

**CONSTRUCTION SERVICES AGREEMENT FOR NORTH COMPLEX PROJECT**

THIS CONSTRUCTION SERVICES AGREEMENT FOR NORTH COMPLEX PROJECT (Agreement") is entered into by and between the **CITY OF OCALA**, a Florida municipal corporation ("City"), and **MARION ROCK, LLC**, a limited liability company duly organized and authorized to do business in the state of Florida (EIN: 59-3402323) ("Contractor").

**R E C I T A L S :**

**WHEREAS**, on January 11, 2024, City issued an Invitation to Bid ("ITB") for the provision of construction services related to the Ocala North Complex Project, ITB No.: CIP/240254 (the "Solicitation"); and

**WHEREAS**, a total of five (5) firms responded to the Solicitation and, after consideration of price and other evaluation factors set forth in the Solicitation, Marion Rock, LLC was chosen as the intended awardee to provide construction services related to the Ocala North Complex Project (the "Project"); and

**WHEREAS**, Contractor certifies that Contractor and its subcontractors are qualified and possess the required licensure and skill to perform the work required for the Project; and

**NOW THEREFORE**, in consideration of the foregoing recitals, the following mutual covenants and conditions, and other good and valuable consideration, City and Contractor agree as follows:

**T E R M S   O F   A G R E E M E N T :**

1. **RECITALS.** City and Contractor hereby represent, warrant, and agree that the Recitals set forth above are true and correct and are incorporated herein by reference.
2. **CONTRACT DOCUMENTS.** The Contract Documents which comprise the entire understanding between City and Contractor shall only include: (a) this Agreement; (b) those documents listed in this section as Exhibits to this Agreement; (c) the City's Solicitation for the Project and the quote submitted by Contractor in response to same (the "Solicitation Documents"); and (d) those documents identified in the Project Specifications section of this Agreement. Each of these documents are incorporated herein by reference for all purposes.

If there is a conflict between the terms of this Agreement and the Contract Documents, then the terms of this Agreement shall control, amend, and supersede any conflicting terms contained in the remaining Contract Documents.

A. **Exhibits to Agreement:** The Exhibits to this Agreement are as follows:

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|------------|---|
| Exhibit A: | Scope of Work (A-1 through A-6)             |
| Exhibit B: | Plan Set (B-1)                              |
| Exhibit C: | Master Stormwater Report (C-1 through C-53) |
| Exhibit D: | Geotechnical Report (D-1 through D-8)       |
| Exhibit E: | Project Sign Template (E-1 through E-2)     |
| Exhibit F: | Price Proposal (F-1)                        |

If there is a conflict between the individual Exhibits regarding the scope of work to be performed, then any identified inconsistency shall be resolved by giving precedence in the following order: (1) Exhibit A, then (2) Exhibit B then (3) Exhibit C, then (4) Exhibit D, then (5) Exhibit E, then (6) Exhibit F.

B. **Project Specifications:** In addition to the Contract Documents and up-to-date copies of shop drawings, this project will require the Contractor to have the following specifications and documents, which are incorporated by reference:

i. **City of Ocala "Standard Specifications for Construction of Streets, Stormwater, Traffic, Water and Sewer Infrastructure"** available at:

[www.ocalafl.gov/home/showpublisheddocument/24606](http://www.ocalafl.gov/home/showpublisheddocument/24606)

**Florida Department of Transportation ("FDOT") Standard Specifications for Road and Bridge Construction (latest edition)** available at:

<http://www.fdot.gov/programmanagement/Implemented/SpecBooks/>

**Florida Department of Transportation Standard Plans for Road and Bridge Construction (latest edition):**

<https://www.fdot.gov/design/standardplans/sprbc.shtm>

**Manual on Uniform Traffic Control Devices (MUTCD), latest edition which can be obtained by downloading from:**

<https://www.fdot.gov/traffic/trafficservices/mutcd.shtm>

**Florida Department of Transportation Florida Greenbook (latest edition), can be obtained by downloading from:**

<https://www.fdot.gov/roadway/floridagreenbook/fgb.shtm>

If there is a conflict between the individual Project Specifications regarding the scope of work to be performed, then any identified inconsistency shall be resolved by giving precedents to the most restrictive specification.

3. **SCOPE OF SERVICES.** Contractor shall provide all materials, labor, supervision, tools, accessories, equipment, permits, fees, testing, inspections, certifications, and all other things necessary for Contractor to perform its obligations under this Agreement as set forth in the attached **Exhibit A - Scope of Work** and the Solicitation Documents. Prime contractor must perform a minimum of **SIXTY PERCENT (60%)** of the work with its own forces. The Scope of Work under this Agreement may only be adjusted by written amendment executed by both parties.

4. **COMPENSATION.** City shall pay Contractor a maximum limiting amount of **SEVEN HUNDRED THIRTY-TWO THOUSAND, FOUR HUNDRED THIRTY-SIX AND NO/100 DOLLARS (\$732,436)** (the "Contract Sum") as full and complete compensation for the timely and satisfactory completion of the work in compliance with the pricing and other requirements set forth in the Contract Documents. The pricing under this Agreement may only be adjusted by written amendment executed by both parties.

A. **Monthly Progress Payments:** The compensation amount under this section shall be paid by City, monthly, based upon a percentage of completion of the work as invoiced by Contractor and approved by City. The compensation sought under this Agreement is subject to the express terms of this Agreement and any applicable federal and/or state laws.

B. **Project Schedule and Progress Reports.** A progress report and updated project schedule must be submitted with each monthly pay request indicating the percent of services completed to date. This report will serve as support for payment to Contractor and the basis for payment in the event project is suspended or abandoned.

- C. **Invoice Submission.** All invoices submitted by Contractor shall include the City Contract Number, an assigned Invoice Number, and an Invoice Date. Contractor shall be provided with a cover sheet for invoicing. This cover sheet must be filled out correctly and submitted with each invoice. Contractor shall submit the original invoice through the responsible City Project Manager at: **City of Ocala Engineering Department, Capital Improvement Projects Division**, Attn: **Jimmy Lopez**, 1805 NE 30<sup>th</sup> Avenue, Bldg. 700, Ocala, Florida 34470, E-Mail: [jlopez@ocalafl.gov](mailto:jlopez@ocalafl.gov).
  - D. **Payment of Invoices by City.** The City Project Manager must review and approve all invoices prior to payment. City Project Manager's approval shall not be unreasonably withheld, conditioned, or delayed. Payments by City shall be made no later than the time periods established in section 218.735, Florida Statutes.
  - E. **Retainage.** City shall withhold an amount equal to **FIVE PERCENT (5%)** of each monthly progress payment as retainage to secure Contractor's full and faithful performance of its obligations under this Agreement (the "Retainage"). Contractor shall not be entitled to any interest received by City on Retainage. The Retainage shall be payable to Contractor, subject to the provisions of this subsection, upon satisfaction of the following conditions precedent: (1) confirmation from the City Project Manager that Contractor has satisfactorily completed all work in accordance with the provisions of the Agreement; and (2) receipt of the Consent of Surety of the recorded bond for final payment.
  - F. **Withholding of Payment.** City reserves the right to withhold, in whole or in part, payment for any and all work that: (i) has not been completed by Contractor; (ii) is inadequate or defective and has not been remedied or resolved in a manner satisfactory to the City Project Manager; or (iii) which fails to comply with any term, condition, or other requirement under this Agreement. Any payment withheld shall be released and remitted to Contractor within **THIRTY (30)** calendar days of the Contractor's remedy or resolution of the inadequacy or defect.
  - G. **Excess Funds.** If due to mistake or any other reason Contractor receives payment under this Agreement in excess of what is provided for by the Agreement, Contractor shall promptly notify City upon discovery of the receipt of the overpayment. Any overpayment shall be refunded to City within **THIRTY (30)** days of Contractor's receipt of the overpayment or must also include interest calculated from the date of the overpayment at the interest rate for judgments at the highest rate as allowed by law.
  - H. **Amounts Due to the City.** Contractor must be current and remain current in all obligations due to the City during the performance of services under this Agreement. Payments to Contractor may be offset by any delinquent amounts due to the City or fees and/or charges owed to the City.
  - I. **Tax Exemption.** City is exempt from all federal excise and state sales taxes (State of Florida Consumer's Certification of Exemption 85-8012621655C-9). The City's Employer Identification Number is 59-60000392. Contractor shall not be exempted from paying sales tax to its suppliers for materials to fulfill contractual obligations with the City, nor will Contractor be authorized to use City's Tax Exemption Number for securing materials listed herein.
5. **TIME FOR PERFORMANCE.** Time is of the essence with respect to the performance of all duties, obligations, and responsibilities set forth in this Agreement and the Contract Documents.
- A. **Lead Time.** The maximum acceptable lead time on materials is **TWO (2) WEEKS**. The City shall issue a Notice to Proceed upon notification of materials by Contractor.

- B. Contractor shall mobilize and commence work no later than **TEN (10)** working days from the date of issuance of a Notice to Proceed for the project by City. At no time will the Contractor be allowed to lag behind.
  - C. **All work shall be substantially completed by Contractor in a manner satisfactory to the City Project Manager within ONE HUNDRED TEN (110) days of the start date indicated on the Notice to Proceed and ready for final payment within TWENTY (20) days of substantial completion.**
  - D. The Time for Performance under this Agreement may only be adjusted by Change Order, in the sole and absolute discretion of City. Any request for an extension of the Time for Performance must be submitted in a writing delivered to the City Project Manager, along with all supporting data, within **SEVEN (7)** calendar days of the occurrence of the event giving rise to the need for adjustment unless the City allows an additional period of time to ascertain more accurate data. All requests for adjustments in the Contract Time shall be determined by City.
  - E. **Weather Days:** Contractor shall submit a written request to the City Project (e-mail is the preferred method) for additional days for which work is suspended or delayed by weather. Weather days shall be reconciled with each monthly pay application for the time period which the application is submitted and shall be final. Contractor performance and execution of work shall be considered in the determination for granting additional days.
  - F. As to any delay, inefficiency, or interference in this performance of this Agreement caused by any act or failure to act by City, the Contractor's sole remedy shall be the entitlement of an extension of time to complete the performance of the affected work in accordance with the Contract Documents. Contractor agrees to make no claim for extra or additional costs attributable to said delays, inefficiencies or interference, except as provided in this Agreement.
  - G. None of the provisions of this section shall exclude City's right of recovery for damages caused by delays or inefficiencies caused by any act or failure to act by Contractor, to include costs incurred by City for the procurement of additional professional services.
6. **LIQUIDATED DAMAGES FOR LATE COMPLETION.** The parties agree that it would be extremely difficult and impracticable under the presently known facts and anticipated circumstances to ascertain and fix the actual damages that City and its residents would incur should Contractor fail to achieve Substantial Completion and/or Final Completion and readiness for final payment by the dates specified for each under the terms of this Agreement. Accordingly, the parties agree that should Contractor fail to achieve Substantial Completion by the date specified, then Contractor shall pay City, as liquidated damages and not as a penalty, the sum of **ONE THOUSAND, SIX HUNDRED SIXTY-FIVE AND NO/100 DOLLARS (\$1,665)** per day for each calendar day of unexcused delay in achieving Substantial Completion beyond the date specified for Substantial Completion in the Contract Documents. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining work within the time specified in the Contract Documents for Final Completion and readiness for final payment or any proper extension thereof granted by City, Contractor shall pay City, as liquidated damages and not as a penalty, additional sum of **TWO HUNDRED AND NO/100 DOLLARS (\$200)** per day for each calendar day of unexcused delay in achieving completion and readiness for final payment.



- A. **No Waiver of Rights or Liabilities.** Permitting Contractor to continue and finish the work, or any part thereof, beyond the dates specified for Substantial Completion and/or Final Completion and readiness for final payment shall not operate as a waiver on the part of the City of any of its rights under this Agreement. Any liquidated damages assessed pursuant to this section shall not relieve Contractor from liability for any damages or costs of other contractors caused by a failure of Contractor to complete the work as agreed.
  - B. **Right to Withhold or Deduct Damages.** When liquidated damages are due and owing, City shall have the right to: (1) deduct the liquidated damages from any money in its hands or from any money otherwise due or to become due to Contractor; or to (2) initiate any applicable dispute resolution procedure for the recovery of liquidated damages within the times specified under this Agreement.
  - C. **Non-Cumulative.** The parties agree and understand that the amounts set forth under this section for liquidated damages are not cumulative with one another. The amount set forth as liquidated damages for Contractor's failure to achieve Substantial Completion shall be assessed upon default and continue until Substantial Completion is attained. The amount set forth as liquidated damages for Contractor's failure to achieve Final Completion and readiness for payment shall be assessed after Substantial Completion is attained and apply until Final Completion is attained.
  - D. **Additional Costs.** In addition to the liquidated damages set forth under this section, Contractor agrees to pay all costs and expenses incurred by City due to Contractor's delay in performance to include inspection fees, superintendence costs, and travel expenses.
  - E. **Injunctive Relief.** The parties acknowledge that monetary damages may not be a sufficient remedy for Contractor's failure to achieve Substantial Completion or Final Completion in accordance with the terms of this Agreement, and that City shall be entitled, in addition to all other rights or remedies in law and equity, to seek injunctive relief.
7. **DELAYS AND DAMAGES.** The Contractor agrees to make no claim for extra or additional costs attributable to any delays, inefficiencies, or interference in the performance of this contract occasioned by any act or omission to act by the City except as provided in the Agreement. The Contractor also agrees that any such delay, inefficiency, or interference shall be compensated for solely by an extension of time to complete the performance of the work in accordance with the provision in the standard specification.
  8. **MAINTENANCE AND GUARANTEE BOND.** Prior to final payment, Contractor shall furnish a Maintenance and Guarantee Bond in the amount of **TEN PERCENT (10%)** of the total project value, for a period of **THREE (3)** year for labor and **THREE (3)** year for materials from the date of final completion. Prior to the City's receipt of Contractor's fully executed Maintenance and Guarantee Bond, Contractor will warrant all labor and materials completed pursuant to this Agreement.
  9. **PUBLIC CONSTRUCTION BOND.** As required by section 255.05, Florida Statutes, Contractor shall furnish a certified and recorded Public Construction Bond in the amount of **SEVEN HUNDRED THIRTY-TWO THOUSAND, FOUR HUNDRED THIRTY-SIX AND NO/100 DOLLARS (\$732,436)** as security for the faithful performance of the work as required and set forth in the Contract Documents within the time set forth for performance under this Agreement and for prompt payments to all persons defined in section 713.01, Florida Statutes, who furnish labor, services, or materials for the completion of the work provided for herein.

10. **FORCE MAJEURE.** Neither party shall be liable for delay, damage, or failure in the performance of any obligation under this Agreement if such delay, damage, or failure is due to causes beyond its reasonable control, including without limitation: fire, flood, strikes and labor disputes, acts of war, acts of nature, terrorism, civil unrest, acts or delays in acting of the government of the United States or the several states, judicial orders, decrees or restrictions, or any other like reason which is beyond the control of the respective party ("Force Majeure"). The party affected by any event of force majeure shall use reasonable efforts to remedy, remove, or mitigate such event and the effects thereof with all reasonable dispatch.
  - A. The party affected by force majeure shall provide the other party with full particulars thereof including, but not limited to, the nature, details, and expected duration thereof, as soon as it becomes aware.
  - B. When force majeure circumstances arise, the parties shall negotiate in good faith any modifications of the terms of this Agreement that may be necessary or appropriate in order to arrive at an equitable solution. Contractor performance shall be extended for a number of days equal to the duration of the force majeure. Contractor shall be entitled to an extension of time only and, in no event, shall Contractor be entitled to any increased costs, additional compensation, or damages of any type resulting from such force majeure delays.
11. **INSPECTION AND ACCEPTANCE OF THE WORK.** Contractor shall report its progress to the City Project Manager as set forth herein. All services, work, and materials provided by Contractor under this Agreement shall be provided to the satisfaction and approval of the Project Manager.
  - A. The Project Manager shall decide all questions regarding the quality, acceptability, and/or fitness of materials furnished, or workmanship performed, the rate of progress of the work, the interpretation of the plans and specifications, and the acceptable fulfillment of the Agreement, in his or her sole discretion, based upon both the requirements set forth by City and the information provided by Contractor in its Bid. The authority vested in the Project Manager pursuant to this paragraph shall be confined to the direction or specification of what is to be performed under this Agreement and shall not extend to the actual execution of the work.
  - B. Neither the Project Manager's review of Contractor's work nor recommendations made by Project Manager pursuant to this Agreement will impose on Project Manager any responsibility to supervise, direct, or control Contractor's work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident Contractor's furnishing and performing the work.
12. **TERMINATION AND DEFAULT.** Either party, upon determination that the other party has failed or refused to perform or is otherwise in breach of any obligation or provision under this Agreement or the Contract Document, may give written notice of default to the defaulting party in the manner specified for the giving of notices herein. Termination of this Agreement by either party for any reason shall have no effect upon the rights or duties accruing to the parties prior to termination.
  - A. **Termination by City for Cause.** City shall have the right to terminate this Agreement immediately, in whole or in part, upon the failure of Contractor to carry out any obligation, term, or condition of this Agreement. City's election to terminate the Agreement for default shall be communicated by providing Contractor written notice of termination in the manner specified for the giving of notices herein. Any notice of termination given to Contractor by

City shall be effective immediately, unless otherwise provided therein, upon the occurrence of any one or more of the following events:

- (1) Contractor fails to timely and properly perform any of the services set forth in the specifications of the Agreement;
- (2) Contractor provides material that does not meet the specifications of the Agreement;
- (3) Contractor fails to complete the work required within the time stipulated in the Agreement; or
- (4) Contractor fails to make progress in the performance of the Agreement and/or gives City reason to believe that Contractor cannot or will not perform to the requirements of the Agreement.

B. **Contractor's Opportunity to Cure Default.** City may, in its sole discretion, provide Contractor with an opportunity to cure the violations set forth in City's notice of default to Contractor. Contractor shall commence to cure the violations immediately and shall diligently and continuously prosecute such cure to completion within a reasonable time as determined by City. If the violations are not corrected within the time determined to be reasonable by City or to the reasonable satisfaction of City, City may, without further notice, declare Contractor to be in breach of this Agreement and pursue all remedies available at law or equity, to include termination of this Agreement without further notice.

C. **City's Remedies Upon Contractor Default.** In the event that Contractor fails to cure any default under this Agreement within the time period specified in this section, City may pursue any remedies available at law or equity, including, without limitation, the following:

- (1) City shall be entitled to terminate this Agreement without further notice;
- (2) City shall be entitled to hire another contractor to complete the required work in accordance with the needs of City;
- (3) City shall be entitled to recover from Contractor all damages, costs, and attorney's fees arising from Contractor's default prior to termination; and
- (4) City shall be entitled to recovery from Contractor any actual excess costs by: (i) deduction from any unpaid balances owed to Contractor; (ii) placing a claim against the public construction bond, or (iii) any other remedy as provided by law.

