIC ACT 96-1416. ALL COSTS ASSOCIATED WITH MEETING THESE REQUIREMENTS SHALL BE INCLUDED IN THE UNIT PRICE COST FOR THE ASSOCIATED REMOVAL OR EXCAVATION ITEMS IN THE CONTRACT. THESE COSTS SHALL INCLUDE BUT ARE NOT LIMITED TO ALL REQUIRED TESTING, LAB ANALYSIS, CERTIFICATION BY A LICENSED PROFESSIONAL ENGINEER, AND STATE AND LOCAL TIPPING FEES.

E. PAVEMENT CONSTRUCTION

- 1. HOT-MIX ASPHALT PAVEMENT SHALL HAVE A MINIMUM TOTAL COMPACTED THICKNESS AS SHOWN ON THE DRAWINGS AND SHALL BE COMPACTED TO 93% OF THE MAXIMUM UNIT WEIGHT AS DETERMINED BY ASTM D-2041.
2. THE PAVEMENT SUBGRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 301 (SUBGRADE PREPARATION) OF THE IDOT SS. SUBGRADE SHALL BE COMPACTED TO A MINIMUM IBR OF 3.0.
3. THE AGGREGATE BASE COURSE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 351 (AGGREGATE BASE COURSE) OF THE IDOT SS.
4. NO AGGREGATE BASE COURSE SHALL BE INSTALLED UNTIL THE SUBGRADE HAS BEEN APPROVED BY THE OWNER.
5. HOT-MIX ASPHALT PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 406 (HOT-MIX ASPHALT BINDER AND SURFACE COURSE).
6. NO HOT-MIX ASPHALT BINDER SHALL BE INSTALLED UNTIL THE AGGREGATE BASE COURSE HAS BEEN APPROVED BY THE OWNER. AGGREGATE BASE COURSE PRIME COAT (MC-30) SHALL BE APPLIED AT A RATE OF 0.25 TO 0.5 GALLONS PER SQUARE YARD. THE EXACT RATE TO BE SPECIFIED BY THE ENGINEER.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY SIGNS, BARRICADES, FENCES, ETC. TO KEEP THE CONSTRUCTION SITE IN COMPLIANCE WITH STATE AND FEDERAL LAWS. THE MUNICIPALITY MAY REQUIRE ADDITIONAL SIGNAGE OR BARRICADES. THE CONTRACTOR SHALL COMPLY WITH ALL SUCH MUNICIPAL REQUIREMENTS.
8. ALL EXISTING PAVEMENT, SIDEWALK, OR CURB AND GUTTER TO BE REMOVED SHALL BE SAWCUT ALONG THE LIMITS OF THE PROPOSED REMOVAL BEFORE REMOVAL OPERATIONS BEGIN.
9. PRIOR TO PLACEMENT OF BASE COURSE, THE SUBGRADE SHALL BE PROOF-ROLLED WITH A FULLY LOADED TEN WHEEL TRUCK, AND ANY SOFT YIELDING AREAS SHALL BE REMOVED AND REPLACED WITH COMPACTED CA-6 CRUSHED STONE.
10. CURB AND GUTTER REMOVAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 440 (REMOVAL OF EXISTING PAVEMENT AND APPURTENANCES) OF THE IDOT SS.
11. ALL PAVEMENT MARKINGS SHALL BE (PAINT, THERMOPLASTIC, PREFORMED PLASTIC).
12. P.C.C. ROADWAY PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 420 (PORTLAND CEMENT CONCRETE PAVEMENT) OF THE IDOT SS. P.C.C. PAVEMENT FOR TRUCK DOCKS OR OTHER MISCELLANEOUS AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 423 (PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT) OF THE IDOT SS. PCC PAVEMENT SHALL BE CLASS PV, UNLESS OTHERWISE NOTED. CONCRETE SHALL BE FINISHED AS DIRECTED BY THE OWNER OR ARCHITECT. JOINTS IN CONCRETE PAVEMENT SHALL BE PROVIDED AS FOLLOWS:
a. JOINTS WITHIN SINGLE LANE PAVEMENT (APPROXIMATELY 12-FOOT WIDE) SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 420.
b. CONTRACTION JOINTS IN TRUCK DOCK PAVEMENT OR SIMILAR CONSTRUCTION SHALL BE DIVIDED BY GROOVES CONSTRUCTED AT 10 FOOT MAXIMUM INTERVALS BOTH TRANSVERSELY AND LONGITUDINALLY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THESE GROOVES SHALL EXTEND TO 1/4 THE DEPTH OF THE PAVEMENT, SHALL NOT BE LESS THAN 1/8 INCH NOR MORE THAN 1/4 INCH IN WIDTH AND SHALL BE EDGED WITH AN EDGING TOOL HAVING A 1/4 INCH RADIUS. THE EDGES OF THE SLABS SHALL BE EDGED AS DESCRIBED ABOVE.
c. EXPANSION JOINTS SHALL BE PROVIDED WHERE THE PROPOSED PAVEMENT OCCUPIES THE ENTIRE SPACE BETWEEN THE CONCRETE CURB OR COMBINATION CURB AND GUTTER AND AN ADJACENT BUILDING, PERMANENT STRUCTURE, EXISTING DRIVEWAY OR OTHER SIMILAR OBSTRUCTION, A ONE (1) INCHED PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED BETWEEN THE DRIVEWAY PAVEMENT AND THE OBSTRUCTION. THE EXPANSION JOINT FILLER SHALL EXTEND THE ENTIRE DEPTH OF THE PAVEMENT.

- 13. ADA ACCESSIBLE CURB RAMPS SHALL BE PROVIDED AT ALL LOCATIONS WHERE THE SIDEWALK ADJACING THE CURB AND GUTTER. ALL ADA RAMPS SHALL PROVIDE DETECTABLE WARNINGS PER THE DETAIL NOTED WITHIN THIS PLAN SET. THE INSTALLATION OF THESE DETECTABLE WARNINGS SHALL CONFORM TO SECTION 424 OF THE IDOT SS AND THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES.
14. ALL CONCRETE FOR SIDEWALK AND CURB AND GUTTER IS TO BE CLASS S1, 6-1 BAG MIX WITH NO FLY ASH.

