Department of Administrative Services

KIM REYNOLDS, GOVERNOR
ADAM GREGG, LT. GOVERNOR

ADAM STEEN, DIRECTOR

3/20/2025

To: All Potential Respondents
From: Construction Procurement
Subject: RFQ941700-01 Golf Pro Shop Concrete Replacement

Request for Quote

The State of Iowa is conducting a Request for Quote for a contractor to remove and replace the concrete patio, improve drainage around building and final grading for landscaping to be planted by others around the Honey Creek Resort Golf Pro Shop in Moravia, Iowa. See Exhibit B and C for additional detail.

The exterior improvements shall be completed no later than May 14th, 2025.

The Project is located at Honey Creek Resort, 12633 Resort Drive, Moravia, IA 52571.

Please email your quote using the Exhibit A pricing form to construction.procurement@iowa.gov prior to April 1th, 2025 at 02:00PM (CT).

All questions regarding this solicitation must be received by email to construction.procurement@iowa.gov by 2:00PM (CT) ON March 26th, 2025.

Contract Terms and Conditions
This procurement will result in a Purchase Order. By submitting a quote, respondent agrees to the contract terms and conditions available at:
https://das.iowa.gov/sites/default/files/procurement/pdf/050116%20terms%20services.pdf

Performance Bond

No Performance and Payment Bond will be required.

Insurance Requirements

See sample Certificate of Insurance attached as Exhibit D for required limits, additional insured requirements and waiver of subrogation.

Warranty
Respondent must provide a one-year warranty from the date of completion.

Exhibit A Pricing Form
Honey Creek Resort Golf Pro Shop Concrete Replacement
Honey Creek Resort
Request for Quote RFQ941700-01

Due Tuesday, 04/01/25 at 02:00 PM (CT)

Please submit this completed form with your Quote to:
Attention: Michael Bradbury
Iowa Department of Administrative Services - Central Procurement
construction.procurement@iowa.gov

This form is to be completed in ink or typewritten.
Only pricing on this form or an exact copy of this form will be accepted.
Pricing Form shall be signed by an officer of the firm with authority to bind Respondent to Contract.

Respondent acknowledges receipt of the following Addenda (if issued) which are part of the RFQ documents:

Addendum No. _____Date_____

Addendum No._____ Date _____

Freight Terms: FOB Destination, Freight Pre-Paid

The State reserves the right to reject any or all quotes without penalty and to waive minor deficiencies and informalities if, in the judgement of the State, it's best interests will be served.

Respondents must submit pricing for all scope of work items indicated per the attached Exhibit B. The State reserves the right to evaluate pricing. The State intends to make one Award for this project.

Lump Sum Price for HCR Golf Pro Shop Concrete Replacement

Labor & Material Total $_____

Please note all pricing is to be delivered price. That is why we are stating FOB Destination, Freight Pre-Paid.

Signature _____

Name (Print) _____

Title _____

Company _____

Address _____

City, St., Zip _____

Phone #_____ **Fax #**_____

E-mail _____

Exhibit B Scope of Work

Honey Creek Resort Golf Pro Shop Concrete Replacement
Honey Creek Resort
Request for Quote RFQ941700-01

Due Tuesday, 04/01/25 at 02:00 PM (CT)

Description: Includes all drawings in Exhibit C and all specification sections, including but not limited to removal and replacement of the concrete patio and sidewalk, installation of drainage tile to storm sewer, grading around building to insure proper drainage and final grading to prepare for planting around the Honey Creek Resort Golf Pro Shop.

Landscaping materials, mulch, rock and plants will be provided and installed by others.

1. The Contractor's Work includes all labor, supervision, materials, equipment, services, supplies, tools, facilities, transportation, hoisting, storage, receiving, licenses, inspections, certifications, overhead, profit, or other items required or reasonably inferable to properly and timely perform and complete all work and services to be performed by the Contractor pursuant to this Agreement. Unless specifically stated otherwise, incidental work required to accomplish the work of this Bid Package shall be included the bid. This would include, but not be limited to, temporary facilities, protection of the work, security of equipment, materials, and work in progress, etc. Contractor's Work shall be performed in accordance with the Drawings and Specifications.
2. Contractor is responsible for all labor and equipment to unload, account for all material delivered, stock, and delivery for this scope of work. Storage and delivery of materials and equipment at the Site shall be permitted only to the extent approved in advance by the Construction Manager, and if anything so stored obstructs the progress of any portion of the work, it shall be promptly removed or relocated by the Contractor without reimbursement.
3. On site supervision by Prime Contractor at all times work by that contractor or their subcontractors/suppliers is taking place.
4. Provide all temporary facilities required for this scope of work including trailer, trailer power, telephone, secured storage, temporary power for work, temporary and task lighting for work, etc. as determined necessary by Contractor. Coordinate location of trailers, material storage and utility lines with Construction Manager. Limited space is available, and permission to bring any such facility or excess materials on to the site shall be approved by the Construction Manager.
5. Contractor shall provide all equipment and tools for Contractor's own cleanup. Clean up shall be done at end of every shift or more frequently if required for the Contractor to perform their work, for other Contractors to perform their work, as required by the Owner's operations, and at the discretion of the Construction Manager.
6. All turf, landscaping, and subgrade disturbances caused by equipment traffic or other activities related to the Contractor's scope shall be repaired or restored to proper conditions by the owner, but the contractor is responsible to minimize any damage caused to the facility's landscaping.
7. Protect adjacent existing building elements from damage from Scope of work. Repair existing building elements damaged during Contractor's Scope of work.

Quote Scope Summary – Bid Package #01
Includes Divisions 00-33 & Drawings C0.1-L1.1

Specifications

- 00 0107 – Seals Page
- 02 4100 – Demolition
- 31 2000 – Earthwork
- 31 2200 – Grading
- 31 2316 – Excavation
- 31 2323 – Fill
- 31 2513 – Erosion Control
- 32 1313 – Concrete Paving
- 32 9219 – Seeding
- 33 4100 – Storm Drainage

Architectural Drawings

- CO – Cover Page
- C0.1 – Civil Legends and Notes
- C1.1 – Civil Site Plan and Details
- L1.1 – Landscape Planting Plan

SECTION 00 0107
SEALS PAGE

The portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed Civil Engineer under the laws of the State of Iowa.

SIGNATURE:

NAME: R. Brandon Lott

DATE: 03-10-2025

LICENSE EXPIRES: 12-31-2025

SEAL

END OF SECTION

END OF SECTION

SECTION 02 4100

DEMOLITION

PART 1 – GENERAL

1.1 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
B. Section 01 3000 - Administrative Requirements: Submittal procedures, project meetings, progress schedules and documentation, reports, coordination.

1.2 SUMMARY

A. Section includes:
   1. Demolition and removal of pavement as indicated in the plans.
   2. Cap and identify active utilities as indicated in the plans.
B. Related Sections:
   1. Section 31 20 00: Earth Moving

1.3 DESCRIPTION OF WORK

A. Removing and disposing of existing concrete.

1.4 SUBMITTALS

A. Demolition procedures and operational sequence for review and acceptance by Contracting Officer.
B. See Section 01 3000 - Administrative Requirements, for submittal procedures.

1.5 EXISTING CONDITIONS

A. Identify existing conditions and become familiar with the major demolition work.

1.6 PROTECTION

A. Do not interfere with use of adjacent buildings not in contract. Maintain free and safe passage to and from.
B. Prevent movement, settlement, or collapse of adjacent structure(s) and services. Provide and place bracing or shoring and be responsible for safety and support.
C. Cease operations and notify the Contracting Officer immediately if the safety of any structure appears to be endangered. Take precautions to properly support structure. Do not resume operations until safety is restored.
D. Provide, erect, and maintain barricades, lighting, and guard rails, as required, to protect occupants of building and workers.
E. Protect existing sidewalks, drives, curbs, utilities, and other features or facilities on or adjacent to the site from damage from the work of this Section where such items are to remain.
F. Locate all existing active utility lines traversing the work area and determine the requirements for their protection.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Except where noted otherwise, maintain possession of materials being demolished and immediately remove from site.
B. Carefully remove designated materials and equipment noted to be delivered to Owner. Deliver and store where directed by the Contracting Officer.

C. Carefully remove materials and equipment, to be re-used per Project requirements. Store and protect as required.

PART 3 – EXECUTION

3.1 PREPARATION

A. Survey: Before any work is started, Contractor shall make a thorough survey, with the Construction Manager, of where alterations will occur and exterior areas which are anticipated routes of access, and submit a signed report to the Construction Manager. This report shall list by spaces and areas:
   1. Existence and conditions of items, such as equipment and other items required by Drawings to be either reused or relocated or both.
   2. Shall note any discrepancies between Drawings and existing conditions at site.
   3. Shall designate areas for working space, material storage and routes of access to areas where alterations occur, and which have been agreed upon by Contractor and the Construction Manager.
   4. Existing exterior conditions related to roadways, walkways and landscaped areas.

B. Resurvey: Before expected final inspection date, Contractor and Construction Manager together shall make a resurvey of the areas and grounds involved. Contractor shall submit a report on conditions, then existing, of surfaces as compared with conditions of same as noted in first condition survey report.
   1. Resurvey report shall list any damage caused by Contractor to surfaces despite protection measures; and will form the basis for determining extent of repair work required of Contractor to restore damage caused by Contractor's workmen in executing work of this Contract.

3.2 DEMOLITION

A. The term demolition, as used herein, includes the complete removal of all existing objects as noted on the Drawings.
B. Remove miscellaneous items, as indicated on the Drawings or as otherwise necessary, to execute the work of the Project.
C. Avoid interference with the use of, passage to and from streets adjacent to the Construction Site.
D. Demolish in an orderly and careful manner, as required, to accommodate new work.
E. Protect existing structures to remain. Repair damage.
F. Repair all demolition performed in excess of that required, at no cost to the Owner.
G. Remove all debris from the site and leave site in a neat and orderly condition. Burning of materials on site is not permitted.
H. Remove from the site contaminated, vermin infected, or dangerous material encountered and dispose of by safe means so as not to endanger health of workers and public.
I. Remove demolished materials, tools, and equipment from site upon completion of work. Leave site in a condition acceptable to the Contracting Officer.
J. Repair damaged areas to the grounds (wheel tracks, etc.) caused by vehicles used in performance of this Contract.

END OF SECTION

SECTION 31 20 00

EARTHWORK

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Extent of Earthwork is indicated on Drawings
B. Work includes:
   1. Stripping, topsoil stockpiling
   2. Excavation
   3. Fill
   4. Compaction
   5. Preparation of subgrade for walls, parking and drives, and steps and walks.
   6. Grading.
   7. Topsoil placement.
   8. Finish grading.
   9. Erosion control.
   10. Import of embankment material.
   11. Export of excess and unsuitable material.

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1.2 RELATED SECTIONS

A. Section 31 22 00: Grading.
B. Section 31 23 23: Fill.
C. Section 31 23 16: Excavation

1.3 PROJECT CONDITIONS

A. Verify that survey bench mark and intended elevations for the Work are as indicated.
B. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
C. The Contractor shall supply all construction layout staking for this project, including for exterior improvements and utilities. Engineer will supply geometric information for purposes of staking upon request. Contractor shall give Engineer 48-hour notice per request for said information.
D. Soil Borings:
   1. Test borings and other exploratory operations may be made by Contractor at no cost to Owner with Owner approval.
E. Existing Utilities:
   1. Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate means of support and protection during earthwork operations.
   2. Underground utilities shown on the drawings have been taken from existing public records, Owner's records and available as-built drawings and are correct to the best of our knowledge and provided for information only.
   3. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult utility owner immediately for directions. Cooperate with Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities caused by Contractor's negligence to the satisfaction of utility owner at no cost to the Project Owner.
   4. Do not interrupt existing utilities serving facilities occupied and used by Owner or others, during occupied hours, except when permitted in writing by Engineer and then only after acceptable temporary utility services have been provided.
   5. Provide minimum of 48-hour notice to Owner and Engineer and receive written notice to proceed before interrupting any utility.
   6. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies for shut-off of services if lines are active.

1.4 PROTECTION OF PERSONS AND PROPERTY

A. Barricade open excavations occurring as part of this work and post with warning lights.
B. Operate warning lights as recommended by authorities having jurisdiction.
C. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

1.5 QUALITY ASSURANCE

A. Codes and Standards:
   1. Perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.
   2. The entire installation shall fully comply with all local and state laws and ordinances, and with all established codes applicable thereto.
B. Testing and Inspection Service:
   1. Cost of field and laboratory testing will be borne by the Contractor. Testing by laboratory approved by the Owner.
   2. Contractor will cooperate with testing laboratory and geotechnical Engineer in coordinating compaction testing, installation and protection of settlement monitoring devices.

1.6 SUBMITTALS

A. Testing Reports - Excavating: Submit the following reports directly to the Architect from the testing services, with copies to the Contractor and the Owner
   1. Test reports on borrow material/lab analysis of fill materials.
   2. Field density test reports.
   3. One optimum moisture-maximum density curve for each type of soil encountered.
   4. Report of actual unconfined compressive strength and/or results of bearing tests of each strata tested.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS/ DEFINITIONS

A. Satisfactory soil materials are defined as those complying with ASTM D2487 soil classification groups CL, GC, GW, CP, GM, ML, SC, SM, SW, and SP.
B. Unsatisfactory soil materials are defined as those complying with ASTM D2487 soil classification groups MG, DH, OL, OH, PT and any bedrock material.
C. Subbase material (granular fill): Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, crushed slag, natural or crushed sand.
D. Fill materials:
   1. The fill material type shall be cohesive, non-expansive soil having a "CL" or "CL-ML" classification in accordance with the Unified Soil Classification System and shall have a maximum laboratory dry density (100%) of 100 pounds per cubic foot or more as determined by ASTM D698 (Standard Proctor).
   2. No organic dark colored soils or plastic and potentially expansive soils, such as clay shale, are considered suitable engineered fill materials. Topsoils should be sorted and stockpiled for landscaping purposes.
   3. When fill material includes rock, the maximum rock size acceptable shall be three inches (3"). No large rocks shall be allowed to nest and all voids must be carefully filled with small stones or earth, properly compacted. No large rocks will be permitted within twelve inches (12") of the finished grade.
E. Topsoil: Secure and stockpile from naturally well drained areas during stripping operations; use satisfactory soil materials free of admixture of subsoil, reasonably free from clay lumps, stone or other debris a greater than 1-1/2" in diameter.
F. Erosion Fence: Three (3) foot wide, 10 mil, 100 percent spunbonded nylon reinforced silt fence fabric with a maximum vertical water flow of 500 gallons per minute per square foot. Posts shall be steel T posts, minimum length 5 foot.
G. Straw Bales: Bound, rectangular, straw bales and suitable stakes. Straw bales to be in good condition. Loose, broken or deteriorated bales will not be accepted.

PART 3 – EXECUTION

3.1 EXCAVATION

A. Excavation is unclassified, and includes excavation to subgrade elevations indicated, regardless of character of materials and obstructions encountered.
B. Unauthorized Excavation:
   1. Consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of Engineer.
   2. Unauthorized excavation, as well as remedial work directed by Engineer shall be at Contractor's expense.
   3. Backfill and compact unauthorized excavations as specified for authorized excavations of same classification, unless otherwise directed by Engineer.
C. Additional Excavation:
   1. When excavation has reached required subgrade elevations, notify Engineer who will make an inspection of conditions. Engineer shall evaluate and advise if bearing material is suitable and shall provide unconfined compressive strength tests.
   2. If unsuitable bearing materials are encountered at required elevations, carry excavations deeper and replace excavated material with engineered compacted backfill as directed by Engineer.
   3. Unsuitable soil shall be removed to the dimension and grade as directed by the Engineer. This area shall be refilled with compacted crushed stone to 98 percent standard proctor D698 (70 percent relative density D2049).
   4. Removal or reworking of unsuitable material and its replacement as directed will be paid on basis of contract conditions relative to changes in work.
D. Stability of Excavations:
   1. Slope sides of excavations to comply with local codes and ordinances having jurisdiction.
   2. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated.
   3. Maintain sides and slopes of excavations in safe condition until completion of backfilling.
E. Dewatering:
   1. Prevent surface water and subsurface or ground water from flowing into excavations and from flooding project site and surrounding area.
   2. Do not allow water to accumulate in excavations.
   3. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of subgrades and foundations.
   4. Provide and maintain pumps, well points, sumps, suction and discharge lines, and other dewatering system components necessary to convey water away from excavations.
   5. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rain water and water removed from excavations to collecting or run-off areas.
   6. Do not use trench excavations as temporary drainage ditches.
F. Material Storage:
   1. Stockpile satisfactory excavated materials where directed, until required for backfill or fill.
   2. Place, grade and shape stockpiles for proper drainage.
   3. Locate and retain soil materials away from edge of excavations.
   4. Do not store within drip line of trees indicated to remain.
   5. Dispose of excess soil material and waste materials as herein specified.
G. Subgrade Preparation: Pavements (Parking and Roadways and Sidewalks):
   1. Provide a 12" compacted depth subgrade for Parking and Roadways including crushed rock surfaces, 6-inches for Sidewalks.
   2. Scarify, mix and recompact materials to provide uniform composition at least 12" below top of subgrade for parking lots and drives and 6" below top of subgrade for sidewalks for full width of subgrade plus 2'-0" each side of parking lots and drives and 1'-0" on each side of sidewalks.
   3. Construct 12" thick uniform subgrade by excavating top 6" of subgrade, scarifying, mixing, and recompacting next 6" of subgrade base and proof rolling.
   4. Construct 6" thick uniform subgrade (sidewalks) by scarifying, mixing, and recompacting the top 6" of subgrade.

5. Proof roll existing soils prior to placing fill to determine location of unsuitable bearing materials. Proof roll with heavy rubber-tired construction equipment in the presence of the Geotechnical Engineer. Unsuitable material encountered in the subgrade base shall be over excavated and replaced with suitable material and re-compacted. Notify Engineer if unsuitable conditions are encountered for direction.
6. Compact as per Paragraph 3.2 Compaction requirements.

3.2 COMPACTION

A. General: Control soil compaction during construction providing minimum percentage of density specified for each area classification indicated below.
B. Compaction Requirements: Compaction shall be not less than the following percentages of maximum dry density:

Standard Proctor ASTM D698 Construction Type	Cohesive Soils
Paving, roadway, Parking lot and critical backfill area beneath same; e.g. trenches	95%
Backfill adjacent to structures not supporting other structures- minor subsidence possible.	95%
Lawn areas. Non-critical areas- moderate subsidence possible.	90%

*Use relative density technique (ASTM D4253 and D4254) where standard proctor technique (ASTM D698) does not result in a definable maximum dry density and optimum moisture content.

C. Moisture Control and Content:
   1. When subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade, or layer of soil material, to prevent free water appearing on surface during or subsequent to compaction operations.
   2. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.
D. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing until moisture content is reduced to a satisfactory value.
E. Protect The fill material shall be compacted at a moisture content typically within a range of minus two percent to plus four percent (-0% to +4%) of optimum moisture content as determined by ASTM D698 (Standard Proctor). Other acceptable moisture content ranges determined by the Engineer may be necessary to produce desirable results with specific soils.