D. **Termination for Convenience.** City reserves the right to terminate this Agreement in whole or in part at any time for the convenience of City without penalty or recourse. The Project Manager shall provide written notice of the termination. Upon receipt of the notice, Contractor shall immediately discontinue all work as directed in the notice, notify all subcontractors of the effective date of the termination, and minimize all further costs to City including, but not limited to, the placing of any and all orders for materials, facilities, or supplies, in connection with its performance under this Agreement. Contractor shall be entitled to receive compensation solely for: (1) the actual cost of the work completed in conformity with this Agreement; and/or (2) such other costs incurred by Contractor as permitted under this Agreement and approved by City.

13. **WARRANTY.** Contractor warrants that all labor, materials, and equipment furnished under the agreement are new, of the type and quality required for the Project, and installed in a good and workmanlike manner in accordance with the Contract Documents. Contractor shall guarantee that the work shall be free from any defects in workmanship for a period of not less than **THREE (3)** years from the date of Final Completion. Contractor shall guarantee that the materials provided shall be free from any defects for the longer of: (1) **THREE (3)** years from the date of

Final Completion; or (2) the period of warranty provided by any supplier or manufacturer. All written manufacturers' warranties for materials supplied must be provided to the City Project Manager before final payment will be authorized.

14. **PERFORMANCE EVALUATION.** At the end of the contract, City may evaluate Contractor's performance. Any such evaluation will become public record.
15. **NOTICE REGARDING FAILURE TO FULFILL AGREEMENT.** Any contractor who enters into an Agreement with the City of Ocala and fails to complete the contract term, for any reason, shall be subject to future bidding suspension for a period of **ONE (1)** year and bid debarment for a period of up to **THREE (3)** years for serious contract failures.
16. **CONTRACTOR REPRESENTATIONS.** Contractor expressly represents that:
  - A. Contractor has read and is fully familiar with all the terms and conditions of this Agreement, the Contract Documents, and other related data and acknowledges that they are sufficient in scope and detail to indicate and convey understanding of all terms and conditions of the work to be performed by Contractor under this Agreement.
  - B. Contractor has disclosed, in writing, all known conflicts, errors, inconsistencies, discrepancies, or omissions discovered by Contractor in the Contract Documents, and that the City's written resolution of same is acceptable to Contractor.
  - C. Contractor has had an opportunity to visit, has visited, or has had an opportunity to examine and ask questions regarding the sites upon which the work is to be performed and is satisfied with the site conditions that may affect cost, progress, and performance of the work, as observable or determinable by Contractor's own investigation.
  - D. Contractor is satisfied with the site conditions that may affect cost, progress, and performance of the work, as observable or determinable by Contractor's own investigation.
  - E. Contractor is familiar with all local, state, and Federal laws, regulations, and ordinances which may affect cost, progress, or its performance under this Agreement whatsoever.
  - F. **Public Entity Crimes.** Neither Contractor, its parent corporations, subsidiaries, members, shareholders, partners, officers, directors or executives, nor any of its affiliates, contractors, suppliers, subcontractors, or consultants under this Agreement have been placed on the convicted vendor list following a conviction of a public entity crime. Contractor understands that a "public entity crime" as defined in section 287.133(1)(g), Florida Statutes, is "a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States..." Contractor further understands that any person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime: (1) may not submit a bid, proposal, or reply on a contract: (a) to provide any goods or services to a public entity; (b) for the construction or repair of a public building or public work; or (c) for leases of real property to a public entity; (2) may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and (3) may not transact business with any public entity in excess of the threshold amount provided in section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.
17. **CONTRACTOR RESPONSIBILITIES.** Except as otherwise specifically provided for in this Agreement, the following provisions are the responsibility of the Contractor:

- A. Contractor shall competently and efficiently supervise, inspect, and direct all work to be performed under this Agreement, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the Contract Documents.
  - B. Contractor shall be solely responsible for the means, methods, techniques, sequences, or procedures of construction and safety precautions or programs incident thereto.
  - C. Contractor shall be responsible to see that the finished work complies accurately with this Agreement and the intent thereof.
  - D. Contractor shall comply with all local, state, and Federal laws, regulations, and ordinances which may affect cost, progress, or its performance under this Agreement, including, but not limited to obtaining all permits, licenses, and other authorizations necessary for the prosecution of the work and be responsible for all costs associated with same.
  - E. Contractor shall operate and cause all construction equipment and materials supplied for or intended to be utilized in the Project to be operated and stored in only those areas prescribed by City. This includes the operations of workmen.
  - F. Contractor shall be fully responsible for receipt, inspection, acceptance, handling, and storage of all construction equipment and materials supplied for or intended to be utilized in the Project, whether furnished by Contractor or City. Contractor shall be responsible for providing adequate safeguards to prevent loss, theft, damage, or commingling with other materials or projects.
  - G. Contractor shall continue its performance under this Agreement during the pendency of any dispute or disagreement arising out of or relating to this Agreement, except as Contractor and City may otherwise agree in writing.
18. **NO EXCLUSIVITY.** It is expressly understood and agreed by the parties that this is not an exclusive agreement. Nothing in this Agreement shall be construed as creating any exclusive arrangement with Contractor or as prohibit City from either acquiring similar, equal, or like goods and/or services or from executing additional contracts with other entities or sources.
19. **RIGHT OF ACCESS AND OTHER WORK PERFORMED BY THIRD PARTIES.** City may perform additional work related to the Project itself, or have additional work performed by utility service companies, or let other direct contracts therefore which shall contain General Conditions similar to these. Contractor shall afford the utility service companies and the other contractors who are parties to such direct contracts (or City, if City is performing the additional work with City's employees) reasonable opportunity for the introduction and storage of materials and equipment and the execution of work and shall properly connect and coordinate his work with theirs.
- A. If any part of Contractor's work depends for proper execution or results upon the work of any such other contractor or utility service company (or City), Contractor shall inspect and promptly report to City in writing any latent or apparent defects or deficiencies in such work that render it unsuitable for such proper execution and results. Contractor's failure to so report shall constitute an acceptance of the other work as fit and proper for integration with Contractor's work except for latent or non-apparent defects and deficiencies in the other work.
  - B. Contractor shall do all cutting, fitting, and patching of work that may be required to make the parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work, and will only cut or alter their work with the written consent of City.



20. **STORAGE OF MATERIALS/EQUIPMENT.** Contractor shall be fully responsible for receipt, inspection, acceptance, handling, and storage of equipment and materials (whether furnished by Contractor or City) to be utilized in the performance of or incorporated into the work.
21. **RESPONSIBILITIES OF CITY.** City or its representative shall issue all communications to Contractor. City has the authority to request changes in the work in accordance with the terms of this Agreement and with the terms in **Exhibit A – Scope of Work**. City has the authority to stop work or to suspend any work.
22. **COMMERCIAL AUTO LIABILITY INSURANCE.** Contractor shall procure, maintain, and keep in full force, effect, and good standing for the life of this Agreement a policy of commercial auto liability insurance with a minimum combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury and property damage arising out of Contractor's operations and covering all owned, hired, scheduled, and non-owned automobiles utilized in said operations. If Contractor does not own vehicles, Contractor shall maintain coverage for hired and non-owned automobile liability, which may be satisfied by way of endorsement to Contractor's Commercial General Liability policy or separate Commercial Automobile Liability policy.
23. **COMMERCIAL GENERAL LIABILITY INSURANCE.** Contractor shall procure, maintain, and keep in full force, effect, and good standing for the life of this Agreement a policy of commercial general liability insurance with limits not less than:
  - A. One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) aggregate (or project aggregate, if a construction project) for bodily injury, property damage, and personal and advertising injury; and
  - B. One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) aggregate (or project aggregate, if a construction project) for products and completed operations.
  - C. Policy must include coverage for contractual liability and independent contractors.
  - D. The City, a Florida municipal corporation, and its officials, employees, and volunteers are to be covered as additional insureds with a CG 20 26 04 13 Additional Insured – Designated Person or Organization Endorsement or similar endorsement providing equal or broader Additional Insured Coverage with respect to liabilities arising out of activities performed by or on behalf of Contractor. This coverage shall contain no special limitation on the scope of protection to be afforded to the City, its officials, employees, and volunteers.
24. **WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY.** Contractor shall procure, maintain, and keep in full force, effect, and good standing for the life of this Agreement adequate workers' compensation and employer's liability insurance covering all of its employees in at least such amounts as required by Chapter 440, Florida Statutes, and all other state and federal workers' compensation laws, including the U.S. Longshore Harbor Workers' Act and the Jones Act, if applicable. Contractor shall similarly require any and all of its subcontractors to afford such coverage for all of its employees as required by applicable law. Contractor shall waive and shall ensure that Contractor's insurance carrier waives, all subrogation rights against the City of Ocala and its officers, employees, and volunteers for all losses or damages. Contractor's policy shall be endorsed with WC 00 03 13 Waiver of our Right to Recover from Others or its equivalent. **Exceptions and exemptions to this Section may be allowed at the discretion of the City's Risk Manager on a case-by-case basis in accordance with Florida Statutes and shall be evidenced by a separate waiver.**



25. **MISCELLANEOUS INSURANCE PROVISIONS.**

- A. Contractor's insurance coverage shall be primary insurance for all applicable policies. The limits of coverage under each policy maintained by Contractor shall not be interpreted as limiting Contractor's liability or obligations under this Agreement. City does not in any way represent that these types or amounts of insurance are sufficient or adequate enough to protect Contractor's interests or liabilities or to protect Contractor from claims that may arise out of or result from the negligent acts, errors, or omissions of Contractor, any of its agents or subcontractors, or for anyone whose negligent act(s) Contractor may be liable.
- B. No insurance shall be provided by the City for Contractor under this Agreement and Contractor shall be fully and solely responsible for any costs or expenses incurred as a result of a coverage deductible, co-insurance penalty, or self-insured retention to include any loss not covered because of the operation of such deductible, co-insurance penalty, self-insured retention, or coverage exclusion or limitation.
- C. Certificates of Insurance. No work shall be commenced by Contractor under this Agreement until the required Certificate of Insurance and endorsements have been provided nor shall Contractor allow any subcontractor to commence work until all similarly required certificates and endorsements of the subcontractor have also been provided. Work shall not continue after expiration (or cancellation) of the Certificate of Insurance and work shall not resume until a new Certificate of Insurance has been provided. **Contractor shall provide evidence of insurance in the form of a valid Certificate of Insurance (binders are unacceptable) prior to the start of work contemplated under this Agreement to: City of Ocala. Attention: Procurement & Contracting Department, Address: 110 SE Watula Avenue, Third Floor, Ocala Florida 34471, E-Mail: [vendors@ocalafl.org](mailto:vendors@ocalafl.org).** Contractor's Certificate of Insurance and required endorsements shall be issued by an agency authorized to do business in the State of Florida with an A.M. Best Rating of A or better. The Certificate of Insurance shall indicate whether coverage is being provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.
- D. City as an Additional Insured. The City of Ocala shall be named as an Additional Insured and Certificate Holder on all liability policies identified in this Section with the exception of Workers' Compensation and Professional Liability policies.
- E. Notice of Cancellation of Insurance. Contractor's Certificate of Insurance shall provide **THIRTY (30) DAY** notice of cancellation, **TEN (10) DAY** notice if cancellation is for non-payment of premium. In the event that Contractor's insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of Contractor to provide the proper notice. Such notification shall be in writing by registered mail, return receipt requested, and addressed to the certificate holder. Additional copies may be sent to the City of Ocala at [vendors@ocalafl.org](mailto:vendors@ocalafl.org)
- F. Failure to Maintain Coverage. The insurance policies and coverages set forth above are required and providing proof of and maintaining insurance of the types and with such terms and limits set forth above is a material obligation of Contractor. Contractor's failure to obtain or maintain in full force and effect any insurance coverage required under this Agreement shall constitute material breach of this Agreement.

G. Severability of Interests. Contractor shall arrange for its liability insurance to include, or be endorsed to include, a severability of interests/cross-liability provision so that the "City of Ocala" (where named as an additional insured) will be treated as if a separate policy were in existence, but without increasing the policy limits.

27. **SAFETY/ENVIRONMENTAL.** Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Contractor shall make an effort to detect hazardous conditions and shall take prompt action where necessary to avoid accident, injury or property damage. EPA, DEP, OSHA and all other applicable safety laws and ordinances shall be followed as well as American National Standards Institute Safety Standards. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

- A. All employees on the work and other persons that may be affected thereby;
- B. All work, materials and equipment to be incorporated therein, whether in storage on or off the site; and
- C. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

All, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Contractor, any subcontractor, or anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, shall be remedied by Contractor. Contractor's duties and responsibilities for the safety and protection of the work shall continue until such time as the work is completed and accepted by City.

28. **TRAFFIC CONTROL AND BARRICADES.** The Contractor shall mitigate impact on local traffic conditions to all extents possible. The Contractor is responsible for establishing and maintaining appropriate traffic control and barricades. The Contractor shall provide sufficient signing, flagging and barricading to ensure the safety of vehicular and pedestrian traffic at all locations where work is being done under this Agreement.

- a. In addition to the requirements set forth in its bid, the Contractor shall maintain at all times a good and sufficient fence, railing or barrier around all exposed portions of said work in such a manner as to warn vehicular and pedestrian traffic of hazardous conditions.
- b. Should Contractor fail to properly barricade his work or stored material sites in the manner outlined above, the City may have the necessary barricading done, and all cost incurred for said barricading shall be charged to the Contractor.

29. **WORK SITE AND CLEANUP.** Daily, during the progress of the work, Contractor shall keep the premises free from accumulations of waste materials, rubbish, and all other debris resulting from the work. At the completion of the work, Contractor shall remove all waste materials, rubbish, and debris from and about the premises, as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by City. Contractor shall provide an inventory listing of all surplus materials in an area designated by City. Contractor shall restore to their original condition those portions of the site not designated or alteration by this Agreement.

30. **CONSTRUCTION SURVEY LAYOUT.** The work to be performed pursuant to survey work provided by City shall be completed as necessary to establish all proper alignments, right of way, easements, benchmarks, elevations and grade stakes to complete all phases of this Contract.
  - A. Contractor shall immediately bring to City's attention any survey issues that would impede the Contractor's completion of the work. The work performed pursuant to survey work at the Contractor's expense pursuant to this Agreement shall be prepared by a licensed surveyor and provided to the City. Any survey issues with these surveys that would impede the Contractor's completion of the work shall immediately be brought to the City's attention. If additional or corrective survey work is required, it shall be at Contractor's expense.
  - B. The City Engineer/City Project Manager shall establish a number of benchmarks on the project which in their opinion will enable the Contractor to perform the work. If Contractor shall remove or destroy any stake, marker or benchmark on the work without first having secured the approval of the City Engineer/City Project Manager, such stake, or benchmark shall be re-established by and at Contractor's expense.
  - C. It shall be the responsibility of Contractor to preserve all adjacent property corner markers which might be affected by their operations and replace same if undermined. Corner locations known by City will be made available to Contractor. All original field notes, calculations, and other documents developed by the surveyor in conjunction with this work shall be given to City and become City property. All surveying work must be in accordance with Chapters 177 and 472 of Florida Statutes and Chapter 61G17 of the Florida Administrative Code.
31. **NON-DISCRIMINATORY EMPLOYMENT PRACTICES.** During the performance of the contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, ancestry, national origin, sex, pregnancy, age, disability, sexual orientation, gender identity, marital or domestic partner status, familial status, or veteran status and shall take affirmative action to ensure that an employee or applicant is afforded equal employment opportunities without discrimination. Such action shall be taken with reference to, but not limited to: recruitment, employment, termination, rates of pay or other forms of compensation and selection for training or retraining, including apprenticeship and on-the-job training.
32. **SUBCONTRACTORS.** Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by City or its representatives to any subcontractor of Contractor or any other persons or organizations having a direct contract with Contractor, nor shall it create any obligation on the part of City or its representatives to pay or seek payment of any monies to any subcontractor of Contractor or any other persons or organizations having a direct contract with Contractor, except as may otherwise be required by law. City shall not be responsible for the acts or omissions of any Contractor, subcontractor, or of any of their agents or employees, nor shall it create any obligation on the part of City or its representatives to pay or to seek the payment of any monies to any subcontractor or other person or organization, except as may otherwise be required by law.
33. **EMERGENCIES.** In an emergency affecting the welfare and safety of life or property, Contractor, without special instruction or authorization from the City Project Manager, is hereby permitted, authorized and directed to act at its own discretion to prevent threatened loss or injury. Except in the case of an emergency requiring immediate remedial work, any work performed after regular working hours, on Saturdays, Sundays or legal holidays, shall be performed without additional expense to the City unless such work has been specifically requested and approved by the City Project Manager. Contractor shall be required to provide to the City Project Manager

with the names, addresses and telephone numbers of those representatives who can be contacted at any time in case of emergency. Contractor's emergency representatives must be fully authorized and equipped to correct unsafe or excessively inconvenient conditions on short notice by City or public inspectors.