- 15. COMBINATION CURB AND GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 606 (CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH) OF THE IDOT SS.
a. EXPANSION JOINTS SHALL BE PLACED AT THE END OF RADI1 AND AT INTERVALS OF NO MORE THAN 40- FEET IN STRAIGHT LINE PORTIONS OF WORK. EXPANSION JOINTS SHALL BE PROVIDED WHERE THE CURB AND GUTTER ABUTS AN EXISTING OR PROPOSED SIDEWALK, BUILDING, PERMANENT STRUCTURE OR EXISTING OR PROPOSED CONCRETE DRIVEWAY. EXPANSION JOINTS ARE REQUIRED 5- FEET ON EACH SIDE OF ANY STORM SEWER STRUCTURE SUCH AS LIGHT POLES, TRAFFIC SIGNAL POLES, TRAFFIC POLES, ETC. EXPANSION JOINTS SHALL CONSIST OF 1- INCH PREFORMED EXPANSION JOINT FILLER MATERIAL.
b. EXPANSION JOINTS SHALL INCLUDE 12- INCH LONG #4 DOWEL BARS WITH CAP.
c. CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF NO MORE THAN 10- FEET. CONTRACTION JOINTS SHALL BE SAWE TO A DEPTH EQUAL TO 1/3 THE THICKNESS OF THE GUTTER FLAG AND TO A WIDTH OF NOT LESS THAN 1/8 INCH.
d. A MINIMUM 4- INCH COMPACTED AGGREGATE BASE SHALL BE PROVIDED UNDER THE CURB AND GUTTER AND SHALL EXTEND 1-FOOT BEHIND BACK OF CURB. REFER TO SECTION 606 FOR ADDITIONAL JOINTING REQUIREMENTS.
16. SIDEWALK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 424 (PORTLAND CEMENT CONCRETE SIDEWALK) OF THE IDOT SS.
a. THE SURFACE SHALL BE DIVIDED BY GROOVES CONSTRUCTED AT RIGHT ANGLES TO THE CENTERLINE OF THE SIDEWALK OR AS SHOWN ON THE ENGINEERING PLANS. GROOVES SHALL EXTEND TO 1/4 THE DEPTH OF THE SIDEWALK, SHALL BE NOT LESS THAN 1/8 IN. NOR MORE THAN 1/4 IN. IN WIDTH, AND SHALL BE LONGER THAN 6 FT. NOR LESS THAN 4 FT. ON ANY SIDE, UNLESS OTHERWISE NOTED.
b. EXPANSION JOINTS SHALL BE 1/2 IN. THICK AND CONSIST OF PREFORMED JOINT FILLER. THE TOP OF THE JOINT FILLER SHALL BE 1/4 IN. BELOW THE SURFACE OF THE SIDEWALK.
c. EXPANSION JOINTS SHALL BE PLACED BETWEEN THE SIDEWALK AND ALL STRUCTURES SUCH AS LIGHT POLES, TRAFFIC SIGNAL POLES, TRAFFIC POLES AND SUBWAY COLUMNS, WHICH EXTEND THROUGH THE SIDEWALK. EXPANSION JOINTS SHALL BE PLACED AT MAXIMUM INTERVALS OF 50 FT. IN THE SIDEWALK, WHERE THE SIDEWALK IS CONSTRUCTED ADJACENT TO PAVEMENT OR CURB HAVING EXPANSION JOINTS. THE EXPANSION JOINTS IN THE SIDEWALK SHALL BE PLACED IN LINE WITH THE EXPANSION JOINTS AS NEARLY AS PRACTICABLE. EXPANSION JOINTS SHALL BE PLACED WHERE THE SIDEWALK ADJUTS EXISTING SIDEWALKS, BETWEEN DRIVEWAY PAVEMENT AND SIDEWALK, AND BETWEEN SIDEWALK ACCESSIBILITY RAMPS AND CURBS WHERE THE RAMP ABUTS A CURB.

- 17. HOT-MIX ASPHALT BASE COURSE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 355 (HOT-MIX ASPHALT BASE COURSE) OF THE IDOT SS.
18. HOT-MIX ASPHALT SPECIFICATIONS SHALL BE AS FOLLOWS:

Table with 3 columns: ITEM, AIR VOIDS. Rows include HMA SURFACE COURSE, MIX "D", IL-9.5MM, N50, 1.5" MIN. (4% AT 50 GYR); HMA BINDER COURSE, IL-19.0, N50; 2.25" MIN (4% AT 50 GYR); LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4" MIN (3.5% AT 50 GYR); CLASS D PATCHES (HMA BINDER IL-19mm) (4% AT 70 GYR).

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/50 YD/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR ALL NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE SPECIAL PROVISIONS. APPLICABLE DISTRICT ONE SPECIAL PROVISIONS MAY INCLUDE, "RECLAIMED ASPHALT PAVEMENT AND SHINGLES", "HMA MIXTURE IL-4.75" AND "STONE MATRIX ASPHALT (SMA)".

- 19. ALL CURBS CONSTRUCTED OVER A UTILITY TRENCH SHALL BE REINFORCED WITH TWO EQUALLY SPACED #4 REBARS CENTERED IN THE FLAG FOR A LENGTH OF 10 FEET ON EITHER SIDE OF THE TRENCH. SIDEWALKS SHALL BE TREATED IN THE SAME MANNER USING THREE EQUALLY SPACED #4 REBARS CENTERED IN THE SIDEWALK FOR A LENGTH OF 10 FEET ON EITHER SIDE OF THE TRENCH.

- 20. ALL WATER AND SANITARY SERVICE LOCATIONS SHALL BE STAMPED ON THE CURB WITH "W" OR "S" AT THE DEMARKED LOCATIONS WHERE POSSIBLE.

F. SANITARY SEWER

- 1. ALL SANITARY SEWERS, SERVICES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LOCAL MUNICIPAL REQUIREMENTS OR SANITARY DISTRICT SPECIFICATIONS AND THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS).
2. SANITARY SEWERS SHALL BE:
a. POLYVINYL CHLORIDE PIPE (PVC), SDR 26 PER ASTM D-3034 WITH ELASTOMERIC JOINTS IN ACCORDANCE WITH ASTM D-3212 AND F477 OR
b. DUCTILE IRON PIPE (DIP) ANSI A21-51, CLASS 52 PER ANSI A 21-50 (AWWA C150), CEMENT LINED WITH BITUMINOUS COATING PER ANSI A21-4 (AWWA C104), WITH MECHANICAL OR RUBBER RING (SLIP SEAL OR PUSH-ON) JOINTS PER ANSI A21-11 (AWWA C111 AND C600);
c. PRESSURE RATED PIPE (WATER MAIN QUALITY) SHALL BE IN ACCORDANCE WITH ASTM D 2241. PVC PIPE JOINTS SHALL BE SOLVENT CEMENTED JOINTS PER ASTM D 2672 OR FLEXIBLE ELASTOMERIC JOINTS PER ASTM D3139 AND F477.
d. POLYPROPYLENE (PP) PIPE SHALL BE DOUBLE WALL PIPE CONFORMING TO ASTM F2764 FOR SIZES 6" TO 30". POLYPROPYLENE PIPE JOINTS SHALL BE FLEXIBLE ELASTOMERIC SEALS PER ASTM D3212 AND F477.
3. GRANULAR PIPE BEDDING MATERIAL SHALL BE IDOT CA-6, CA-10, OR FA-10 AND SHALL BE INSTALLED PER ASTM D2321. GRANULAR BEDDING SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
4. SELECTED GRANULAR BACKFILL, IDOT CA-6, CA-10 OR FA-10 SHALL BE USED WHERE THE TOP OF TRENCH LIES UNDER OR WITHIN 24-INCHES OF ALL PAVEMENTS, DRIVEWAYS AND SIDEWALKS.
5. SANITARY SEWER TESTING SHALL INCLUDE EXFILTRATION TEST OR INFILTRATION TESTING IN ACCORDANCE WITH THE SSWS, MUNICIPAL REQUIREMENTS AND/OR SANITARY DISTRICT REQUIREMENTS. ALL SANITARY SEWERS CONSTRUCTED OF FLEXIBLE PIPE SHALL BE DEFLECTION TESTED IN ACCORDANCE WITH THE SSWS, MUNICIPAL REQUIREMENTS AND/OR SANITARY DISTRICT REQUIREMENTS. DEFLECTION TESTING SHALL NOT OCCUR SOONER THAN THIRTY (30) DAYS AFTER COMPLETION OF THE SEWER INSTALLATION OF THE SECTION BEING TESTED.
6. SANITARY MANHOLES SHALL BE TESTED FOR WATER TIGHTNESS BY EITHER ASTM C969 - STANDARD PRACTICE FOR INFILTRATION AND EXFILTRATION ACCEPTANCE TESTING OF INSTALLED PRECAST CONCRETE PIPE SEWER LINES OR ASTM C 1244 - STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY NEGATIVE PRESSURE (VACUUM) TEST.

