



October 1, 2026

OHM c/o Lodi Township
3755 Pleasant Lake Road
Ann Arbor, Michigan 48103

Attn: Hannah Firlit, Senior Planner

Re: Preliminary Site Plan and Special Land Use Application Review 1 Response
Frontier Club Golf Course

HRC Job No. 20260056

Dear Hannah:

The following are our responses to your letter dated August 28 2026;

This letter is regarding the preliminary site plans dated 8/03/2026. Our office has received these plans and identified several compliance concerns which must be addressed before plans are reviewed by the Planning Commission. While we will provide a comprehensive review of these plans, we wanted to share some of the more substantial deficiencies while the review is underway as comments may impact the overall layout of the site. Please understand that this is not an exhaustive list of all comments, but rather a summary of the more significant issues identified to date.

1. **Setbacks.** *Section 41.24 Recreational Facilities, Golf Courses, Golf Driving Ranges, and Campgrounds and Recreational Vehicle Parks* states that "Golf fairways, swimming pools, tennis courts, and similar uses shall comply with the greater of the required yard and setback requirements of the zoning district in which located or a minimum setback of 50 feet from any property line. Screening shall be provided per the requirements of *Section 55.09.D.*" The fairway setback standard includes "Similar Uses," which should apply to all portions of the hole area, including the tee and the green. The plans include tees and greens that are located within the fairway setback area.

Response: The plan has been revised to remove any encroachment into the fairway setback.

2. **Principal/Accessory Structures.** In order to address potential issues of interpretation of permissibility, we have recommended that the Township consider a Zoning Ordinance amendment that would further clarify and regulate on-site lodging as part of a golf course facility.
 - *Section 55.17 Accessory Structures* prohibits accessory structures from being used as sleeping quarters. If the proposed cabins are classified as accessory structures, this section appears to prohibit the applicant from providing cabins/lodging on site. Clarification within an ordinance amendment regarding classification of on-site lodging as principal accessory structures will help to prevent issues of interpretation.

Response: See response letter from Daniel C. Cramer dated September 14, 2026.

- As an alternative route, a Planned Unit Development application would allow the applicant to proceed with a proposal that provides relief from this regulation.

Response: We will continue with the preliminary site plan and special land use at this time.

3. **Living Quarters for Employees.** It appears there is lodging on the lower level of the clubhouse, shown in blue on the submitted floor plans. Further clarification is needed on this area, and if this is proposed

employee living quarters. The definition of "Accessory Dwelling" clarifies that any dwelling that is accessory to a principal use may not be permitted, with the exception of caretaker living quarters and farm labor housing. Caretaker living quarters are defined as living quarters designed to serve as the dwelling for an on-site caretaker, security, or manager responsible for watching over the site of the principal use. The regulations in *Section 40.05 Caretaker Living Quarters* specify that caretaker living quarters may only include the owner, operator, head of security, or manager. The proposed living quarters do not appear to meet the definition or standards relevant to Caretaker Living Quarters, and therefore, may not be permitted as an accessory use.

Response: See response letter from Daniel C. Cramer dated September 14, 2026.

4. **Sanitary Sewer Facilities.** The Zoning Ordinance prohibits Private Community Wastewater Systems, which are defined as "A facility for the transportation, collection, processing or treatment of sanitary sewage which is owned by a non-governmental entity and which is proposed to service more than one structure[...]" The plans currently propose a shared septic system that would fall under the definition of a Private Community Wastewater System.
 - It should be noted that the Township is currently considering a review of the applicable section of the Ordinance to determine if an amendment is appropriate, to address developments in which multiple buildings are served by a common treatment system under single ownership.

Response: If approved, a shared septic system will be used for sewage disposal on this site.

- The applicant may wish to provide information regarding the feasibility of the shared septic system and individual septic systems servicing each structure.

Response: A shared septic system is preferred to individual septic systems as it will be 1 system to be monitored versus multiple systems. We are currently reviewing the location of the drainfield with the Washtenaw County Sanitarian. Soil borings are being taken to determine the optimum location.

5. **Parking.**
 - **Setback.** An existing driveway is proposed to be maintained along the southern side yard. This driveway previously served a residential land use and was not required to meet the transition buffer standard. However, given the change in use, this driveway should be modified to comply with the parking lot setback or eliminated.

Response: This driveway will be used for a construction entrance and will be removed after construction.