34. **INDEPENDENT CONTRACTOR STATUS.** Contractor acknowledges and agrees that under this Agreement, Contractor and any agent or employee of Contractor shall be deemed at all times to be an independent contractor and shall be wholly responsible for the manner in which it performs the services and work required under this Agreement. Neither Contractor nor its agents or employees shall represent or hold themselves out to be employees of City at any time. Neither Contractor nor its agents or employees shall have employee status with City. Nothing in this Agreement shall constitute or be construed to create any intent on the part of either party to create an agency relationship, partnership, employer-employee relationship, joint venture relationship, or any other relationship which would allow City to exercise control or discretion over the manner or methods employed by Contractor in its performance of its obligations under this Agreement.
35. **ACCESS TO FACILITIES.** City shall provide Contractor with access to all City facilities as is reasonably necessary for Contractor to perform its obligations under this Agreement.
36. **ASSIGNMENT.** Neither party may assign its rights or obligations under this Agreement to any third party without the prior express approval of the other party, which shall not be unreasonably withheld.
37. **RIGHT OF CITY TO TAKE OVER CONTRACT.** Should the work to be performed by Contractor under this Agreement be abandoned, or should Contractor become insolvent, or if Contractor shall assign or sublet the work to be performed hereunder without the written consent of City, the City Project Manager shall have the power and right to hire and acquire additional men and equipment, supply additional material, and perform such work as deemed necessary for the completion of this Agreement. Under these circumstances, all expenses and costs actually incurred by City to accomplish such completion shall be credited to City along with amounts attributable to any other elements of damage and certified by the Project Manager. The City Project Manager's certification as to the amount of such liability shall be final and conclusive.
38. **PUBLIC RECORDS.** The Contractor shall comply with all applicable provisions of the Florida Public Records Act, Chapter 119, Florida Statutes. Specifically, the Contractor shall:
  - A. Keep and maintain public records required by the public agency to perform the service.
  - B. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
  - C. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the Contractor does not transfer the records to the public agency.
  - D. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the Contractor or keep and maintain public records required by the public agency to perform the service. If the Contractor transfers all public records to the public agency upon completion of the contract, the Contractor shall destroy any duplicate public

records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

**IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT: CITY OF OCALA, OFFICE OF THE CITY CLERK; 352-629-8266; E-mail: [clerk@ocalafl.org](mailto:clerk@ocalafl.org); City Hall, 110 SE Watula Avenue, Ocala, FL 34471.**

39. **AUDIT.** Contractor shall comply and cooperate immediately with any inspections, reviews, investigations, or audits relating to this Agreement as deemed necessary by the Florida Office of the Inspector General, the City's Internal or External auditors or by any other Florida official with proper authority.
40. **PUBLICITY.** Contractor shall not use City's name, logo, seal or other likeness in any press release, marketing materials, or other public announcement without City's prior written approval.
41. **E-VERIFY.** Pursuant to section 448.095, Contractor shall register with and use the U.S. Department of Homeland Security's ("DHS") E-Verify System, accessible at <https://e-verify.uscis.gov/emp>, to verify the work authorization status of all newly hired employees. Contractor shall obtain affidavits from any and all subcontractors in accordance with paragraph 2(b) of section 448.095, Florida Statutes, and maintain copies of such affidavits for the duration of this Agreement. By entering into this Agreement, Contractor certifies and ensures that it utilizes and will continue to utilize the DHS E-Verify System for the duration of this Agreement and any subsequent renewals of same. Contractor understands that failure to comply with the requirements of this section shall result in the termination of this Agreement and Contractor may lose the ability to be awarded a public contract for a minimum of one (1) year after the date on which the Agreement was terminated. Contractor shall provide a copy of its DHS Memorandum of Understanding upon City's request. Please visit [www.e-verify.gov](http://www.e-verify.gov) for more information regarding the E-Verify System.
42. **CONFLICT OF INTEREST.** Contractor is required to have disclosed, with the submission of their bid, the name of any officer, director, or agent who may be employed by the City. Contractor shall further disclose the name of any City employee who owns, directly or indirectly, any interest in Contractor's business or any affiliated business entity. Any additional conflicts of interest that may occur during the contract term must be disclosed to the City of Ocala Procurement Department.
43. **WAIVER.** The failure or delay of any party at any time to require performance by another party of any provision of this Agreement, even if known, shall not affect the right of such party to require performance of that provision or to exercise any right, power or remedy hereunder. Any waiver by any party of any breach of any provision of this Agreement should not be construed as a waiver of any continuing or succeeding breach of such provision, a waiver of the provision

itself, or a waiver of any right, power or remedy under this Agreement. No notice to or demand on any party in any circumstance shall, of itself, entitle such party to any other or further notice or demand in similar or other circumstances.

44. **SEVERABILITY OF ILLEGAL PROVISIONS.** Wherever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under the applicable law. Should any portion of this Agreement be declared invalid for any reason, such declaration shall have no effect upon the remaining portions of this Agreement.
45. **INDEMNITY.** Contractor shall indemnify, defend, and hold harmless City and its elected officials, employees and volunteers against any actions, claims, or damages arising out of, relating to, or resulting from negligent or wrongful acts of Contractor, or any of its officers, agents, or employees, acting within the scope of their office or employment, in connection with the rights granted to or exercised by Contractor.
46. **NO WAIVER OF SOVEREIGN IMMUNITY.** The foregoing indemnification shall not constitute a waiver of the City's sovereign immunity beyond the limits set forth in section 768.28, Florida Statutes. Nor shall the same be construed to constitute agreement by Contractor to indemnify City for the negligent acts or omissions of City, its officers, agents, or employees, or third parties. This indemnification shall survive the termination of this Agreement.
47. **NOTICES.** All notices, certifications or communications required by this Agreement shall be given in writing and shall be deemed delivered when personally served, or when received if by facsimile transmission with a confirming copy mailed by registered or certified mail, postage prepaid, return receipt requested. Notices can be concurrently delivered by e-mail. All notices shall be addressed to the respective parties as follows:

If to Contractor:

Marion Rock, LLC  
 Attention: Ryan Boutwell/Nicole Almanza  
 5979 SE Maricamp Road  
 Ocala, Florida 34472  
 Phone: 352-687-2023  
 E-mail: [Nicole.marionrock@gmail.com](mailto:Nicole.marionrock@gmail.com)

If to City of Ocala:

Daphne M. Robinson, Esq., Contracting Officer  
 City of Ocala  
 110 SE Watula Avenue, Third Floor  
 Ocala, Florida 34471  
 Phone: 352-629-8343  
 E-mail: [notices@ocalafl.org](mailto:notices@ocalafl.org)

Copy to:

William E. Sexton, Esq., City Attorney  
 City of Ocala  
 110 SE Watula Avenue, Third Floor  
 Ocala, Florida 34471  
 Phone: 352-401-3972  
 E-mail: [wsexton@ocalafl.org](mailto:wsexton@ocalafl.org)



48. **ATTORNEYS' FEES.** If any civil action, arbitration or other legal proceeding is brought for the enforcement of this Agreement, or because of an alleged dispute, breach, default or misrepresentation in connection with any provision of this Agreement, the successful or prevailing party shall be entitled to recover reasonable attorneys' fees, sales and use taxes, court costs and all expenses reasonably incurred even if not taxable as court costs (including, without limitation, all such fees, taxes, costs and expenses incident to arbitration, appellate, bankruptcy and post-judgment proceedings), incurred in that civil action, arbitration or legal proceeding, in addition to any other relief to which such party or parties may be entitled. Attorneys' fees shall include, without limitation, paralegal fees, investigative fees, administrative costs, sales and use taxes and all other charges reasonably billed by the attorney to the prevailing party.
49. **JURY WAIVER.** IN ANY CIVIL ACTION, COUNTERCLAIM, OR PROCEEDING, WHETHER AT LAW OR IN EQUITY, WHICH ARISES OUT OF, CONCERNS, OR RELATES TO THIS AGREEMENT, ANY AND ALL TRANSACTIONS CONTEMPLATED HEREUNDER, THE PERFORMANCE HEREOF, OR THE RELATIONSHIP CREATED HEREBY, WHETHER SOUNDING IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE, TRIAL SHALL BE TO A COURT OF COMPETENT JURISDICTION AND NOT TO A JURY. EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY. NEITHER PARTY HAS MADE OR RELIED UPON ANY ORAL REPRESENTATIONS TO OR BY ANY OTHER PARTY REGARDING THE ENFORCEABILITY OF THIS PROVISION. EACH PARTY HAS READ AND UNDERSTANDS THE EFFECT OF THIS JURY WAIVER PROVISION.
50. **GOVERNING LAW.** This Agreement is and shall be deemed to be a contract entered and made pursuant to the laws of the state of Florida and shall in all respects be governed, construed, applied and enforced in accordance with the laws of the state of Florida.
51. **JURISDICTION AND VENUE.** The parties acknowledge that a majority of the negotiations, anticipated performance and execution of this Agreement occurred or shall occur in Marion County, Florida. Any civil action or legal proceeding arising out of or relating to this Agreement shall be brought only in the courts of record of the State of Florida in Marion County or the United States District Court, Middle District of Florida, Ocala Division. Each party consents to the exclusive jurisdiction of such court in any such civil action or legal proceeding and waives any objection to the laying of venue of any such civil action or legal proceeding in such court and/or the right to bring an action or proceeding in any other court. Service of any court paper may be effected on such party by mail, as provided in this Agreement, or in such other manner as may be provided under applicable laws, rules of procedures or local rules.
52. **REFERENCE TO PARTIES.** Each reference herein to the parties shall be deemed to include their successors, assigns, heirs, administrators, and legal representatives, all whom shall be bound by the provisions hereof.
53. **MUTUALITY OF NEGOTIATION.** Contractor and City acknowledge that this Agreement is a result of negotiations between Contractor and City, and the Agreement shall not be construed in favor of, or against, either party because of that party having been more involved in the drafting of the Agreement.
54. **SECTION HEADINGS.** The section headings herein are included for convenience only and shall not be deemed to be a part of this Agreement.

55. **RIGHTS OF THIRD PARTIES.** Nothing in this Agreement, whether express or implied, is intended to confer any rights or remedies under or because of this Agreement on any persons other than the parties hereto and their respective legal representatives, successors and permitted assigns. Nothing in this Agreement is intended to relieve or discharge the obligation or liability of any third persons to any party to this Agreement, nor shall any provision give any third persons any right of subrogation or action over or against any party to this Agreement.
56. **AMENDMENT.** No amendment to this Agreement shall be effective except those agreed to in writing and signed by both parties to this Agreement.
57. **COUNTERPARTS.** This Agreement may be executed in counterparts, each of which shall be an original and all of which shall constitute the same instrument.
58. **ELECTRONIC SIGNATURE(S).** Contractor, if and by offering an electronic signature in any form whatsoever, will accept and agree to be bound by said electronic signature to all terms and conditions of this Agreement. Further, a duplicate or copy of the Agreement that contains a duplicated or non-original signature will be treated the same as an original, signed copy of this original Agreement for all purposes.
59. **ENTIRE AGREEMENT.** This Agreement, including exhibits, (if any) constitutes the entire Agreement between the parties hereto with respect to the subject matter hereof. There are no other representations, warranties, promises, agreements or understandings, oral, written or implied, among the Parties, except to the extent reference is made thereto in this Agreement. No course of prior dealings between the parties and no usage of trade shall be relevant or admissible to supplement, explain, or vary any of the terms of this Agreement. No representations, understandings, or agreements have been made or relied upon in the making of this Agreement other than those specifically set forth herein.
60. **LEGAL AUTHORITY.** Each person signing this Agreement on behalf of either party individually warrants that he or she has full legal power to execute this Agreement on behalf of the party for whom he or she is signing, and to bind and obligate such party with respect to all provisions contained in this Agreement.

**[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK. SIGNATURE PAGE TO FOLLOW]**



**IN WITNESS WHEREOF**, the parties have executed this Agreement on \_\_\_\_\_.

**ATTEST:**

**CITY OF OCALA**

\_\_\_\_\_  
Angel B. Jacobs  
City Clerk

\_\_\_\_\_  
Barry Mansfield  
City Council President

**Approved as to form and legality:**

**MARION ROCK, LLC**

\_\_\_\_\_  
By: \_\_\_\_\_  
(Printed Name)

Title: \_\_\_\_\_

\_\_\_\_\_  
(Signature)  
By: \_\_\_\_\_  
(Printed Name)

Title: \_\_\_\_\_  
(Title of Authorized Signatory)

**BACKGROUND**

1. The proposed City of Ocala North Complex project is located in Section 03, Township 15S, and Range 22E. More specifically, the project is located directly north of the City of Ocala Municipal Complex across NE 21st Street in Marion County, Florida. The project will consist of the construction of a proposed truck shed building pad, driveways, and stormwater infrastructure to support the proposed development. The stormwater for the project will be accommodated in one (1) dry retention area, DRA-1.
2. The Contractor is responsible for providing all materials, labor, and equipment (in good working condition) to complete the project.
3. All work shall be coordinated through City Project Manager Jimmy Lopez, (352) 351-6754, e-mail: [jlopez@ocalafl.gov](mailto:jlopez@ocalafl.gov). Contractor must provide a valid telephone number and address to the City Project Manager. The phone must be answered during normal working hours, or voicemail must be available to leave a message.

**PERMIT REQUIREMENTS**

1. **Permits Required:** Contractor will be responsible for obtaining the following City of Ocala permits at no additional cost to the City:
  - Right of Way
2. **Construction Permit Applications:** For construction permits and related documents, please visit: <https://www.ocalafl.gov/government/city-departments-a-h/growth-management/permitting>

**ANTICIPATED TASKS, DELIVERABLES AND HOURS**

1. **Anticipated Tasks:** The Contractor may be required to perform the following types of services for the City of Ocala. This list is not an attempt to exclusively define those specific activities the Contractor will perform.
  - a. Clearing grubbing.
  - b. Removal of unsuitable debris/materials.
  - c. Clean fill import.
  - d. Install stormwater conveyance system with DRA.
  - e. Construction of a proposed truck shed building pad.
  - f. Install asphalt driveways.
  - g. Grading/sodding/restorations.
2. **Work Hours.** The normal/standard working hours for this project are 7:00 AM – 5:00 PM Monday through Friday, excluding holidays. Contractor shall provide (forty-eight) 48-hour advance notice to City Project Manager for work outside normal shift hours. The city may decline the request.

**PROJECT SPECIFICATIONS**

This project will require the Contractor to follow the following plans and specifications:

1. Plan set for the project is outlined in the Exhibits.

2. Project Signs Layout and Project Sign Construction Detail as shown in **Exhibit E**. (it is the Contractor's responsibility to ensure Council Members are correct and kept up to date)
3. City of Ocala Standard Specifications for Construction of Streets, Stormwater, Traffic, Water and Sewer Infrastructure available at: [www.ocalafl.gov/home/showpublisheddocument/24606](http://www.ocalafl.gov/home/showpublisheddocument/24606)
4. Florida Department of Transportation Standard Specifications (FDOT) for Road and Bridge Construction, latest edition available at:  
<http://www.fdot.gov/programmanagement/Implemented/SpecBooks/>
5. Florida Department of Transportation Standard Plans for Road and Bridge Construction (latest edition): <http://www.fdot.gov/design/standardplans/sprbc.shtm>
6. Florida Department of Transportation Florida Greenbook (latest edition) can be obtained by downloading from: <https://www.fdot.gov/roadway/floridagreenbook/fgb.shtm>
7. Manual on Uniform Traffic Control Devices (MUTCD), available at:  
<https://www.fdot.gov/traffic/trafficservices/mutcd.shtm>
8. FDOT Design Standards available at: <https://www.fdot.gov/design/standardplans/DS.shtm>
9. Contractor must have the above listed documents in addition to up-to-date copies of shop drawings, plans and bid document at job site at all times.
10. All material and construction equipment must meet FDOT Standard Specifications for Road and Bridge, latest edition. Substantial completion date will start the warranty period for each project assigned.

#### CONTRACTOR EMPLOYEES AND EQUIPMENT

1. An employee roster must be provided to City Project Manager.
2. Contractor must utilize competent employees in performing the work. Employees performing the work must be properly licensed or qualified as required by the scope/project.
3. The Contractor shall provide an assigned project manager, who will be the primary point of contact. Contractor must provide a valid telephone number, email, and address at all times to the City Project Manager. The telephone must be answered during normal working hours or voicemail must be available to take a message.
4. At the request of the City, the Contractor must replace any incompetent, unfaithful, abusive, or disorderly person in their employment. The City and the Contractor must each be promptly notified by the other of any complaints received.
5. Contractor's employees must wear suitable work clothes and personal protective equipment as defined by OSHA (hard hats, bucket harnesses, etc.) and meeting Manual on Uniform Traffic Control Devices (MUTCD) and National Electrical Safety Code (NESC) requirements as indicated for all work conducted and be as clean and in as good appearance as the job conditions permit.
6. Contractor will operate as an independent contractor and not as an agent, representative, partner or employee of the City of Ocala, and shall control their operations at the work site, and be solely responsible for the acts or omissions of their employees.
7. No smoking is allowed on City property or projects.

8. Contractor must possess/obtain all required equipment to perform the work. A list of equipment shall be provided to the City upon request.
9. All company vehicles and uniforms must display a visible company name/logo.
10. The Contractor shall schedule monthly progress meetings, draft agendas, and note minutes. Contractor will provide these documents to Owner for record after each progress meeting.
11. Contractor shall provide monthly reports of all Task Work Orders in progress. Deliverables shall be accepted by the City of Ocala Project Manager before payment for such work.

**CITY OF OCALA RESPONSIBILITIES**

1. The City of Ocala will furnish the following services/data to the Contractor for the performance of services:
  - a. Provide access to drawings, specifications, schedules, reports, and other information prepared by/for the City of Ocala pertinent to the Contractor's responsibilities.
  - b. Access to City buildings and facilities to perform the work.
2. The City reserves the right to purchase any materials for the Contractor to use. The Contractor shall not charge a mark-up fee for material furnished by the City.

**CONTRACTOR RESPONSIBILITIES**

1. Contractor shall complete all work performed under this contract in accordance with policies and procedures of the City of Ocala and all applicable State and Federal laws, policies, procedures, and guidelines.
2. Contractor shall obtain and pay for any and licenses, additional equipment, dumping and/or disposal fees, etc., required to fulfill this Agreement.
3. Construction shall be performed in compliance with all requirements and instructions of applicable manufacturers.
4. If the Contractor is advised to leave a property by the property owner or their representative, the Contractor shall leave at once without altercation. Contractor shall then contact the City Project Manager within 24 hours and advise of the reason for not completing the assigned project.
5. Contractor is responsible for any and all damages including but not limited to buildings, curbing, pavement, landscaping, or irrigation systems caused by their activity. Should any public or private property be damaged or destroyed, the Contractor, at their expense, shall repair or make restoration as acceptable to the City of destroyed or damaged property no later than one (1) month from the date damage occurred.
6. Data collected by the Contractor shall be in a format compatible with, or easily converted to City's databases. A sequential naming convention should be applied to the files and documentation provided to the City.
7. The Contractor shall ensure that all documents prepared under this contract have been prepared on a Windows-based operating system computer using the most current version of Microsoft Office, which includes: Word, Excel, Power Point, Access or any other software as specified and approved by City staff.
8. The Contractor shall schedule monthly progress meetings, draft agendas, and note minutes.



Contractor will provide these documents to Owner for record after each progress meeting.

9. Obtaining of required permits and the moving of Contractor's operations and equipment required for construction.
10. Provide on-site construction power and wiring, and on-site communication facilities as needed.
11. Provide on-site sanitary facilities and potable water facilities as specified and as required by governing agencies. The Contractor will not be permitted to use the City sanitary facilities during construction.
12. Posting of OSHA required notices and establishing of safety programs and procedures.
13. **Erosion Sediment and Flood Control:** Provide, maintain, and operate temporary facilities to control erosion and sediment, and to protect work and existing facilities from flooding during construction. Maintain drainage ways and construct temporary drainage facilities to allow runoff to flow properly.
14. **Testing Requirements:** Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required. Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Engineer. Results of all required testing and inspections shall be submitted to the Engineer. For other requirements for Tests and Inspection refer to Article 14 in the City of Ocala Standard Specifications for Construction of Streets, Stormwater, Traffic, Water and Sewer Infrastructure.

#### SUB-CONTRACTORS

1. Contractor must perform a minimum of 60% of the work with their own forces.
2. Services assigned to sub-contractors must be approved in advance by the City Project Manager.

#### CONSTRUCTION WORK AREAS

1. The City is not responsible for providing property or lay down yards to the Contractor for their materials or equipment. If private property is used, the City requires a copy of the agreement between the property owner and the Contractor. **Utilizing private property without written permission is prohibited.**
2. Components of the project, including temporary work and storage areas, will be located on-site per project. Material and equipment staging areas will be kept in a clean and orderly fashion.
3. Contractor shall provide on-site sanitary facilities as required by governing agencies.
4. Construction work area must be backfilled or protected by construction fencing at the end of each business day. Any work areas in roadways must at least be filled temporarily with asphalt millings or covered with an FDOT approved steel road plate before the roadway can be opened to traffic. If millings are used the Contractor must maintain the millings daily until the millings are replaced with permanent asphalt.