3.3 BACKFILL AND FILL

A. General: Place acceptable soil material in layers to required subgrade elevations, for each area classification listed below.
   1. In excavations, use satisfactory excavated or borrow material.
   2. Under grassed areas, use satisfactory excavated or borrow material.
   3. Under walks and pavements, use subbase material, or satisfactory excavated or borrow material, or combination of both.
   4. Under steps, use subbase material.

5. Under piping and conduit, use subbase material where subbase is indicated under piping or conduit; shape to fit bottom 90 degrees of cylinder.
6. Utilize loess soil for fill only in the lower portion of deep fill sections or below frost depth under pavement/structures.

B. Ground Surface Preparation:
1. Clearing area to be filled: All timber, logs, trees, brush and rubbish shall be removed, piled or burned or otherwise acceptably disposed of.
2. Scarifying area to be filled:
   a. All vegetable matter and dark colored organic soil shall be removed from the surface upon which the fill is to be placed, and the surface shall then be plowed or scarified to a depth of at least six inches and until the surface is free from ruts, hummocks or other uneven features which would tend to prevent uniform compaction by the equipment to be used.
   b. Where fills are made on hillsides or slopes, the slope of the original ground upon which the fill is to be placed shall be plowed or scarified deeply or where the slope ratio of the original ground is steeper than 5 horizontals to 1 vertical, the bank shall be stepped or benched. Ground slopes which are flatter than 5 to 1 shall be benched when considered necessary by the Engineer.
3. Compaction area to be filled: After the foundation for the fill has been cleared and plowed or scarified, it shall be disced or bladed until it is uniform and free from large clods, brought to within the specified moisture content range and compacted to not less than ninety-five percent (95%) of maximum dry density in accordance with current ASTM D698 (Standard Proctor).

C. Placement and Compaction:
1. Depth and Mixing of Fill Layers: The selected fill material shall be placed in level, uniform layers which, when compacted, shall have a density conforming to a minimum of ninety-five percent (95%) of maximum dry density in accordance with ASTM D698 (Standard Proctor). Each layer shall be thoroughly blade mixed during the spreading to insure uniformity of material in each layer. Compacted layer thickness will be compatible with the demonstrated compatibility of the compaction equipment being used, with a compacted layer thickness of 6" considered typical.
2. Amount of Compaction: After each layer (lift) has been placed, mixed and spread evenly, it shall be thoroughly compacted to a minimum of ninety-five percent (95%) of the material's maximum dry density as determined by ASTM D698 (Standard Proctor) for areas supporting building foundations and floor slabs. Grassed areas or areas not supporting buildings or slabs-on-grade should be compacted to a minimum of ninety percent (90%).
3. Compaction of Fill Layer: Compaction equipment shall be of such design to be able to compact the fill to the specified density. Compaction shall be accomplished while the fill material is within the specified moisture content range. Compaction of each layer shall be continuous over its entire area and the compaction equipment shall make sufficient trips to ensure that the required density has been obtained.
4. Compaction of Slopes: Fill slopes shall be compacted. Compacting operations shall be continued until the slopes are stable but not too dense for planting on the slopes. Compacting of the slopes may be done progressively in increments of three to five feet (3' to 5') in fill height or after the fill is brought to its total height.
5. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.

3.4 GRADING

A. General:
1. Uniformly grade areas within limits of grading under this Section, including adjacent transition areas.
2. Smooth finished surface within specified tolerances, compact with uniform levels or slopes between points where elevations are indicated, or between such points and existing grades.

B. Grading Outside Paving Lines:
1. Grade areas to adjacent to paving lines to drain away from structures and to prevent ponding.
2. Finish surfaces free from irregular surface changes, and as follows:
   a. Lawn or Unpaved Areas: Finish areas to receive topsoil to within not more than 0.10' above or below required subgrade elevations.
   b. Walks: Shape surface of areas under walks to line, grade and cross-section, with finish surface not more than 0.10' above or below required subgrade elevation.

C. Grading Surface of Fill Under Paving:
1. Grade smooth and even, free of voids, compacted as specified, and to required elevation.

2. Compaction: After grading, compact subgrade surfaces to the depth and indicated percentage of maximum or relative density for each area classification.

3.5 EMBANKMENTS

A. General: Prepare site, place and compact excavated materials to required elevation and cross section.
B. Construction:
   1. Construct embankment in horizontal layers not more than 6" in loose thickness.
   2. Deposit each layer over full width of embankment as separate and distinct operation.
   3. After layer is deposited, smooth to uniform depth by means of suitable motor patrol or bulldozer.
   4. Compact layer by rolling with tamping type roller until full weight of roller is supported by tamping feet, but with not less than one pass per inch of loose thickness of layer.
   5. Roller will be considered to be supported entirely on its tamping feet when feet do not penetrate more than 3" into material being compacted.
   6. If soil is wet so that it will not sufficiently compact by one passing of roller per inch of loose thickness, provide one discing per 2" of loose thickness.
      a. Cut and stir full depth of layer.
      b. Allow interval of not longer than two hours between successive discings, or as directed by Engineer.
      c. After discing is completed compact layer by specified rolling.
   7. If soil is dry so that it will not satisfactorily compact by rolling, moisten material before compaction; manipulate material to secure proper distribution of moisture before compaction.
   8. Whenever operations are suspended during periods rain is likely to occur, smooth and compact surface to shed water readily.
   9. Compact to not less than 95% maximum density with moisture content not more than three percentage points above or below optimum; maximum density determined by ASTM D698.

3.6 TOPSOIL SPREADING

See Section 31 22 00 - Grading

3.7 FINISH GRADING

See Section 31 22 00 - Grading

3.8 MAINTENANCE

A. Protection of Graded Areas:
   1. Newly graded areas from traffic and erosion. Keep free of trash and debris.
   2. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.
   3. Keep public streets clean from soil, soil tracking and debris at all times.
B. Reconditioning Compacted Areas: Where completed graded areas are disturbed by subsequent construction operations, erosion or adverse weather, scarify surface, re-shape and compact to required density prior to further construction.
C. Settling: Where settling is measurable or observable at excavated areas during general project warranty period, remove surface (pavement, lawn or other finish), add backfill material, compact, and replace surface treatment. Restore appearance, quality, and condition of surface or finish to match adjacent work and eliminate evidence of restoration to greatest extent possible.

3.9 EROSION PROTECTION

A. The Contractor shall comply with soil erosion control requirements of the Iowa Code, and the local ordinances. The Contractor shall take all necessary measurements to protect against erosion and dust pollution on this project site and all off-site borrow or deposit areas, during performance or as a result of performance.

B. The Contractor shall take all steps necessary to protect adjoining property, including public sanitary and storm drainage systems and streets, from any damage resulting from the movement of earth or other debris thereto from the site; and such steps as are necessary to prevent the accumulation of earth or debris on adjoining public or private property from the construction site. The Contractor shall take into consideration all factors which might cause the movement of earth or debris from the construction site onto any adjoining public or private property.
C. The Contractor shall take immediate corrective action should damage occur to adjoining public or private property (including sanitary or storm drainage systems and streets). The Contractor shall take immediate corrective action to remove any debris should any earth or other debris move from the construction site to adjoining public or private property. Further, the Contractor shall take steps required to prevent the repetition of any instance where dirt or other debris moves from the construction site to adjoining public or private property.
D. The Contractor will hold the Owner harmless from any and all claims of any type whatsoever resulting from damages to adjoining public or private property, including reasonable attorney's fees incurred to Owner. Further, if the Contractor fails to take necessary steps to promptly remove earth or debris which comes onto adjoining public or private property, the Owner may, but need not, remove such debris and deduct the cost thereof from amounts due the Contractor.
E. The Contractor shall maintain storm sewer systems throughout construction and provide erosion control measures acceptable to protect against siltation and erosion or any adverse conditions resulting from storm water. Use straw bales and other means at all intakes and outfall structures and at all locations where erosion or siltation is anticipated or occurring; including drainage courses and swales.
F. Silt fences shall be installed as shown on drawings, in locations as directed by Engineer, and in locations as required by Contractors erosion control plan.
    1. Drive T-posts 5' O.C. in drainage swales, 8' O.C. for slope control, to a minimum depth of 2 1/2'. Attach fabric to posts with continuous cord or wire. Bury 12" of fabric in continuous trench in front of posts.
    2. Contractor to routinely inspect condition of fences and repair and clean, as necessary to maintain them in good working order.
    3. After vegetative cover is established, silt fences will be removed by Contractor and disposed of off site.
G. In lieu of silt fences, straw bale dikes may be installed with the approval of the Engineer. Contractor shall furnish a detail of the dike for approval to the Engineer. Contractor shall routinely inspect the conditions of the straw bales and replace damaged bales or dikes as necessary. Periodic cleaning of sediment and removal of straw bale dikes shall conform to similar requirements for silt fences.

3.10 FIELD QUALITY CONTROL

A. Allow testing service to inspect and approve subgrades and fill layers before further construction work is performed.
B. Perform field density tests in accordance with ASTM D2922 (nuclear method) or ASTM D1556 (sand cone method), as applicable.
C. Footing Subgrade: For each strata of soil on which footings will be placed, conduct at least one test every 50 lineal feet to verify required design bearing capacities. Subsequent verification and approval of each footing subgrade may be based on a visual comparison of each subgrade with related tested strata, when acceptable to Engineer.
D. Paved Areas and Building Slab Subgrade: Make at least one field density test of subgrade for every 2000 sq. ft. of paved area, but in no case less than 3 tests. In each compacted fill layer, make one field density test for every 2000 sq. ft. of overlaying building slab or paved area, but in no case less than 3 tests.
E. If, in opinion of Engineer, based on testing service reports and inspection, subgrade or fills which have been placed are below specified density, provide additional compaction and testing at no additional expense.

3.11 NATURAL AND ARTIFICAL DRAINAGE

A. If necessary during the progress of the work to interrupt the natural drainage of the surface water, Contractor shall provide approved temporary drainage facilities.
B. All excess excavation shall be removed from site to location determined by Contractor.

3.12 DISPOSAL OF EXCESS AND WASTE MATERIALS

A. Removal from Owner's Property: Remove waste materials, including unacceptable excavated material, trash and debris from site to an approved location for disposal by Contractor.
B. All excess excavation shall be removed from site to location determined by Contractor.

END OF SECTION

SECTION 31 22 00

GRADING

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Rough grading and finish grading the site for site structures and pavements.

1.2 RELATED SECTIONS

A. Section 31 23 16, Excavation.
B. Section 31 23 23, Fill.
C. Section 31 20 00, Earthwork

1.3 PROJECT CONDITIONS

A. Protect above- and below-grade utilities that remain.
B. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from grading equipment and vehicular traffic.
C. The Contractor shall supply all construction layout staking for this project, including for exterior improvements and utilities. Engineer will supply geometric information for purposes of staking upon request. Contractor shall give Engineer 48-hour notice per request for said information.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Topsoil: See Section 31 23 23 Non-Building Fill.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that survey bench mark and intended elevations for the Work are as indicated.

3.2 PREPARATION

A. Identify required lines, levels, contours, and datum.
B. Stake and flag locations of known utilities.

3.3 ROUGH GRADING

A. Remove subsoil from areas to be further excavated, re-landscaped, or re-graded.
B. Stability: Replace damaged or displaced subsoil to same requirements as for specified fill.

3.4 SOIL REMOVAL

A. Stockpile topsoil to be re-used on site; remove remainder from site.
B. Stockpile subsoil to be re-used on site; remove remainder from site.

3.5 FINISH GRADING

A. Remove debris, roots, branches, stones, in excess of 1/2 inch (13 mm) in size. Remove soil contaminated with petroleum products.
B. In areas where vehicles or equipment have compacted soil, scarify surface to depth of 3 inches (75 mm).
C. Place topsoil to nominal depth of 6 inches (150 mm).

D. Remove roots, weeds, rocks, and foreign material while spreading.
E. Fine grade topsoil to eliminate uneven areas and low spots. Maintain profiles and contour of subgrade.

3.6 CLEANING AND PROTECTION

A. Leave site clean and raked, ready to receive landscaping.

END OF SECTION

SECTION 31 23 16

EXCAVATION

PART 1 – GENERAL

1.1 SECTION INCLUDES

A. Excavating for building volume below grade, footings, slabs-on-grade, site structures, and utilities within the building.

1.2 RELATED SECTIONS

A. Section 31 22 00, Grading.
B. Section 31 23 23, Fill.
C. Section 31 20 00, Earthwork.

1.3 PROJECT CONDITIONS

A. Verify that survey bench mark and intended elevations for the Work are as indicated.
B. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
C. The Contractor shall supply all construction layout staking for this project, including for exterior improvements and utilities. Engineer will supply geometric information for purposes of staking upon request. Contractor shall give Engineer 48-hour notice per request for said information.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.1 PREPARATION

A. Identify required lines, levels, contours, and datum locations.
B. Locate, identify, and protect utilities that remain and protect from damage.

3.2 EXCAVATING

A. Excavate to accommodate new structures and construction operations.
B. Notify Architect of unexpected subsurface conditions and discontinue affected Work in area until notified to resume work.
C. Slope banks of excavations deeper than 4 feet (1.2 meters) to angle of repose or less until shored.
D. Do not interfere with 45 degree bearing splay of foundations.
E. Cut utility trenches wide enough to allow inspection of installed utilities.
F. Correct areas that are over-excavated and load-bearing surfaces that are disturbed; See Section 31 23 23.
G. Grade top perimeter of excavation to prevent surface water from draining into excavation.
H. Remove excavated material that is unsuitable for re-use from site.
I. Remove excess excavated material from site.

3.3 PROTECTION

A. Prevent displacement of banks and keep loose soil from falling into excavation; maintain soil stability.
B. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.

END OF SECTION

SECTION 31 23 23

FILL

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Filling, backfilling, and compacting for building volume below grade, footings, slabs-on-grade, and paving.
B. Backfilling and compacting for per notes and details outside the building at replaced sidewalk/patio areas.

1.2 RELATED SECTIONS

A. Section 31 22 00, Grading.
B. Section 31 23 16, Excavation.
C. Section 31 20 00, Earthwork.

1.3 REFERENCES

A. AASHTO T 180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54 kg (10-lb) Rammer and a 457 mm (18 in.) Drop; American Association of State Highway and Transportation Officials; 2001 (2004).
B. ASTM D 698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)); 2000a.
C. ASTM D 1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method; 2000.
D. ASTM D 1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN m/m3)); 2002.
E. ASTM D 2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method; 1994(R 2001).
F. ASTM D 2922 - Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth); 2005.
G. ASTM D 3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth); 2005.

1.4 PROJECT CONDITIONS

A. Verify field conditions for the Work as indicated.
B. The Contractor shall supply all construction layout staking for this project, including for exterior improvements and utilities. Engineer will supply geometric information for purposes of staking upon request. Contractor shall give Engineer 48-hour notice per request for said information.

PART 2 – PRODUCTS

2.1 FILL MATERIALS

A. General Fill - Fill Type Landscaped Areas: Subsoil excavated on-site.
   1. Free of lumps larger than 3 inches (75 mm), rocks larger than 2 inches (50 mm), and debris.
B. Structural Fill - Fill Type Paved Areas: Subsoil excavated on-site. Compacted Free-Draining Granular Backfill
   1. Free of lumps larger than 3 inches (75 mm), rocks larger than 2 inches (50 mm), and debris.
C. Topsoil - Fill Type Landscaped Areas: Topsoil excavated on-site.
   1. Free of roots, rocks larger than 1/2 inch (12 mm), subsoil, debris, large weeds and foreign matter.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Identify required lines, levels, contours, and datum locations.

3.2 PREPARATION

A. Scarify subgrade surface to a depth of 6 inches (150 mm) under concrete paving.
B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with Structural Fill.
C. Compact subgrade to 95 percent of maximum dry density.
D. Until ready to fill, maintain excavations and prevent loose soil from falling into excavation.

3.3 FILLING

A. Fill to contours and elevations indicated using unfrozen materials.
B. Employ a placement method that does not disturb or damage other work.
C. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.
D. Maintain optimum moisture content of fill materials to attain required compaction density.
E. Slope grade away from building minimum 2 inches in 10 ft (50 mm in 3 m), unless noted otherwise. Make gradual grade changes. Blend slope into level areas.
F. Correct areas that are over-excavated.
    1. Other areas: Use general fill, flush to required elevation, compacted to minimum 95 percent of maximum dry density.
G. Compaction Density Unless Otherwise Specified or Indicated:
    1. Under paving, slabs-on-grade, and similar construction: 95 percent of maximum dry density.
    2. At other locations: 95 percent of maximum dry density.
H. Reshape and re-compact fills subjected to vehicular traffic.

3.4 FIELD QUALITY CONTROL

A. Compaction density testing will be performed on compacted fill in accordance with ASTM D1556, ASTM D2167, ASTM D2922, or ASTM D3017.
B. Evaluate results in relation to compaction curve determined by testing uncompacted material in accordance with ASTM D 698 ("standard Proctor"), ASTM D 1557 ("modified Proctor"), or AASHTO T 180.
C. If tests indicate work does not meet specified requirements, remove work, replace and retest at Contractor's expense.
D. Owner will select and pay for independent testing laboratory and Contractor shall coordinate work with testing laboratory before proceeding with each phase or stage of work.

3.5 CLEAN-UP

A. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.

END OF SECTION

SECTION 31 25 13

EROSION CONTROL

PART 1 – GENERAL

1.1 SECTION INCLUDES

A. Description of Work
B. Filter Berm for PCC Curb and Gutter
C. Filter Berms
D. Inlet Filters
E. Silt Fence
F. Maintenance
G. Cleanup
H. Removal of Erosion Control Devices

1.2 DESCRIPTION OF WORK

A. This section shall include the furnishing of materials, installation, and construction and removal of various erosion control devices at locations shown on the plans or where specified by the Engineer in accordance with the contract documents.
B. The Contractor shall be responsible for accomplishing the required construction work on this project in such a manner as to effectively minimize and control the water pollution which might be caused by soil erosion from the project. It is intended that these features be maintained in appropriate functional condition from initial construction stages to final completion of project.
C. Contractor shall be responsible for conformance with local, state, and federal soil erosion and siltation controls.

1.3 SUBMITTALS

A. Submit under provisions of General Conditions.
B. Certification of materials used for erosion control devices.
C. Upon request the Contractor will provide Material Certifications to the Engineer.