- **Calculation.** The applicant's parking calculation includes parking spaces for the 18-hole and 12-hole golf course.
 - The driving range should be added to the calculation to meet the parking requirements. Driving range details, including the number of stations, shall be provided.

Response: The calculations have been added to provide landbanked parking for the driving range. This will be a private golf club and only people using the course will be able to use the driving range.

- Since clubhouses are included in the definition of golf courses, it is acceptable to exclude parking spaces for the dining and retail areas. However, the applicant shall confirm in the application narrative that these facilities will only be occupied by users of the golf course. If it is intended to hold events that are not related to the use of the golf course, such as weddings or other events, the applicant shall provide parking in accordance with the regulations for a restaurant.

Response: The clubhouse is only to be used for users of the golf club. There will not be any separate events.

6. **Maintenance Plan.** Section 41.24 Recreational Facilities, Golf Courses, Golf Driving Ranges, and Campgrounds and Recreational Vehicle Parks requires a maintenance plan to be submitted with applications for golf courses. The maintenance plan should identify the entity responsible for long-term maintenance, the funding sources available for long-term maintenance, and a detailed maintenance plan which shall include the best available practices for protection of abutting properties and the environment of the Township.

Response: The maintenance plan is attached.

7. **Natural Features.** As described in Section 54.08 Natural Features Protection and Preservation, the applicant is required to provide a natural features statement of Impact, Protection, and Mitigation, which includes an inventory of all trees greater than 6 DBH.
- **Steep Slopes.** The site includes several areas where there are steep slopes, defined as areas with a rise of 12% or more, having a vertical change in elevation of eight or more feet and a length of 30 feet or more. Although identified on the plans, the applicant did not provide a grading plan demonstrating whether slopes will be impacted as a part of the construction of this site. It should be noted that slopes of greater than 18% shall be excluded from development unless the developer presents an effective method for protective development of these slopes. Slopes of 40% or more shall be protected as key scenic assets.

Response: Minor volumes of cut and fill will be performed in both the golf course and building development areas. The site will balance on general earth work. Appropriate backfill materials for the structures, utilities, greens, and tees will be imported if not found on site. No grading is proposed on slopes exceeding 18%

- **Trees.** The tree inventory that was submitted includes an estimated number of trees, including estimated ratings of size and condition. However, the ordinance requires this information to be collected for individual trees (or groupings within a shared base elevation of 1'). This is especially important because many trees are proposed for removal, and a specific tree survey is necessary to calculate the required mitigation and identify landmark trees. The preliminary landscape plan does not detail the mitigation calculations but appears to include significantly fewer trees than would be necessary to mitigate for the proposed removals. It may be acceptable to identify trees that are outside of the development area and proposed to remain on-site using a canopy line, rather than a detailed survey.

Response: Trees were identified and tagged. Plan sheets have been provided to show the trees that are to be removed as a part of the project with calculations for the required amount of replacement trees.

- **Wetlands.** The ordinance includes preservation standards for wetlands in accordance with part 303 of the Natural Resources and Environmental Protection Act.
 - The applicant should distinguish which wetlands are regulated in accordance with part 303 of the Natural Resources and Environmental Protection Act. A 25' setback area is required around any such wetland area to prevent any land disturbance. A 50' setback is required around the wetland area for the construction of any buildings.

Response: Wetland impacts and setback disturbance are shown on the wetlands plans. A part 303 permit will be applied for with EGLE.

- Regulated wetland areas shall remain undisturbed and in their natural condition with natural vegetation. The applicant has proposed tree removal within portions of the site which appear to be part of a regulated wetland, which is noncompliant. In addition, although a grading plan has not been provided, it should be noted that land alterations within a regulated wetland or wetland setback is not permitted.

Response: Wetland impacts and setback disturbance are shown on the wetlands plans. A part 303 permit will be applied for with EGLE.

- **Other Natural Features Considerations.** In addition to the natural features conflicts listed above, the applicant should be aware of regulations surrounding groundwater recharge areas and areas of threatened or endangered species habitat, if applicable.

Response: Natural Features Impact, Protection and Mitigation Statement is shown on sheet C01

8. **Phasing.** If this is proposed as a phased development, the applicant shall provide phasing details in accordance with Section 44.10.

Response: The project will be constructed in one phase.

9. **Required Information.** Section 44.08 Required Site Plan Information details all required information relevant to preliminary site plan review. The following information was incomplete or missing from the proposed preliminary site plan:

- Applicants and developer's names, signatures, addresses, telephone, email, and interest in the property. This information was included in the application, but should be clearly labeled on the cover sheet of the site plan.