#### SITE HOUSEKEEPING AND CLEANUP

1. **Waste/Debris:** The Contractor shall keep the premises free at all times from accumulation of waste materials and rubbish caused by operations and employees. Contractor will provide approved containers for collection and disposal of waste materials, debris, and rubbish. Contractor shall dispose

of debris in a legal manner. At least once weekly, Contractor shall dispose of such waste materials, debris, and rubbish off-site.

2. **Cleanup:** Contractor shall perform periodic cleanup to avoid hazards or interference with operations at the site, and to leave the site in a reasonable neat condition. Work site will be completely cleaned after each day of work. Sweep all roadways affected by the construction and where adjacent to work daily.
3. **Water Use:** The use of water to prevent the blowing of dust and debris during cutting operations and or cleaning operations is mandatory.
4. **Individual Project Cleaning:** At completion of each individual project, Contractor shall remove from the site all tools, equipment, surplus materials, debris, temporary facilities, scaffolding, and equipment. The areas of work shall be swept thoroughly and all marks, stains, rust, dirt, paint drippings, and the like shall be removed from all new and existing work to the satisfaction of the City.
5. **Final Cleaning:** Upon completion of work, clean the entire work area/project site as applicable.
  - A. Leave the work and adjacent areas affected in a clean condition satisfactory to the City Project Manager.
  - B. The Contractor shall clean and remove from the premises, all surplus and discarded materials, rubbish, and temporary structures, and shall restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work and shall have the work in a neat and presentable condition. *Note: Any and all debris shall be removed from the premises. New construction debris, trash, etc., shall not be left or buried on site.*
  - C. Broom clean exterior paved driveways and parking areas and hose clean sidewalks and concrete exposed surfaces if impacted by work or included in the work area.
  - D. All furnishings and equipment shall be placed back in their original locations.
  - E. All work areas must be returned to their original condition.

## SUBMITTALS

1. Provide submittals as required by City of Ocala Standard Specifications for Construction of Streets, Stormwater, Traffic, Water and Sewer Infrastructure.
2. Submit copies of permits and approvals for construction as required by laws and regulations of governing agencies.
3. Submit temporary construction parking area plans, storage yard, storage trailer location, staging area plan, and plan for disposal of waste materials.

## SAFETY

1. The Contractor is solely responsible for ensuring safety during construction, and for conformance to all applicable OSHA standards; and local, state, and national codes concerning safety provisions for their employees, sub-contractors, all building and site occupants, staff, public, and all persons in or around the work area.
2. Job site visits by City staff do not constitute approval, awareness, or liability for any hazardous condition.
3. Contractor shall be responsible for securing their equipment, materials, clothing, and other property.

4. Prior to completion, storage and adequate protection of all material and equipment will be the Contractor's responsibility.
5. In no event shall the City be responsible for any damages to any of the Contractor's equipment, materials, property, or clothing lost, damaged, destroyed, or stolen.

**PRICING**

1. The City will pay the Contractor only for the actual units that the Contractor provides, installs, or constructs.
2. Should the City and Contractor mutually agree to a change in the scope of services being provided during the term of this agreement, a mutually agreed price adjustment will be allowed.

**The Plan Set for the City of Ocala North Complex, dated 11-24-2023, is available for inspection and copying at 1805 NE 30<sup>th</sup> Avenue, Bldg. 700, Ocala, Florida 34470.**

# *Tillman & Associates*

ENGINEERING, LLC.

## CITY OF OCALA NORTH COMPLEX

City of Ocala  
Engineering & Water  
Resources Department  
1805 NE 30<sup>th</sup> Ave, Bldg 600  
Ocala, Florida, 34470

11/27/2023

www.tillmaneng.com

# MASTER STORMWATER REPORT

**CITY OF OCALA NORTH COMPLEX**  
**STORMWATER MANAGEMENT REPORT**

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  - MARION COUNTY FLOOD PRONE AREA MAP

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This item has been digitally signed and sealed by Jeffrey M. McPherson on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



# 1. Scope of Project and Basis of Analysis

**CITY OF OCALA NORTH COMPLEX**  
**STORMWATER MANAGEMENT REPORT**

**Scope of Project:**

The proposed "City of Ocala North Complex" project, hereafter referred to as "project," is located in Section 03, Township 15S, and Range 22E. More specifically, the project is located directly north of the City of Ocala Municipal Complex across NE 21<sup>st</sup> Street in Marion County, FL. The project will consist of the construction and installation of a truck shed, driveways, and stormwater infrastructure to support the proposed development. The stormwater for the project will be accommodated in one (1) dry retention area, DRA-1. This report contains the runoff calculations, stage-storage tables, soil boring summaries, and supporting stormwater routing analysis to demonstrate compliance with the City of Ocala and St. John's River Water Management District stormwater management criteria.

**Basis of Analysis:**

**A. Regulatory Criteria**

The stormwater management system was designed to meet the City of Ocala and St. John's River Water Management District (SJRWMD) water quantity criteria for a closed basin by retaining the entire post development volume for the 10-year, 25-year, 100-year, 24-hour, and 25-year, 96-hour storm events without discharge. Additionally, the proposed stormwater management system was designed as an online retention facility to meet SJRWMD water quality requirements. Since no discharge occurs from the site, a pre-development analysis has not been prepared to establish allowable discharge rate and volume. Design calculations for storm sewers or other conveyance system shall be based on a 10-year, 24-hour design storm. The drainage retention/detention facility shall recover within 14 days of the start of the storm event. Should the soils conditions be such that the drainage retention/detention facility cannot recover in 14 days and there is no permitted city facility to "bleed down" to, the volume of the drainage retention/detention facility shall be sized to hold the additional post-minus pre-volume of a second 100-year, 24-hour storm plus the balance of the volume remaining at the end of the 14-day drawdown period.

**B. Hydrology Analysis Methodology and Land Use**

Manual Basins with Curve Number infiltration method was used to implement the traditional NRCS Unit Hydrograph Method with a distributed hydrologic approach to determine the rainfall excess. The Curve Number method considered the land use and hydrologic soil types for the post-developed conditions. The soil types for this project are composed of Arredondo sand (hydrologic group "A"), and Udorthents, excavated (hydrologic group "B"). Manual Basins input data will include the breakdown of area, land cover and soil combination. Impervious and Soils lookup table are also provided.

ICPR v4.07.08 was utilized to model the hydrology and hydraulics of the development for the required storm events. The percolation parameters for the estimated seasonal high-water table, aquifer base, and permeability rates were obtained from a site-specific geotechnical investigation in the area of the proposed DRA. Rainfall over time was applied using the Florida Type II (FLMOD) and SJRWMD-96 rainfall distribution. Time of concentration was set to 10 minutes for the drainage basin. A unit hydrograph with a peaking factor of 484 was used for the on-site basin in the analysis. The results of the analysis were evaluated for compliance with City of Ocala and SJRWMD quantity and quality criteria (See **Sections 4 and 5**).

**D. Pre-Development Hydrology**

In the pre-development condition, the east side of the project area is mostly open space and partly wooded, which drains from east to west to an existing low area onsite. From an existing building and parking lot to the west, the stormwater runoff is conveyed via sheet flow through an existing flume, culvert, and swale to an existing small retention area onsite. There is no impact to wetlands.

**C. Post-Development Hydrology**

In the post-developed condition, the project's stormwater management system will include a conveyance network designed to capture stormwater runoff from basin B-1. The runoff generated from this basin will be conveyed to a proposed dry retention pond with name (DRA-1). DRA-1 will retain the total basin runoff volume generated from the 10, 25, and 100-year, 24-hour storm events, and the 25-year, 96-hour storm event, with no offsite discharge.

Results of computer modeling indicate DRA-1 does not recover the required volume within fourteen (14) days following the 10, 25, 100-year, 24-hour event, and the 25-year, 96-hour, storm. However, there is adequate capacity to retain a second storm event within the proposed DRA without discharge. Per City request, an emergency overflow structure (DS-1) will be installed in the proposed drainage retention area, with the control elevation set above the second 25-year, 96-hours storm maximum stage. In addition, more than six inches of freeboard is provided in the drainage retention area.

StormStudio computer software was used to analyze the secondary stormwater conveyance system. A tailwater elevation in the pond at the time of max inflow during the 10 year, 24-hour event plus six inches was used for this analysis. Please see section 6 of this report for the secondary stormwater calculations.

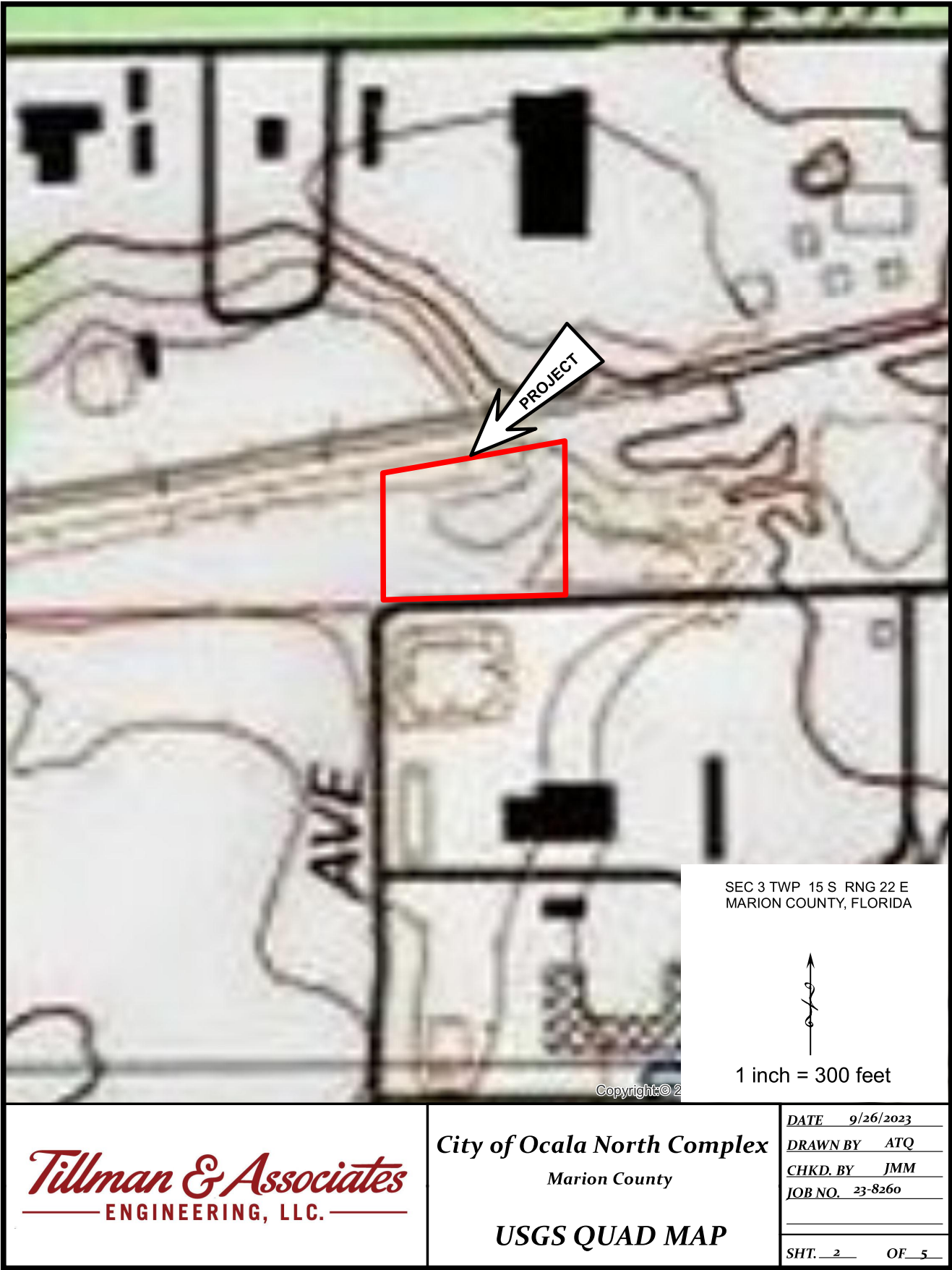
**E. Floodplain Compensation**

The City of Ocala Engineering Department requested a floodplain analysis based on the 63.5' Base Flood Elevation (BFE) per Marshall Swamp Flood Study from Marion County Water Management Plan. The floodplain volume comparison between the existing low area and the proposed project was calculated using 2022 AutoCAD Civil 3D (TIN surface comparison) and accounts for the volume above the seasonal high-water table (48.2') and below the floodplain elevation (63.5'). Since the net change to the floodplain is positive, there is an increase in storage volume within the flood comp area/pond and therefore no adverse flooding risk is posed. See **Section 7** for exhibits outlining limits of the pre- and post- development floodplain.