1.4 GENERAL

A. The Contractor shall comply with soil erosion control requirements of the Iowa Code, and the local ordinances. The Contractor shall take all necessary measurements to protect against erosion and dust pollution on this project site and all off-site borrow or deposit areas, during performance or as a result of performance.
B. The Contractor shall take all steps necessary to protect adjoining property, including public sanitary and storm drainage systems and streets, from any damage resulting from the movement of earth or other debris thereto from the site; and such steps as are necessary to prevent the accumulation of earth or debris on adjoining public or private property from the construction site. The Contractor shall take into consideration all factors which might cause the movement of earth or debris from the construction site onto any adjoining public or private property.
C. The Contractor shall take immediate corrective action should damage occur to adjoining public or private property (including sanitary or storm drainage systems and streets). The Contractor shall take immediate corrective action to remove any debris should any earth or other debris move from the construction site to adjoining public or private property. Further, the Contractor shall take steps required to prevent the repetition of any instance where dirt or other debris moves from the construction site to adjoining public or private property.
D. The Contractor will hold the Owner harmless from any and all claims of any type whatsoever resulting from damages to adjoining public or private property, including reasonable attorney's fees incurred to Owner. Further, if the Contractor fails to take necessary steps to promptly remove earth or debris which comes onto adjoining public or private property, the Owner may, but need not, remove such debris and deduct the cost thereof from amounts due the Contractor.

E. The Contractor shall maintain storm sewer systems throughout construction and provide erosion control measures acceptable to protect against siltation and erosion or any adverse conditions resulting from storm water. Use straw bales and other means at all intakes and outfall structures and at all locations where erosion or siltation is anticipated or occurring; including drainage courses and swales.

1.5 PROTECTION OF PROPERTY

A. Protect existing facilities at the site against damage including the following:
   1. The Contractor shall take precautions to ensure that equipment, vehicles, and construction operations do not disturb or damage existing grades, walls, drives, pavement, utilities, plants, lawns, and other facilities.
   2. Verify locations and depths of all underground utilities prior to excavation and report any conflicts with new work to the Engineer.
   3. Any damage to existing trees or shrubs branches and root systems to remain and be protected shall be repaired and/or pruned by an experienced tree surgeon or arborist.
   4. Repair, replace, and/or return to original condition any damaged item, without additional compensation.
B. The Contractor shall protect adjoining property including public utilities, sanitary and storm drainage systems, and other debris from project site. Repair any damage immediately at no additional cost.
C. The Contractor shall prevent accumulation of earth, siltation, or debris on adjoining public or private property from project site. Remove any accumulation of earth or debris immediately and take remedial actions for prevention.

PART 2 – PRODUCTS

2.1 PEA GRAVEL

A. Pea gravel gradation shall comply with the following:

Sieve Size	% Passing
3/8”	85-95
#4	5-15
#8	0-2

2.2 COARSE AGGREGATE

A. Coarse Aggregate: crushed stone shall comply with Iowa DOT 4115 with a gradation as per Iowa DOT 4109, gradation number 3.

2.3 FIBERGLASS MESH

A. Fiberglass mesh or plastic netting (polypropylene) meeting the following requirements:
   1. Color: Black or green, with UV additives
   2. Mesh size: approximately 0.6" x 0.7"
   3. Weight (mass): approximately 9 pounds per 1,000 square feet
   4. Width: 48" minimum

2.4 SILT FENCE

A. Steel posts (T-Section): exclusive of anchor plate, shall weigh not less than 1.3 pounds per foot.
B. Engineering Fabric: To have a minimum width of 36 inches and complying with the current Iowa DOT specifications for silt fencing material, Section 4196.
C. Silt fences shall be installed as shown on drawings, in locations as directed by Engineer, and in locations as required by Contractors erosion control plan.
D. Drive T-posts 5' O.C. in drainage swales, 8' O.C. for slope control, to a minimum depth of 2 1/2'. Attach fabric to posts with continuous cord or wire. Bury 12" of fabric in continuous trench in front of posts.
E. Contractor to routinely inspect condition of fences and repair and clean, as necessary to maintain them in good working order.

F. After vegetative cover is established, silt fences will be removed by Contractor and disposed of off-site.
G. In lieu of silt fences, straw bale dikes may be installed with the approval of the Engineer. Contractor shall furnish a detail of the dike for approval to the Engineer. Contractor shall routinely inspect the conditions of the straw bales and replace damaged bales or dikes as necessary. Periodic cleaning of sediment and removal of straw bale dikes shall conform to similar requirements for silt fences.

PART 3 - EXECUTION

3.1 FILTER BERM FOR PCC CURB AND GUTTER

A. Filter berm shall be constructed on existing curb and gutter streets prior to excavating material between gutter sections. It is also to be constructed on new projects requiring curb and gutter sections to be constructed separately. The filter berm shall remain in place until just prior to paving.
B. Construct in accordance with Detail Plate Type II Filter Berm.

3.2 FILTER BERM

A. Filter berms shall be constructed at locations specified on the plans or as directed by the Engineer. The berms are to be constructed prior to any clearing or excavation.
B. Construct in accordance with Detail Plates Type I and Type III Filter Berm.

3.3 INLET FILTERS

A. Existing and new intakes shall be filtered during construction at locations specified on the plans. All intakes not specified to be filtered shall be plated or sand bagged to prevent taking water. The fiberglass mesh shall be placed to ensure no filter material will drop into the inlet. In some cases, it may be necessary to set the grate or steel plate over the fiberglass mesh to hold it securely in place.
B. Construct in accordance with Detail type I, II, and III Inlet Filters.

3.4 SILT FENCES

A. Silt fences shall be constructed at locations specified on the plans or as directed by the Engineer. The silt fences shall be in place prior to site clearing and grading. The bottom of the fence and fabric shall be embedded in the ground a minimum of 6 inches except at locations where fence is located within drainage ways, in which case it shall be embedded a minimum of 12 inches.
B. Construct in accordance with Detail Plate for Silt Fence.

3.5 MAINTENANCE

A. Where it is necessary for the Contractor to clean out, repair, or reconstruct a pollution control feature, as directed by the Engineer, the additional payment will be 100 percent of the unit price for construction. Where applicable bid items are not on the contract, payment for clean out, repair, or reconstruction will be extra work.
B. If temporary erosion and pollution control measures are required due to the contractor’s negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled, and are ordered by the Engineer, such work shall be performed by the Contractor at own expense.
C. The Contractor shall prevent accumulation of earth siltation or debris on adjoining streets from project site. Remove any accumulation of earth or debris immediately and take remedial actions for prevention.
D. In case of repeated failures on the part of the Contractor to control erosion, pollution, and/or siltation, the Engineer reserves the right to employ outside assistance or to use his own forces to provide the necessary corrective measures. Such incurred direct costs plus project engineering costs will be charged to the Contractor, and appropriate deductions will be made from the Contractor’s monthly progress estimate and final payment.

3.6 CLEANUP

A. The Contractor shall be responsible to perform cleaning during installation of work and upon completion of work.

1. Remove from the site all excess materials, debris, and equipment.
2. Hose down and/or broom clean all paved surfaces.
3. Repair any damage resulting from erosion control operations.

3.7 REMOVAL OF EROSION CONTROL DEVICES

A. The Contractor shall remove erosion control devices upon approval of Engineer.
B. The Contractor shall remove all erosion control materials from the site.
C. The Contractor shall perform cleanup operations upon completion of removal.

END OF SECTION

SECTION 32 92 19

SEEDING

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Description of Work
B. Warranty
C. Seeding Dates
D. Seedbed Preparation
E. Seed Preparation
F. Application of Seed
G. Watering
H. Reseeding
I. Cleanup
J. Acceptance

1.2 DESCRIPTION OF WORK

A. This section shall include preparation of the seedbed, furnishing and installing seed, fertilizer and mulch, maintenance, and guarantee for completed seeded areas, as specified in the contract documents.
B. The Contractor has the option of using pneumatic, hydraulic, or conventional seeding methods; unless specified otherwise in the contract documents.

1.3 PROTECTION OF PROPERTY

A. Protect existing conditions at the site against damage including the following:
   1. Take precautions to ensure that equipment, vehicles, and seeding operations do not disturb or damage existing grades, drives, pavement, utilities, plants and other facilities.
   2. Verify locations and depths of all underground utilities prior to excavation and report conflicts with new seeding operations.
   3. Repair, replace, and/or return to original condition any damaged item, without additional compensation.

1.4 SUBMITTALS

A. Submit from an established seed dealer or certified seed grower the certified blue tag from each container of seed of grass seed mixture dated within 9 months of delivery, indicating percentage by weight and percentage of purity, germination and weed seed for each grass, legume, and cereal crop stating botanical and common name of each species as specified in contract documents.
B. Submit certificates of inspection as required by governmental authorities and manufacturer's or vendor's certified analysis for soil amendments.
C. Submit written maintenance instructions recommending procedures for maintenance of seeded areas for one year, prior to final acceptance of the seeded areas.
D. Upon request the Contractor will provide Material Certifications to the Construction Manager.

1.5 QUALITY ASSURANCE

A. All seed shall have a certified blue tag from each container.
B. All materials to be in accordance with Iowa Seed Law and Iowa Department of Agricultural Regulations and shall be labeled accordingly.
C. All materials and method of operation shall be subject to inspection and approval by Construction Manager.

1.6 DELIVERY, HANDLING, AND STORAGE

A. Packaged materials shall be delivered in original, unopened, and undamaged containers.
B. Store and protect materials off the ground to prevent wetting and deterioration.

C. Deliver all seed in original containers.

1.7 SCHEDULING

A. Notify Construction Manager at least 3 days prior to start of seeding operations.
B. Perform seeding operations after grading and planting operations are complete as approved by the Construction Manager.

1.8 WARRANTY

A. A warranty is to be provided for completed seeded areas, starting upon the date of initial acceptance. The warranty is to guarantee completed seeded areas to provide a uniformly dense, live, and healthy stand of grass, free of weeds and undesirable grasses, debris, and free of eroded areas, bare spots, diseases, and insects at the end of the warranty period of one full year.
B. During warranty period, any defects in the seeded area and grass stand such as weedy areas, eroded areas and bare spots shall be corrected and reseeded as originally specified until all affected areas are accepted by the Jurisdictional Engineer; without additional compensation.
C. Repair and replace to original condition all damages to property resultant from the seeding operation and all damages as a resultant from the remedying of these defects, without additional compensation.

PART 2 - PRODUCTS

2.1 SEED

A. Provide fresh, clean, new crop, certified blue tag seed complying to tolerance for germination and purity and free of poa annua, bent grass, and free of noxious weed seed.
B. Mix seed to the specified proportions by weight by methods approved by the Engineer.
C. Seed Quality: The seed provided shall exceed the following minimum requirements of purity and germination stated on a certified blue tag.

KIND OF SEED	PURITY	GERMINATION
NATIVE GRASSES		PURITY (PLS)
Big Bluestem - Kaw, Pawnee, Roundtree, or Champ		30%
Little Bluestem - Blaze, Aldous, or Camper		30%
Switchgrass – Blackwell, Pathfinder, Cave-in-Rock, or		63%
Nebr. 28		30%
Indiangrass - Neb. 54, Oto, Holton Rumsey		30%
Sidecoats Gramma - Trailway, Butte, or El Reno		56%
Western Wheatgrass - Barton or Common		

2.2 SEED MIXTURES

A. Provide the certified blue tag seed mixture type and application rate as defined on the plans.
B. Type (1) Erosion Control Mixture:

Type of Seed	Application Rate lb/acre
Little Blue Stem	3
Side Oats Gramma	4
Indiangrass	4
Switchgrass	1.5
Big Blue Stem	3
Western Wheatgrass	4.5
Oats	1/2 bushel

2.3 FERTILIZER

A. Fertilizer shall comply with the rules of the Iowa Department of Agriculture and as follows:
   1. The grade of fertilizer will be identified according to the percent nitrogen (N), percent of available phosphoric acid (P_2O_5), and percent water soluble potassium (K_2O), in that order, and approval will be based on that identification.
   2. All fertilizer shall be furnished from an established fertilizer dealer and guaranteed percentage analysis shall be provided by the fertilizer supplier on each container with the proper scale weight records.
   3. Fertilizer shall be of a type that can be uniformly distributed by the application equipment. Fertilizer may be furnished in a dry or liquid form.
   4. When applied dry, the fertilizer shall be a granular, non-burning chemically combined product composed of not less than 50% organic slow acting, guaranteed analysis professional fertilizer. Granular or pellet form shall be uniform in composition, dry, and free flowing without caking or other damage not suitable for use.
   5. When applied in a liquid form, fertilizer may be chemically combined or may be furnished as separate ingredients.
   6. Upon request of the Contracting Authority, the Contractor shall provide a test of the fertilizer for conformance with the required analysis at no additional compensation; a tolerance of 1.0 percentage point plus or minus of that specified will be considered to be in substantial compliance.

2.4 WATER

A. Water shall be free of any substance harmful to seed growth.
B. The Contractor shall provide water, equipment, methods of transportation, water tanker, hoses, sprinklers, and labor necessary for the application of water.

2.05 MULCH

A. Hydraulic Seeding:
   1. The material shall be a natural or cooked cellulose fiber processed from whole wood chips (no recycled material) which will disperse readily in water to form a homogeneous slurry and remain in such state when agitated in the hydraulic mulching unit.
   2. The homogeneous slurry of material and water shall be capable of being applied with standard hydraulic mulching equipment.
   3. The slurry shall be dyed greed to facilitate visual metering during application with said material or homogeneous slurry having no growth or germination-inhibiting factors, being completely non-injurious to plant or animal life and having no toxic effect when combined with seed, fertilizer, and water.
   4. When applied, the wood cellulose fiber slurry shall be free from weeds or other foreign matter toxic to seed, consisting of a classification of fibers with a minimum of 30 percent having an average length of 0.15 inches or passing a Clarke Classifier 24 mesh screen, will form an absorptive mat, but not a plant-inhibiting membrane, which will allow moisture to percolate into the underlying soil.
   5. Mulch shall have a water-holding capacity of not less than 9 pounds of water per pound of fiber.
   6. The wood cellulose fiber shall have an equilibrium air dry moisture content of 12 percent or less a time of manufacture, as defined by the pulp and paper industry standards, and shall have a ph range of 4.0 – 5.5.
   7. It shall be packaged in new labeled containers and be applied at a rate of 1,800 pounds per acre (41.3 lb/1,000 sf).
B. Tackifier (Hydraulic Seeding):
   1. The mulch shall include a colloidal polysaccharide tackifier which shall be adhered to the fiber to prevent separation during shipment and avoid chemical co-agglomeration during mixing within the hydraulic mulching equipment.
   2. The material shall be homogeneous within the slurry and shall have no growth or germination-inhibiting factors nor any toxic effect on plant or animal life when combined with seed or fertilizer.
   3. The tackifier shall be applied at a minimum rate of 50 pounds per acre (0.11 lb/sq) and shall be packaged in new labeled containers.

C. Conventional Seeding:
   1. Material used as mulch may consist of straw (oats, wheat, barley, or rye).
   2. Hay (bromegrass, timothy, orchard grass, alfalfa, or clover) shall not be used to mulch areas where lawn mixtures are seeded but may be used to mulch areas where erosion control and perennial ground covers are seeded.
   3. All material used as mulch will be free from all noxious weed, seed-bearing stalks, or roots and shall be inspected and approved by the Engineer prior to its use.
   4. Other materials, subject to the approval of the Engineer, may be used.

D. Pneumatic Seeding: Use compost meeting the following requirements:
   1. Derived from a well-decomposed source of organic matter.
   2. Produced using an aerobic composting process, meeting Code of Federal Regulations (CFR) 503 for time, temperature, and heavy metal concentrations.
   3. No visible admixture of refuse or other physical contaminants, nor any material toxic to plant growth.
   4. Certified by the U.S. Composting Council's Seal of Testing Assurance (STA) program.
   5. Conforms to chemical, physical, and biological parameters of AASHTO MP 10-03, with the following additional requirements:
      a. Follow U.S. Composting Council's TMECC guidelines for all testing.
      b. Organic Matter Content: 30% minimum.
      c. pH: between 6.0 and 8.0.
      d. Maturity (growth screening): Minimum 90% emergence for all compost to be vegetated.
      e. Particle Size:

Sieve Size	Percent Passing*
2"	100
1"	90-100
3/4"	65-100
3/8"	0-75
*6-inch maximum particle length.	

2.6 STICKING AGENT

A. A sticking agent shall be a commercial material recommended by the manufacturer to improve adhesion of inoculant to the seed.
B. For small quantities, less than 50 pounds, the sticking agent need not be a commercial agent, but it must be approved by the Construction Manager and must be applied separately prior to application of inoculant.

PART 3 - EXECUTION

3.1 AREA OF SEEDING

A. Areas to be seeded shall conform to the limits shown on the construction plans and contract documents. Areas disturbed outside the contract limits approved for seeding shall be seeded by the Contractor at no additional compensation.
B. Where weeds have developed over the area to be seeded, due to delays in permission for the seeding operations to start, at no fault of the seeding contractor, weed removal shall be an additional compensation; except when the cause is due to rain delays.

3.2 SEEDING DATES

A. Normal spring seeding dates shall be between March 1 and May 31. Commence only when ground temperatures are 55 degrees Fahrenheit or greater. Normal fall seeding dates shall be between August 20 and September 30.
B. Dormant seeding dates shall be between November 1 and March 1, with permission of Construction Manager.
C. Install stabilizing crop seed type specified in contract documents between June 1 and August 15.

D. Fall seeding will include only grass seed.
E. At the option and at the full responsibility of the Contractor, seeding operations may be conducted under unseasonable conditions. The final results shall be as specified and guaranteed without additional compensation should the seeded areas require reseeding.

3.3 SEEDBED PREPARATION

A. Limit preparation of seedbed to areas which will be seeded immediately upon completion.
B. Remove all weeds and weed debris where weed growth has developed, in the opinion of the Engineer. Weed growth and weed debris removal process shall be approved by the Engineer and shall be done without additional compensation.
C. The Contractor shall shape and fine grade to remove washes or gullies, water pockets, and irregularities to provide a smooth, firm, and even surface true to grade and cross-section.
D. Disk or rototill and cultivate seedbed to a minimum 3-inch depth to a fine texture and without soil lumps. Where the area is inaccessible to machinery, it shall be prepared by hand to a minimum depth of 1 1/2 inches after the fertilizer has been applied.
E. Application of Fertilizer:
    1. Apply fertilizer after shaping and fine grading and prior to the combined tillage and rock-removal operations. On areas inaccessible to machinery, the fertilizer may be spread prior to tillage and cultivated seedbed preparation and uniformly mixed into the top 1 1/2 inches of soil.
    2. Fertilizer shall be spread with a mechanical spreader or sprayer uniformly to all areas to be seeded at the minimum rate specified herein. The fertilizer shall be tilled into the soil to a minimum depth of 3 inches.
    3. The Contractor shall be permitted to substitute other fertilizer containing analysis percentages different from those specified, provided that the minimum amounts of actual nitrogen (N), phosphate (P), and potash (K) per acre are supplied and that in no case shall the total amount per acre of the three fertilizer elements (N), (P), or (K) be exceeded by 30 percent of the following minimum amounts.
    4. Conventional Seeding:
        a. Apply 13-13-13 commercial fertilizer or the equivalent units of nitrogen (N), phosphate (P), and potash (K) at the rate of 450 pounds per acre. A minimum of 40 percent of the total nitrogen (N) shall be water insoluble nitrogen.
    5. Hydraulic Seeding:
        a. Apply 6-24-12 commercial fertilizer or the equivalent units of nitrogen (N), phosphate (P), and potash (K) at the rate of 200 pounds per acre prior to seeding.
        b. In addition to the above, a minimum of 100 pounds per acre of a 20-26-6 fertilizer in which a minimum of 50 percent of the total nitrogen is water insoluble nitrogen shall be applied as part of the seed, fertilizer, mulch, and water slurry.
    6. Pneumatic Seeding:
        a. Based on the compost nutrient analysis, supply any additional commercial fertilizer necessary to meet the 13-13-13 units of nitrogen, phosphate, and potash at the rate of 450 pounds per acre as the compost is applied.
    7. Tilling:
        a. After fertilizer has been applied, a mechanical rock picker shall be used on areas accessible to machinery to mix fertilizer in the soil to a depth of 3 inches and to remove all rocks, debris, and solid non-soil material larger than 1 1/2 inches in diameter from the upper 3 inches of the soil. A spring tooth cultivator may be used in lieu of a rock picker. The rock shall then be removed by hand after each use of the cultivator--the process to be repeated until the soil is relatively free of rock as determined by the Engineer.
        b. Remove all rock remnants from rock piles used on project smaller than 1 1/2 inches.
        c. The seedbed shall then be smoothed with a cultivator-type tillage tool having a rake bar--such as the Roseman rake (or a rock rake such as the York) gauged by rear gauge wheels or by a blade gauged by a landscape roller (such as the Viking roller blade).
        d. Tilling shall be parallel to the contours.
        e. Ruts and wheel tracks in the seedbed from seedbed preparation are to be removed prior to seeding. This must be completed just prior to seeding and the work approved by the Engineer before the seeding application.