- 7. SANITARY SEWER SERVICE FOR THE PROPOSED BUILDINGS SHALL BE COORDINATED WITH THE ARCHITECTURAL PLANS FOR SIZE AND LOCATION. LATER REVISIONS TO ARCHITECTURAL PLANS MAY EXIST, THEREFORE, CONTRACTOR SHALL VERIFY LOCATION OF SANITARY SERVICE AS SHOWN ON ENGINEERING PLANS IS CONSISTENT WITH ARCHITECTURAL PLANS. NOTIFY ENGINEER OR OWNER IF DISCREPANCY EXISTS. FIELD LOCATION OF ALL SERVICE STUBS TO BE VISIBLY DEMARKED, SUPPLIED BY CONTRACTOR, AND SHOWN ON RECORD DRAWINGS.

G. WATER MAIN

- 1. ALL WATER MAINS, SERVICES, AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LOCAL MUNICIPAL REQUIREMENTS AND THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS).
2. WATER MAINS SHALL BE:
a. DUCTILE IRON PIPE CONFORMING TO ANSI A 21-51 (AWWA C151), CLASS 52 PER ANSI A 21-50 (AWWA C150), SEAL COATED OR CEMENT LINED PER ANSI A21-4 (AWWA C104), WITH RUBBER RING (SLIP SEAL OR PUSH ON) JOINTS OR MECHANICAL FOR RESTRAINED JOINTS. OR:
b. POLYVINYL CHLORIDE PIPE CONFORMING TO AWWA C900 AND ASTM D 2241. MATERIAL SHALL BE DESIGNATED CLASS 12454B (CPVC 1120), CLASS 12454C (PVC 1120) IN CONFORMANCE WITH ASTM D1784. FOR PUSH ON TYPE JOINTS, GASKETS AND SEALS SHALL BE FLEXIBLE ELASTOMERIC TYPE CONFORMING TO ASTM D3139 AND F477. ALL FITTINGS SHALL BE DUCTILE IRON FOR RESTRAINED MECHANICAL JOINTS, MANUFACTURED SPECIFICALLY FOR USE WITH AWWA C900 PVC, AND MEET THE STANDARDS OF ASTM F1674. THE PIPE SHALL BE RATED AT AWWA PRESSURE CLASS 165 PSI OR GREATER AT 73.4 DEGREES F. ALL PIPING SHALL HAVE A DIMENSION RATIO NOT LARGER THAN SDR 26. ALL PIPING SHALL BEAR THE NSF SEAL OF APPROVAL AND MEET NSF 61 CERTIFICATION. THE PIPING SHALL BE VISIBLY MARKED WITH THE SPECIFIC SDR RATING NUMBER AND PRESSURE CLASS RATING IN PSI. TRACER WIRE REQUIRED WITH ALL PVC WM AND SHALL CONFORM TO COPPERHEAD SOLOSHOT (OR APPROVED EQUAL) 12 AWG HIGH STRENGTH COPPER CLAD STEEL CONDUCTOR (HS-CCS) WITH TEST STATIONS AT EACH VALVE VAULT (EXCEPT WHERE CLUSTERED AT INTERSECTIONS).
c. ALL WATER SERVICES (2.5" DIA. AND SMALLER) SHALL BE COPPER WATER TUBE TYPE K OR GREATER SOFT TEMPER, FOR UNDERGROUND SERVICE AND CONFORMING TO ASTM B88 AND ASTM B251. THE PIPE SHALL BE MARKED WITH THE MANUFACTURER'S NAME OR TRADEMARK AND A MARK INDICATIVE OF THE TYPE OF PIPE. THE OUTSIDE DIAMETER OF THE PIPE SHALL CONFORM TO ASTM B251 TABLE 2. FITTINGS SHALL BE TYPE K BRASS AND OF THE COMPRESSION TYPE FOR TYPE K TUBING. ONE PIECE SHALL BE USED FROM THE MAIN TO THE CURB STOP AND ONE PIECE FROM THE CURB STOP TO THE METER SPREAD FOR LENGTHS OF 100 FEET OR LESS.
3. A MINIMUM OF 5'-6" OF COVER SHALL BE MAINTAINED OVER THE WATER MAIN AND SERVICES AT ALL TIMES, UNLESS SPECIAL PROVISIONS HAVE BEEN MADE.
4. GRANULAR PIPE BEDDING MATERIAL SHALL BE IDOT CA-6, CA-10 OR FA-10 AND SHALL BE INSTALLED PER ASTM D2321. GRANULAR BEDDING SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
5. SELECTED GRANULAR BACKFILL, IDOT CA-6, CA-10 OR FA-10 SHALL BE USED WHERE THE TOP OF THE TRENCH LIES UNDER OR WITHIN 24-INCHES OF ALL PAVEMENTS, CURB AND GUTTERS, DRIVEWAYS AND SIDEWALKS.
6. ALL WATER VAULTS SHALL HAVE THE WORD "WATER" CAST INTO THE LID.
7. VALVES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO THE RESPECTIVE STANDARDS OF THE LATEST AWWA C500, AWWA C509 AND AWWA C515 STANDARDS. ALL MATERIALS USED IN THE MANUFACTURE OF WATERWORKS GATE VALVES SHALL CONFORM TO THE AWWA STANDARDS DESIGNED FOR EACH MATERIAL LISTED. ALL VALVES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE SSWS.
8. WATER MAINS SHALL BE PRESSURE TESTED, LEAK TESTED AND CHLORINATED IN ACCORDANCE WITH LOCAL MUNICIPAL REQUIREMENTS AND THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS, LATEST EDITION.
9. WATER SERVICE FOR THE PROPOSED BUILDINGS SHALL BE COORDINATED WITH THE ARCHITECTURAL PLANS FOR SIZE AND LOCATION. LATER REVISIONS TO THE ARCHITECTURAL PLANS MAY EXIST, THEREFORE, CONTRACTOR SHALL VERIFY LOCATION AND SIZE OF WATER SERVICES AS SHOWN ON ENGINEERING PLANS IS CONSISTENT WITH ARCHITECTURAL PLANS. NOTIFY ENGINEER OR OWNER IF DISCREPANCY EXISTS. FIELD LOCATION OF ALL SERVICE STUBS TO BE VISIBLY DEMARKED, SUPPLIED BY CONTRACTOR, AND SHOWN ON RECORD DRAWINGS.
10. WATER MAINS SHALL BE LOCATED AT LEAST 10- FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SANITARY SEWER, STORM SEWER, COMBINED SEWER OR SEWER SERVICE CONNECTION. WATER MAINS MAY BE LOCATED CLOSER THAN 10- FEET TO A SEWER LINE WHEN:
a. LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10- FEET AND
b. THE WATER MAIN INVERT IS AT LEAST 18- INCHES ABOVE THE CROWN OF THE SEWER; AND
c. THE WATER MAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER. WHEN IT IS IMPOSSIBLE TO MEET THE CONDITIONS ABOVE, BOTH THE WATER MAIN AND SEWER MAIN SHALL BE CONSTRUCTED OF PIPE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION WITH SLIP-ON OR MECHANICAL JOINTS. THE SEWER SHALL BE PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD BEFORE BACKFILLING.
11. WATER MAIN SHALL BE SEPARATED FROM STORM AND SANITARY SEWERS AS FOLLOWS:
a. WATER MAINS SHALL BE SEPARATED FROM A SEWER SO THAT ITS INVERT IS A MINIMUM OF 18- INCHES ABOVE THE CROWN OF THE SEWER WHEREVER WATER MAINS CROSS A STORM SEWER, SANITARY SEWER OR SEWER SERVICE CONNECTION. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF WATER MAIN LOCATED WITHIN 10- FEET HORIZONTALLY OF ANY SEWER CROSSING. A LENGTH OF WATER MAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINTS OF PIPE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION WHEN IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN a) ABOVE OR THE WATER MAIN PASSES UNDER A SEWER OR
c. A VERTICAL SEPARATION OF 18- INCHES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATER MAIN SHALL BE MAINTAINED WHERE A WATER MAIN CROSSES UNDER A SEWER. SUPPORT THE SEWER TO PREVENT SETTLING AND BREAKING OF THE WATER MAIN OR
d. CONSTRUCTION OF WATER MAIN QUALITY PIPE SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE PERPENDICULAR DISTANCE FROM THE WATER MAIN TO THE SEWER IS AT LEAST 10- FEET.
12. FIRE HYDRANTS SHALL CONFORM TO THE AMERICAN WATER WORKS ASSOCIATION STANDARD C-502 AND SHALL BE OF A MAKE THAT HAS BEEN ADOPTED BY THE MUNICIPALITY AS A STANDARD. HYDRANTS SHALL BE DESIGNED FOR A MINIMUM WORKING PRESSURE OF ONE HUNDRED FIFTY (150) PSI AND A TEST PRESSURE OF THREE HUNDRED (300) PSI. HYDRANT BODY CASTING SHALL BE MANUFACTURED OF CAST IRON OR DUCTILE IRON. ALL NOZZLES SHALL BE MANUFACTURED OF AN ACCEPTABLE GRADE OF BRONZE AND ACCURATELY THREADED IN ACCORDANCE WITH "NATIONAL STANDARD HOSE COUPLING THREAD SPECIFICATIONS." THE HYDRANT SHALL OPEN BY TURNING LEFT (COUNTER-CLOCKWISE) AND SHALL BE SO MARKED. HYDRANTS SHALL BE OF THE "BREAK-AWAY" OR "TRAFFIC" BASE DESIGN.