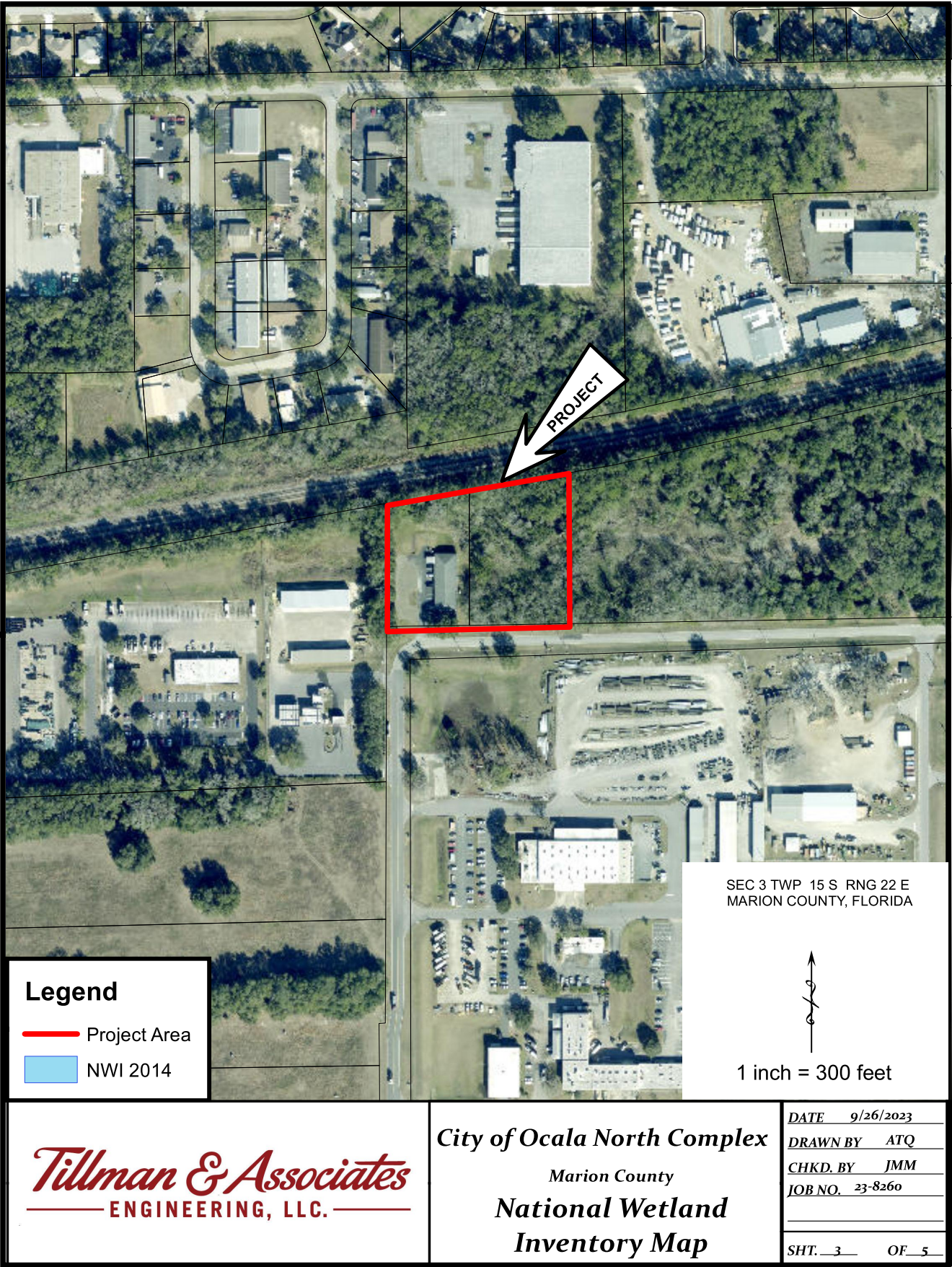
## 2. Maps



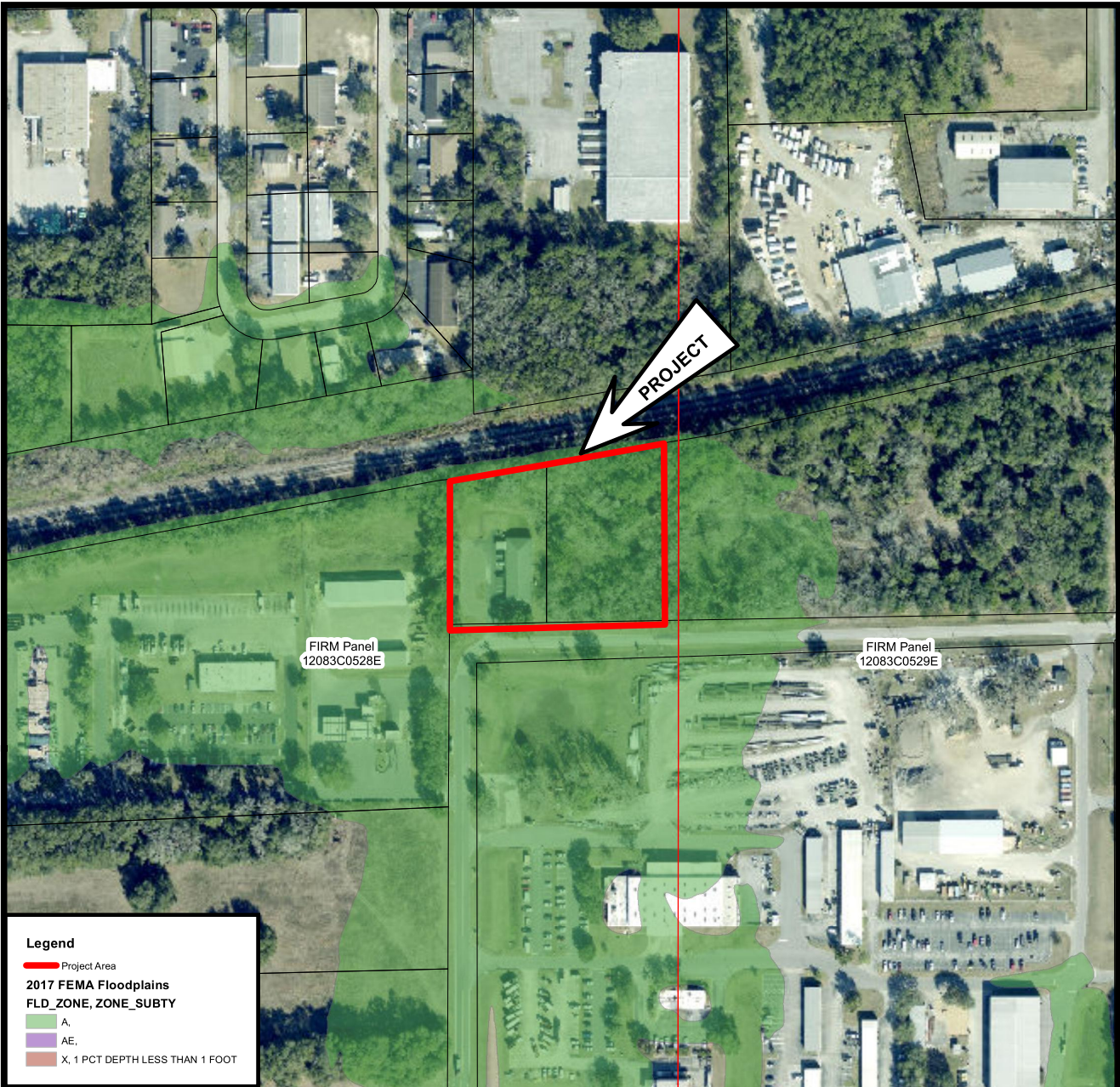












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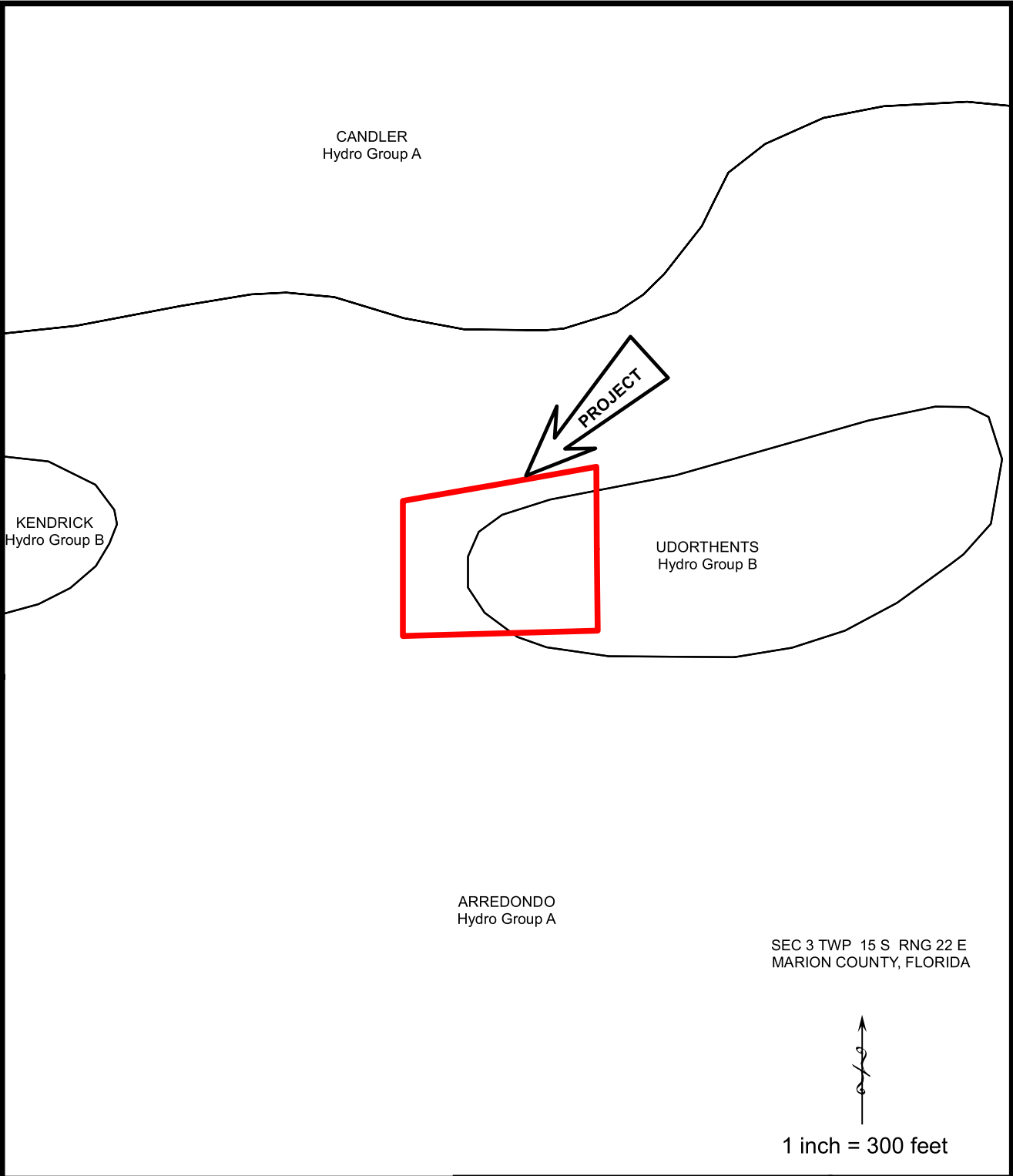
Effective Date: April 19, 2017

Note: FEMA Zone A floodplain within project boundary.

DATE	9/26/2023
DRAWN BY	ATQ
CHKD. BY	JMM
JOB NO.	23-8260
SHT.	4 OF 5

*Tillman & Associates*  
ENGINEERING, LLC.

City of Ocala North Complex  
Marion County  
FEMA  
Map



<div><i>Tillman &amp; Associates</i> ENGINEERING, LLC.</div>	<div>City of Ocala North Complex</div> <div>Marion County</div> <div>Soils Map</div>	DATE 9/26/2023
		DRAWN BY ATQ
		CHKD. BY JMM
		JOB NO. 23-8260
		SHT. 5 OF 5

### 3. Summaries

Basin Post B-1  
Soil Boring Results Summary

			AVERAGE
Soil Boring ID	SB-1	SB-2	
Estimated Natural Ground Elev.	57.3	56.0	
Depth to SHGWT (ft)	10.5	6.5	
<b>Estimated SHGWT Elev.</b>	<b>46.8</b>	<b>49.5</b>	48.2
Depth to Confining Layer (ft)	11.5	7.5	
<b>Estimated Elev. Confining Layer</b>	<b>45.8</b>	<b>48.5</b>	47.2
Horizontal Permeability (ft/day)	1.8	28.6	
<b>FS 2.0 Applied (ft/day)</b>	<b>0.9</b>	<b>14.3</b>	7.6
Vertical Permeability (ft/day)	1.4	6.3	
<b>FS 2.0 Applied (ft/day)</b>	<b>0.7</b>	<b>3.2</b>	1.9
Depth to Limestone (ft)	20.0	20.0	
<b>Estimated Elev. Limestone</b>	<b>37.3</b>	<b>36.0</b>	

## Notes:

1. All information provided by Geo-Tech Inc.geotechnical report, excluding estimated natural ground elevation.

POST B-1  
DRY RETENTION POND  
AREA & STAGE-STORAGE VOLUME

Stage-Storage Volume @ T.O.B.    61.00        =        5.42    ac-ft

Stage (ft)	Area (ac)	Area (sf)	Stor. Vol. (ac-ft)	
52.00	0.30	12,882	0.00	BTM
53.00	0.34	14,901	0.32	
54.00	0.39	17,021	0.69	
54.67	0.40	17,617	0.96	Water Quality
55.00	0.44	19,241	1.10	
56.00	0.49	21,562	1.57	
57.00	0.55	23,984	2.09	
58.00	0.70	30,499	2.72	
59.00	0.83	35,965	3.48	
60.00	0.98	42,540	4.38	
61.00	1.10	47,718	5.42	TOB

## 4. ICPR – Water Quality Analysis

POST B-1  
SJRWMD WATER QUALITY VOLUME

TOTAL DRAINAGE AREA	=	11.55 ACRES
IMPERVIOUS AREA	=	1.29 ACRES

TOTAL DRAINAGE AREA OPTION

TOTAL DRAINAGE AREA	=	11.55 ACRES
0.5" RUNOFF	=	0.5 INCHES
WATER QUALITY VOLUME	=	20,961 CU-FT

IMPERVIOUS AREA OPTION

TOTAL DRAINAGE AREA	=	11.55 ACRES
0.5" RUNOFF	=	20,961 CU-FT
IMPERVIOUS AREA	=	1.29 ACRES
1.25" OF RUNOFF	=	5,875 CU-FT

USE MAXIMUM WATER QUALITY VOLUME	=	41,923 CU-FT
USE MAXIMUM WATER QUALITY VOLUME	=	0.96 AC-FT
WATER QUALITY STARTING ELEVATION	=	54.67 FT



WATER QUALITY

INPUT DATA

1

Manual Basin: POST B-1

Scenario: WATER QUALITY  
 Node: DRA-1  
 Hydrograph Method: NRCS Unit Hydrograph  
 Infiltration Method: Curve Number  
 Time of Concentration: 10.0000 min  
 Max Allowable Q: 0.00 cfs  
 Time Shift: 0.0000 hr  
 Unit Hydrograph: UH484  
 Peaking Factor: 484.0  
 Area: 11.5494 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1104	Paved	Hydro Group A	
0.4898	Paved	Hydro Group B	
0.4259	Open Space	Hydro Group A	
0.5083	Existing Impervious	Hydro Group A	
0.6470	Open Space	Hydro Group B	
6.4528	Woods	Hydro Group B	
0.2962	Retention Pond	Hydro Group B	
2.4327	Woods	Hydro Group A	
0.1286	Truck Shed	Hydro Group B	
0.0578	Existing Impervious	Hydro Group B	

Comment:

Node: DRA-1

Scenario: WATER QUALITY  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 54.67 ft  
 Warning Stage: 61.00 ft

Stage [ft]	Area [ac]	Area [ft2]
52.00	0.3000	13068
53.00	0.3400	14810
54.00	0.3900	16988
55.00	0.4400	19166
56.00	0.4900	21344
57.00	0.5500	23958
58.00	0.7000	30492
59.00	0.8300	36155
60.00	0.9800	42689
61.00	1.1000	47916

Comment:

WATER QUALITY

INPUT DATA

2

Node: GW

Scenario: WATER QUALITY  
 Type: Time/Stage  
 Base Flow: 0.00 cfs  
 Initial Stage: 0.00 ft  
 Warning Stage: 0.00 ft  
 Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	0.00
0	0	0	999.0000	0.00

Comment:

Percolation Link: L-PERC-A

Scenario: WATER QUALITY  
 From Node: DRA-1  
 To Node: GW  
 Link Count: 1  
 Flow Direction: Both  
 Aquifer Base Elevation: 47.20 ft  
 Water Table Elevation: 48.20 ft  
 Annual Recharge Rate: 0 ipy  
 Horizontal Conductivity: 7.600 fpd  
 Vertical Conductivity: 1.900 fpd  
 Fillable Porosity: 0.250  
 Layer Thickness: 3.80 ft

Surface Area Option: Vary Based on Stage/Area Table  
 Vertical Flow Termination: Horizontal Flow Algorithm  
 Perimeter 1: 128.00 ft  
 Perimeter 2: 169.00 ft  
 Perimeter 3: 209.00 ft  
 Distance P1 to P2: 25.00 ft  
 Distance P2 to P3: 25.00 ft  
 # of Cells P1 to P2: 5  
 # of Cells P2 to P3: 3

Comment:

Percolation Link: L-PERC-B

Scenario: WATER QUALITY  
 From Node: DRA-1  
 To Node: GW  
 Link Count: 1  
 Flow Direction: Both  
 Aquifer Base Elevation: 47.20 ft  
 Water Table Elevation: 48.20 ft  
 Annual Recharge Rate: 0 ipy  
 Horizontal Conductivity: 7.600 fpd  
 Vertical Conductivity: 1.900 fpd  
 Fillable Porosity: 0.250  
 Layer Thickness: 3.80 ft

Surface Area Option: Vary Based on Stage/Area Table  
 Vertical Flow Termination: Horizontal Flow Algorithm  
 Perimeter 1: 578.00 ft  
 Perimeter 2: 803.00 ft  
 Perimeter 3: 1253.00 ft  
 Distance P1 to P2: 50.00 ft  
 Distance P2 to P3: 100.00 ft  
 # of Cells P1 to P2: 10  
 # of Cells P2 to P3: 10

Comment:

WATER QUALITY

INPUT DATA

3

## Simulation: Treatment Volume

Scenario: WATER QUALITY  
Run Date/Time: 11/27/2023 10:17:02 AM  
Program Version: ICPR4 4.07.08

## General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

## Output Time Increments

## Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Restart File

Save Restart: False

## Resources &amp; Lookup Tables

## Resources

Rainfall Folder:

Unit Hydrograph  
Folder:

## Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set: CN

Green-Ampt Set:

Vertical Layers Set:

Impervious Set: Impervious

## Tolerances &amp; Options

Time Marching: SAOR  
Max Iterations: 6  
Over-Relax Weight: 0.5 dec  
Fact:  
dZ Tolerance: 0.0010 ft

IA Recovery Time: 24.0000 hr

Smp/Man Basin Rain No Rainfall

WATER QUALITY

INPUT DATA

4

Max dZ: 1.0000 ft

Link Optimizer Tol: 0.0001 ft

Edge Length Option: Automatic

Opt:

Dflt Damping (1D): 0.0050 ft

Min Node Srf Area 100 ft2

(1D):

Energy Switch (1D): Energy

Comment:

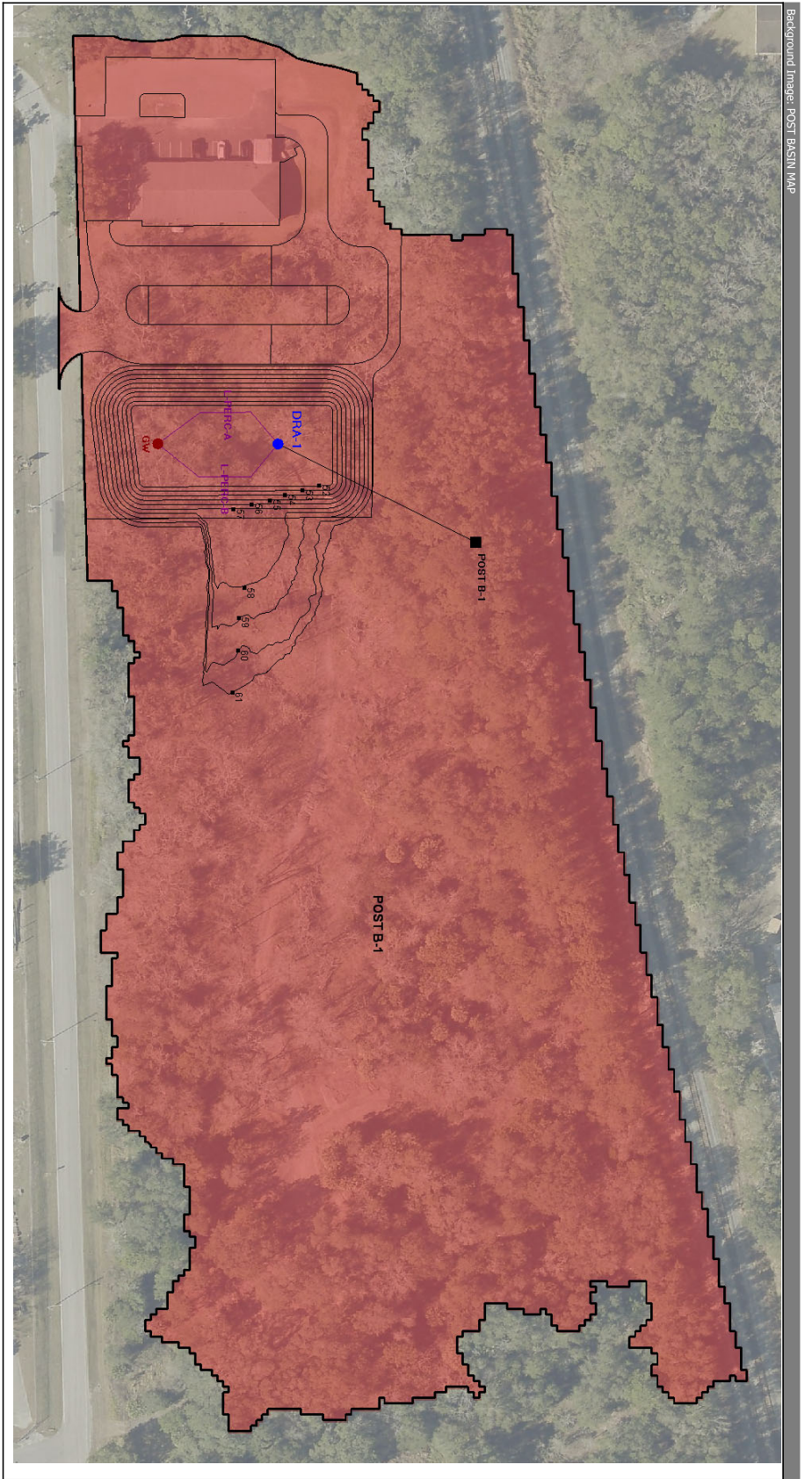
1D Nodes - Time Series

TREATMENT VOLUME RECOVERY

1

Scenario	Sim	Node Name	Relative Time [hrs]	Stage [ft]
WATER QUALITY	Treatment Volume	DRA-1	54.7504	52.06
WATER QUALITY	Treatment Volume	DRA-1	55.0004	52.05
WATER QUALITY	Treatment Volume	DRA-1	55.2504	52.05
WATER QUALITY	Treatment Volume	DRA-1	55.5004	52.05
WATER QUALITY	Treatment Volume	DRA-1	55.7504	52.05
WATER QUALITY	Treatment Volume	DRA-1	56.0004	52.05
WATER QUALITY	Treatment Volume	DRA-1	56.2504	52.04
WATER QUALITY	Treatment Volume	DRA-1	56.5004	52.04
WATER QUALITY	Treatment Volume	DRA-1	56.7504	52.04
WATER QUALITY	Treatment Volume	DRA-1	57.0004	52.04
WATER QUALITY	Treatment Volume	DRA-1	57.2504	52.03
WATER QUALITY	Treatment Volume	DRA-1	57.5004	52.03
WATER QUALITY	Treatment Volume	DRA-1	57.7504	52.03
WATER QUALITY	Treatment Volume	DRA-1	58.0004	52.03
WATER QUALITY	Treatment Volume	DRA-1	58.2504	52.03
WATER QUALITY	Treatment Volume	DRA-1	58.5004	52.02
WATER QUALITY	Treatment Volume	DRA-1	58.7504	52.02
WATER QUALITY	Treatment Volume	DRA-1	59.0004	52.02
WATER QUALITY	Treatment Volume	DRA-1	59.2504	52.02
WATER QUALITY	Treatment Volume	DRA-1	59.5004	52.02
WATER QUALITY	Treatment Volume	DRA-1	59.7504	52.01
WATER QUALITY	Treatment Volume	DRA-1	60.0004	52.01
WATER QUALITY	Treatment Volume	DRA-1	60.2504	52.01
WATER QUALITY	Treatment Volume	DRA-1	60.5004	52.01
WATER QUALITY	Treatment Volume	DRA-1	60.7504	52.01
WATER QUALITY	Treatment Volume	DRA-1	61.0004	52.00
WATER QUALITY	Treatment Volume	DRA-1	61.2504	52.00
WATER QUALITY	Treatment Volume	DRA-1	61.5004	52.00
WATER QUALITY	Treatment Volume	DRA-1	61.7504	52.00
WATER QUALITY	Treatment Volume	DRA-1	62.0004	52.00
WATER QUALITY	Treatment Volume	DRA-1	62.2504	52.00
WATER QUALITY	Treatment Volume	DRA-1	62.5004	52.00
WATER QUALITY	Treatment Volume	DRA-1	62.7504	52.00
WATER QUALITY	Treatment Volume	DRA-1	63.0004	52.00
WATER QUALITY	Treatment Volume	DRA-1	63.2504	52.00
WATER QUALITY	Treatment Volume	DRA-1	63.5004	52.00
WATER QUALITY	Treatment Volume	DRA-1	63.7504	52.00
WATER QUALITY	Treatment Volume	DRA-1	64.0004	52.00
WATER QUALITY	Treatment Volume	DRA-1	64.2504	52.00
WATER QUALITY	Treatment Volume	DRA-1	64.5004	52.00
WATER QUALITY	Treatment Volume	DRA-1	64.7504	52.00