3.4 SEED PREPARATION

A. Inoculated seed shall not be exposed to direct sunlight for more than 1/2 hour. Seed which is not sown within 8 hours after inoculation shall be reinoculated prior to use.
B. Additional inoculation is required for preinoculated seed. Preinoculated seed will be considered as inoculated at not more than two times the rate specified by the inoculant manufacturer.

3.5 APPLICATION OF SEED

A. Prior to seeding, the seedbed shall be inspected and approved by the Jurisdictional Engineer.
B. Conventional Seeding:
    1. Sowing:
        a. On all areas accessible to machinery, all grasses shall be sown with a drop-type seeder attached to a landscape roller in such a manner that the seed is applied and then covered by rolling which firms the soil.
        b. On areas inaccessible to field machinery, the use of cyclone seeders will be permitted, but no other hand-seeding methods will be accepted.
        c. The application of grass and legume seed with hand seeders on early spring work must be performed as separate operations. No mixing of the two types of seed will be permitted.
    2. Mulching:
        a. All seeded areas shall be mulched within 24 hours after the seed is sown. The mulch shall be uniformly distributed over the required areas at a rate of 2 tons of dry mulch per acre.
        b. The mulch shall then be worked into the soil with a mulch tucker which shall be designed to anchor the mulch into the soil. The tucker shall be designed to anchor mulch into soil by means of dull blades or disks.
C. Hydraulic Seeding:
    1. All material, seed, fertilizer, mulch, and tackifier shall be placed in hydraulic-mulching equipment specifically manufactured for hydraulic seeding and mulching.
    2. The hydraulic equipment, pump, and application process shall not damage or crack seeds.
    3. Materials shall be mixed with fresh potable water using a combination of both recirculation through the equipment's pump and mechanical agitation to form a homogeneous slurry.
    4. It shall be applied evenly over all specified areas in a workmanlike manner at component material rates specified.
    5. Site cleanup shall be considered part of application and shall include the removal of hydraulic mulch slurry from buildings, landscaping, sidewalks, and any other areas not specified for application. All debris resulting from this application shall be removed from the site.
D. Pneumatic Seeding:
    1. Place all material, seed, fertilizer, and compost in equipment with a calibrated seeder attachment specifically designed for pneumatic seeding. Do not apply fertilizer with native grass, wildflower, or wetland seeding.
    2. Apply the compost evenly over specified areas at material rates specified.
    3. Inject seed and fertilizer into the top 1/4 inch to 1/2 inch of compost during application with a calibrated seed injector at the specified rate.

3.6 WATERING

A. All seeded areas shall be kept moist at all times. The areas shall be artificially watered a minimum of twice a day (early morning and evening) every day for the first week after seeding is completed.
B. For the second and third weeks after seeding, the seeded areas shall be artificially watered once a day (early morning or evening).
C. The quantity of water used shall be adequate to keep the soil and mulch moist to a depth of 1 inch and ensure growth of the seed. If natural rainfall is adequate to keep the soil and mulch moist as stated above, artificial watering may be deleted.
D. Any area seeded in the month of May shall be maintained for an additional 3 weeks. The seeded areas shall receive a minimum of 1 inch of water each week (either natural, artificial, or combination) for the fourth, fifth, and sixth week after seeding.

3.7 RESEEDING

A. When all work related to seeding on an area has been completed but is washed out or damaged prior to final acceptance of the seeding area and that area involves seeding in combination with mulching or fertilizing or both, the area shall be reseeded, refertilized, and remulched at the contract unit price or prices when so ordered by the Jurisdictional Engineer.

B. Fertilized or seeded areas damaged by rain prior to required mulching or areas where the mulch is not tucked shall be refertilized or reseeded or both at a rate not to exceed the specified rate, as designated by the Jurisdictional Engineer, without additional compensation.

3.8 CLEANUP

A. Perform cleanup operations during installation of work and upon completion.
B. Remove from site all excess materials, debris, and equipment.
C. Hose down and/or broom clean all paved surfaces.
D. Repair any damage resulting from seeding operations.
E. Remove hydraulic slurry from buildings landscaping and plantings, mulch, sidewalks, pavement, and any other areas not specified for application.

3.9 FINAL ACCEPTANCE

A. The areas seeded shall be given an initial acceptance, prior to the warranty period, based upon the following criteria:
    1. All requirements for the completed installation and a minimum of 60 days maintenance have been provided.
    2. Seeded areas shall be in a live, healthy, growing, and well-established condition without eroded areas, bare spots, free of weeds, undesirable grasses, disease, or insects.
    3. Reseeding operations are completed.
B. Final acceptance may be given by the Engineer upon fulfillment of all items completed as required under the warranty.

END OF SECTION

SECTION 32 1313

CONCRETE PAVING

PART 1 – GENERAL

1.1 SECTION INCLUDES

A. Concrete sidewalks and patios.

1.2 REFERENCE STANDARDS

A. ACI PRC-211.1 - Selecting Proportions for Normal-Density and High Density-Concrete - Guide; 2022.

B. ACI PRC-304 - Guide for Measuring, Mixing, Transporting, and Placing Concrete; 2000 (Reapproved 2009).

C. ACI PRC-305 - Guide to Hot Weather Concreting; 2020.

D. ACI PRC-306 - Guide to Cold Weather Concreting; 2016.

E. ACI SPEC-301 - Specifications for Concrete Construction; 2020.

F. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2022.

G. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2023.

H. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2021.

I. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2023.

J. ASTM C150/C150M - Standard Specification for Portland Cement; 2022.

K. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete; 2010a (Reapproved 2016).

L. ASTM C685/C685M - Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing; 2017.

1.3 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide data on joint filler, admixtures, and curing compound.

C. Design Data: Indicate pavement thickness, designed concrete strength, reinforcement, and typical details.

PART 2 – PRODUCTS

2.1 FORM MATERIALS

A. Wood or steel form material, profiled to suit conditions. Flexible forms for curves with radius less than 100'.

1. Bracing, support, and staking must revent deflection or movement of forms from pressure of concrete or weight or thrust of machinery operating on forms.
2. Forms must be free from scale and surface irregularities; coat with form oil prior to concrete placement.

2.2 REINFORCEMENT

A. Reinforcing Steel: ASTM A615/A615M, Grade 40 (40,000 psi) yield strength; deformed billet steel bars; epoxy coated.

B. Dowels: ASTM A615/A615M, Grade 40 - 40,000 psi yield strength; deformed billet steel bars; unfinished finish.

2.3 CONCRETE MATERIALS

A. Cement: ASTM C150/C150M, Normal - Type I Portland cement, gray color.

B. Fine and Coarse Mix Aggregates: ASTM C33/C33M.

C. Water: Clean, and not detrimental to concrete.

D. Air-Entraining Admixtures: ASTM C260/C260M.

E. Saltguard or approved equal to protect from moisture intrusion, chemical attack of chloride salts, and surface spalling.

2.4 CONCRETE MIX DESIGN

A. Proportioning Normal Weight Concrete: Comply with ACI PRC-211.1 recommendations.

B. Admixtures: Add acceptable admixtures as recommended in ACI PRC-211.1 and at rates recommended by manufacturer.

C. Concrete Properties:
   3. Compressive strength, when tested in accordance with ASTM C39/C39M at 28 days; 4000 psi.
   4. Maximum Slump: 4 inches.

D. Compressive Strength Tests: ASTM C 39/C 39M. For each test, mold and cure three concrete test cylinders. Obtain test samples for every 100 cu yd (76 cu m) or less of each class of concrete placed.
   1. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.
   2. Perform one slump test for each set of test cylinders taken.

E. Owner will select and pay for independent testing laboratory and Contractor shall coordinate work with testing laboratory before proceeding with each phase or stage or work.

2.5 MIXING

A. On Project Site: Mix in drum type batch mixer, complying with ASTM C685/C685M. Mix each batch not less than 1-1/2 minutes and not more than 5 minutes.

B. Transit Mixers: Comply with ASTM C94/C94M.

PART 3 – EXECUTION EXAMINATION

3.1 PREPARATION

A. Verify compacted subgrade is acceptable and ready to support paving and imposed loads.

B. Verify gradients and elevations of base are correct.

3.2 SUBBASE PREPARATION

A. Moisten base to minimize absorption of water from fresh concrete.

B. Notify Engineer minimum 24 hours prior to commencement of concreting operations.

3.3 FORMING

A. Place and secure forms to correct location, dimension, profile, and gradient.

3.4 REINFORCEMENT

A. Place reinforcement to achieve pavement and curb alignment as detailed.

3.5 COLD AND HOT WEATHER CONCRETING

A. Follow recommendations of ACI PRC-305 when concreting during hot weather.

B. Follow recommendations of ACI PRC-306 when concreting during cold weather.

C. Do not place concrete when base surface temperature is less than 40 degrees F, or surface is wet or frozen.

3.6 PLACING CONCRETE

A. Place concrete in accordance with ACI PRC-304.

B. Ensure reinforcement, inserts, embedded parts, and formed joints not disturbed during concrete placement.

C. Place concrete continuously over the full width of the panel and between predetermined construction joints. Do not break or interrupt successive pours such that cold joints occur.

3.7 JOINTS

A. Align curb, gutter, and sidewalk joints.

B. Place 3/8 inch wide expansion joints at 20 foot intervals and to separate paving from vertical surfaces and other components.

C. Saw cut contraction joints 3/16 inch wide at an optimum time after finishing. Cut 1/3 into depth of slab.

3.8 FINISHING

A. Sidewalk and Patio Paving: Light broom, texture perpendicular to direction of travel with troweled and radiused edge 1/4 inch radius.

3.9 TOLERANCES

A. Maximum Variation of Surface Flatness: 1/4 inch in 10 ft.

3.10 PROTECTION

A. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, and mechanical injury.

B. Do not permit pedestrian traffic over pavement for 7 days minimum after finishing

END OF SECTION

SECTION 334100

STORM DRAINAGE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General Conditions, Special Provisions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes: storm sewerage system piping and appurtenances and connection to existing field intake inlet/manhole structure.

B. Related Sections: The following sections contain requirements that relate to this section:
   1. Section 321313 – Concrete Paving

1.3 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Product data for drainage piping specialties.

C. Manufacturer's installation instructions: Indicate special procedures required to install products.

D. Manufacturer's certificate: Certify that pipe meets or exceeds specified requirements.

E. Manufacturer's literature demonstrating compliance with this specification.

1.4 QUALITY ASSURANCE

A. Codes and Standards: Comply with requirements of the following specifications as modified herein.
   1. Iowa Statewide Urban Design and Specifications (SUDAS), Current Edition

1.5 PROJECT CONDITIONS

A. Coordinate with other work.

B. Protect and maintain existing utilities.
   1. Contact IOWA One Call (811) OR 1-800-292-8989 before starting excavation.

PART 2 - PRODUCTS

1.6 DRAIN TILE

A. See civil plans general notes for material notes, which shall confirm with SUDAS standard specifications for 6" PVC drain tile .

1.7 STORM SEWER

A. Connection to existing manhole or intake: Follow SUDAS standard specifications Section 6010 – Structures for Sanitary and Storm Sewers 3.05 D.

PART 3 - EXECUTION

1.8 INSTALLATION

A. Pipe shall be installed in accordance with the plans and above referenced specifications except as modified below.

B. Installation shall be in accordance with manufacturer's instructions.

1.9 EXISTING UTILITIES

A. Utility Locate: Contact IOWA One Call (811) OR 1-800-292-8989 before starting excavation.

B. Telephone Fiber Optics Line Crossings: The Contractor will cross fiber optics telephone lines at various locations shown on the plans. The Contractor shall notify AT&T, MCI, GTE, and U.S. Sprint at last 72 hours prior to making this crossing so that they may furnish an inspector during the period of the crossing. It shall be the responsibility of the Contractor to make the necessary provisions to protect these telephone lines from any damage due to his operations. No extra compensation will be allowed for these crossings.

C. Drain lines encountered.
   1. All existing drain tile lines which cross the trench of the proposed utility and services shall be accurately recorded and marked in the field by the Contractor. Upon completion of the installation and service lines, the Contractor shall furnish a copy of all drain tile locations to the Engineer. The City Engineer shall analyze these locations and determine at which points the tiles shall be connected into the storm sewer system and which lines shall be intercepted and reconstructed down property lines to storm sewers. All existing drain tile lines crossing the proposed street rights-of-way shall be removed from a point 5 feet (1.5 meter) beyond the street right-of-way across the entire right-of-way to a point 5 feet (1.5 meter) beyond street right-of-way on the opposite side.
   2. The City Engineer will determine the type, quality and necessary strength of products required for any reconstruction.

1.10 FIELD QUALITY CONTROL

A. Construction Observation and Testing.
   1. The Owner will provide construction observation and testing through a qualified representative. The Contractor shall notify the Owner or the Owner’s representative a minimum of 48 hours prior to any work.

1.11 CLEAN UP

A. Contractor shall do cleanup on areas as work progresses. Final payment shall not be made until the work areas are restored as required and all wastes and equipment removed. If final cleanup is not done within five (5) days of being requested to do so by the Owner's representative, the Owner may undertake such work and deduct costs from the Contractor retainage.

B. Excess Excavation: All excess excavated materials shall become the responsibility of the Contractor for disposal off the construction site. The Owner reserves the right to have selected excavated materials deposited at designated locations within Owner's property at no additional cost to the Owner.

END OF SECTION 334100

Farnsworth GROUP

100% CD SET

DAS PROJECT 9417.00

HONEY CREEK RESORT - CLUBHOUSE SIDEWALK

12633 RESORT DR, MORAVIA, IA 52571

LOCATION MAP

SYMBOLS LEGEND

NOTE: NOT ALL SYMBOLS ARE USED IN CONSTRUCTION DOCUMENTS

- 1 / A8.1 — ENLARGED CALLOUT
- XX.X — COLUMN GRID
- ALIGN — ALIGN
- BREAK LINE
- ELEVATION 0'-0" — ELEVATION
- 1 — REVISION NOTE
- SLOPE: 1/4" — SLOPE/ROOF SLOPE
- 1 / A8.1 — DETAIL # / DETAIL SECTION / SHEET #

ABBREVIATIONS

ADJ	ADJUSTABLE	JT	JOINT
ADT'L	ADDITIONAL	L/S	LANDSCAPE
AFF	ABOVE FINISHED FLOOR	LB(S)	POUND(S)
AGG	AGGREGATE	LF	LINEAR FEET (FOOT)
ALT	ALTERNATE	MAS	MASONRY
AL	ALUMINUM	MAT'L	MATERIAL
APPROX	APPROXIMATE(LY)	MAX	MAXIMUM
AUTO	AUTOMATIC	MFR	MANUFACTURER
B/O	BOTTOM OF	MIN	MINIMUM
BD	BOARD	MISC	MISCELLANEOUS
BLDG	BUILDING	MTD	MOUNTED
BLKG	BLOCKING	MTL	METAL
BOT	BOTTOM	N	NORTH
BRG	BEARING	NA	NOT APPLICABLE
	CENTERLINE	NIC	NOT IN CONTRACT
C/C	CENTER TO CENTER	NOM	NOMINAL
CEM	CEMENT(ITIOUS)	NTS	NOT TO SCALE
CJ	CONTROL JOINT	OC	ON CENTER
CLL	CONTRACT LIMIT LINE	OD	OUTSIDE DIAMETER
CLG	CEILING	O TO O	OUT TO OUT
CLR	CLEAR	OPNG	OPENING
COL	COLUMN	OPP	OPPOSITE
CONC	CONCRETE	PERIM	PERIMETER
CONST	CONSTRUCTION	PFIN	PREFINISHED
CONT	CONTINUOUS	PL	PLATE
CTR	CENTER(ED)	PLBG	PLUMBING
DBL	DOUBLE	PLYWD	PLYWOOD
DEG	DEGREE	PNT	PAINT
DEMO	DEMOLITION	PR	PAIR
DET/DTL	DETAIL	PT	PRESSURE TREATED
DIA	DIAMETER	PTD	PAINTED
DIM	DIMENSION	RAD	RADIUS
DN	DOWN	REC	RECESSED
DS	DOWNSPOUT	REINF	REINFORCED
DWG(S)	DRAWING(S)	REQ'D	REQUIRED
E	EAST	REV	REVISED (REVISION)
EA	EACH	RD	ROOF DRAIN
EJ	EXPANSION JOINT	RM	ROOM
EL	ELEVATION	RO	ROUGH OPENING
ELEC	ELECTRIC(AL)	S	SOUTH
EQ	EQUAL	SB	SPLASH BLOCK
EW	EACH WAY	SF	SQUARE FEET (FOOT)
EXIEXIST	EXISTING	SIM	SIMILAR
EXJ	EXPANSION JOINT	SPEC	SPECIFICATIONS
EXP	EXPOSED	SQ	SQUARE
EXT	EXTERIOR	SS	STAINLESS STEEL
FD	FLOOR DRAIN	STD	STANDARD
FDN	FOUNDATION	STL	STEEL
FFE	FINISH FLOOR ELEVATION	STOR	STORAGE
FIN	FINISH	STRUCT	STRUCTURAL
FLSHG	FLASHING	SUSP	SUSPENDED
FLR	FLOOR	SY	SQUARE YARD(S)
FT	FOOT/FEET	T/O	TOP OF
FTG	FOOTING	TRTD	TREATED
FV	FIELD VERIFY	TYP	TYPICAL
GA	GAUGE	UNFIN	UNFINISHED
GALV	GALVANIZED	UNO	UNLESS NOTED OTHERWISE
GC	GENERAL CONTRACTOR	VERT	VERTICAL
GEN	GENERAL	VIF	VERIFY IN FIELD
HM	HOLLOW METAL	W/	WITH
HOL	HOLLOW	W/O	WITHOUT
HOR	HORIZONTAL	W	WEST
HT	HEIGHT	WD	WOOD
ID	INSIDE DIAMETER	WT	WEIGHT
IN	INCH	WWF	WELDED WIRE FABRIC
INCL	INCLUDING		