Response: All names are on the cover sheet

- Plans shall include the engineer's seal.

Response: Engineer's seal is on the cover sheet

- Although the applicant submitted an existing conditions sheet, a survey prepared by a registered surveyor must be provided.

Response: An ALTA survey has been included in the plan set

- Sheets must be scaled no greater than 1:50. Plans include sections scaled at 1:100.

Response: Plans sheets greater than 1:50 are key plans with separate 1:50 sheets

- Locations of structures, drives, and improvements on adjacent parcels (including across rights-of-way).

Response: These are shown on all plan sheets

- Lot coverage, total ground floor area, and floor area ratio.

Response: The areas and calculations are included on the site plan, sheet C01.

- Location, outline, ground floor area, and height of proposed structures. Details of the proposed "Restroom and food service" or "comfort station" between the 6th and 7th hole shall be provided. The height of all buildings shall be provided.

Response: These plans have been included in the plan set.

- The separation distance between adjacent buildings, particularly the cabins, and pro-shop, shall be provided.

Response: The enlarged site plans have been labeled with distances as required.

- Detailed, scaled, elevation drawings for all proposed principal buildings with types, colors, and dimensions of wall materials.

Response: These plans have been included in the plan set.

- Locations, layout, surface type, centerlines, road pavement and right-of-way widths for all roads serving the sites.

Response: This is shown on the plans

- Any proposed pedestrian paths serving the site.

Response: No paths are serving the site.

- Dimensions of vehicle access points and widths between adjacent access points or opposing driveways and road intersections.

Response: This has been labeled on the site plans

- A Natural Features Determination, with a general description and preliminary delineation of existing natural features on and abutting the site, per *Section 54.08 Natural Features Protection and Preservation*.

Response: Natural features plans have been included to show slopes, trees and wetlands.

- Size of detention ponds shall be provided.

Response: This has been added to the utility plans

- Information on areas of intended filling or cutting.

Response: Minor volumes of cut and fill will be performed in both the golf course and building development areas. The site will balance on general earth work. Appropriate backfill materials for the structures, utilities, greens, and tees will be imported if not found on site. No grading is proposed on slopes exceeding 18%

Enclosed are eight (8) sets of 24 by 36 inch, seven (7) sets of 12 by 18 and seven (7) sets of 8.5 by 11 inch plans and maintenance.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



Matthew G. Slicker, P.E.
Senior Associate

MGS/nf

Attachment

pc: Lodi Township, Jacob Schiable, Twp. Supervisor, Christina Smith, Twp. Clerk
OHM; Julia Upfal, Marcus McNamara, MC Moritz
Frontier Club Golf Course; Scott Kovanda
HRC; File

FRONTIER CLUB

Lodi Township, Michigan

GOLF COURSE MAINTENANCE & AGRONOMIC PLAN

Sustaining Tournament-Level Conditions Every Day of the Golf Season

A Gil Hanse Design

Prepared for: Frontier Club Grounds & Agronomy Department
Document Version 1.0

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OCT 01 2026
Lodi Township

Table of Contents

1. Executive Summary & Purpose

Frontier Club is an ultra-private, invitation-only club limited to a small membership of founding members, set on rolling farmland and woodland terrain in Lodi Township, southwest of Ann Arbor. With no outside events, no public access, and an intentionally small membership, the club's defining agronomic advantage — and its defining agronomic obligation — is the same: every day the course is open, it should present at the level most clubs reserve for a single championship week.

This plan establishes the standards, cultural programs, and staffing model required to deliver that standard continuously across the Michigan golf season, and to protect the course through the long, cold Southeast Michigan winter so it re-emerges at the same standard each spring. Because Frontier Club's round volume will be a fraction of a typical private club's, the traffic-related constraints that force most superintendents to compromise between "playable" and "tournament-ready" are far less binding here — the plan is written accordingly, treating the tournament-level target as the daily baseline rather than an occasional peak.

The plan is built around four pillars:

- Consistency — every green, fairway, and bunker performs the same way, every round, all season.
- Firmness & Speed — surfaces are managed for firm, fast, ground-game golf consistent with a Hanse design philosophy, not for maximum growth or color.
- Plant Health Under a Short Season — Michigan's compressed growing window means recovery windows are tighter and winter protection is not optional; agronomic decisions protect the plant first so cosmetic management is sustainable.
- Documentation — every input, reading, and observation is logged so decisions are data-driven and repeatable year over year.