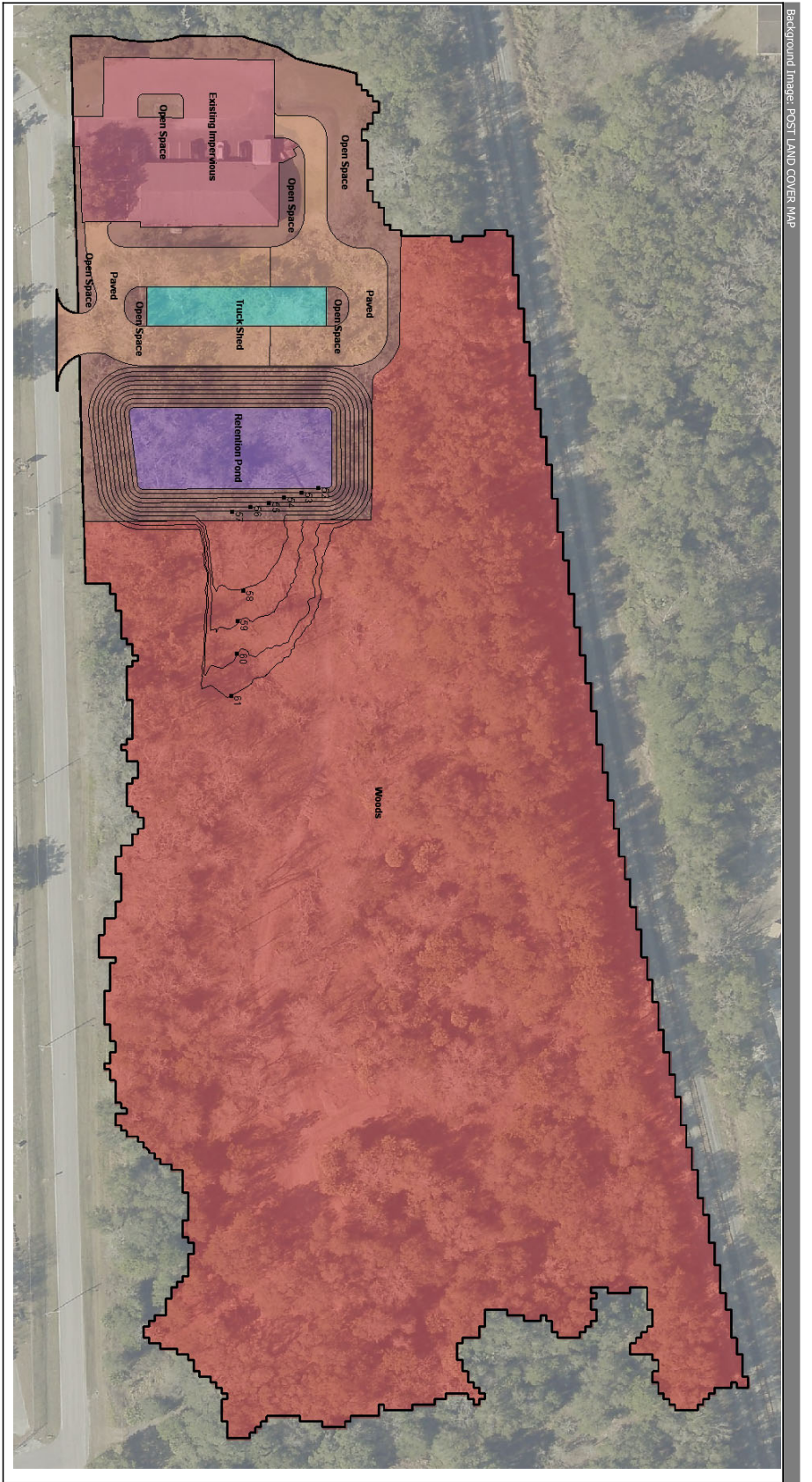
## 5. ICPR – Post Basin Analysis



S:\Water County\City of Ocala\North Complex\CIVIL\DRainage\DRainage\_Report\_2023108\CALCULATIONS\CPH4\CPH4\_City North Complex

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11/27/2023 11:15



POST DEVELOPMENT

INPUT DATA

1

Manual Basin: POST B-1

Scenario: POST  
 Node: DRA-1  
 Hydrograph Method: NRCS Unit Hydrograph  
 Infiltration Method: Curve Number  
 Time of Concentration: 10.0000 min  
 Max Allowable Q: 0.00 cfs  
 Time Shift: 0.0000 hr  
 Unit Hydrograph: UH484  
 Peaking Factor: 484.0  
 Area: 11.5494 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name
0.1104	Paved	Hydro Group A	
0.4898	Paved	Hydro Group B	
0.4259	Open Space	Hydro Group A	
0.5083	Existing Impervious	Hydro Group A	
0.6470	Open Space	Hydro Group B	
6.4528	Woods	Hydro Group B	
0.2962	Retention Pond	Hydro Group B	
2.4327	Woods	Hydro Group A	
0.1286	Truck Shed	Hydro Group B	
0.0578	Existing Impervious	Hydro Group B	

Comment:

## Manual Basin Runoff Summary [POST]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
POST B-1	100Y-24H	51.81	12.0333	11.50	5.40	11.5494	54.9	13.78	13.78
POST B-1	10Y-24H	19.08	12.0333	6.50	2.10	11.5494	58.2	13.78	13.78
POST B-1	25Y-24H	29.46	12.0333	8.30	3.18	11.5494	56.6	13.78	13.78
POST B-1	25Y-96H	40.74	60.0167	11.50	5.40	11.5494	54.9	13.78	13.78

Curve Number: CN [Set]

Land Cover Zone	Soil Zone	Curve Number [dec]
Existing Impervious	Hydro Group A	98.0
Existing Impervious	Hydro Group B	98.0
Open Space	Hydro Group A	39.0
Open Space	Hydro Group B	61.0
Paved	Hydro Group A	98.0
Paved	Hydro Group B	98.0
Retention Pond	Hydro Group B	98.0
Truck Shed	Hydro Group B	98.0

POST DEVELOPMENT

INPUT DATA

2

Land Cover Zone	Soil Zone	Curve Number [dec]
Woods	Hydro Group A	30.0
Woods	Hydro Group B	55.0

Impervious: Impervious [Set]

Land Cover Zone	% Impervious	% DCIA	% Direct	Ia Impervious [in]	Ia Pervious [in]
Existing Impervious	100.00	100.00	0.00	0.000	0.000
Open Space	0.00	0.00	0.00	0.000	0.000
Paved	100.00	100.00	0.00	0.000	0.000
Retention Pond	100.00	100.00	0.00	0.000	0.000
Truck Shed	100.00	100.00	0.00	0.000	0.000
Woods	0.00	0.00	0.00	0.000	0.000

Node: DRA-1

Scenario: POST  
Type: Stage/Area  
Base Flow: 0.00 cfs  
Initial Stage: 52.00 ft  
Warning Stage: 61.00 ft

Stage [ft]	Area [ac]	Area [ft2]
52.00	0.3000	13068
53.00	0.3400	14810
54.00	0.3900	16988
55.00	0.4400	19166
56.00	0.4900	21344
57.00	0.5500	23958
58.00	0.7000	30492
59.00	0.8300	36155
60.00	0.9800	42689
61.00	1.1000	47916

Comment:

Node: GW

Scenario: POST  
Type: Time/Stage  
Base Flow: 0.00 cfs  
Initial Stage: 0.00 ft  
Warning Stage: 0.00 ft  
Boundary Stage:

POST DEVELOPMENT

INPUT DATA

3

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	0.00
0	0	0	999.0000	0.00

Comment:

## Percolation Link: L-PERC-A

Scenario:	POST	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	DRA-1	Vertical Flow Termination:	Horizontal Flow Algorithm
To Node:	GW	Perimeter 1:	128.00 ft
Link Count:	1	Perimeter 2:	169.00 ft
Flow Direction:	Both	Perimeter 3:	209.00 ft
Aquifer Base Elevation:	47.20 ft	Distance P1 to P2:	25.00 ft
Water Table Elevation:	48.20 ft	Distance P2 to P3:	25.00 ft
Annual Recharge Rate:	0 ipy	# of Cells P1 to P2:	5
Horizontal Conductivity:	7.600 fpd	# of Cells P2 to P3:	3
Vertical Conductivity:	1.900 fpd		
Fillable Porosity:	0.250		
Layer Thickness:	3.80 ft		

Comment:

## Percolation Link: L-PERC-B

Scenario:	POST	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	DRA-1	Vertical Flow Termination:	Horizontal Flow Algorithm
To Node:	GW	Perimeter 1:	578.00 ft
Link Count:	1	Perimeter 2:	803.00 ft
Flow Direction:	Both	Perimeter 3:	1253.00 ft
Aquifer Base Elevation:	47.20 ft	Distance P1 to P2:	50.00 ft
Water Table Elevation:	48.20 ft	Distance P2 to P3:	100.00 ft
Annual Recharge Rate:	0 ipy	# of Cells P1 to P2:	10
Horizontal Conductivity:	7.600 fpd	# of Cells P2 to P3:	10
Vertical Conductivity:	1.900 fpd		
Fillable Porosity:	0.250		
Layer Thickness:	3.80 ft		

Comment:

## Simulation: 100Y-24H

Scenario: POST  
Run Date/Time: 11/27/2023 10:07:26 AM  
Program Version: ICPR4 4.07.08

POST DEVELOPMENT

INPUT DATA

4

## General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	360.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

## Output Time Increments

## Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Restart File

Save Restart: False

## Resources &amp; Lookup Tables

## Resources

Rainfall Folder:

Unit Hydrograph  
Folder:

## Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set: CN

Green-Ampt Set:

Vertical Layers Set:

Impervious Set: Impervious

## Tolerances &amp; Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight	0.5 dec		
Fact:			
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	1.0000 ft	Rainfall Name:	~FLMOD
Link Optimizer Tol:	0.0001 ft	Rainfall Amount:	11.50 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr

POST DEVELOPMENT

INPUT DATA

5

Dflt Damping (1D): 0.0050 ft

Min Node Srf Area 100 ft2

(1D):

Energy Switch (1D): Energy

Comment:
----------

Simulation: 100Y-24H\_2nd

Scenario: POST

Run Date/Time: 11/27/2023 10:09:28 AM

Program Version: ICPR4 4.07.08

## General

Run Mode: Hot Start

Hot Start Simulation: 100Y-24H

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	24.0000
Hot Start Time:	0	0	0	359.9000

Hydrology [sec]

Surface Hydraulics

[sec]

Min Calculation Time: 60.0000

0.1000

Max Calculation Time:

30.0000

## Output Time Increments

## Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Restart File

Save Restart: False

## Resources &amp; Lookup Tables

## Resources

Rainfall Folder:

Unit Hydrograph

## Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set: CN



POST DEVELOPMENT

INPUT DATA

6

Folder:

Green-Ampt Set:  
 Vertical Layers Set:  
 Impervious Set: Impervious

## Tolerances &amp; Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight	0.5 dec		
Fact:			
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	1.0000 ft	Rainfall Name:	~FLMOD
Link Optimizer Tol:	0.0001 ft	Rainfall Amount:	11.50 in
		Storm Duration:	24.0000 hr
Edge Length Option:	Automatic		
		Dflt Damping (1D):	0.0050 ft
		Min Node Srf Area	100 ft2
		(1D):	
		Energy Switch (1D):	Energy

Comment:

## Simulation: 10Y-24H

Scenario: POST  
 Run Date/Time: 11/27/2023 10:09:34 AM  
 Program Version: ICPR4 4.07.08

## General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	360.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

## Output Time Increments

## Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
------	-------	-----	-----------	----------------------

## POST DEVELOPMENT

## INPUT DATA

7

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Restart File

Save Restart: False

## Resources &amp; Lookup Tables

## Resources

Rainfall Folder:

Unit Hydrograph  
Folder:

## Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set: CN

Green-Ampt Set:

Vertical Layers Set:

Impervious Set: Impervious

## Tolerances &amp; Options

Time Marching: SAOR  
Max Iterations: 6  
Over-Relax Weight: 0.5 dec  
Fact:  
dZ Tolerance: 0.0010 ft  
  
Max dZ: 1.0000 ft  
Link Optimizer Tol: 0.0001 ft  
  
Edge Length Option: Automatic

IA Recovery Time: 24.0000 hr  
  
Smp/Man Basin Rain  
Opt: Global  
  
Rainfall Name: ~FLMOD  
Rainfall Amount: 6.50 in  
Storm Duration: 24.0000 hr  
  
Dflt Damping (1D): 0.0050 ft  
Min Node Srf Area 100 ft2  
(1D):  
Energy Switch (1D): Energy

Comment:

## Simulation: 10Y-24H\_2nd

Scenario: POST

Run Date/Time: 11/27/2023 10:11:29 AM

Program Version: ICPR4 4.07.08

POST DEVELOPMENT

INPUT DATA

8

## General

Run Mode: Hot Start

Hot Start Simulation: 10Y-24H

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	24.0000
Hot Start Time:	0	0	0	359.9000

Hydrology [sec]

Surface Hydraulics  
[sec]

Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

## Output Time Increments

## Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Restart File

Save Restart: False

## Resources &amp; Lookup Tables

## Resources

Rainfall Folder:

Unit Hydrograph  
Folder:

## Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set: CN

Green-Ampt Set:

Vertical Layers Set:

Impervious Set: Impervious

## Tolerances &amp; Options

Time Marching: SAOR  
 Max Iterations: 6  
 Over-Relax Weight 0.5 dec  
 Fact:  
 dZ Tolerance: 0.0010 ft  
 Max dZ: 1.0000 ft  
 Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr

Smp/Man Basin Rain Global  
 Opt:

Rainfall Name: ~FLMOD  
 Rainfall Amount: 6.50 in

POST DEVELOPMENT

INPUT DATA

9

Edge Length Option: Automatic

Storm Duration: 24.0000 hr

DfIt Damping (1D): 0.0050 ft

Min Node Srf Area 100 ft2

(1D):

Energy Switch (1D): Energy

Comment:

Simulation: 25Y-24H

Scenario: POST

Run Date/Time: 11/27/2023 10:11:36 AM

Program Version: ICPR4 4.07.08

## General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	360.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

## Output Time Increments

## Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Restart File

Save Restart: False

## Resources &amp; Lookup Tables

## Resources

Rainfall Folder:

Unit Hydrograph

## Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set: CN

POST DEVELOPMENT

INPUT DATA

10

Folder:

Green-Ampt Set:  
Vertical Layers Set:  
Impervious Set: Impervious

## Tolerances &amp; Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 6	
Over-Relax Weight 0.5 dec	
Fact:	
dZ Tolerance: 0.0010 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 1.0000 ft	Rainfall Name: ~FLMOD
Link Optimizer Tol: 0.0001 ft	Rainfall Amount: 8.30 in
	Storm Duration: 24.0000 hr
Edge Length Option: Automatic	
	Dflt Damping (1D): 0.0050 ft
	Min Node Srf Area 100 ft2
	(1D):
	Energy Switch (1D): Energy

Comment:

## Simulation: 25Y-24H\_2nd

Scenario: POST  
Run Date/Time: 11/27/2023 10:13:38 AM  
Program Version: ICPR4 4.07.08

## General

Run Mode: Hot Start

Hot Start Simulation: 25Y-24H

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	24.0000
Hot Start Time:	0	0	0	359.9000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

## Output Time Increments

## Hydrology

## POST DEVELOPMENT

## INPUT DATA

11

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Restart File

Save Restart: False

## Resources &amp; Lookup Tables

## Resources

Rainfall Folder:

Unit Hydrograph  
Folder:

## Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set: CN

Green-Ampt Set:

Vertical Layers Set:

Impervious Set: Impervious

## Tolerances &amp; Options

Time Marching: SAOR  
Max Iterations: 6  
Over-Relax Weight: 0.5 dec  
Fact:  
dZ Tolerance: 0.0010 ft  
  
Max dZ: 1.0000 ft  
Link Optimizer Tol: 0.0001 ft  
  
Edge Length Option: Automatic

IA Recovery Time: 24.0000 hr  
  
Smp/Man Basin Rain Global  
Opt:  
  
Rainfall Name: ~FLMOD  
Rainfall Amount: 8.30 in  
Storm Duration: 24.0000 hr  
  
Dflt Damping (1D): 0.0050 ft  
Min Node Srf Area 100 ft2  
(1D):  
Energy Switch (1D): Energy

Comment:

## Simulation: 25Y-96H

Scenario: POST  
Run Date/Time: 11/27/2023 10:13:51 AM  
Program Version: ICPR4 4.07.08

POST DEVELOPMENT

INPUT DATA

12

## General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	432.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

## Output Time Increments

## Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

## Restart File

Save Restart: False

## Resources &amp; Lookup Tables

## Resources

Rainfall Folder:

Unit Hydrograph  
Folder:

## Lookup Tables

Boundary Stage Set:

Extern Hydrograph Set:

Curve Number Set: CN

Green-Ampt Set:

Vertical Layers Set:

Impervious Set: Impervious

## Tolerances &amp; Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6		
Over-Relax Weight	0.5 dec		
Fact:			
dZ Tolerance:	0.0010 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	1.0000 ft	Rainfall Name:	~SJRWMD-96
Link Optimizer Tol:	0.0001 ft	Rainfall Amount:	11.50 in
Edge Length Option:	Automatic	Storm Duration:	96.0000 hr