DRAWING LIST

LICENSED PROFESSIONAL ENGINEER — Robert Brandon Lott 27313 — IOWA

THE PORTION OF THIS TECHNICAL SUBMISSION DESCRIBED BELOW WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION. I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

SIGNATURE:
NAME: Robert Brandon Lott
DATE: 03-10-2025
LICENSE RENEWAL DATE: 12-31-2025
PAGES OR DIVISIONS COVERED:

PROJECT NO.: 02500060.001

DATE: 03/10/2025

14225 University Avenue, Suite 110 - Waukee, Iowa 50263 - Phone: (515) 225-3469 / info@f-w.com

3/10/2025 4:35:37 PM

Farnsworth GROUP

DAS PROJECT 9417.00 HONEY CREEK RESORT - CLUBHOUSE SIDEWALK

SYMBOL LEGEND

NOTE: NOT ALL SYMBOLS ARE USED IN CONSTRUCTION DOCUMENTS

EXISTING CONDITIONS

- BENCHMARK
- CONTROL POINT
- PK NAIL
- IRON PIPE
- RIGHT-OF-WAY MARKER
- BOLLARD
- BORE HOLE
- SIGN
- MB MAILBOX
- SATELLITE
- FLOW LINE
- DECIDUOUS TREE W/ SIZE (6")
- EVERGREEN TREE W/ SIZE (6")
- UTILITY DOWN GUY
- UTILITY POLE
- UTILITY POLE DROP
- UTILITY POLE + TRANSFORMER
- TRAFFIC HANDLE BOX
- COMMUNICATION BOX
- ELECTRICAL HANDLE BOX
- ELECTRICAL METER
- LOT LIGHT
- STREET LIGHT
- TRAFFIC SIGNAL MAST ARM
- UTILITY LINE (8"SA) — UTILITY SIZE/TYPE DESIGNATOR, SEE ABBREVIATIONS
- SANITARY MANHOLE
- SEWER CLEANOUT
- GAS METER
- GAS MARKER
- STORM INLET (CURB TYPE)
- STORM INLET (GRATE TYPE)
- STORM INLET (MANHOLE TYPE)
- STORM MANHOLE
- FIRE HYDRANT
- YARD HYDRANT (YH)
- SHUTOFF VALVE
- VALVE
- (R) RECORD INFORMATION
- PROPERTY LINE
- RIGHT-OF-WAY
- FENCE LINE (X)
- 755 CONTOUR LINE MAJOR
- BUILDING LINE

NEW DEVELOPMENT

- SILT FILTER FENCE
- DITCH CHECK
- CONCRETE CURB & GUTTER TYPE PER PLAN, REGULAR PAN
- CONCRETE CURB & GUTTER TYPE PER PLAN, INVERTED PAN
- (SF) INLET PROTECTION
- BMP 880 PERMANENT VEGETATION — INDICATES "BEST MANAGEMENT PRACTICE" EROSION CONTROL MEASURE AS DEFINED IN THE ILLINOIS URBAN MANUAL.
- (7) NO. REGULAR PARKING SPACES PROVIDED
- (A) ADJUST UTILITY TO FINISH GRADE
- FLOOD ROUTE
- FLOW LINE
- PIPE BOLLARD
- UTILITY POLE
- UTILITY POLE DROP
- UTILITY POLE + TRANSFORMER
- LIGHT POLE
- WALL-MOUNTED LIGHT
- HANDICAP PARKING SIGN
- SAW CUT LINE
- APPROXIMATE LIMITS OF DEVELOPMENT
- UTILITY REMOVAL
- ABANDONED UTILITY
- SITE ELEMENT REMOVAL
- 8"SA UTILITY LINE — UTILITY SIZE/TYPE DESIGNATOR, SEE ABBREVIATIONS
- SANITARY MANHOLE
- FLARED END SECTION
- BUILDING DOWNSPOUT
- STORM/SANITARY CLEANOUT
- STORM INLET (CURB TYPE)
- STORM INLET (GRATE TYPE)
- STORM INLET (MANHOLE TYPE)
- STORM MANHOLE
- FIRE HYDRANT
- REDUCER
- VALVE
- WATER METER
- TAPPING SLEEVE, VALVE & BOX
- PERMANENT/ CONSTRUCTION EASEMENT
- FENCE LINE
- 755 CONTOUR LINE MAJOR
- BUILDING LINE

REMOVAL HATCH

- CONCRETE PAVEMENT REMOVAL
- TREE/BUSH REMOVAL (24")
- CURB REMOVAL

NEW DEVELOPMENT HATCH

- P.C. CONCRETE SIDEWALK / PATIO
- PERMANENT SEEDING
- EROSION CONTROL BLANKET

ABBREVIATIONS

&	AND
~	APPROXIMATE
@	AT
°	DEGREE
#	NUMBER
%	PERCENT
±	PLUS OR MINUS
AGG	AGGREGATE
ALT	ALTERNATE
APPROX	APPROXIMATE
AVE.	AVENUE
BC	BACK OF CURB
BLVD.	BOULEVARD
BM	BENCH MARK
BMP	BEST MGMT. PRACTICE
BOT	BOTTOM
BW	BACK OF WALK
C & G	CURB AND GUTTER
C to C	CENTER TO CENTER
CIP	CAST-IN-PLACE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CS	COMBINED SEWER
CT.	COURT
CTR	CENTER
CULV	CULVERT
DEPT	DEPARTMENT
DIA	DIAMETER
DR.	DRIVE
DT	DRAIN TILE
DWG	DRAWING
DWGS	DRAWINGS
E	EAST
EL	ELEVATION
ELE	ELEVATION
ELEV	ELEVATION
EQ	EQUAL
EXP	EXPANSION
EXST	EXISTING
FF	FINISH FLOOR ELEVATION
FG	FRAME AND GRATE
FH	FIRE HYDRANT
FIN	FINISH
FL	FLOW LINE
FLR	FLOOR
FM	FORCE MAIN
FTG	FOOTING
G	GROUND ELEVATION
GALV	GALVANIZED
GV	GATE VALVE
HDWL	HEADWALL
HMA	HOT MIX ASPHALT
HORIZ	HORIZONTAL
HW	HIGH WATER
HWY	HIGHWAY
ID	INSIDE DIAMETER
IDOT	ILLINOIS DEPARTMENT OF TRANSPORTATION
JT	JOINT
LAT	LATITUDE
LF	LINEAR FEET
LONG	LONGITUDE
LS	LUMP SUM
LT	LEFT
MAX	MAXIMUM
MES	METAL END SECTION
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
N	NORTH
NO.	NUMBER
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
P	PAVEMENT ELEVATION
PC	POINT OF CURVATURE
PL	PROPERTY LINE
POC	POINT OF CURVE
POI	POINT OF INTERSECTION

GENERAL NOTES

GENERAL NOTES:

1. ALL WORK SHALL BE IN CONFORMANCE WITH:
   1.A. THE APPLICABLE SECTIONS OF THE IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, PLUS GENERAL SUPPLEMENTAL SPECIFICATIONS, AND APPLICABLE SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, AND SPECIAL PROVISIONS.
   1.B. THE MOST RECENT EDITION OF THE SUDAS STANDARD SPECIFICATIONS.
2. CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO LOCATE AND PROTECT ALL UNDERGROUND FACILITIES/UTILITIES DURING CONSTRUCTION OPERATIONS. ANY DAMAGE TO ANY UTILITIES SHALL BE PROMPTLY REPORTED TO THE OWNER. REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE UNDERGROUND UTILITIES SHOWN HEREIN ARE APPROXIMATE AND BASED ON THE ACTUAL LOCATION OF SURFACE STRUCTURES AND PLANS PROVIDED BY THE OWNER. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVE GROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS.
3. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN MARKINGS AND ASSOCIATED HAZARD WARNING LIGHTS, DELINEATOR FENCE, AND OTHER ASSOCIATED FACILITIES AS REQUIRED FOR OPEN TRENCHES, EXCAVATIONS, TEMPORARY STOCK PILES, AND PARKED CONSTRUCTION EQUIPMENT THAT MAY POSE A POTENTIAL HAZARD AS PART OF THE DAILY OPERATIONS AT THIS SITE. CONTRACTOR IS SOLELY RESPONSIBLE FOR SITE SAFETY.
4. CONTRACTOR SHALL CONTINUOUSLY COMPARE ALL LINES, GRADES, AND OTHER INFORMATION APPEARING ON THE PLANS WITH THE ACTUAL LINES, GRADES, AND SITE CONDITIONS. ANY DISCREPANCIES THAT MAY AFFECT THE PERFORMANCE OF THE WORK IN ACCORDANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS SHALL BE IMMEDIATELY REPORTED TO THE OWNER AND ENGINEER IN WRITING FOR DISPOSITION BEFORE CONTRACTOR PROCEEDS WITH THE WORK. CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR THE WORK COMPLETED PRIOR TO THE REPORT TO THE OWNER AND ENGINEER, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CORRECTION OF THE WORK PRIOR TO THE REPORT TO THE OWNER AND ENGINEER.
5. CONTRACTOR PARKING AND LAYDOWN AREAS SHALL BE COORDINATED WITH THE OWNER.
6. CONTRACTOR SHALL REMOVE EARTHEN MATERIALS, EXISTING SURFACES, AND STRUCTURES AS REQUIRED. ALL WASTE MATERIAL SHALL BE PROPERLY DISPOSED OFF-SITE AND SHALL BE INCIDENTAL TO THE CONTRACT.
7. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, UNLESS NOTED. THIS WILL INCLUDE BUT NOT BE LIMITED TO BUILDING PERMIT AND IOWA N.P.D.E.S PERMIT. THE CONTRACTOR SHALL PROVIDE ANY FINANCIAL SURETIES REQUIRED AS PART OF ANY PERMIT.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING UTILITY AS-BUILT DRAWINGS TO THE OWNER AND ENGINEER AT EACH RESPECTIVE UTILITY COMPLETION, AND WITHIN 14 DAYS OF RECEIPT OF THE CERTIFICATE OF SUBSTANTIAL COMPLETION.
9. CONSTRUCTION STAKING, LAYOUT, AND GRADING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR USING THE BASIC TOPOGRAPHIC SURVEY CONTROLS PROVIDED IN THE PLANS. CONTRACTOR SHALL VERIFY SURVEY CONTROLS PRIOR TO BEGINNING CONSTRUCTION. ANY DISCREPANCIES IN THE SURVEY CONTROLS SHALL BE REPORTED TO THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION. ANY ADDITIONAL SURVEY CONTROLS REQUIRED FOR CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL COORDINATE ALL UTILITY LINE CROSSINGS TO ENSURE ALL PIPES MAINTAIN MINIMUM COVER, MINIMUM CLEARANCES, AND PROPER SEPARATION. GRAVITY LINES SHALL HAVE PRECEDENCE OVER PRESSURIZED LINES.
11. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL ITEMS INCORPORATED INTO THE WORK FOR ENGINEER REVIEW AND APPROVAL A MINIMUM OF 2 WEEKS PRIOR TO ORDERING.
12. REFERENCES TO "INSPECTION" OR "INSPECTOR" IN THE SPECIFICATIONS SHALL NOT CREATE, IMPOSE, OR GIVE RISE TO ANY DUTY OWED BY THE OWNER OR ENGINEER TO THE CONTRACTOR, ANY SUBCONTRACTOR, OR ANY SUPPLIER.
13. WHERE SECTION, SUB-SECTION, SUBDIVISION, OR PROPERTY MONUMENTS ARE ENCOUNTERED, THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL PROPERTY MARKERS UNTIL AN OWNER OR AUTHORIZED SURVEYOR HAS WITNESSED OR REFERENCED THEIR LOCATION.
14. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES PRIOR TO ANY WORK IN AND AROUND UTILITY-OWNED INFRASTRUCTURE AND MAKE THEM AWARE OF WORK TO BE PERFORMED.
15. ANY SIDEWALKS, FENCES, AND OTHER ITEMS NOT SHOWN TO BE REMOVED, BUT DAMAGED DURING CONSTRUCTION, SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
16. ALL EARTHWORK, GRADING AND BACKFILLING SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS PROVIDED IN THE "SUBSURFACE EXPLORATION, LEC GARAGE & PARKING ADDITIONS", DATED SEPTEMBER 30, 2022, BY TEAM SERVICES
17. THE GENERAL CONTRACTOR, AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS AND BECOMING FAMILIAR WITH ALL CONSTRUCTION DOCUMENTS.
18. PRIOR TO ANY EXCAVATION CONTRACTORS SHALL CALL THE TOLL FREE IOWA ONE CALL NUMBER 1-800-292-8989.
19. DIMENSIONS TO BE FIELD VERIFIED BY CONTRACTOR.
20. PROTECT ALL SITE FEATURES NOT SCHEDULED FOR DEMOLITION OR MODIFICATION. ANY DAMAGE TO ITEMS NOT SHOWN FOR REMOVAL SHALL BE REPAIRED BY THE CONTRACTOR TO THE OWNER'S SPECIFICATIONS WITHOUT ADDITIONAL COMPENSATION. THIS INCLUDES: PAVEMENT TO REMAIN, EXISTING UTILITIES, EXISTING TREES AND LANDSCAPING, EXISTING STRUCTURES.
21. FOR NEW PAVEMENT, PROVIDE THE FOLLOWING:
   A. 5" DEPTH PCC SIDEWALK.
   B. 5" DEPTH PCC PATIO.
   C. CONNECT TO EXISTING PAVEMENT FOR THE FOLLOWING:
      C.A. CONNECT TO EXISTING STOOP (SEE DETAIL ON C1.1)
      C.B. CONNECT ABUTTING TO EXISTING BUILDING (EXPANSION JOINT)
      C.C. CONNECT TO EXISTING SIDEWALK (EXPANSION JOINT)
22. CONTRACTOR SHALL PROVIDE A JOINT LAYOUT PLAN FOR PROPOSED CONCRETE SIDEWALK AND PATIO REPLACEMENT AS SPECIFIED IN DETAIL BELOW.

SITE DEMOLITION NOTES:

1. EXISTING UTILITIES TO REMAIN, WHICH ARE DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION, SHALL BE REPAIRED AND/OR REPLACED WITHOUT ADDITIONAL COMPENSATION. CONFLICTS WITH PROPOSED CONSTRUCTION AND UTILITIES TO REMAIN ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONSTRUCTION MANAGER FOR COORDINATION WITH THE OWNER'S REPRESENTATIVE, ENGINEER, AND UTILITY COMPANY.
2. ALL PAVEMENT TO BE REMOVED SHALL BE SAWCUT FULL DEPTH.
3. CONTRACTOR SHALL EMPLOY ALL MEASURES NECESSARY DURING DEMOLITION TO CONTROL EROSION AND INSURE THAT SEDIMENT DOES NOT LEAVE THE SITE. TRACKING OF DIRT ONTO PUBLIC STREETS AND ALLEYS SHALL BE CLEANED IMMEDIATELY, AND ALL SEDIMENT AND EROSION CONTROL ITEMS SHALL BE INSTALLED PRIOR TO CLEARING AND DEMOLITION WORK.
4. CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING SITE CONDITIONS AND BECOMING FAMILIAR WITH ALL CONSTRUCTION DOCUMENTS.
5. ITEMS INDICATED TO BE REMOVED SHALL BE COMPLETELY REMOVED UNLESS INDICATED OTHERWISE, AND BACKFILLED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
6. ITEMS INDICATED TO BE SALVAGED SHALL BE CAREFULLY REMOVED AND STORED IN A LOCATION DESIGNATED BY THE OWNER.
7. ALL TREES AND BRUSH INDICATED TO BE REMOVED SHALL BE REMOVED COMPLETELY, INCLUDING ROOT BALLS.
8. CONTRACTOR SHALL FULLY PROTECT ALL SURROUNDING PROPERTIES FROM ANY AND ALL DAMAGE DURING DEMOLITION OPERATIONS; AND SHALL BE FULLY RESPONSIBLE FOR REPAIRING (TO A CONDITION ACCEPTABLE TO THE OWNER AND ARCHITECT) ANY AND ALL DAMAGE THAT DOES OCCUR.
9. CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROLS AND RELATED APPURTENANCES THAT ARE REQUIRED BY ANY APPLICABLE CODES AND ORDINANCES, DURING ALL DEMOLITION OPERATIONS.
10. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE SAFETY AND SECURITY OF THE PROJECT SITE AND ITS SURROUNDINGS DURING DEMOLITION OPERATIONS.
11. ALL DEMOLISHED EXISTING MATERIALS, SYSTEMS, AND CONSTRUCTIONS SHALL BE DISPOSED OF IN A LAWFUL MANNER, AND WRITTEN RECORDS OF THE FINAL DESTINATION FOR THESE MATERIALS, SYSTEMS, AND CONSTRUCTIONS (INCLUDING ANY IDENTIFIED HAZARDOUS ITEMS) SHALL BE PROVIDED TO THE OWNER AND ARCHITECT.
12. EXISTING SITE SHALL BE CLEANED ON A DAILY BASIS THROUGHOUT THE DURATION OF DEMOLITIONS OPERATIONS; AND NO DEBRIS OR PRODUCTS OF DEMOLITION SHALL BE ALLOWED TO ACCUMULATE OUTSIDE THE BOUNDARIES OF THE SITE.
13. CONTRACTOR SHALL FULLY COORDINATE ALL PROJECT DEMOLITION OPERATIONS.

SITE LAYOUT NOTES:

1. JOINTS IN SIDEWALK (TOOLED AND/OR SAWED) SHALL BE AT 5' MAX. INTERVALS, UNLESS INDICATED OTHERWISE.
2. WHEN CONCRETE IS PLACED ABUTTING STRUCTURES, FOUNDATIONS OR EXISTING SIDEWALKS, A BOND BREAKER CONSISTING OF 1/2" P.J.F. AND ELASTOMERIC JOINT SEALANT SHALL BE USED FULL DEPTH UNLESS OTHERWISE NOTED.
3. MAXIMUM CONTRACTION JOINT SPACING ON CONCRETE CURB AND GUTTER OR CONCRETE GUTTER SHALL NOT EXCEED 25'.
4. SIDEWALK RAMPS FOR ADA SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN HEREIN. DETECTABLE WARNINGS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
5. ALL SIDEWALKS SHALL BE 5 INCHES IN THICKNESS AND CONSTRUCTED TO THE WIDTH SHOWN ON THE PLANS. ALL SIDEWALKS SHALL BE CONSTRUCTED WITH A MIN. CROSS SLOPE OF 1% AND A MAX. CROSS SLOPE OF 2%.
6. CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING SITE CONDITIONS AND BECOMING FAMILIAR WITH ALL CONSTRUCTION DOCUMENTS.
7. WHERE NEW SIDEWALK ABUTS EXISTING PAVEMENT OR STOOPS, MATCH EXISTING PAVEMENT OR STOOP GRADE.
8. GRADE SIDEWALK/PATIO TO DRAIN AWAY FROM BUILDING.
9. GRADE ALL LANDSCAPE BEDS AND SURFACES TO DRAIN AWAY FROM BUILDING.
10. SEED ANY DISTURBED AREAS. SEE LANDSCAPE PLAN FOR SEEDING REQUIREMENTS.
11. REMOVE EXISTING SIDEWALK TO NEAREST JOINTS SHOWN IN LAYOUT.
12. SUBGRADE SHALL BE PREPARED AND COMPACTED TO 98% STANDARD PROCTOR.