- 13. SMALL SERVICE LINE APPURTENANCES SHALL BE IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS AND AS FOLLOWS:
a. CURB STOP: CURB STOPS SHALL BE FABRICATED OF BRASS AND SHALL BE PROVIDED WITH OUTLETS SUITABLE FOR COPPER CONNECTIONS. CURB STOPS SHALL BE OF THE ROUND-WAY TYPE. CURB STOPS SHALL BE EQUIPPED WITH CONDUCTIVE COMPRESSION CONNECTIONS. FLARED OR SWAET CONNECTIONS ARE NOT ALLOWED.
b. CORPORATION STOP: CORPORATION STOPS SHALL BE FABRICATED OF BRASS AND SHALL BE PROVIDED WITH OUTLETS SUITABLE FOR COPPER CONNECTIONS. CURB STOPS SHALL BE EQUIPPED WITH CONDUCTIVE COMPRESSION CONNECTIONS. FLARED OR SWEAT CONNECTIONS ARE NOT ALLOWED.
c. CURB BOX: CURB BOX SHALL BE SCREW TYPE WITH THE BASE THREADED TO ATTACH TO THE CURB STOP, OR SHALL BE "BUFFALO" OR "ARCH" TYPE AND OF SUCH CONSTRUCTION THAT IT SHALL BE CAPABLE OF EXTENSION TO FINISH GRADE. THE TOP OF THE CURB BOX SHALL BE FURNISHED WITH THE WORD "WATER" ON THE LID.

H. STORM SEWER

- 1. ALL STORM SEWERS, SERVICES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LOCAL MUNICIPAL REQUIREMENTS, THE IDOT SS AND THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
2. STORM SEWERS SHALL BE:
a. REINFORCED CONCRETE PIPE, ASTM C-76, MINIMUM CLASS III WITH MASTIC JOINTS OR O-RING JOINTS IN ACCORDANCE TO ASTM C-443.
b. POLYVINYL CHLORIDE PIPE (PVC) PIPE, SDR 26, PER ASTM D-3034 WITH ELASTOMERIC JOINTS IN ACCORDANCE WITH ASTM D-3212;
c. HIGH DENSITY POLYETHYLENE (HDPE) PIPE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M252 FOR THREE (3) INCHES TO TEN (10) INCHES AND AASHTO M294 FOR TWELVE (12) INCHES TO SIXTY (60) INCHES.
3. GRANULAR PIPE BEDDING MATERIAL SHALL BE IDOT CA-6, CA-10 OR FA-10 AND SHALL BE INSTALLED PER ASTM D2321. GRANULAR BEDDING SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
4. SELECTED GRANULAR BACKFILL, IDOT CA-6, CA-10 OR FA-10 SHALL BE USED WHERE THE TOP OF TRENCH LIES UNDER OR WITHIN 24-INCHES OF ALL PAVEMENTS, CURB AND GUTTERS, DRIVEWAYS OR SIDEWALKS.

I. LANDSCAPING

- 1. ALL DISTURBED AREAS SHALL BE RESTORED WITH 6-INCHES OF TOPSOIL AND SEEDING. SEEDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 250 (SEEDING) OF THE IDOT SS. SEEDING MIXTURE SHALL BE CLASS 1 LAWN MIXTURE, UNLESS OTHERWISE INDICATED.
2. EROSION CONTROL BLANKET SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 251 (MULCH) OF THE IDOT SS. EROSION CONTROL BLANKET SHALL BE EXCELISOR DS-150 OR SC-150 DEPENDING ON THE INTENDED USE.



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2250 SOUTHWIND BLVD
BARTLETT, IL 60103

Table with 4 columns: DATE, DESCRIPTION OF REVISION, BY, SCALE. Includes rows for DESIGNED (SRK), DRAWN (JK), APPROVED (SRK), and DATE (6/17/2024).

PROJECT SPECIFICATIONS
8813 IL ROUTE 31
LAKE IN THE HILLS, IL

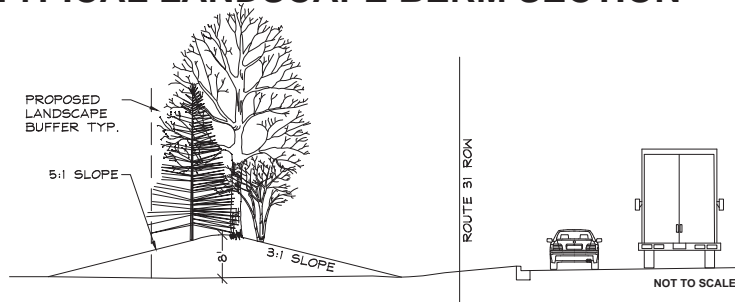
Table with 2 columns: SHEET (6 OF 6), PROJECT NUMBER (2152). Includes copyright notice for Mackie Consultants, LLC, 2024.