POST DEVELOPMENT

INPUT DATA

13

Dflt Damping (1D): 0.0050 ft  
Min Node Srf Area 100 ft2  
(1D):  
Energy Switch (1D): Energy

Comment:

Simulation: 25Y-96H\_2nd

Scenario: POST  
Run Date/Time: 11/27/2023 10:16:31 AM  
Program Version: ICPR4 4.07.08

General

Run Mode: Hot Start

Hot Start Simulation: 25Y-96H

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	96.0000
Hot Start Time:	0	0	0	431.9000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph

Lookup Tables

Boundary Stage Set:  
Extern Hydrograph Set:  
Curve Number Set: CN

Folder:

Green-Ampt Set:  
Vertical Layers Set:  
Impervious Set: Impervious

Tolerances & Options

Time Marching: SAOR  
Max Iterations: 6  
Over-Relax Weight: 0.5 dec  
Fact:  
dZ Tolerance: 0.0010 ft  
Max dZ: 1.0000 ft  
Link Optimizer Tol: 0.0001 ft  
Edge Length Option: Automatic

IA Recovery Time: 24.0000 hr

Smp/Man Basin Rain: Global  
Opt:

Rainfall Name: ~SJRWMD-96  
Rainfall Amount: 11.50 in  
Storm Duration: 96.0000 hr

Dflt Damping (1D): 0.0050 ft  
Min Node Srf Area: 100 ft2  
(1D):  
Energy Switch (1D): Energy

Comment:

1D Nodes - Max

NODE MAX CONDITIONS

1

Scenario	Sim	Node Name	Relative Time [hrs]	Warning Stage [ft]	Maximum Stage [ft]
POST	100Y-24H	DRA-1	360.0064	61.00	58.89
POST	100Y-24H_2nd	DRA-1	24.0048	61.00	59.53
POST	10Y-24H	DRA-1	360.0064	61.00	54.89
POST	10Y-24H_2nd	DRA-1	24.0064	61.00	54.89
POST	25Y-24H	DRA-1	360.0068	61.00	56.53
POST	25Y-24H_2nd	DRA-1	24.0042	61.00	56.85
POST	25Y-96H	DRA-1	432.0072	61.00	59.15
POST	25Y-96H_2nd	DRA-1	96.0043	61.00	60.40

1D Nodes - Time Series

14 DAYS RECOVERY

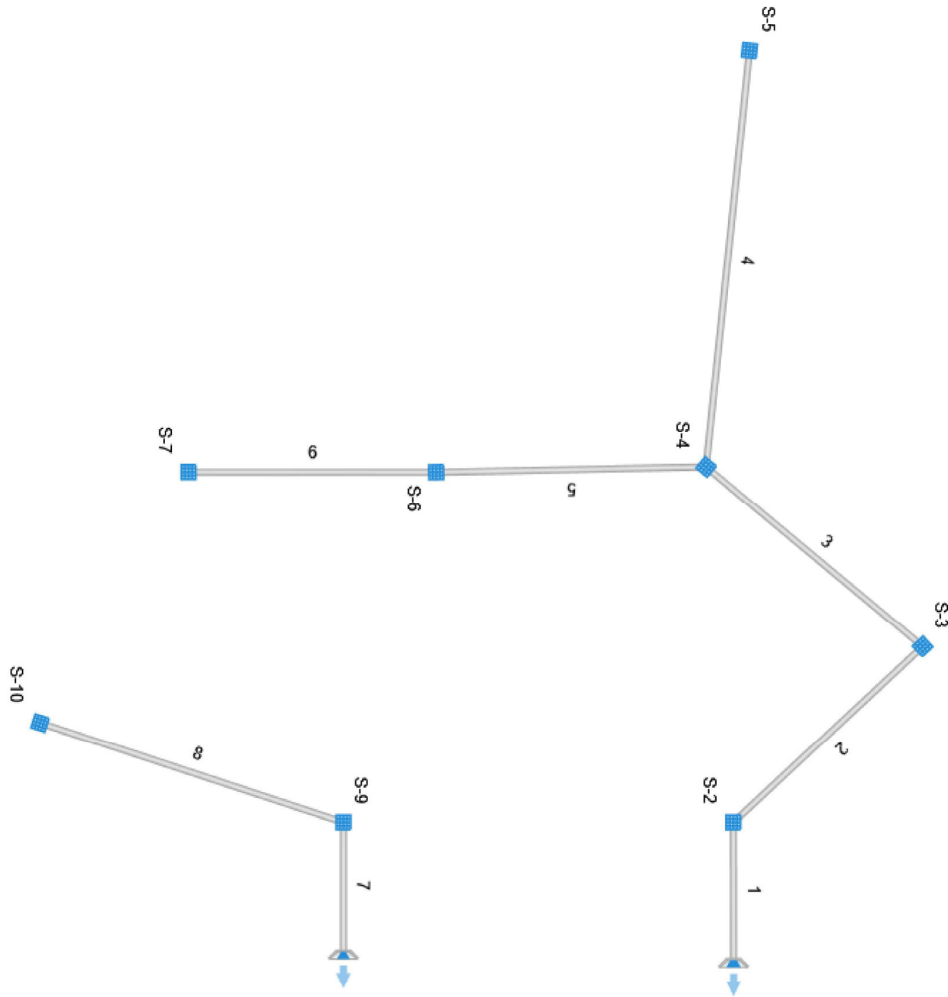
1

Scenario	Sim	Node Name	Relative Time [hrs]	Stage [ft]
POST	100Y-24H	DRA-1	360.0064	54.90
POST	10Y-24H	DRA-1	360.0064	52.35
POST	25Y-24H	DRA-1	360.0068	53.43
POST	25Y-96H	DRA-1	432.0072	56.73

## 6. Secondary Stormwater Calculations

Plan View  
Stormwater Studio 2023 v 3.0.0.32

Project Name: Template  
11-10-2023



T&A Custom Report

Stormwater Studio 2023 v 3.0.0.32

Project Name: Template  
11-10-2023

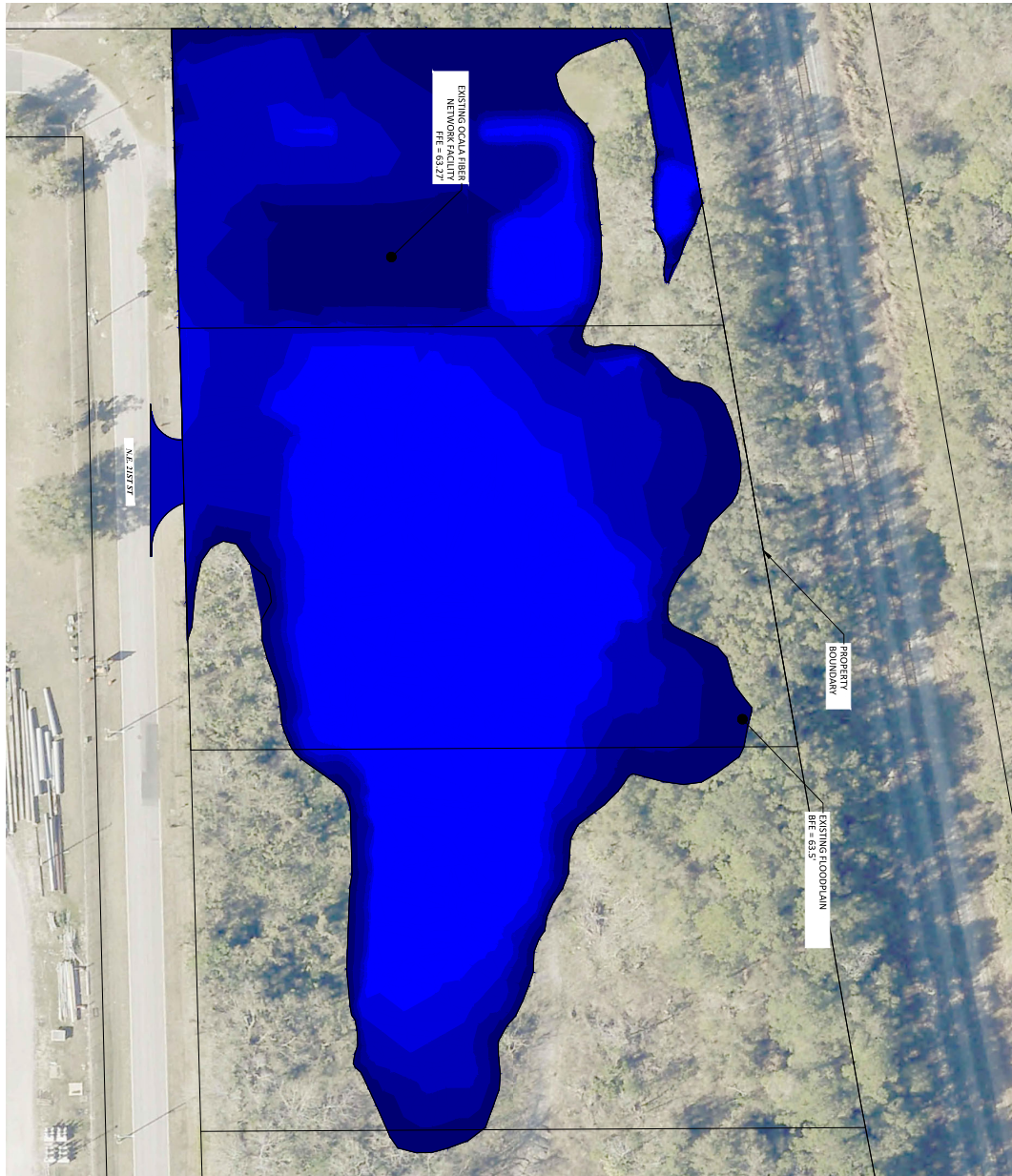
Line No.	Inlet ID	Drain Area (ac)	Runoff Coeff (C)	Incr Cx A	Inlet Time (min)	i Inlet (in/hr)	Incr Q (cfs)	Total C x A	Tc System (min)	i Syst (in/hr)	Flow Rate (cfs)	Line No.	Line Size (in)	Invert Up (ft)	Invert Dn (ft)	Line Length (ft)	Line Slope (%)	n-value Pipe	Capac. Full (cfs)	Cover Up (ft)	HGL Up (ft)	Cover Dn (ft)	HGL Dn (ft)	Vel Ave (ft/s)
1	S-2	0.100	0.95	0.10	10.0	8.26	0.78	0.93	11.6	7.89	7.31	1	24	52.20	52.00	39.48	0.51	0.013	16.10	6.60	54.41	6.50	54.37	2.33
2	S-3	0.220	0.80	0.18	10.0	8.26	1.45	0.83	11.3	7.94	6.61	2	18	56.90	56.50	75.05	0.53	0.013	7.67	2.40	57.97	2.80	57.57	4.88
3	S-4	0.360	0.80	0.29	10.0	8.26	2.38	0.66	11.0	8.01	5.25	3	18	57.30	56.90	81.99	0.49	0.013	7.33	2.00	58.62	2.40	58.45	3.08
4	S-5	0.290	0.35	0.10	10.0	8.26	0.84	0.10	10.0	8.26	0.84	4	18	57.55	57.30	121.74	0.21	0.013	4.76	1.50	58.84	2.00	58.83	0.50
5	S-6	0.160	0.70	0.11	10.0	8.26	0.93	0.27	10.4	8.15	2.17	5	18	57.55	57.30	78.52	0.32	0.013	5.93	1.75	58.85	2.00	58.82	1.28
6	S-7	0.220	0.70	0.15	10.0	8.26	1.27	0.15	10.0	8.26	1.27	6	18	57.80	57.55	72.05	0.35	0.013	6.19	1.50	58.89	1.75	58.88	0.85
7	S-9	0.120	0.95	0.11	10.0	8.26	0.94	0.16	10.8	8.07	1.30	7	18	52.20	52.00	37.10	0.54	0.013	7.71	7.10	54.38	7.00	54.37	0.74
8	S-10	0.050	0.95	0.05	10.0	8.26	0.39	0.05	10.0	8.26	0.39	8	18	57.30	56.95	92.86	0.38	0.013	6.45	2.00	57.55	2.35	57.20	2.02

Notes: IDF File = Zone 7.idf, Return Period = 25-yrs.

Project File: City of Ocala North Campus Stormwater.mxd

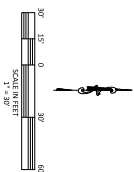


## **7. Exhibits**



EXISTING FLOODPLAIN BASED ON THE 53.5' BFE PER MARSHALL SWAMP FLOOD STUDY FROM MARION COUNTY WATER MANAGEMENT PLAN, AND BOUNDARY & TOPOGRAPHIC SURVEY FOR OCALA FIBER NETWORK FACILITY, AND DRONE SURVEY OF THE PROPERTY PROVIDED BY THE CITY OF OCALA.

## LEGEND



NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

[illegible]

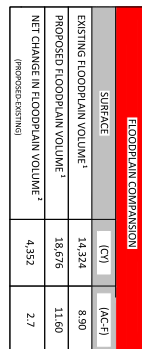
**Tillman & Associates**  
ENGINEERING, LLC.  
CIVIL ENGINEERING • PLANNING • LANDSCAPE ARCHITECTURE • ENVIRONMENTAL  
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471  
Office: (352) 387-4540 Fax: (352) 387-4545

DATE 11/6/23  
DRAWN BY JA  
CHKD BY AT  
JOB NO. 23-8760

FLOODPLAIN EXHIBIT  
PRE-DEVELOPMENT  
MARION COUNTY, FL

CITY  
NORTH

CITY OF OCALA  
NORTH COMPLEX



**PROPOSED FLOODPLAIN**  
**BFE = 63.5**

1. FLOODPLAIN VOLUME WITHIN PROJECT AREA  
2. NET CHANGE IS POSITIVE TO CONFIRM INCREASE IN FLOODPLAIN STORAGE VOLUME

1. FLOODPLAIN COMPARISON WAS CALCULATED USING 2022 AUTOCAD CIVIL 3D TIN SURFACE COMPARISON.
2. FLOODPLAIN VOLUMES CALCULATED FROM THE SEASONAL HIGH WATER TABLE ELEVATION OF 48.2' UP TO THE BRE OF 63.5'.
3. SINCE THE NET CHANGE TO THE FLOODPLAIN IS POSITIVE, THERE IS AN INCREASE IN STORAGE VOLUME WITHIN THE FLOODPLAIN AND THEREFORE NO ADVERSE FLOODING RISK POSED.









## **Floodplain Analysis Report, Lake Panasoffkee and Marshall Swamp Watershed Management Plan**

Marion County Board Of County Commissioners | July 2012

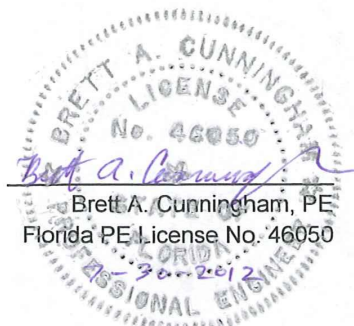
**FLOODPLAIN ANALYSIS REPORT, LAKE PANASOFFKEE AND MARSHALL  
SWAMP WATERSHED MANAGEMENT PLAN**

**Prepared for**  
Marion County Board Of County Commissioners

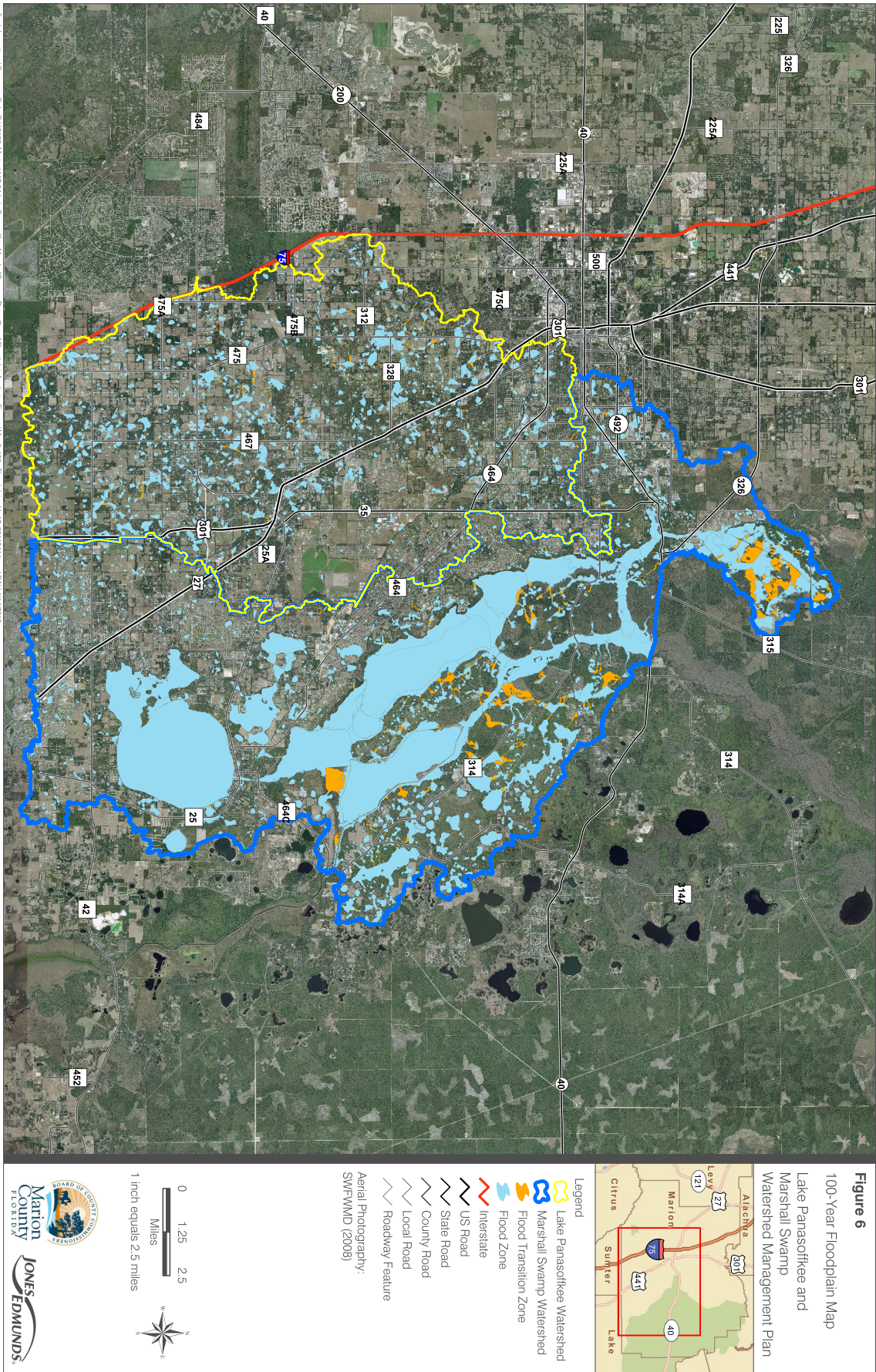
**Prepared by**  
Jones Edmunds & Associates, Inc.  
730 NE Waldo Road  
Gainesville, FL 32641