SITE GRADING AND EROSION CONTROL NOTES:

1. ENGINEERED STRUCTURAL FILLS SHALL BE INCLUDED IN OVERALL SITE DEVELOPMENT TO PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE FLOOR SLABS ON GRADE AND ADJOINING PAVEMENT AREAS. REFER TO THE GEOTECHNICAL REPORT FOR APPROVED FILL MATERIALS AND COMPACTION REQUIREMENTS.
2. ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE SUDAS SPECIFICATION MANUAL.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE INSTALLATION, ALL INSPECTIONS, AND MAINTENANCE OF ALL EROSION CONTROL FACILITIES UNTIL FINAL STABILIZATION OF ALL AREAS DISTURBED BY CONSTRUCTION OCCURS. MAINTENANCE AND REPLACEMENT OF EROSION CONTROL ITEMS SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.
4. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITY MUST BE SEEDED, SODDED, BLANKETED OR OTHERWISE PROTECTED WITHIN 14 DAYS OF FINAL DISTURBANCE. SEEDING, FERTILIZATION AND MULCH SHALL BE IN ACCORDANCE WITH THE SUDAS SPECIFICATION MANUAL. ALL AREAS DISTURBED BY THE CONTRACTOR DURING THE CONSTRUCTION OF THIS PROJECT WHICH ARE LOCATED OUTSIDE OF THE PROPOSED SEEDING LIMITS SHALL BE GRADED TO DRAIN, FERTILIZED, SEEDED, AND MULCHED. THE COST ASSOCIATED WITH THE PLACEMENT OF ADDITIONAL FERTILIZER, SEED, AND MULCH SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN ARE THE MINIMUM MEASURES REQUIRED. UNFORESEEN CHANGES IN SCOPE, SCHEDULE OR CONSTRUCTION METHODS MAY RESULT IN CHANGES OR ADDITIONS TO THIS PLAN AND THE SWPPP. ANY CHANGES OR ADDITIONS NECESSARY TO MAINTAIN COMPLIANCE WITH THE IOWA NPDES PERMIT SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER.
6. SHOULD PROJECT SCHEDULING PROHIBIT THE ABILITY TO SEED DISTURBED EARTH UPON COMPLETION OF GRADING, CONTRACTOR SHALL EMPLOY ALTERNATE SOURCE CONTROLS IN ADDITION TO THOSE ON THIS PLAN, INCIDENTAL TO THE CONTRACT.
7. DUST CONTROL MUST BE PROVIDED AS NEEDED, BY WATERING OR OTHER MEANS.
8. CONTRACTOR IS REQUIRED TO PROVIDE AND USE A CONCRETE WASHOUT AREA FOR RINSING CONCRETE TRUCKS.
9. CONTRACTOR IS REQUIRED TO PROVIDE AND USE A TEMPORARY CONSTRUCTION ENTRANCE FOR ALL CONSTRUCTION TRAFFIC UNLESS APPROVED TO USE EXISTING PAVEMENT AREAS. COORDINATE EXACT LOCATION WITH OWNER.
10. CONTRACTOR SHALL PROVIDE AND USE A WHEEL WASH SYSTEM TO ENSURE THAT ALL CONSTRUCTION TRAFFIC ENTERING AND EXITING THE SITE MAINTAIN CLEAN TIRES. ANY SEDIMENT TRACKED ONTO ADJACENT ROADWAYS OR PAVED AREAS SHALL BE REMOVED BY THE CONTRACTOR BY THE END OF THE SAME WORK DAY.
11. ALL ELEVATIONS SHOWN ARE TO FINISHED PAVEMENT UNLESS SPECIFIED OTHERWISE.
12. SOIL COMPACTION SHALL BE MINIMIZED AS MUCH AS POSSIBLE DURING SITE GRADING. APPROPRIATE MEASURES, INCLUDING BUT NOT LIMITED TO FENCING, SHOULD BE USED TO LIMIT HEAVY EQUIPMENT TRAFFIC FROM ACCESSING THE AREA.
13. THE INTENDED SEQUENCE OF SOIL DISTURBING ACTIVITIES ARE AS FOLLOWS:
   -INSTALLATION OF EROSION CONTROLS.
   -CLEARING, GRUBBING AND SELECT DEMOLITION AS NECESSARY.
   -EARTH MOVING AND MASS GRADING.
   -INSTALLATION OF UTILITIES.
   -BUILDING CONSTRUCTION.
   -PAVING OF SIDEWALKS AND PARKING LOT
   -FINAL GRADING OF SITE, LANDSCAPING AND RESEEDING OF DISTURBED AREAS.
14. ALL EARTHEN AREAS DISTURBED DURING CONSTRUCTION SHALL BE PERMANENTLY SEEDED AND EROSION CONTROL BLANKET SHALLE INSTALLED PER SUDAS SPECIFICATIONS IN AREAS SHOWN ON THE EROSION CONTROL PLAN.

SITE UTILITY NOTES:

1. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS.
2. FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
3. ALL UTILITY TRENCHES UNDER OR WITHIN 2' OF EXISTING OR PROPOSED PAVEMENT, SIDEWALK OR BUILDING SHALL BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL. GRANULAR MATERIAL SHALL BE IMPORTED UNLESS EXISTING GRANULAR MATERIALS ARE SPECIFICALLY APPROVED BY THE OWNER'S REPRESENTATIVE.
4. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN ALL WATER MAINS AND SEWERS. IF SEPARATION IS NOT POSSIBLE, WATER MAIN ENCASEMENT SHALL BE REQUIRED OR THE SEWER SHALL BE CONSTRUCTED OF WATER MAIN QUALITY PIPE.
5. WATER MAINS SHALL CROSS ABOVE SEWERS WITH A MINIMUM VERTICAL SEPARATION OF 18 INCHES WHILE STILL MAINTAINING THE REQUIRED DEPTH OF COVER. IF PROPER SEPARATION IS NOT POSSIBLE, OR IF THE WATER MAIN MUST BE ROUTED UNDER THE SEWER, WATER MAIN ENCASEMENT SHALL BE REQUIRED OR THE SEWER SHALL BE CONSTRUCTED OF WATER MAIN QUALITY PIPE.
6. STORM SEWER SHALL BE AS NOTED ON THE PLANS IN CONFORMANCE WITH THE FOLLOWING:
   A. PVC STORM SEWER PIPING, ASTM D 3034, SDR 21 (WATER MAIN QUALITY)
      a. BELL-AND-SPIGOT ENDS
      b. ASTM F 477, ELASTOMERIC SEALS FOR GASKETED JOINTS
   B. PVC STORM SEWER PIPING, ASTM D 3034, SDR 35
      a. BELL-AND-SPIGOT ENDS
      b. ASTM F 477, ELASTOMERIC SEALS FOR GASKETED JOINTS
7. ALL CLEANOUT RIMS SHALL BE CONSTRUCTED FLUSH WITH THE FINISHED GROUND SURFACE.
8. CONTRACTOR SHALL COORDINATE ALL UTILITY LINE CROSSINGS TO ENSURE ALL PIPES MAINTAIN MINIMUM COVER, MINIMUM CLEARANCES, AND PROPER SEPARATION. GRAVITY LINES SHALL HAVE PRECEDENCE OVER PRESSURIZED LINES.

BENCHMARK INFORMATION

EXISTING TOPOGRAPHIC CONDITIONS AND SURVEY WERE NOT PROVIDED BY FARNSWORTH GROUP INC. EXISTING SITE CONDITIONS ARE BASED UPON APPROXIMATE FIELD MEASUREMENT PHOTOGRAPHS TAKEN ON SITE AND EXISTING AERIAL IMAGERY AND ARE FOR REFERENCE.

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Engineers | Architects | Surveyors | Scientists

ISSUE:

#	DATE:	DESCRIPTION:

100% CD SET

PROJECT:

DAS PROJECT 9417.00

HONEY CREEK RESORT - CLUBHOUSE SIDEWALK

12633 Resort Dr
Moravia, IA 52571

DATE:	03/10/2025
DESIGNED:	SPI
DRAWN:	SPI
REVIEWED:	RBL
FIELD BOOK NO.:	N/A

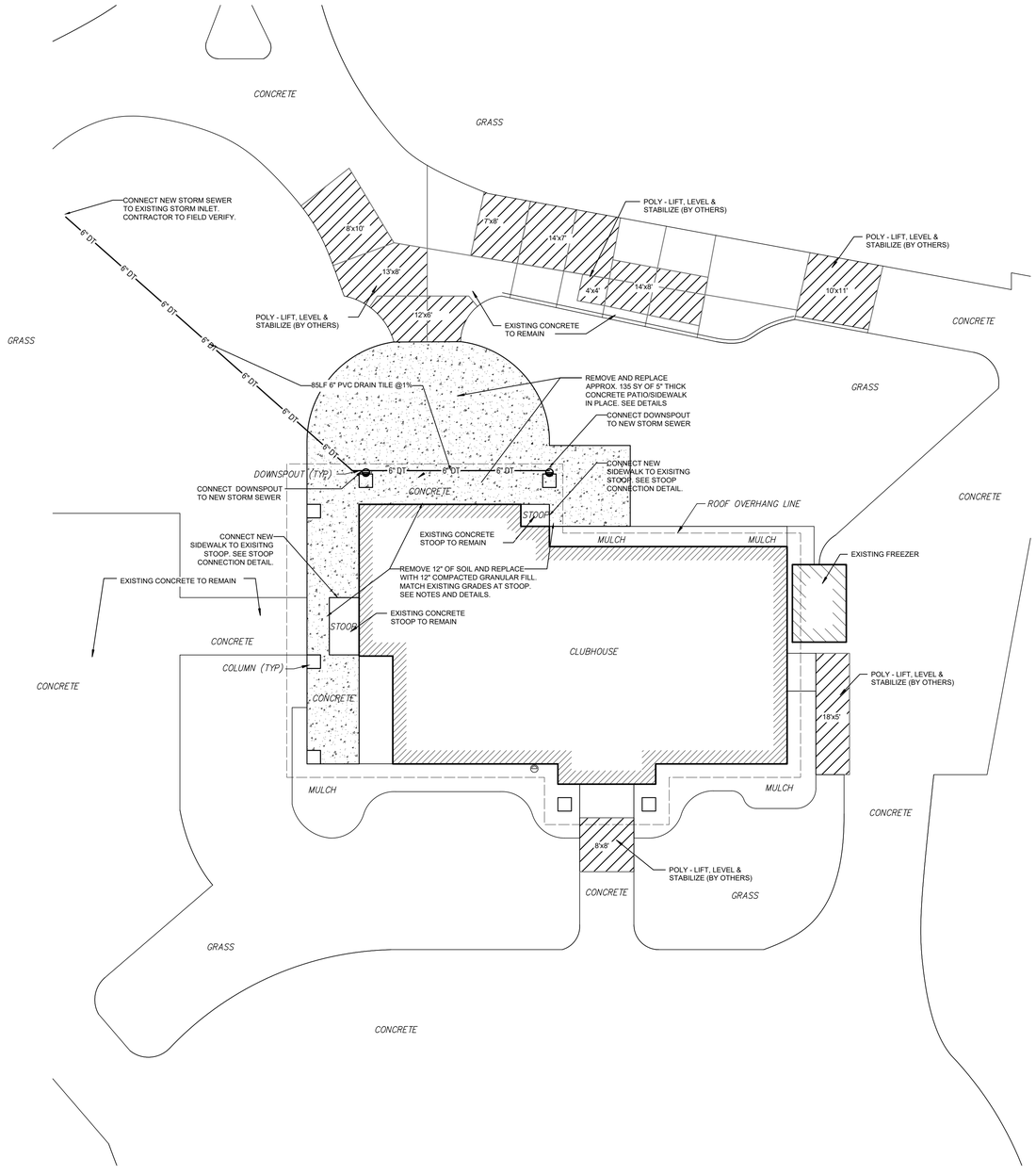
SHEET TITLE:

LEGENDS AND NOTES

SHEET NUMBER:

C0.1

PROJECT NO.: 0200060.001

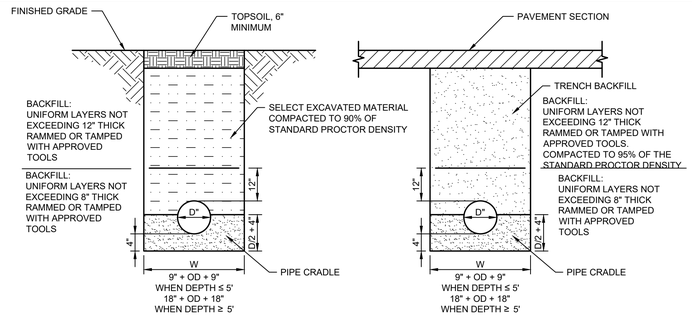


2 SITE PLAN

SCALE: 1" = 10'

0 5 10 20
U.S. SURVEY FEET

NORTH



TRENCHES OVER 2' FROM A PAVEMENT SURFACE

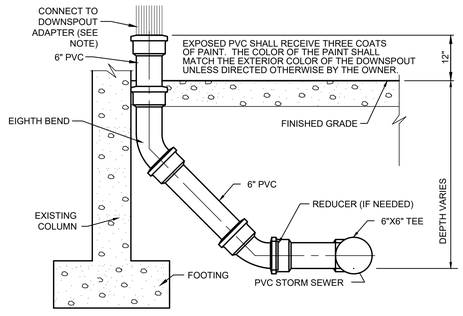
TRENCHES OVER 2' FROM A PAVEMENT SURFACE

TRENCH BACKFILL NOTES

1. PAVEMENT SURFACES INCLUDE BUT ARE NOT LIMITED TO DRIVEWAYS, PARKING LOTS, SIDEWALKS, AND COMBINATION CURB & GUTTER.
2. ANY SOFT OR SPONGY MATERIAL ENCOUNTERED BELOW THE ELEVATION OF THE PIPE SHALL BE REMOVED AND REPLACED WITH WELL COMPACTED MOIST FINE AGGREGATE.
3. ANY ROCK ENCOUNTERED IN THE TRENCH SHALL BE REMOVED TO A DEPTH OF AT LEAST 8" BELOW THE PIPE GRADE AND REPLACED WITH WELL COMPACTED MOIST FINE AGGREGATE.
4. THE SIDES OF THE TRENCH MAY BE SLOPED OR BENCHED ABOVE A 5' TRENCH DEPTH OR ABOVE THE ELEVATION OF THE TOP OF PIPE, WHICHEVER IS GREATER, IN LIEU OF COMPLETE SHORING OR SHEETING OF THE FULL TRENCH DEPTH.

6 STORM DRAIN TRENCH BACKFILL

SCALE: NOT TO SCALE

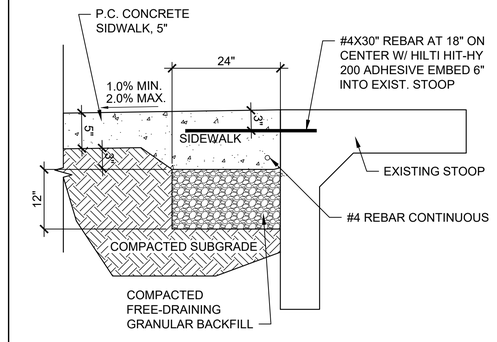


MAINTAIN MIN. PIPE COVER BELOW FROST DEPTH PER STANDARDS

CONNECTION SHALL BE MADE WITH A PVC DOWNSPOUT ADAPTER AND REDUCER (IF NEEDED). SUBMIT PRODUCT DATA TO ENGINEER/ARCHITECT FOR APPROVAL.

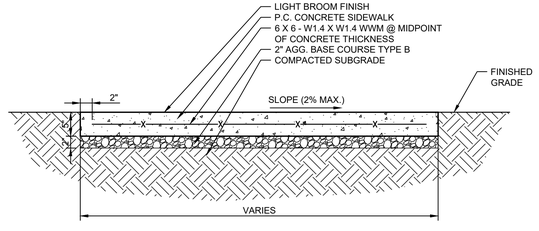
5 DOWNSPOUT CONNECTION

SCALE: NOT TO SCALE



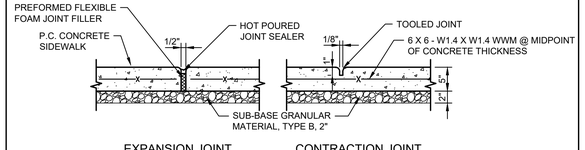
2 SIDEWALK CONNECTION AT EXISTING STOOP

SCALE: NOT TO SCALE



4 P.C. CONC. SIDEWALK / PATIO

SCALE: NOT TO SCALE



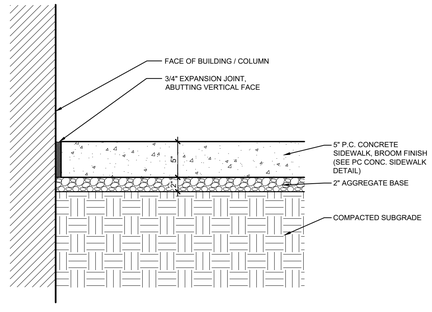
EXPANSION JOINT

CONTRACTION JOINT

1. PROVIDE EXPANSION JOINTS AT 30'-0" O.C. MAXIMUM AND AT INTERSECTION WITH STRUCTURES AND ABRUPT CHANGES.
2. PROVIDE CONTRACTION JOINTS AT 5' INTERVALS OR AS NOTED ON PLANS OR SHOWN IN DETAILS.