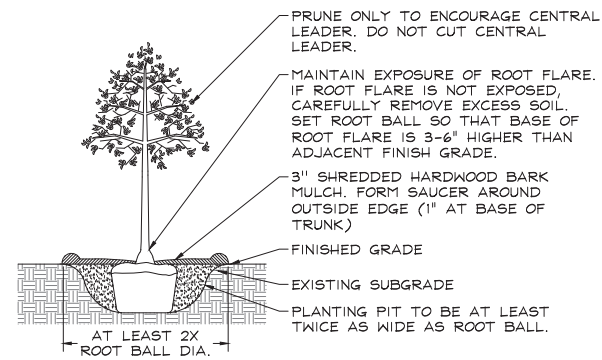
LOCATION MAP
NOT TO SCALE



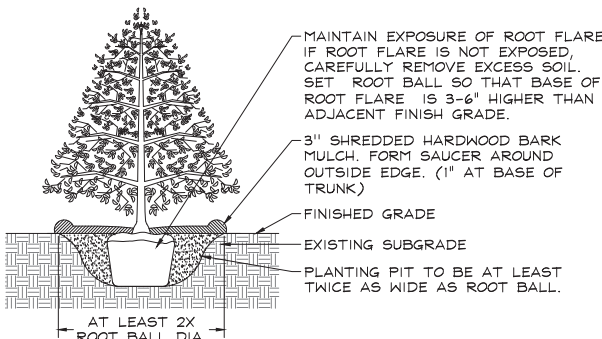
TYPICAL LANDSCAPE BERM SECTION



PLANTING DETAILS



DECIDUOUS TREES
NOT TO SCALE



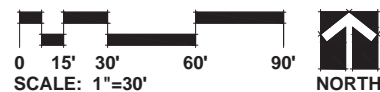
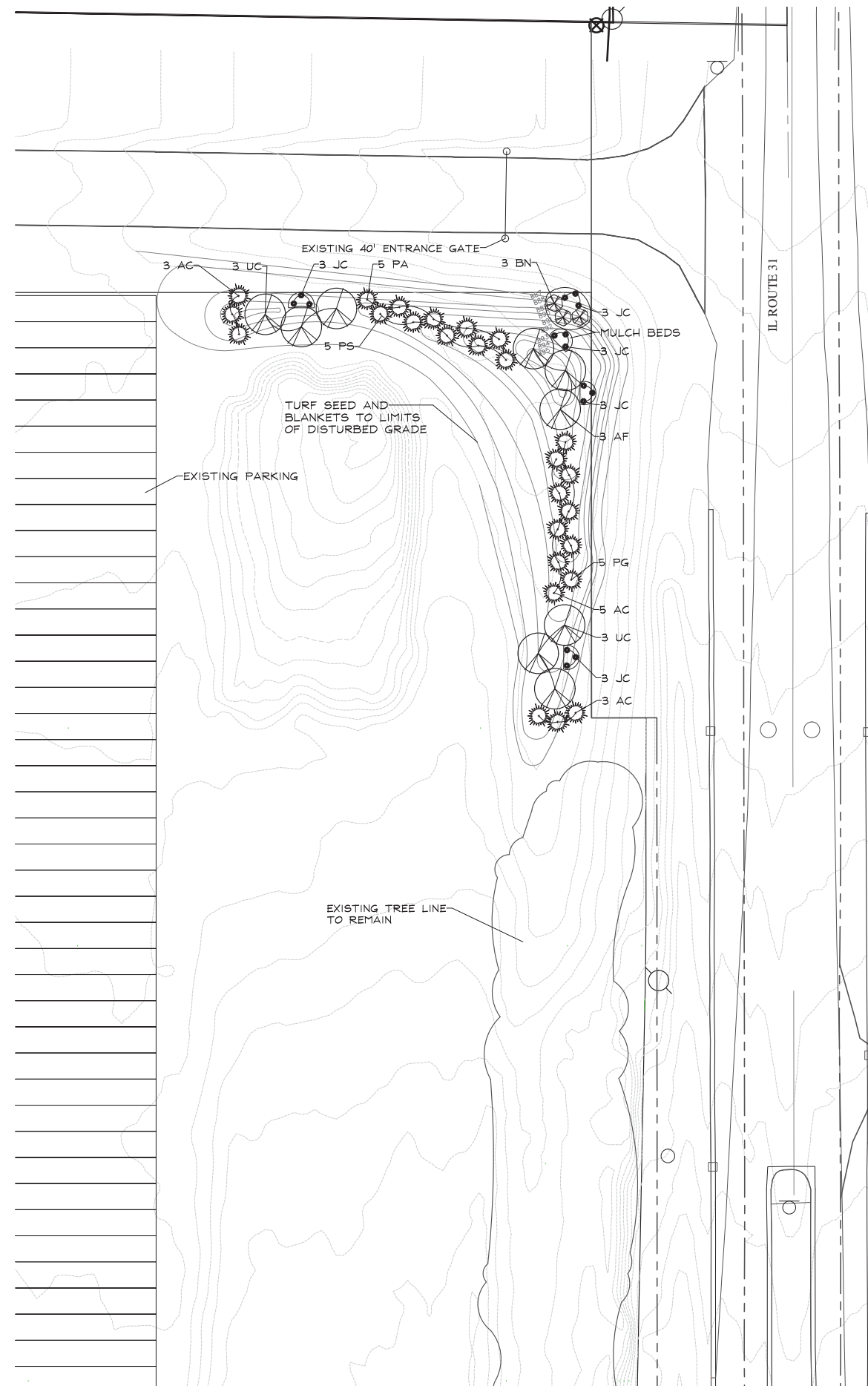
EVERGREEN TREES
NOT TO SCALE

PLANT LIST

Key	Qty	Botanical/Common Name	Size	Remarks
SHADE TREES				
AF	3	Acer x freemanii 'Jeffers Red' AUTUMN BLAZE MAPLE	2 1/2" Cal.	
UC	6	Ulmus carpinifolia 'New Horizon' NEW HORIZON SMOOTHLEAF ELM	2 1/2" Cal.	
ORNAMENTAL TREES				
BN	3	Betula nigra 'Cully' 6' Ht. HERITAGE RIVER BIRCH	6' Ht.	Multi-Stem
EVERGREEN TREES				
AC	11	Abies concolor WHITE FIR	8' Ht.	
PA	5	Picea abies NORWAY SPRUCE	8' Ht.	
PG	5	Picea glauca var. densata BLACK HILLS SPRUCE	8' Ht.	
PS	5	Pinus strobus EASTERN WHITE PINE	8' Ht.	
EVERGREEN SHRUBS				
JC	15	Juniperus chinensis 'Sea Green' SEA GREEN JUNIPER	30" Wide	5' O.C.
MISC. MATERIALS				
	14	SHREDDED HARDWOOD MULCH	C.Y.	
	0.3	TURF SEED & EROSION CONTROL BLANKET	AC.	

GENERAL LANDSCAPE NOTES

- Contractor shall verify underground utility lines and is responsible for any damage.
- Contractor shall verify all existing conditions in the field prior to construction and shall notify landscape architect of any variance.
- Material quantities shown are for contractors convenience only. The Contractor must verify all material and supply sufficient materials to complete the job per plan.
- The landscape architect reserves the right to inspect trees and shrubs either at place of growth or at site before planting, for compliance with requirements of variety, size and quality.
- Work shall conform to American Standard for Nursery Stock, State of Illinois Horticultural Standards, and Local Municipal requirements.
- Contractor shall secure and pay for all permits, fees, and inspections necessary for the proper execution of this work and comply with all codes applicable to this work.
- See General Conditions and Specifications for landscape work for additional requirements.



GR WA
GARY R. WEBER
ASSOCIATES, INC.
LAND PLANNING
ECOLOGICAL CONSULTING
LANDSCAPE ARCHITECTURE
402 W. LIBERTY DRIVE
WHEATON, ILLINOIS 60187
PHONE: 630-668-7197
www.grwainc.com

CLIENT
BLUFF CITY MATERIALS
8909 RT 31
LAKE IN THE HILLS, IL

8909 ROUTE 31
LAKE IN THE HILLS, ILLINOIS
LANDSCAPE BUFFER PLAN

REVISIONS

DATE 06.07.2024
PROJECT NO. BF2403
DRAWN ES
CHECKED
SHEET NO.
1 OF 2



LANDSCAPE WORK PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

The work shall consist of furnishing, transporting and installing all seeds, plants and other materials required for:

- 1. The establishment of trees, shrubs, perennial, annual and lawn areas as shown on Landscape Plan;
2. The provision of post-planting management as specified herein;
3. Any remedial operations necessary in conformance with the plans as specified in this document;
4. Permits which may be required.

1.2 QUALITY ASSURANCE

A. Work shall conform to State of Illinois Horticultural Standards and local municipal requirements.

B. Quality Control Procedures:

- 1. Ship landscape materials with certificates of inspection as required by governmental authorities. Comply with governing regulations applicable to landscape materials.
2. Do not make substitutions. If specified landscape material is not obtainable, submit to Landscape Architect proof of non-availability and proposal for use of equivalent material.
3. Analysis and Standards: Package standard products with manufacturer's certified analysis.