NOTE: Frontier Club is under development, with course construction and grow-in targeted ahead of a planned opening. This document is written as the mature, steady-state maintenance program for a fully grown-in course; Section 3 addresses the grow-in and establishment period that precedes it. Turfgrass selections, exact acreage, and irrigation infrastructure referenced throughout should be confirmed against final construction documents and the design/agronomy team's specifications as the project progresses.

2. Site, Climate & Design Context

2.1 Site Character

The property sits on the rolling farmland of Lodi Township where open agricultural land merges with wooded sections — terrain Gil Hanse has specifically cited for its variety. Soils in this part of Washtenaw County range from sandy loam to heavier glacial till depending on exact location on the property; a full soil survey and rootzone construction plan (USGA-spec greens strongly recommended) should be finalized during construction to confirm drainage characteristics and any need for imported sand or amendment, since firm-and-fast presentation depends as much on what's under the turf as on what's done to it afterward.

2.2 Climate & Season

Factor	Frontier Club / Ann Arbor Region
USDA Hardiness Zone	6a (avg. annual extreme minimum -10°F to -5°F)
Climate type	Humid continental — cold, snowy winters; warm, humid summers
Active golf season	Approx. mid/late April through late October–early November (roughly 190–200 days)
Primary growing season (turf)	Late April through mid-October; shoulder growth in March/November is limited

Factor	Frontier Club / Ann Arbor Region
Winter risk factors	Ice encasement, crown hydration/desiccation, snow mold pressure under persistent snow cover
Summer stress period	Mid-July through August — heat/humidity stress on cool-season turf, peak disease pressure

2.3 Design Philosophy Alignment

Hanse's body of work is defined by firm, fast, minimalist presentation — width off the tee, ground-game recovery options around greens, naturalized rough and waste areas rather than manicured ornamental rough, and greens built to reward a running shot. The maintenance program below is written to support that intent: it favors firmness and speed management over color and growth, native/fescue rough over high-input bluegrass rough, and rugged, sand-flashed bunker edges over hard, manufactured lines.

3. Grow-In & Establishment Phase (Pre-Opening)

Before the steady-state program in Sections 4 onward applies, the course must be established. Key phases:

- Rootzone verification & grow-in agronomy plan finalized with the design/build team and an independent agronomist before seed/sprig/sod goes down.
- Establishment fertility program (starter fertilizer, mycorrhizae/biostimulants) calibrated to seed vs. sod vs. sprig method chosen for each turf area.
- Staged opening of playing surfaces — greens and tees typically require 12–18+ months of maturation before sustaining tournament-level HOC and firmness; fairways and rough mature faster.
- First full winter after grow-in is the highest-risk period for winterkill; immature turf requires covers/blankets on greens and a conservative, protective approach rather than aggressive fall HOC reduction in year one.
- Staffing and equipment fleet should be substantially in place at least one full season before member play begins, so the crew has a season of local experience with the specific microclimates of the property before it matters.

4. Recommended Turfgrass Selections

Final selections rest with the design and agronomy team, but the following cool-season program is consistent with both the Zone 6a Michigan climate and a Hanse-style firm-and-fast design intent:

Area	Recommended Turf	Rationale
Greens	Creeping bentgrass (modern low-organic-matter cultivar, e.g. A1/A4/007/Pure Distinction families)	Tolerates low HOC and high firmness targets; well-proven in Michigan climate
Fairways & Tees	Creeping bentgrass, or bent/fine fescue blend on drier, sandier sections	Firm, tight lies consistent with ground-game design intent; fescue blend reduces inputs on well-drained areas
Primary Rough	Fine fescue (blend of Chewings/hard/sheep fescue)	Low-input, wispy, ball-findable rough consistent with Hanse aesthetic; drought- and shade-tolerant
Naturalized/Waste Areas	Native fescue and regional prairie grasses, unmown or infrequently mown	Minimal maintenance, strong visual contrast, supports minimalist design intent

5. Target Performance Standards

Because Frontier Club's round volume is a fraction of a typical private club, wear-related compromises that force most courses into a two-tier "daily vs. tournament" standard are largely removed. The targets below are the daily, season-long baseline. "Marquee Day" targets (member finals, board visits, notable guests) tighten further and are addressed in Section 12.