3 P.C. CONC. SIDEWWALK JOINT DETAIL

SCALE: NOT TO SCALE



1 SIDEWALK CONNECTION AT BUILDING/COLUMN

SCALE: NOT TO SCALE

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SITE PLAN & DETAILS

SHEET NUMBER:

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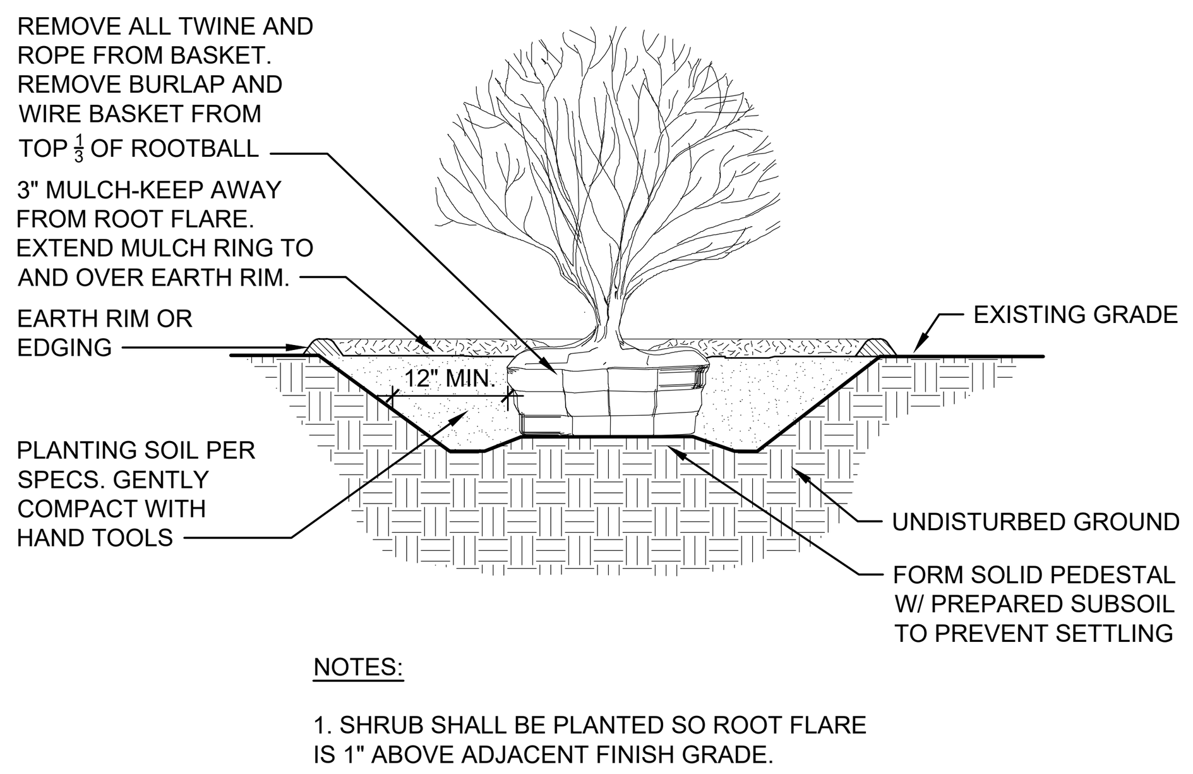
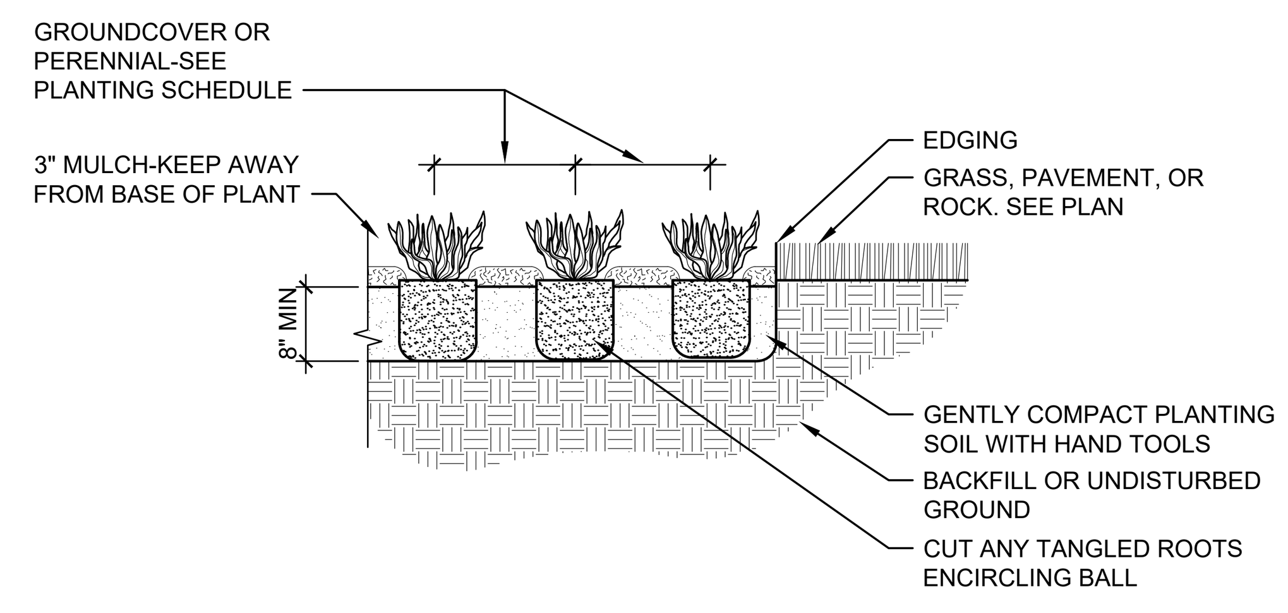


NOTES:

1. SHRUB SHALL BE PLANTED SO ROOT FLARE IS 1" ABOVE ADJACENT FINISH GRADE.

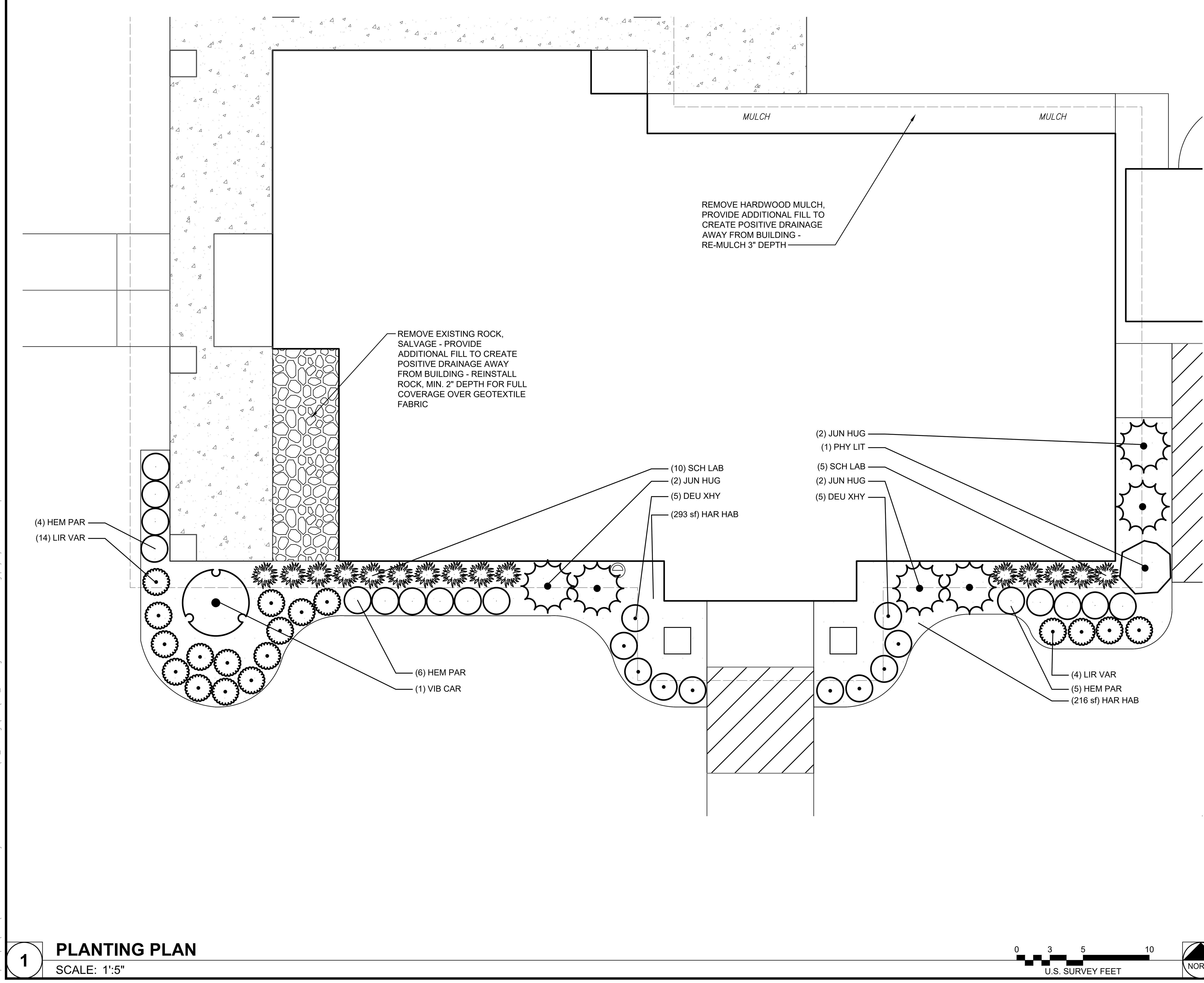
3 **SHRUB PLANTING**

SCALE: NOT TO SCALE



2 **PERENNIAL AND ORNMENTAL GRASSES PLANTING**

SCALE: NOT TO SCALE



1 **PLANTING PLAN**

SCALE: 1':5"

General Landscape Notes

GENERAL

1. BASE SURVEY INFORMATION SUPPLIED BY OTHERS. ALL QUANTITIES AND DESIGN ARE BASED UPON THE PROVIDED SURVEY.
2. PRIOR TO THE START OF ANY WORK, THE CONTRACTOR SHALL NOTIFY J.U.L.I.E., OWNER AND GENERAL CONTRACTOR (IF ANY) FOR THE PROPER MARKING/LOCATION OF ALL EXISTING UTILITIES; PUBLIC AND PRIVATE.
3. ANY DAMAGE TO EXISTING PROPERTIES SHALL BE REPAIRED AND OR REPLACED AT (SUB)CONTRACTOR'S EXPENSE. CONTRACTOR IS ENCOURAGED TO TAKE PERIODIC RECORD PHOTOGRAPHS (I.E. PRE-CONSTRUCTION, DURING AND POST-CONSTRUCTION) OF SITE CONDITIONS & DESIGN ELEMENTS; PAVEMENTS, HARDSCAPE, NEW & EXISTING PLANTS AND OTHER SITE ELEMENTS.
4. WHEN APPLICABLE, CONSTRUCTION BARRIERS SHALL BE ERECTED TO PROTECT THE PROPOSED WORK AND THE PUBLIC AND TO PROVIDE SECURITY.
5. ALL WORK AND OPERATIONS SHALL COMPLY WITH CURRENT SAFETY PRACTICES, CODES OR ORDINANCES AS DICTATED BY FEDERAL (O.S.H.A.), STATE, AND LOCAL (CITY OR COUNTY) SAFETY CODES AND ORDINANCES, AS WELL AS THOSE OF THE OWNER AND/OR GENERAL CONTRACTOR. IT IS THE (SUB) CONTRACTOR'S RESPONSIBILITY TO LEARN AND COMPLY WITH CODES, ORDINANCES AND JOB SITE RULES.
6. IF APPLICABLE, ALL TRADES SHALL COORDINATE AND COLLABORATE WITH EACH OTHERS WORK SO THAT THE FLOW OF WORK IS MAINTAINED AND ONE CRAFTSMAN'S WORK IS NOT UNFAIRLY DELAYED.
7. CONTRACTORS SHALL VISIT THE SITE PRIOR TO START OF WORK TO COMPLETELY FAMILIARIZE THEMSELVES WITH EXISTING AS WELL AS PROPOSED CONDITIONS.
8. CONTRACTOR TO FOLLOW NORMAL CLIENT WORKDAY HOURS (TYPICALLY BETWEEN 7 AM AND 6 PM). WEEKEND WORK TO BE IN COMPLIANCE WITH LOCAL CODES (WHERE APPLICABLE) AND COORDINATED WITH THE CLIENT FOR SITE ACCESS. NOTIFY THE GENERAL CONTRACTOR (OR CLIENT) OF ALL NON-NORMAL BUSINESS HOURS OF WORK.
9. THE CONTRACTOR IS RESPONSIBLE FOR SECURING AND PAYING FOR ALL REQUIRED PERMITS UNLESS OTHERWISE NOTED IN THE DRAWINGS OR SPECIFICATIONS.
10. CONTRACTOR IS RESPONSIBLE FOR PROVIDING SANITARY FACILITIES FOR THEIR CREWS IF NONE ARE PROVIDED.
11. CONTRACTOR AND ALL SUB-CONTRACTORS ARE EXPECTED TO MAINTAIN THE CLIENT'S ACCESS TO ALL DRIVEWAYS, WALKS AND DOORWAYS.
12. CONTRACTOR AND ALL SUB-CONTRACTORS WILL POLICE THE SITE AND THEIR RESPECTIVE WORK EFFORTS AT THE END OF EACH WORK DAY IN ORDER TO MAINTAIN A CLEAN, NEAT AND ORDERLY WORK SITE. SITE CLEAN-UP IS REQUIRED ON A DAILY BASIS AS WELL AS AT PROJECT CONCLUSION, THE CONTRACTOR SHALL PROTECT THE PROPERTY OF THE OWNER AND SAFETY AND WORK OF OTHER CONTRACTORS BY LEAVING THE PROJECT SITE AS FREE OF DEBRIS, CONSTRUCTION MATERIALS AND TOOLS AND OTHER ITEMS AS POSSIBLE FOR A NEAT AND ORDERLY APPEARANCE AT ALL TIMES. PLANT DEBRIS (LEAVES, TWIGS), DIRT AND DEBRIS SHALL BE SWEPT FROM HARDSCAPES, DIRT CLODS, ROCKS, TWIGS/BRANCHES ETC. REMOVED FROM LAWN AREAS. THE CONTRACTOR SHALL ALSO BE DIRECTLY RESPONSIBLE FOR ALL DAMAGE CAUSED BY THE ACTIVITIES AND FOR THE DAILY REMOVAL OF ALL TRASH AND DEBRIS FROM HIS WORK AREA TO THE SATISFACTION OF THE OWNER. THE OWNER MAY ELECT TO RETAIN PROGRESS AND/OR FINAL PAYMENT(S) UNTIL SITE CLEAN-UP CONDITIONS ARE MET.
13. FIELD VERIFICATION: THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO BIDDING AND REPORT ANY DISCREPANCIES TO THE OWNER OR HIS REPRESENTATIVE.
14. THE CONTRACTOR SHALL PROVIDE, AT THEIR OWN EXPENSE, TEMPORARY PROTECTION FOR LANDSCAPE CONSTRUCTION AREAS UNTIL ISSUANCE OF SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO SECURE, PROTECT AND OTHERWISE MINIMIZE OPPORTUNITIES FOR ACCIDENTS, THEFT AND VANDALISM. CONTRACTOR SHALL PROVIDE BARRICADES, TEMPORARY FENCING, SIGNS, AND WRITTEN WARNING OR POLICING AS MAY BE REQUIRED TO PROTECT SUCH AREAS. THE CONTRACTOR SHALL ISSUE WRITTEN WARNINGS TO OWNER WHEN APPLICABLE. AFTER SUCH WARNINGS ARE ISSUED, THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY THE OWNER OR THE OWNER'S EMPLOYEES, GUESTS OR FACILITY USERS.
15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL EXISTING ABOVE AND BELOW GROUND UTILITIES WITHIN THE LIMITS OF CONSTRUCTION. ANY DAMAGE TO UTILITIES AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE WITHIN A REASONABLY SHORT PERIOD OF TIME, AND WITH AS LITTLE INCONVENIENCE TO THE OWNER AS POSSIBLE.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF CROWNS, TRUNKS AND ROOTS OF EXISTING TREES, SHRUBS, LAWNS, PAVED AREA AND OTHER EXISTING LANDSCAPED AREAS THAT ARE TO REMAIN. EXISTING TREES, WHICH MAY BE SUBJECT TO CONSTRUCTION DAMAGE, SHALL BE BOXED, FENCED, OR OTHERWISE PROTECTED BEFORE ANY WORK IS STARTED. BOXING OR OTHER PROTECTION WILL BE REMOVED AT THE END OF CONSTRUCTION. DO NOT LOCATE HEAVY EQUIPMENT OR STOCKPILES WITHIN THE DRIP-LINE OF EXISTING PLANTS OR ON LAWNS. ANY DAMAGE TO PLANTINGS OR LAWN AS A RESULT OF CONSTRUCTION SHALL REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE WITHIN A REASONABLY SHORT PERIOD OF TIME, AND WITH AS LITTLE INCONVENIENCE TO THE OWNER AS POSSIBLE.
17. NOTIFY THE LANDSCAPE ARCHITECT AT ANY TIME WITH CONCERNS OR SUGGESTIONS CONCERNING ANY OF THESE GENERAL NOTES.

LAYOUT

18. THE CONTRACTOR SHALL VERIFY ALL DISTANCES AND DIMENSIONS IN THE FIELD AND BRING ANY DISCREPANCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR A DECISION PRIOR TO COMMENCING WITH THE WORK.