1.3 SUBMITTALS

A. Planting Schedule

Submit three (3) copies of the proposed planting schedule showing dates for each type of planting

B. Maintenance Instruction - Landscape Work

Submit two (2) copies of typewritten instructions recommending procedures to be established by the Owner for the maintenance of landscape work for one full year. Submit prior to expiration of required maintenance periods.

Instructions shall include: watering, fertilizing, spraying, mulching and pruning for plant material and trimming groundcover. Instructions for watering, fertilizing and mowing grass areas shall be provided ten (10) days prior to request for inspection for final acceptance. Landscape Architect shall receive copies of all instructions when issued.

C. Submit two (2) copies of soil test of existing topsoil with recommendations for soil additive requirement to Landscape Architect for review and written approval.

D. Submit two (2) samples of shredded hardwood bark mulch, erosion control blankets, and all other products and materials as specified on plans to Landscape Architect for review and written approval.

E. Nursery packing lists indicating the species and quantities of material installed must be provided to the Owner and/or City upon request.

1.4 JOB CONDITIONS

A. Examine and evaluate grades, soils and water levels. Observe the conditions under which work is to be performed and notify Landscape Architect of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

B. Utilities: Review underground utility location maps and plans; notify local utility location service; demonstrate an awareness of utility locations; and certify acceptance of liability for the protection of utilities during course of work. Contractor shall be responsible for any damage to utilities or property.

C. Excavation: When conditions detrimental to plant growth are encountered such as rubble fill, adverse drainage conditions or obstructions, notify Landscape Architect before planting.

1.5 GUARANTEES

A. Guarantee seeded and sodded areas through the specified maintenance period and until final acceptance.

B. Guarantee trees, shrubs, groundcover and perennials for a period of one year after date of acceptance against defects including death and unsatisfactory growth, except for defects resulting from neglect by Owner, abuse or damage by others or unusual phenomena or incidents which are beyond Landscape Installer's control.

LANDSCAPE WORK PART 2 - PLANT MATERIALS

2.1 LAWN SOD

Provide strongly rooted sod, not less than two (2) years old and free of weeds and undesirable native grasses. Provide only sod capable of growth and development when planted (viable, not dormant) and in strips not more than 18" wide x 4' long. Provide sod composed of a 5-way blend of Kentucky Bluegrass such as: Midnight, Allure, Viva, Washington, Liberty.

2.2 LAWN SEED MIXTURE

Grass Seed: Provide fresh, clean, new crop seed complying with the tolerance for purity and germination established by the Official Seed Analysts of North America. Provide seed of the grass species, proportions and maximum percentage of weed seed, as specified.

- A. Lawn Seed Mixture - 5 lbs./1,000 sq. ft.
50% Kentucky Bluegrass 98/85
15% Cutter Perennial Ryegrass
10% Spartan Hard Fescue
10% Edge Perennial Ryegrass
10% Express Perennial Ryegrass
5% Pennlawn Creeping Red Fescue

- B. Temporary Lawn Seed Mixture - 5 lbs./1,000 sq.ft.
40% Kentucky Bluegrass 98/85
40% Perennial Ryegrass
20% Annual Ryegrass

2.3 GROUNDCOVERS, PERENNIALS AND ANNUALS

Provide plants established and well-rooted in removable containers or integral peat pots and with not less than the minimum number and length of runners required by ANSI Z60.1 for the pot size shown or listed.

2.4 TREES AND SHRUBS

A. Name and Variety: Provide nursery grown plant material true to name and variety.

B. Quality: Provide trees, shrubs and other plants complying with the recommendations and requirements of ANSI Z60.1 "Standard for Nursery Stock" and as further specified.

C. Deciduous Trees: Provide trees of height and caliper listed or shown and with branching configuration recommended by ANSI Z60.1 for type and species required. Provide single stem trees except where special forms are shown or listed. Provide balled and burlapped (B&B) deciduous trees.

D. Deciduous Shrubs: Provide shrubs of the height shown or listed and with not less than the minimum number of canes required by ANSI Z60.1 for the type and height of shrub required. Provide balled and burlapped (B&B) deciduous shrubs.

E. Coniferous Evergreen: Provide evergreens of the sizes shown or listed. Dimensions indicate minimum spread for spreading and semi-spreading type evergreens and height for other types. Provide quality evergreens with well-balanced form complying with requirements for other size relationships to the primary dimension shown. Provide balled and burlapped (B&B) evergreen trees and containerized shrubs.

F. Inspection: All plants shall be subject to inspection and review at the place of growth or upon delivery and conformity to specification requirements as to quality, right of inspection and rejection upon delivery at the site or during the progress of the work for size and condition of balls or roots, diseases, insects and latent defects or injuries. Rejected plants shall be removed immediately from the site.

2.5 PLANTING SOIL MIXTURE

Provide planting soil mixture consisting of clean uncompacted topsoil (stockpiled at site) for all planting pits, perennial, annual and groundcover areas. Topsoil shall be conditioned based on any recommendations resulting from the soil test in I.3.C.

2.6 EROSION CONTROL

A. Lawn Seed Areas Erosion Control Blanket: North American Green DS75, or equivalent approved equal.

B. Native Areas Erosion Control Blanket: North American Green SI50, or equivalent approved equal.

2.7 MULCH

Provide mulch consisting of shredded hardwood. Provide sample to Landscape Architect for approval prior to ordering materials.

LANDSCAPE WORK PART 3 - EXECUTION

3.1 PLANTING SCHEDULE

At least thirty (30) days prior to the beginning of work in each area, submit a planting schedule for approval by the Landscape Architect.

3.2 PLANTINGS

A. Seeding New Lawns

1. Remove existing grass, vegetation and turf. Dispose of such material legally off-site. Do not turn over into soil being prepared for lawns.

2. Till to a depth of not less than 6"; apply soil amendments; remove high areas and fill in depressions; till soil to a homogenous mixture of fine texture, remove lumps, clods, stones over 1" diameter, roots and other extraneous matter. Dispose of such material legally off-site.

3. Seeded lawn areas shall receive an application of commercial fertilizer at the rate of 5 lbs. per 1,000 sq. ft. and shall be 6-24-24. Fertilizer shall be uniformly spread and mixed into the soil to a depth of 1" inches.

4. Do not use wet seed or seed which is moldy or otherwise damaged in transit or storage.

5. Sow seed using a spreader or seeding machine. Do not seed when wind velocity exceeds five (5) miles per hour. Distribute seed evenly over entire area by sowing equal quantity in two directions at right angles to each other.

6. Sow not less than specified rate.

7. Rake lawn seed lightly into top 1" of soil, roll lightly and water with a fine spray.

8. After the seeding operation is completed, spray a wood fiber mulch (Comweb 2000 with tacifier or approved equal) over the entire grassed area at the rate of 2,000 lbs. per acre. Use a mechanical spray unit to insure uniform coverage. Exercise care to protect buildings, automobiles and people during the application of the mulch.

B. Groundcover and Perennial Beds

1. Groundcover, perennials, and annuals shall be planted in continuous beds of planting soil mixture a minimum of 8" deep. Install per spacing indicated on plan.

C. Trees and Shrubs

1. Set balled and burlapped (B&B) stock plumb and in center of pit or trench with top of ball at an elevation that will keep the root flare exposed upon backfill and mulching. Remove burlap from top and sides of balls; retain on bottoms. When set, place additional topsoil backfill around base and sides of ball and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing final layer of backfill.

2. Dish top of backfill to allow for mulching. Provide additional backfill berm around edge of excavations to form shallow saucer to collect water.