Metric	Daily Standard (Season-Long)	Marquee Day Target	Measurement Tool
Green speed (Stimpmeter)	11.5 – 12.5 ft	12.5 – 13.5 ft	Stimpmeter, 3 readings/green
Green firmness (Clegg/TruFirm)	120 – 135 gravities	130 – 145 gravities	Clegg Impact Hammer / TruFirm
Green moisture (VWC)	16 – 22%	14 – 18%	TDR moisture meter, 8+ pts/green
Fairway height of cut	0.375" – 0.425"	0.350" – 0.375"	Bench setting + prism gauge check
Green height of cut	0.100" – 0.115"	0.095" – 0.105"	Bench setting + prism gauge check
Fine fescue rough height	2.0" – 3.0", allowed to move in wind	Same	Bench setting + visual check
Bunker sand depth	3" – 4" (floor), 2" (face)	Same, raked to spec	Sand depth probe
Green organic matter (0–3")	< 4.0% by weight	< 4.0%	Lab test, quarterly

6. Organization & Staffing

Low round volume does not reduce the labor required per acre for tournament-level detail — hand-raking, hand-mowing, and hand-watering scale with acreage and standard, not with rounds played. Staffing below reflects a boutique, detail-heavy operation rather than a high-volume daily-fee model.

Role	Responsibility	Headcount
Director of Golf Course Operations / Superintendent	Agronomic program, budget, staffing, board/member liaison	1
Assistant Superintendent	Daily crew supervision, spray program execution, data logging	1 – 2
Equipment Manager / Mechanic	Reel/bedknife grinding, HOC calibration, fleet maintenance	1
Irrigation Technician	System audits, head repair, hand-water/syringe decisions	1
Spray Technician (licensed)	Pesticide/fertilizer/PGR applications	1 – 2
Greens/Tees/Fairway Mower Operators	Daily mowing, rolling	5 – 7
Bunker & Detail Crew	Hand-raking, edging, divot mix, naturalized-area management	3 – 5
Seasonal/General Labor	Cultural practices, landscaping, storm cleanup	3 – 5

6.1 Training & Standards

- All operators certified on mower setup, HOC verification, and cutting-pattern technique before solo operation on the property.
- Weekly staff meeting reviewing the 7-day forecast, spray plan, member/guest play schedule, and any presentation notes from the prior week.
- Daily pre-shift briefing assigning cutting patterns, rotation direction, and any marquee-day setup requirements.

7. Mowing Program

Area	Height of Cut (Growing Season)	Frequency	Equipment
Greens	0.100" – 0.115" (0.095" marquee days)	Daily, AM; double-cut or cut+roll marquee days	Walk-behind greens mower
Collars/Approaches	0.250" – 0.300"	3x/week	Walk-behind or triplex
Tees	0.350" – 0.400"	3x/week	Triplex or walk-behind
Fairways	0.375" – 0.425" (0.350" marquee days)	Daily to 5x/week, alternating pattern	Fairway reel mower
Fine Fescue Rough	2.0" – 3.0"	1 – 2x/week (fescue is lower-growth than bluegrass)	Rotary rough mower
Naturalized/Waste Areas	Unmown, or seasonal cutback (fall)	1 – 2x/year	Rotary flail

- Alternate mowing direction daily on greens, tees, and fairways to prevent grain and wear patterning.
- Change cup and tee-marker locations daily, even on low-traffic days, to keep wear evenly distributed across a small membership's repeat play patterns.
- Sharpen/back-lap greens reels daily to weekly; full relief grind every 5–7 days — dull reels blur the speed/firmness consistency the club is built around.
- Verify HOC with a prism gauge each morning before the first unit leaves the shop.

8. Irrigation Management

- Irrigate overnight for plant survival and root-zone recharge only; manage daytime surface firmness with hand-watering and syringing, not automatic daytime cycles.
- Use TDR soil moisture meters at 8+ points per green each morning to guide hand-water decisions rather than irrigating on a fixed schedule.
- Full system audit each spring before startup and again mid-summer; Michigan's freeze-thaw cycle makes a pre-season leak/head check essential every year, not optional.
- Maintain a wilt-response hand crew during the July–August stress window.