FINISH GRADING

49. RAKE OLD MULCH FROM EXISTING PLANTING BEDS AND VERIFY NO WEED BARRIER FABRIC IS PRESENT. REMOVE WEED BARRIER FABRIC FROM PLANTING BEDS IF NEEDED.
50. TILL EXISTING PLANTING BED SOILS TO A MINIMUM DEPTH OF 6" AND RAKE SMOOTH.
51. ALL BEDS TO BE CROWNED SLIGHTLY FOR PROPER DRAINAGE AWAY FROM BUILDINGS AND PAVEMENTS.
52. HOLD FINISH GRADES BELOW TOP OF ADJACENT PAVEMENT, HEADERS, CURBS, OR WALL PER THE FOLLOWING UNLESS INDICATED OTHERWISE ON SPECIFIC DRAWINGS OR DETAILS:
    a. MULCH, SHREDDED WOOD OR COMPOST: 1 INCH. ALLOW MULCH LAYER TO TUCK AGAINST SOLID EDGE. KEEP SOIL LEVEL THREE INCHES BELOW MULCH LEVEL AT THESE CONDITIONS.
    b. MULCH, STONE AGGREGATE: 1 INCH. ALLOW STONE MULCH TO STAY WELL BELOW ADJACENT HARDSCAPE ELEMENT. KEEP SOIL LEVEL TWO INCHES BELOW TOP OF MULCH.
    c. SEEDED LAWN AREAS: 3/4 inch
    d. SODDED LAWN AREAS: 1 inch

PLANTING

51. PLANTING TECHNIQUES: ALL PLANTING TECHNIQUES AND METHODS SHALL BE CONSISTENT WITH THE LATEST EDITION OF "HORTICULTURE STANDARDS OF NURSERYMEN, INC.", AND AS DETAILED ON THESE DRAWINGS.
52. CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT PLANT MATERIAL SOURCES INDICATING NAME AND LOCATION OF THE NURSERY, PLANT BOTANIC AND COMMON NAME, SIZE AND QUANTITY. NURSERY INVOICES ARE ACCEPTABLE.
24. PLANT SUBSTITUTION FROM THE SPECIFIED LIST WILL BE ACCEPTED ONLY WHEN SATISFACTORY EVIDENCE IN WRITING IS SUBMITTED TO THE OWNER OR HIS REPRESENTATIVE SHOWING THAT THE PLANT SPECIFIED IS NOT AVAILABLE. REQUESTS FOR APPROVAL OF SUBSTITUTE PLANT MATERIAL SHALL INCLUDE COMMON AND BOTANICAL NAMES AND SIZE OF SUBSTITUTE MATERIAL. ONLY THOSE SUBSTITUTIONS OF AT LEAST EQUIVALENT SIZE AND HAVING ESSENTIAL CHARACTERISTICS SIMILAR TO THE ORIGINALLY SPECIFIED MATERIAL WILL BE APPROVED. ACCEPTANCE OR REJECTION OF SUBSTITUTE PLANT MATERIALS WILL BE ISSUED IN WRITING BY THE OWNER OR HIS REPRESENTATIVE.
25. PRE-DELIVERY PHOTOGRAPHS FROM NURSERY ARE ENCOURAGED. PHOTOS SHOULD INCLUDE THE ENTIRE PLANT AND A SCALED MEASURING DEVICE TO INDICATE THE SIZE OF PLANT. HEIGHT OF PLANTS SPECIFIED ARE MEASURED BY THE MASS OF THE PLANT NOT THE VERY TIP OF THE BRANCHES.
26. ALL PLANT MATERIAL SHALL BE GROWN AND SUPPLIED WITHIN THE SAME USDA ZONE AS THE PROJECT.
21. ALL PLANT MATERIALS UPON ARRIVAL TO THE PROJECT SITE SHALL BE SUBJECT TO INSPECTION AND APPROVAL. THE OWNER OR HIS REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANTS WHICH FAIL TO MEET THIS INSPECTION. ALL REJECTED MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
22. IF NECESSARY, SHRUBS SHALL BE PRUNED OF DEAD AND BROKEN BRANCHES AS DIRECTED BY THE LANDSCAPE ARCHITECT AS LONG AS THE OVERALL HABIT OF THE PLANT IS NOT COMPROMISED. ALL PRUNING WORK SHALL BE DONE WITH CLEAN AND SHARP HAND PRUNERS ONLY.
23. ABSOLUTELY NO TIP PRUNING IS ALLOWED, EXCEPT HEDGES. ANY PLANT THAT IS TIP PRUNED IS SUBJECT TO REJECTION BY THE LANDSCAPE ARCHITECT.
24. ALL PLANTING BEDS RECEIVING BARK MULCH SHALL BE TREATED WITH A QUALITY, COMMERCIAL GRADE PRE-EMERGENT HERBICIDE PRIOR TO MULCH INSTALLATION. PLANTING BED SHALL BE WEED AND/OR GRASS FREE PRIOR TO HERBICIDE APPLICATION. PROVIDE CUT SHEET OF HERBICIDE TO LANDSCAPE ARCHITECT FOR APPROVAL.
25. PLANTS AND TURF ARE BEING ESTABLISHED IN A VARIETY OF CONDITIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND IMPLEMENT WHATEVER PROCEDURES HE DEEMS NECESSARY TO ESTABLISH THE PLANTS AND TURF AS PART OF HIS WORK. PLANTED AREAS AND TURF WILL BE ACCEPTED WHEN ALL AREAS ARE IN HEALTHY CONDITION AND AT LEAST 60 DAYS HAVE ELAPSED SINCE THE COMPLETION OF THIS WORK. THE CONTRACTOR SHALL SUBMIT WITH HIS BID A DESCRIPTION OF THE METHODS AND PROCEDURES HE INTENDS TO USE.
41. PLANTING AREAS AND TURF SHALL BE WATERED TO ENSURE PROPER ESTABLISHMENT. ONCE PLANTS AND TURF ARE ESTABLISHED, WATERING MAY BE DECREASED BUT THE PLANTS AND TURF MUST NEVER BE ALLOWED TO DRY OUT COMPLETELY. FREQUENT WATERING SHOULD BE CONTINUED FOR APPROXIMATELY FOUR (4) WEEKS OR UNTIL PLANTS AND TURF HAVE BECOME SUFFICIENTLY ESTABLISHED TO WARRANT WATERING ON AN "AS NEEDED" BASIS.
42. 60 DAY MAINTENANCE PERIOD: ALL PLANTINGS SHALL BE MAINTAINED BY THE CONTRACTOR FOR A PERIOD OF 60 DAYS AFTER PRELIMINARY ACCEPTANCE BY THE OWNER OR HIS REPRESENTATIVE. MAINTENANCE SHALL INCLUDE, BUT IS NOT LIMITED TO, PRUNING PLANT MATERIAL, PULLING WEEDS, WATERING PLANT MATERIAL, AND PERENNIAL FLOWER MAINTENANCE.
43. FINAL ACCEPTANCE (END OF 60 MAINTENANCE PERIOD): ALL PLANT MATERIAL (EXCLUDING ANNUAL COLOR), SHALL BE GUARANTEED FOR 1 CALENDAR YEAR AFTER THE END OF THE 60 DAY MAINTENANCE PERIOD. THE END OF THE MAINTENANCE PERIOD IS MARKED BY THE FINAL ACCEPTANCE OF THE CONTRACTOR'S WORK BY THE OWNER OR HIS REPRESENTATIVE.

EVERGREEN & DECIDUOUS SHRUB PLANTING NOTES

44. DO NOT ALLOW POCKETS TO FORM WHILE BACKFILLING.
45. SOAK WITH WATER IMMEDIATELY FOLLOWING INSTALLATION.
46. DO NOT BREAK ROOTBALL WHILE HANDLING.
47. IF B+B MATERIAL, REMOVE BURLAP AND TWINE FROM AROUND TOP 1/3 OF ROOTBALL. IF CONTAINERIZED, LOOSEN ROOT MASS SIGNIFICANTLY AFTER REMOVING FROM CONTAINER BY HAND OR CUT ROOT MASS WITH KNIFE ON 4 SIDES TO A DEPTH OF 1/2" AND CUT BOTTOM OF ROOT MASS IN SAME MANNER IN A 'X' PATTERN.

LANDSCAPE BEDS

48. EXISTING BRICK EDGING TO REMAIN.
49. IMMEDIATELY PRIOR TO PLANTING, AMEND PLANTING BEDS WITH 3" AGED LEAF COMPOST BY BLENDING THE COMPOST INTO THE TOP 6-8" OF PLANTING MEDIA.
48. AFTER PLANTING, APPLY SHREDDED HARDWOOD MULCH AT A DEPTH OF 3". FOLLOW PROPER TECHNIQUE AND DO NOT ALLOW MULCH TO REST AGAINST TRUNK OF SHRUBS OR OVER PERENNIAL FOLIAGE.
49. IMMEDIATELY FOLLOWING MULCH APPLICATION, APPLY A PREVENTIVE HERBICIDE SUCH AS PREEN OR APPROVED EQUAL. WET DOWN PLANTING BEDS THOROUGHLY WITH HOSE OR IRRIGATION SYSTEM (IF ANY).

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
SHRUBS						
	DEU XHY	10	DEUTZIA X 'NCDX1'	YUKI SNOWFLAKE® DEUTZIA	3 GAL	24" o.c.
	PHY LIT	1	PHYSOCARPUS OPULIFOLIUS 'LITTLE DEVIL'	LITTLE DEVIL™ DWARF NINEBARK	3 GAL	48" o.c.
	VIB CAR	1	VIBURNUM CARLESII	KOREANSPICE VIBURNUM	5 GAL	60" o.c.
EVERGREEN SHRUBS						
	JUN HUG	6	JUNIPERUS HORIZONTALIS 'HUGHES'	HUGHES CREEPING JUNIPER	3 GAL	48" o.c.
GRASSES						
	SCH LAB	15	SCHIZACHYRIUM SCOPARIUM 'CHAMELEON'	CHAMELEON LITTLE BLUESTEM	1 GAL	24" o.c.
PERENNIAL						
	HEM PAR	15	HEMEROCALLIS X 'PARDON ME'	PARDON ME DAYLILY	1 GAL	24" o.c.
	LIR VAR	18	LIRIOPE MUSCARI 'VARIEGATA'	VARIEGATED LILYTURF	1 GAL	24" o.c.
GROUND COVERS						
	HAR HAB	615 SF	HARDWOOD BARK MULCH	NATURAL COLOR MULCH	3' DEPTH	

Farnsworth GROUP
14225 UNIVERSITY AVENUE, SUITE 110
WAUKEE, IOWA 50263
(515) 225-3469 / info@f-w.com
www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE:

#	DATE:	DESCRIPTION:

100% CD SET

PROJECT:

DAS PROJECT 9417.00

HONEY CREEK RESORT - CLUBHOUSE SIDEWALK

12633 Resort Dr
Moravia, IA 52571

DATE:	03/10/2025
DESIGNED:	ALW
DRAWN:	SO
REVIEWED:	ALW
FIELD BOOK NO.:	-

SHEET TITLE:

PLANTING PLAN

SHEET NUMBER:

L1.1

PROJECT NO.: 0200060.001

Exhibit C Facility Work Requirements

Honey Creek Resort Golf Pro Shop Concrete Replacement
Honey Creek Resort
Request for Quote RFQ941700-01

Due Tuesday, 04/01/25 at 02:00 PM (CT)

WORK HOUR RESTRICTIONS

1. Allowable work hours are from 7:00 AM to 5:00 PM, Monday through Friday unless arrangements are made in advance.

CONTRACTOR USE OF SITE AND PREMISES

1. Construction Operations: Limited to the exterior of HCR Golf Pro Shop.
2. Provide access to and from site as required by law and Owner:
    a. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
    b. Do not obstruct roadways, sidewalks, or other public ways without permission of Owner and permit if required.
3. Facility will be occupied at all times during duration of work. Contractor personnel shall conduct themselves in an agreeable manner at all times. Failure to do so may result in removal from the work site.
4. The contractor shall identify their work zones with a barrier such as caution tape to help delineate the construction areas from public areas.

OWNER OCCUPANCY

1. Owner intends to occupy the Project throughout construction.
2. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
3. Schedule the Work to accommodate Owner occupancy.

RULES FOR CONSTRUCTION WORKERS

1. The staff of the State of Iowa has a responsibility to protect the public by providing a secure environment. All work site rules must always be followed.
2. All State properties are tobacco free. No smoking will be permitted or tolerated on campus unless in designated areas.
3. No drugs, alcohol, or firearms are allowed on the work site.
4. Do not leave money, drugs, alcohol, or firearms in your personal vehicle.
5. Company and personal vehicles are to be parked and locked in designated or authorized area of the work.
6. Maintain control of all tools, supplies, and debris always. All tools must always be accounted for and secured at the end of each shift.
7. Ladders and scaffolding must be taken down when not in use and at the end of each shift.
8. Fuel cans are always to be secured.

Exhibit D Sample Certification of Insurance

Honey Creek Resort Golf Pro Shop Concrete Replacement
Honey Creek Resort
Request for Quote RFQ941700-01

Due Tuesday, 04/01/25 at 02:00 PM (CT)

SAMPLE

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): xx/xx/xxxx

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Agent's Information	
Agent's Name Agent's Address	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A: Company A (AM Best Rated A/VI or Better)	Admitted Carriers
INSURED Trade Contractor's Name Trade Contractor's Mailing Address	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS Minimum	
* A	COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT [ ] LOC OTHER:	X	X	#TBD- CGL	3/1/17	3/1/18	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ $ $1,000,000 $2,000,000 $1,000,000
B	AUTOMOBILE LIABILITY [X] ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS	X	X	#TBD-AL	3/1/17	3/1/18	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
C	UMBRELLA LIAB [X] OCCUR EXCESS LIAB [ ] CLAIMS-MADE DED RETENTION $	X	X	#TBD-UMB	3/1/17	3/1/18	EACH OCCURRENCE AGGREGATE	$ 2,000,000 $
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) [ ] Y / N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	X	#TBD-WC	3/1/17	3/1/18	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$500,000 $500,000 $500,000
* E	Owners Contrators Protective Liability			#TBD-OCP	3/1/17	3/1/18	*Limits equal to CGL (or) as required by owner (Note- Would be either CGL or OCP, not both)	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Additional Insured on a Primary & Non-Contributory basis (CGL;AL;UMB/Excess) in favor of : (Owner) Iowa Department of Administrative Services (DAS), Officers, Directors, Members, Consultants, Agents, and Employees.
Waiver of Subrogation (CGL;AL;WC/EL;UMB/Excess) in favor of: (Owner) Iowa Department of Administrative Services (DAS), Officers, Directors, Members, Consultants, Agents, and Employees.

Project XXXX.XX (Number varies by project)

CERTIFICATE HOLDER

Iowa Department of Administrative Services (DAS)
109 SE 13th Street
Des Moines, IA 50319

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

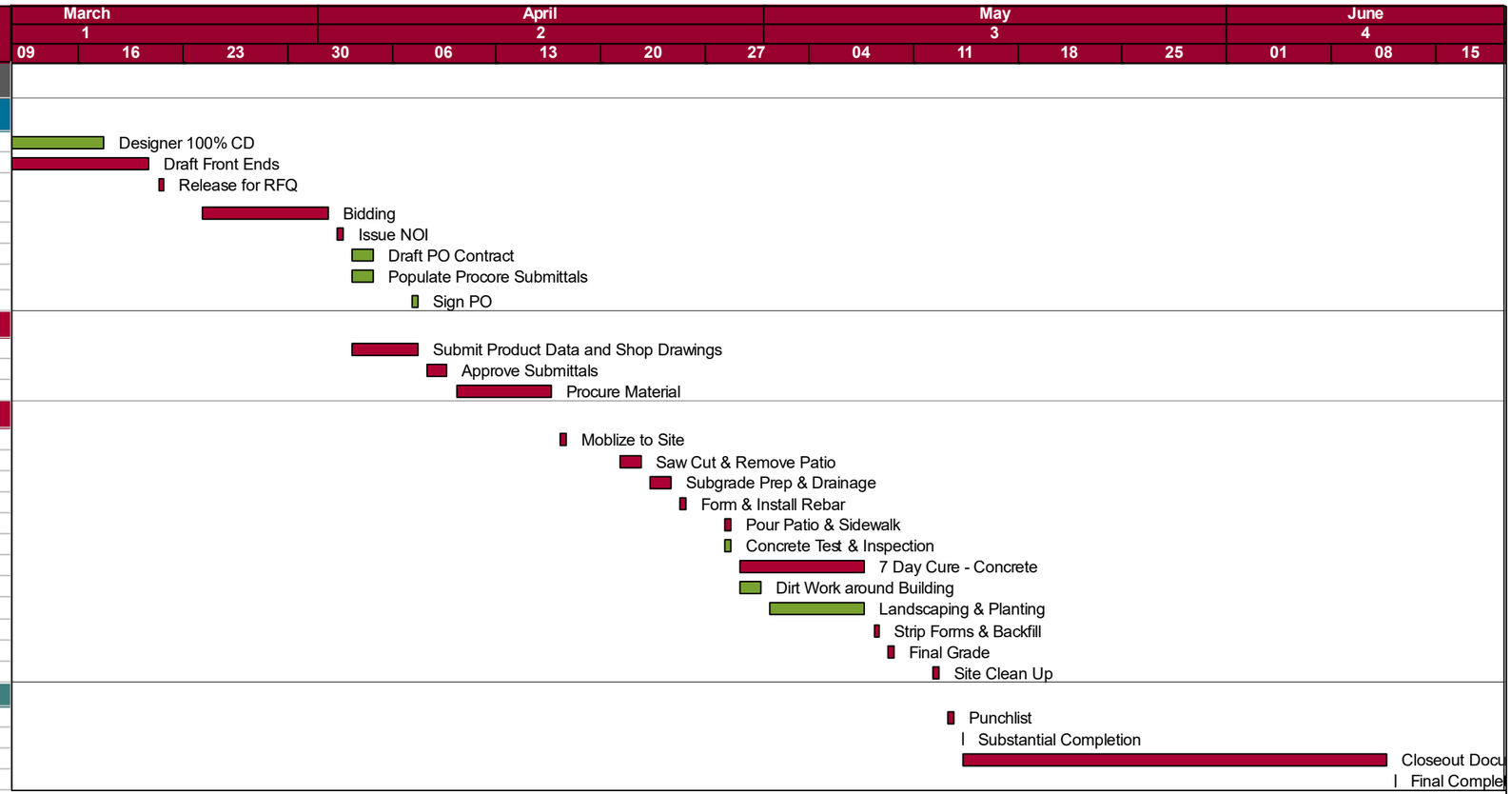
Signature

Exhibit E Proposed Schedule

Honey Creek Resort Golf Pro Shop Concrete Replacement
Honey Creek Resort
Request for Quote RFQ941700-01

Due Tuesday, 04/01/25 at 02:00 PM (CT)

Activity ID	Activity Name	Original Duration	Start	Finish
DAS - HCR Golf Pro Shop		65	11-Mar-25	12-Jun-25
Pre-Construction		65	11-Mar-25	12-Jun-25
A1000	Designer 100% CD	5	11-Mar-25	17-Mar-25
A1010	Draft Front Ends	8	11-Mar-25	20-Mar-25
A1020	Release for RFQ	1	21-Mar-25	21-Mar-25
A1030	Bidding	7	24-Mar-25	01-Apr-25
A1040	Issue NOI	1	02-Apr-25	02-Apr-25
A1050	Draft PO Contract	2	03-Apr-25	04-Apr-25
A1070	Populate Procore Submittals	2	03-Apr-25	04-Apr-25
A1060	Sign PO	1	07-Apr-25	07-Apr-25
Submit, Approve & Procure		10	03-Apr-25	16-Apr-25
A1080	Submit Product Data and Shop Drawings	3	03-Apr-25	07-Apr-25
A1090	Approve Submittals	2	08-Apr-25	09-Apr-25
A1100	Procure Material	5	10-Apr-25	16-Apr-25
Construction		38	17-Apr-25	12-Jun-25
A1110	Moblize to Site	1	17-Apr-25	17-Apr-25
A1120	Saw Cut & Remove Patio	2	21-Apr-25	22-Apr-25
A1130	Subgrade Prep & Drainage	2	23-Apr-25	24-Apr-25
A1140	Form & Install Rebar	1	25-Apr-25	25-Apr-25
A1150	Pour Patio & Sidewalk	1	28-Apr-25	28-Apr-25
A1170	Concrete Test & Inspection	1	28-Apr-25	28-Apr-25
A1160	7 Day Cure - Concrete	7	29-Apr-25	07-May-25
A1190	Dirt Work around Building	2	29-Apr-25	30-Apr-25
A1260	Landscaping & Planting	5	01-May-25	07-May-25
A1180	Strip Forms & Backfill	1	08-May-25	08-May-25
A1200	Final Grade	1	09-May-25	09-May-25
A1210	Site Clean Up	1	12-May-25	12-May-25
Closeout		21	13-May-25	12-Jun-25
A1220	Punchlist	1	13-May-25	13-May-25
A1230	Substantial Completion	0	14-May-25	14-May-25
A1240	Closeout Documents	20	14-May-25	11-Jun-25
A1250	Final Completion	0	12-Jun-25	12-Jun-25



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

DAS #9417.00 HCR Golf Pro Shop Patio
Schedule - 03/21/25

McGOUGH