3. Mulch pits, trenches and planted areas. Provide not less than 2" thickness of mulch and work into top of backfill and finish level with adjacent finish grades. Maintain exposed root flare at all times.

4. Prune only injured or dead branches from flowering trees, if any. Protect central leader of tree during shipping and pruning operations. Prune shrubs to retain natural character in accordance with standard horticultural practices.

5. Remove and replace excessively pruned or ill-formed stock resulting from improper pruning.

6. The Contractor shall be wholly responsible for assuring that all trees are planted in a vertical and plumb position and remain so throughout the life of this contract and guarantee period. Trees may or may not be staked and guyed depending upon the individual preference of the Contractor; however, any bracing procedure(s) must be approved by the Owner prior to its installation.

3.3 LANDSCAPE MAINTENANCE

A. Turf Maintenance

1. Mowing

a. All litter (i.e. paper, cans and bottles) will be removed from turf and plant bed areas prior to mowing.

b. All lawn areas will be mowed weekly to a height of 3" from April through November, or as needed. No more than 1/3 of the grass blade is to be removed per cutting. Mowing height may be seasonally adjusted depending upon weather conditions in order to reduce stress and promote healthy turf.

c. Mowing patterns shall be altered on a weekly basis wherever possible. Mowing patterns shall create straight lines for a more manicured appearance.

d. Clippings shall be bagged and removed when clipping buildup is such that the excess clipping lay in an unsightly matted condition on the lawn.

e. The turf shall be cut in such a manner as to avoid blowing clippings toward structures, patios, air conditioners, and planting beds.

f. If the turf could potentially be damaged by equipment due to weather, mowing should not be performed.

g. Turf bordering vertical surfaces such as foundations, fences, and utility boxes shall be trimmed to match the mowing height.

h. Clippings shall be removed from all pavement areas.

2. Edging

a. Turf areas adjacent to walks, driveways and curbing will be mechanically edged monthly in a uniform manner.

b. Shrub beds and tree rings shall be neatly and uniformly edged twice per year: once during the spring cleanup, and again in August or September weather permitting.

3. Fertilizer & Weed Control

a. Pesticides must be applied by a licensed individual.

b. Notice shall be given to the homeowners association or owner's representative 1 week prior to any pesticide application.

c. The lawn shall be fertilized three (3) times with a high quality granular or liquid formula. The applications should be made approximately in April, May and September. Timing, frequency and rate of application shall be adjusted to meet the development's current needs and conditions.

d. A pre-emergent weed control application for annual grass prevention shall be incorporated into the first turf fertilization in spring.

e. The entire turf area will be treated one (1) time with a post emergent broad leaf weed control at the appropriate time of year. Spot treatment should be done as necessary.

f. Flags shall be posted throughout the community following each fertilizer application. Remove flags once the application is dry or as directed by the product's label.

B. Planting Bed Maintenance

1. Pruning

a. Trees, shrubs and evergreens should be pruned, trimmed or sheared at the appropriate time for each species to maintain the plant's proper form. Methods and timing shall conform to standard horticultural practices. The initial spring pruning will include:

- 1. Removal of dead or injured limbs.
2. Removal of branches that are touching structures.
3. Shaping and internal thinning of the plant to allow for its natural form and habit.

b. Shrubs will be pruned two (2) additional times at the appropriate time so as not to interfere with flowering.

c. Trees over 6" in diameter will not be pruned other than removal of low branches hazardous to pedestrian traffic and sucker growth which

may occur.

d. Groundcovers should be pruned twice during the season to maintain a neat appearance.

e. Ornamental grasses should be trimmed during the spring cleanup.

f. All pruning debris shall be removed from the site by the contractor immediately after the work is complete.

2. Fertilizer & Weed Control

a. Pesticides must be applied by a licensed individual.

b. Notice shall be given to the homeowner's association 1 week prior to any pesticide application.

c. Pre-emergent weed control shall be applied at the beginning of the growing season.

d. Post emergent applications or hand pulling shall be used on any weeds that appear throughout the season.

e. Trees, shrubs and groundcover shall be fertilized one (1) time during the season. The application rate will be determined by the specific needs of the plant material.

C. Spring & Fall Cleanup

1. Spring Cleanup

a. Lawn areas and planting beds will be raked as necessary to remove leaves, dead branches, litter and debris.

b. All mulch beds shall be cultivated to break up any existing compaction in the mulch.

c. Fresh mulch should be applied to any bare spots in the planting beds.

d. Monitor plant health and notify homeowner's association or owner's representative of any dead plants.

e. Debris generated during the cleanup shall be disposed of legally off site.

2. Fall Cleanup

a. All lawn areas will have leaves removed either by raking or through the mowing process so as to prevent leaf buildup on the turf on a weekly basis.

b. All planting beds will have leaves and debris removed at the end of the season.

c. Perennials without winter interest shall be cut back.

d. Monitor plant health and notify homeowner's association or owner's representative of any dead plants.

e. Debris generated during the cleanup shall be disposed of legally off site.

3.4 CLEAN UP AND PROTECTION

A. During landscape work, store materials and equipment where directed. Keep pavements clean and work areas and adjoining areas in an orderly condition.

B. Protect landscape work and materials from damage due to landscape operations, operations by other trades and trespassers. Maintain protection during installation and maintenance periods. Treat, repair or replace damaged landscape work as directed by Landscape Architect.

3.5 INSPECTION AND ACCEPTANCE

A. The Landscape Architect reserves the right to inspect seeds, plants, trees and shrubs either at place of growth or at site before planting for compliance with requirements for name, variety, size, quantity, quality and mix proportion.

B. Supply written affidavit certifying composition of seed mixtures and integrity of plant materials with respect to species, variety and source.

C. Notify the Landscape Architect within five (5) days after completing initial and/or supplemental plantings in each area.

D. When the landscape work is completed, including maintenance, the Landscape Architect will, upon request, make a final inspection to determine acceptability. After final acceptance, the Owner will be responsible for maintenance.



GARY R. WEBER ASSOCIATES, INC. LAND PLANNING ECOLOGICAL CONSULTING LANDSCAPE ARCHITECTURE

402 W. LIBERTY DRIVE WHEATON, ILLINOIS 60187 PHONE: 630-668-7197 www.grwainc.com

BLUFF CITY MATERIALS 8909 RT 31 LAKE IN THE HILLS, IL

8909 ROUTE 31 LAKE IN THE HILLS, ILLINOIS LANDSCAPE BUFFER PLAN

REVISIONS

DATE 06.07.2024 PROJECT NO. BF2403 DRAWN ES CHECKED SHEET NO.



2 OF 2



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Turns

Google

Imagery ©2024 Google | Imagery ©2024 Airbus, Maxar Technologies, Map data ©2024 | Limited ©2024 Google | 100 ft

Job Name: | Scale: as noted | PROJECT #



RECEIVED

JUN 06 2024

Village of Lake in the Hills
Community Development

May 31, 2024

Mr. John Hunecke
Southwind Industries
2250 Southwind Boulevard
Bartlett, IL 60103

**Re: Interim Truck Parking Facility
Lake in the Hills, Illinois**

Dear Mr. Hunecke:

At your request, I conducted an investigation into available traffic data for Route 31 at the existing driveway entrance to the CCDD facility. As you may know, IDOT maintains an Average Annual Daily Traffic database, which in this case appears to be the best available information short of conducting a site specific traffic count.

For 2023, IDOT recorded an ADT of 20,500 vehicles on Route 31 at the site location. Of this total number of vehicles, they determined that 1,675 of those were heavy commercial vehicles. The heavy commercial vehicle breakdown consisted of 1,000 multi-unit trucks (semis) and 675 single unit trucks.