Season	Strategy
Spring startup (mid–late April)	System startup and full audit before first watering cycle; deep, infrequent irrigation as growth resumes to encourage rooting.
Summer / Peak Stress (July–Aug)	Light, frequent midday syringing to cool canopy; deep overnight watering based on TDR data; monitor for localized dry spots and treat with wetting agents.
Fall (Sept–Oct)	Taper volume as growth slows; final deep watering before shutdown.
Winter shutdown (Nov)	Full blow-out of irrigation lines ahead of hard freeze — mandatory in this climate to prevent line/head damage.

9. Fertility & Nutrition Program

Nutrition is timed to Michigan's compressed season: a shorter window for both spring green-up and fall recovery than warmer-climate courses, and a critical late-fall application for winter hardiness ahead of a long dormant period.

Period	N Rate (lbs/1,000 sq ft)	Program Notes
Late April – May (green-up)	0.10 – 0.15 / app, biweekly	Light spoon-feeding as growth resumes; foliar-weighted, avoid flush growth.
June	0.10 / app, weekly	Spoon-feed with foliar N + iron for color/density without softening surfaces.
July – Aug (Summer Stress)	0.05 – 0.10 / app, weekly	Reduced N; emphasis on K, Fe, biostimulants, and PGRs for heat/humidity stress tolerance.
September	0.15 – 0.20 / app, biweekly	Recovery push as temperatures moderate and growth resumes.
Late Oct – Nov (critical)	0.50 – 0.75 (late-season K-heavy app)	Potassium-heavy final fertilization for winter hardiness — timing this correctly is one of the highest-leverage decisions of the year in this climate.
Total Annual N (greens)	≈ 2.5 – 3.0 lbs/1,000 sq ft	Compressed into a shorter season than warmer-climate programs; split across 12–16 light applications.

9.1 Plant Growth Regulators

- Apply PGRs on a Growing Degree Day (GDD) model tuned to Michigan's cooler accumulation rate, not a fixed calendar.
- Use PGRs to redirect energy into root and lateral growth, supporting the density and firmness the design intent depends on.

9.2 Soil & Tissue Testing

- Full soil test each spring and fall; monitor pH given SE Michigan's variable glacial-till soils.
- Tissue nutrient analysis monthly during the growing season.

10. Aerification, Topdressing & Cultural Practices

Practice	Timing	Purpose
Core aeration (greens)	Late May and early September, 5/8" tines	Organic matter dilution, gas exchange, compaction relief — timed around, not during, summer stress
Solid/needle tine venting	Monthly (biweekly June–Aug)	Relieve compaction with minimal surface disruption
Deep-tine aeration	1x/year, early fall, 8–10" depth	Fracture deeper compaction, improve drainage ahead of winter
Core aeration (fairways/tees)	1x/year, September	Organic matter and compaction management with maximum recovery time before winter

- Light, frequent sand topdressing on greens every 7–14 days during the growing season to dilute thatch and smooth surfaces.
- Roll greens 3–5x per week (daily on marquee days) to add smoothness and speed without lowering HOC further.

11. Integrated Pest, Disease & Weed Management

Southeast Michigan's humid summers and long, snow-covered winters create a distinct disease pressure profile that the spray program is built around.

11.1 Growing-Season Disease Pressure

- Dollar spot — the primary season-long pressure in this region; preventive fungicide program on greens/fairways triggered by the Smith-Kerns model rather than a fixed calendar.
- Brown patch and Pythium — elevated risk during the humid July–August stress window; preventive coverage timed to heat/humidity forecasts.
- Anthracnose — monitor closely on low-HOC greens under summer stress; avoid compounding stress with excess N or scalping during high-risk windows.

11.2 Winter Disease — Critical for This Climate

- Snow mold (both *Microdochium*/pink and *Typhula*/gray snow mold) is a major risk under Michigan's persistent snow cover; apply a preventive late-fall fungicide application timed to just before permanent snow cover, not a fixed date.
- Consider breathable turf covers on greens through the highest-risk winter months, particularly in the first winters after grow-in.

11.3 Insects & Weeds

- Monitor for white grubs (Japanese beetle) and European chafer via soil sampling; treat curatively only when thresholds are exceeded.
- Pre-emergent crabgrass control timed to Michigan soil-temperature thresholds (typically early-to-mid May); spot-treat broadleaf weeds rather than blanket-spraying.
- Rotate fungicide/insecticide chemical classes (FRAC/IRAC codes) each application to prevent resistance.
- Maintain a spray log with product, rate, weather conditions, and target for every application.