The interim truck parking site for which Village of Lake in the Hills zoning approval is being sought will exclusively utilize the existing Route 31 access driveway. That driveway was specifically designed, permitted and constructed in conjunction with IDOT widening and median construction on Route 31 starting in 2015 to serve truck traffic related to Southwind (then Reliable Materials) mining and CCDD operations at the site. As such the driveway geometrics and turn movements have already been vetted and approved by IDOT for semi truck traffic full access at that location and no physical changes to the driveway should be necessary.

I have enclosed a copy of the IDOT permits procured at that time as documentation of the above.

Should you have any questions, please contact me.

Sincerely,

Steven Kaminski, PE
Senior Project Manager

N:\2152\Correspondence\240531.TrafficVolumes.Hunecke.SRK.Itr.docx



Location:	IL Route 31 about 1700 +/- feet north of Trinity Drive			
Route:	IL 31	Section:	McHenry	
County:	McHenry	MS:	117	FE
Applicant/CO Applicant:	Reliable Materials Corporation			
Address:	2250 Southwind Boulevard Bartlett, IL 60103			
Contractor:	Same as above			
Address:				
Permit No:	1-T-14-0371	Date:	9/17/2014	Days: 180
File No.	056-62184	F/U:	3/16/2015	
Bond No.	9149283	Bond Amt.	\$20,000.00	
Bonding Company:	Washington International Insurance Company			

This permit authorizes you to proceed immediately with the work described as follows: the location, construction, operation and maintenance of proposed 35 foot HMA interim commercial access driveway to serve the existing Reliable Materials mining location along IL Route 31 in lake in the Hills, IL. about 1700 feet north of Trinity Drive. The permit will also include the removal of one existing access driveway as noted on the plans for the northerly immediately adjacent property also owned by Reliable Materials which will include internal cross access to the northerly property as shown on the approved plans. The permit will include 200 feet of 18 inch RCP culvert with flared end, parkway restoration in accordance with IDOT, and all other collateral work and appurtenances necessary to complete work in accordance with approved plans and applicable specifications. All work to serve Reliable Material Corporation of Bartlett, IL.

All work shall be done in conjunction with the ongoing IDOT contract and with the IDOT Bureaus of Design and Construction of which this permit work has been thoroughly coordinated with regard to Design and Construction. If in the future the sites served by this access every commercially redevelop, a new commercial access permit shall be required.

This permit is issued only with the express understanding that the Applicant has obtained the "proper" authority for the said installation from the I.E.P.A.

Sheeting or other approved protection and trench backfill shall be used in all excavations in the pavement area, shoulder area, where excavation is within 10' of the edge of pavement or below the 1 to 1 slope line extended from edge of pavement and where directed by a representative of this Department.

THERE ARE STATE ELECTRICAL FACILITIES ON THE FRONTAGE OF THIS PROPERTY. THE STATE'S ELECTRICAL MAINTENANCE CONTRACTOR, MEADE ELECTRIC CO. (773) 287 - 7600 MUST BE NOTIFIED 72 HOURS IN ADVANCE OF CONSTRUCTION.

Lighting shall be placed so as not to blind nor annoy approaching traffic.

The closure of one lane of IL Route 31 is authorized between the hours of 9 AM and 3 PM, Monday thru Friday, excluding holidays. Signs, barricades and flagpersons shall be utilized in accordance with State Standard 701606 or 701501 aqs applicable. The use of signs and barricades which do not conform with the attached Standard will be due cause for revocation of this permission and the immediate opening of all lanes of the particular roadway to all vehicular traffic.

There shall be steel plates on the job site, prior to any work on the pavement. These plates are to be large enough to cover the proposed pavement opening, and are to be placed over the pavement opening to keep the entire roadway open to traffic from 3:30 p.m. to 9:00 a.m. each day and all day on weekends, holidays and while the concrete pavement patch is curing. The steel plates shall be securely anchored and ramped with asphalt or placed flush with the existing pavement surface. "STEEL PLATES WILL NOT BE PERMITTED BETWEEN NOVEMBER 1 AND MAY 1 UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT".

Permit No. 1-T-14-0371

Beginning on the date that the Contractor begins work on this project, he shall assume responsibility for the normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for this work will be provided by the Contractor as required by the Engineer.

The construction area adjacent to the pavement edge must be properly barricaded overnight, on weekends, and on days when no work is being performed in accordance with State Standard 701326.

The above described installation and appurtenant structures thereto shall adhere in every detail to the marked and approved plan of record identified as **Exhibit "A"** attached hereto and made a part hereof.

The Applicant shall be responsible for ascertaining the correct location of property lines in connection with this permit.

The existing drainage of the highway must be preserved.

STATE FIELD ENGINEER AT (847) 705-4131 MUST BE NOTIFIED 72 HOURS IN ADVANCE OF ALL PHASES OF CONSTRUCTION.

The latest edition of the State Standard Specifications for Road and Bridge Construction, and amendments thereto, as they relate to the construction practice and quality of workmanship and materials, shall apply to this work except when modified by conditions, restrictions, and special provisions outlined in the attached Permit Specifications.

A satisfactory executed bond has been submitted to insure fulfillment of the obligations assumed under this permit.

The Applicant shall assume all liability for interference with existing utilities in, along, or upon said highway.

Signs or other advertising media placed by the Applicant, his contractor, his successors or assigns, shall not encroach upon nor overhand the State right of way.

After completion of the work, the line and grade of shoulders and ditches shall be restored to a condition equal to that existing before commencement of the work.

State right of way shall be graded and seeded, or sodded in accordance with any verbal instructions issued by State representatives.

The work authorized herein is subject to municipal and county requirements when not conflicting with Departmental minimum requirements.

UNDERTAKING ANY OF THE CONSTRUCTION AUTHORIZED HEREIN IS EVIDENCE OF CONCURRENCE WITH ALL THE TERMS OF THIS PERMISSION.

IN THE EVENT THIS PERMIT OR ANY SPECIFICATIONS CONTAINED HEREIN ARE NOT CLEAR, IT IS THE RESPONSIBILITY OF THE APPLICANT AND/OR CONTRACTOR TO CONTACT THIS OFFICE FOR CLARIFICATION.

cc: Traffic Field Engineer - D. Chiarugi
Maintenance Field Engineer - Woodstock Maint. Yard
Lake in the Hills
Ken Eng- Bureau of Design

Permit No. 1-T-14-0371



Illinois Department of Transportation

Highway Permit

District Serial No. 1-T-14-0371

Whereas, I (We) Reliable Materials Corporation of Illinois 2250 Southwind Blvd.
(Name of Applicant) (Mailing Address)

Bartlett Illinois hereinafter termed the Applicant,
(City) (State)

request permission and authority to do certain work herein described on the right-of-way of the State Highway known as _____ Route _____, Section _____, from Station _____ to Station _____ County. The work is described in detail on the attached plan or sketch and/or as follows:

ARROW BOARD MUST BE ON THE JOB SITE DURING ANY LANE CLOSURES

SEE PAGES ATTACHED HERETO AND MADE A PART OF THIS PERMIT

All work authorized by this permit shall be completed 180 days after the date this permit is approved, otherwise the permit becomes null and void.

This permit is subject to the conditions and restrictions printed on the reverse side of this sheet.

This permit is hereby accepted and its provisions agreed to this _____ day of _____

Witness [Signature]
Reliable Materials
Corporation of Illinois 2250 Southwind Blvd.
Mailing Address
Bartlett Illinois 60103
City State

Signed [Signature]
Reliable Materials Applicant
Corporation of Illinois 2250 Southwind Blvd.
Mailing Address
Bartlett Illinois 60103
City State

SIGN AND RETURN TO: Regional Engineer

Approved this 25th day of September, 2014

Department of Transportation

BY: [Signature]
Deputy Director of Highways, Regional Engineer