12. Sustaining Peak Conditions for Member & Marquee Play

Frontier Club hosts no outside events, so there is no single tournament week to prepare for — instead, the operating philosophy is that every playing day meets the standard most clubs reserve for one week a year. The practices below describe how that daily standard is sustained, and what tightens further for marquee occasions (a full field of founding members, board visits, or notable guest rounds).

Occasion Type	Presentation Approach
Standard member day	Full daily standard from Section 5 applied without exception — double-cut greens as standard practice given low round volume, not reserved for special occasions.
Marquee day (board visit, notable guest, member gathering)	Additional pass on bunker edging and hand-raking the morning of; tightened HOC per Section 5 Marquee targets; superintendent walks the course pre-round.
Off-season / shoulder weeks (early April, late Oct–Nov)	Presentation standards relax gradually as growth slows; communicated to members as part of the club's transparent seasonal rhythm rather than treated as a lapse.

13. Bunker Maintenance

Consistent with Hanse's rugged, naturalistic bunkering style, edges should read as sand-flashed and organic rather than sharply manufactured.

- Hand-rake all bunkers daily — low round volume makes 100% hand-raking practical here in a way it often isn't at higher-volume clubs.
- Maintain natural, irregular edge lines consistent with the design intent rather than crisp geometric cuts; edge on a longer cycle (14–21 days) to preserve the rugged look.
- Maintain sand depth at 3–4" on floors and 2" on faces; inspect after every rain event for washouts, which are more likely on the property's rolling terrain.
- Inspect and clear bunker drainage after every rain event.

14. Trees, Naturalized Areas & Infrastructure

- Selective pruning at the farmland/woodland edges to preserve sightlines and airflow to greens without erasing the terrain variety Hanse specifically cited in the design.
- Manage naturalized fescue and prairie areas with a single annual fall cutback rather than routine mowing, preserving the minimalist aesthetic and lowering input costs.
- Inspect all catch basins, French drains, and low-point outlets monthly and after major storms — the rolling terrain increases the importance of functioning surface drainage.
- Given the region's variable glacial-till soils, prioritize drainage inspection on any greens or fairway sections built over heavier clay pockets identified during construction.

15. Quality Control, Monitoring & Documentation

- Daily data log: green speed, firmness, and moisture on a rotation covering every green at least 3x/week — feasible given low play volume, and a meaningful differentiator from higher-volume clubs.
- Weekly agronomic report to ownership/board summarizing conditions, upcoming cultural work, and any weather or disease-pressure concerns.
- Photographic record of greens, bunkers, and naturalized areas weekly to track seasonal and year-over-year trends, particularly through the first several grow-in seasons.
- Member feedback log reviewed weekly given the direct relationship a small membership has with the agronomy team.
- Annual budget review comparing actual water, fertilizer, labor, and chemical usage against plan.

16. Equipment & Fleet Standards

- Daily inspection checklist for every mower: bedknife-to-reel contact, HOC verification, blade sharpness, fluid levels, tire pressure.
- Reel grinding on a fixed rotation — daily to weekly touch-ups, full relief grind every 4–6 weeks.
- Maintain a backup unit for every critical mowing category so a single breakdown never delays the morning setup window.
- Calibrate sprayers and spreaders each season and after any nozzle/tip change.
- Winterize all fuel-and-fluid systems on outdoor equipment ahead of the Michigan winter shutdown.

17. Budget Considerations

A boutique, low-round, high-standard operation like Frontier Club carries a materially different cost profile than either a standard private club or a high-volume daily-fee course: labor cost per round will be exceptionally high (by design), while wear-and-tear-driven costs (mower replacement frequency, topdressing volume tied to traffic, cart path repair) will be lower than a comparable-acreage club with a full membership and daily outside play.

- Labor — the dominant cost driver; full hand-raking, daily double-cutting, and 100% hand-watering as standard practice (not exception) require more labor hours per acre than a conventional private club.
- Winter protection — turf covers, blowout/winterization labor, and late-fall fungicide coverage are a recurring, non-optional cost specific to this climate.
- Chemical/fertilizer inputs — the dollar spot and snow mold-focused program is a significant recurring cost, partially offset by the low-input fine fescue rough and naturalized areas.
- Equipment — a full-size fleet is still required to maintain championship HOC across all acreage despite low play volume; equipment wear will track less with rounds played than with total maintained acreage.

Exact figures should be built from current Washtenaw County labor rates and regional input costs against the frequencies specified above, and refined once actual acreage is finalized in construction documents.

— End of Maintenance Plan —