PE Certificate of Authorization #1841  
PG Certificate of Authorization #133

July 2012



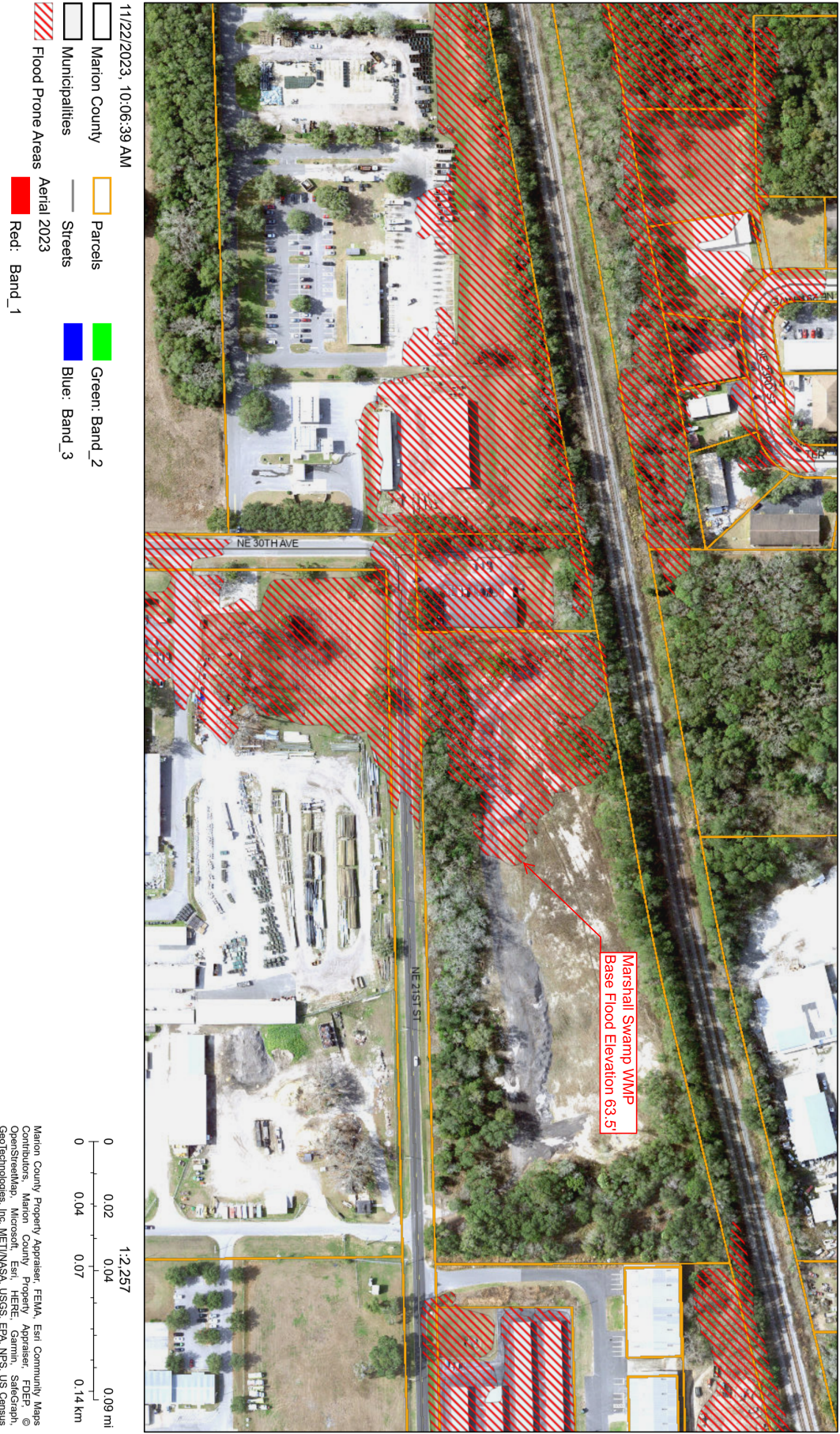






Node	Minimum Node Elevation*	100Y1D	100Y4D	Verification	Watershed
NC1940	70.3	73.0	73.2	72.4	Marshall Swamp
NC1941	61.5	69.3	69.6	68.8	Marshall Swamp
NC1942	61.5	72.1	73.3	71.3	Marshall Swamp
NC1943	64.4	67.5	67.5	65.7	Marshall Swamp
NC1944	71.1	78.3	78.4	77.9	Marshall Swamp
NC1945	75.5	92.2	92.3	90.8	Marshall Swamp
NC1946	61.6	74.9	75.1	74.5	Marshall Swamp
NC1947	54.2	67.6	67.8	67.3	Marshall Swamp
NC1948	71.9	81.1	82.6	79.0	Marshall Swamp
NC1949	76.3	84.2	84.5	80.6	Marshall Swamp
NC1950	74.5	81.7	82.2	80.6	Marshall Swamp
NC1951	68.3	75.0	75.5	72.9	Marshall Swamp
NC1952	77.8	87.8	88.1	87.6	Marshall Swamp
NC1953	79.1	88.4	89.7	86.4	Marshall Swamp
NC1954	85.2	95.8	95.9	94.7	Marshall Swamp
NC1955	101.4	112.9	113.2	106.5	Marshall Swamp
NC1956	110.3	117.4	117.4	117.1	Marshall Swamp
NC1957	82.2	92.8	92.9	92.3	Marshall Swamp
NC1958	113.9	122.0	122.1	121.5	Marshall Swamp
NC1959	81.2	84.2	84.5	83.5	Marshall Swamp
NC1960	86.5	97.6	97.6	97.3	Marshall Swamp
NC1961	52.9	59.2	59.8	58.7	Marshall Swamp
NC1962	47.0	52.5	52.5	52.2	Marshall Swamp
NC1963	56.1	59.1	59.1	58.1	Marshall Swamp
NC1964	58.7	59.2	59.2	59.1	Marshall Swamp
NC1965	63.1	68.1	69.3	67.4	Marshall Swamp
NC1966	68.1	71.1	71.5	70.4	Marshall Swamp
NC1967	60.0	61.3	61.4	61.2	Marshall Swamp
NC1968	42.8	44.8	45.3	44.0	Marshall Swamp
NC1969	44.1	44.8	44.9	44.4	Marshall Swamp
NC1970	62.0	67.9	68.6	67.4	Marshall Swamp
NC1971	65.5	70.9	71.7	70.3	Marshall Swamp
NC1972	63.0	67.9	68.1	67.7	Marshall Swamp
NC1973	66.0	67.7	68.0	66.9	Marshall Swamp
NC1974	60.4	61.9	62.0	61.4	Marshall Swamp
NC1975	59.1	64.8	66.8	61.4	Marshall Swamp
NC1976	58.0	68.3	68.6	67.9	Marshall Swamp
NC1977	59.3	62.6	62.9	60.9	Marshall Swamp
NC1978	53.0	63.5	67.3	60.6	Marshall Swamp
NC1979	57.0	63.9	64.8	63.1	Marshall Swamp
NC1980	62.1	67.7	68.8	66.4	Marshall Swamp
NC1981	57.0	64.1	67.3	63.8	Marshall Swamp
NC1982	56.6	63.5	67.3	61.8	Marshall Swamp
NC1983	66.2	71.6	71.5	69.1	Marshall Swamp

Marion County Florida - Interactive Map



This map is provided "as is" without any warranty or representation of accuracy, timeliness, completeness, merchantability, or fitness. The user is responsible for verifying any information and assumes all risk for reliance on any information herein.

Marion County Board of County Commissioners





ENGINEERING CONSULTANTS IN GEOTECHNICAL • ENVIRONMENTAL • CONSTRUCTION MATERIALS TESTING

October 10, 2023  
Project No. 23-3006.206.1

Oscar E. Tovar, P.R.  
City of Ocala Engineering Department  
1805 NE 30<sup>th</sup> Avenue, Building 700  
Ocala, Florida 34470

Reference: Proposed North Complex Project, Parcel No. 24264-000-00, NE 21<sup>st</sup> Street  
Ocala, Florida  
**Geotechnical Site Evaluation**

Dear Mr. Tovar:

Geo-Technologies, Inc. (Geo-Tech) completed a geotechnical site evaluation of the project site as requested by you. Services were conducted in accordance with our Proposal No. 13480 Revision A dated May 9, 2023.

Our findings, evaluations and recommendations are presented in the following report. Generally accepted soils and foundation engineering practices were employed in the preparation of this report.

Proposed finish floor elevations and loading conditions had not been established at the time of this report. Design of building foundation system was not included in Geo-Tech's scope of services for this project.

Geo-Tech appreciates the opportunity to provide our services for this project. Should you have any questions regarding the contents of this report or if we may be of further assistance, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Gerald W. Green, Jr.', is positioned above the printed name.

Gerald W. Green, Jr.  
Soil & Water Scientist  
GWG/CAH



Craig A. Hampy, P.E.  
Florida Registration No. 83240

Proposed North Complex Project, Parcel No. 24264-000-00, NE 21<sup>st</sup> Street  
Ocala, Florida

October 10, 2023  
Project No. 23-3006.206.1

### **Purposes**

Purposes of this evaluation were to characterize subsurface soils conditions in the proposed drainage retention, pavement and building areas and to provide geotechnical engineering site preparation recommendations to guide design and construction of the drainage retention area, pavement area and building foundation system.

### **Site Description**

The site is located at Parcel No. 24264-000-00 on the north side of NE 21<sup>st</sup> Street in Ocala, Florida. The site was covered with native trees and grasses at the time of drilling.

### **Exploration Program**

Field exploration services for this geotechnical site evaluation consisted of the following:

#### **Drainage Retention Area**

- Two (2) direct push borings (SB-1 and SB-2) to depths of approximately twenty (20) feet below existing site grade in the proposed drainage retention area (ASTM D-6282). Direct Push borings were performed on September 28, 2023.
- Two (2) field horizontal and two (2) field vertical permeability tests in the proposed drainage retention area. Permeability testing was performed on October 9, 2023.

#### **Pavement Area**

- One (1) direct push boring (R-1) to a depth of approximately ten (10) feet below existing site grade in the proposed pavement area (ASTM D-6282). Our direct push boring was performed on September 28, 2023.

#### **Building Area**

- One (1) Standard Penetration Test (SPT) boring (B-1) to a depth of approximately twenty (20) feet below existing site grade in the proposed building area (ASTM D-1586). Our SPT boring was performed on September 28, 2023.

Boring locations were determined in the field based on the site plan provided by Tillman & Associates Engineering, LLC.

### **Sampling & Testing Descriptions**

#### **Direct Push Sampling**

Direct Push (DP) soil sampling method (ASTM D-6282) consists of advancing a sampling device into subsurface soils by applying static pressure, by applying impacts, or by applying vibration, or any combination thereof, to the above ground portion of the sampler extensions until sampler has been advanced to the desired sampling depth. The sampler is recovered from the borehole and the sample removed from the sampler. The sampler is cleaned and the procedure repeated for the next desired sampling interval.

Proposed North Complex Project, Parcel No. 24264-000-00, NE 21<sup>st</sup> Street  
Ocala, Florida

October 10, 2023  
Project No. 23-3006.206.1

Sampling can be continuous for full depth borehole logging or incremental for specific interval sampling. Samplers used can be protected type for controlled specimen gathering or unprotected for general soil specimen collection. Direct push methods of soil sampling are used for geologic investigation, soil chemical composition studies, and water quality investigations. Continuous sampling is used to provide a lithological detail of the subsurface strata and to gather samples for classification and index.

Samples recovered during performance of our direct push borings were visually classified in the field and were transported to our laboratory for further analysis.

#### **Gradation (-200) Testing**

A specimen of soil is washed over a seventy-five (75)  $\mu\text{m}$  (No. 200) sieve. Clay and other particles that are dispersed by the wash water, as well as water-soluble materials, are removed from the soil during the test. The loss in mass resulting from the wash treatment is calculated as mass percent of the original sample and is reported as the percentage of material finer than a seventy-five (75)  $\mu\text{m}$  (No. 200) sieve by washing.

#### **Standard Penetration Testing**

A Standard Penetration Test (SPT) boring (ASTM D-1586) is defined as a standard split-barrel sampler driven into the soil by a one hundred and forty (140) pound hammer falling thirty (30) inches. The number of blows required to drive the sampler one (1) foot, after seating six (6) inches, is designated resistance, or "N"-Value is an index to soil strength and consistency.

Samples recovered during performance of our SPT borings were visually classified in the field and representative portions of the samples were placed in containers and transported to our laboratory for further analysis.

#### **Findings**

##### **Drainage Retention Area**

General subsurface conditions found in borings SB-1 and SB-2 are graphically presented on the soil profiles in Appendix I. Horizontal lines designating the interface between differing materials found represent approximate boundaries. Transition between soil layers is typically gradual.

Soils found in boring SB-1 generally consisted of a surficial layer of construction debris (asphalt and limerock) approximately two (2) feet thick underlain by clayey sand, fine sand and slightly sandy clay to the depth drilled.

Soils found in boring SB-2 generally consisted of a surficial layer of slightly clayey sand approximately four (4) feet thick underlain by fine sand, clayey sand and slightly sandy clay to the depth drilled.

Groundwater was not found in our borings at the time of drilling.

##### **Seasonal High Water Table Levels**

Estimated seasonal high water table levels were found in our borings at depths ranging from approximately six and one-half (6 ½) to ten and one-half (10 ½) feet below existing site grade.

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Ocala, Florida

October 10, 2023  
Project No. 23-3006.206.1

Estimated seasonal high water table levels are indicated on the soil profiles at the appropriate depths.

### **Confining Layers**

Confining layers were found in our borings at depths ranging from approximately seven and one-half (7 ½) to eleven and one-half (11 ½) feet below existing site grade. Confining layers are indicated on the soil profiles at the appropriate depths.

### **Permeability**

Two (2) field horizontal and two (2) field vertical permeability tests were performed adjacent to our boring locations at depths ranging from approximately three (3) to nine (9) feet below existing site grade.

Resulting coefficients of horizontal and vertical permeability are noted on the soil profiles and in Table 1 below.

**Table 1 Permeability Testing Results**

Boring No.	Depth of Test (feet)	K <sub>H</sub> Rate (feet/day)	K <sub>V</sub> Rate (feet/day)
SB-1	9.0	1.8	1.4
SB-2	3.0	28.6	-
SB-2	7.0	-	6.3

- = not tested

Geo-Tech utilizes the U.S. Department of the Navy, Naval Facilities Engineering Command (1974) Standard methods for performing variable head tests to determine and calculate hydraulic conductivities.

Measured permeability rates should not be used for design purposes without an appropriate safety factor. Actual pond exfiltration rates will depend on many factors such as ground water mounding, pond bottom siltation, construction technique, and the amount of soil compaction during construction.

### **Pavement Area**

General subsurface conditions found in boring R-1 are graphically presented on the soil profile in Appendix I. Horizontal lines designating the interface between differing materials found represent approximate boundaries. Transition between soil layers is typically gradual.

Soils found in boring R-1 generally consisted of a surficial layer of fine sand approximately two and one-half (2 ½) feet thick underlain by clayey sand and slightly sandy clay to the depth drilled.



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Groundwater was not found in our boring at the time of drilling.

### **Building Area**

General subsurface conditions found in boring B-1 are graphically presented on the soil profile in Appendix I. Horizontal lines designating the interface between differing materials found represent approximate boundaries. Transition between soil layers is typically gradual.

Soils found in boring B-1 generally consisted of a surficial layer of loose clayey sand approximately two (2) feet thick underlain by medium dense fine sand, medium dense clayey sand and stiff slightly sandy clay to the depth drilled.

Groundwater was not found within ten (10) feet below existing site grade in our boring at the time of drilling.

### **Gradation (-200) Testing Results**

Slightly clayey sand and clayey sand soils found in our borings yielded passing fines ranging from ten (10) to twenty-six (26) percent on the samples tested. We refer the reader to the attached soil profiles for the various soils found.

### **Evaluations and Recommendations**

#### **Pavement Area**

Shallow fine sand soils found in our boring appear to be suitable material for pavement construction but will likely need to be stabilized prior to the addition of the limerock basecourse and asphalt pavement.

Clayey sand and slightly sandy clay soils found in our boring typically exhibit moderate to high shrink/swell behavior with moisture content changes. Generally, these clay soils will swell upon wetting and shrink upon drying thus causing movement of structures placed on them.

Geo-Tech recommends a minimum separation of two (2) feet be maintained from the base of the stabilized subgrade to the top of unsuitable clay soils.

#### **General Pavement Construction Recommendations**

The following are our recommendations for overall site preparation and mechanical densification work for the pavement construction portion of the project, based on the anticipated construction and our boring results. These recommendations should be used as a guideline for the project general specifications, which are prepared by the Design Engineer. Site preparation and filling should be in accordance with the latest edition of the Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction and Standard Index 505.

1. The pavement area plus a five (5) foot margin should be stripped and cleared of surface vegetation, organic or root laden topsoil, and grubbed of roots and stumps. Organic soil or near surface clays and silts found and any other soils with organic content in excess of five (5) percent should be overexcavated or hauled elsewhere for restricted use as permitted by FDOT Indexes 500 and 505. A representative of our firm should observe the stripped grade to document adequate depth of stripping prior to filling.



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Ocala, Florida

October 10, 2023  
Project No. 23-3006.206.1

2. The stripped area should be leveled sufficiently to permit equipment traffic, cut to grade if necessary, and then compacted using a large diameter, self-propelled, or tractor drawn vibratory roller. The vibratory drum roller should have a static drum weight of about four (4) tons and should be capable of exerting a minimum impact force of fifteen (15) tons. Careful observations should be made during proof-rolling to help identify any areas of soft yielding soils that may require overexcavation and replacement. Care should be used when operating the compactor near existing structures to avoid transmissions of vibrations that could cause settlement damage or disturb occupants. Use of smaller vibratory or static compactor may be necessary in some instances. Construction operations that may be affected by vibration, such as pouring concrete, should be scheduled at times when nearby compaction operations are not taking place.
3. Prior to beginning compaction, soil moisture contents may need to be controlled in order to facilitate proper compaction. If additional moisture is necessary to achieve compaction objectives, then water should be applied in such a way that it will not cause erosion or removal of the subgrade soils. Moisture content within two (2) percentage points of the optimum indicated by the Modified Proctor test (ASTM D-1557) is recommended.
4. A minimum of ten (10) overlapping passes should be made by the vibratory drum roller across the stripped or cut ground surface. Compaction should continue to develop a minimum density requirement of ninety-eight (98) percent of the maximum Modified Proctor dry density established in accordance with ASTM D-1557, for a minimum depth of two (2) feet below the compacted surface, as determined by field density (compaction) test or in accordance with FDOT Index 505, whichever is higher.
5. Following satisfactory completion of the initial compaction on the existing grade, the pavement area may be brought up to finished subgrade levels if required. Fill should consist of fine sand with between three (3) to twelve (12) percent by dry weight passing a US Standard No. 200 sieve, free of rubble, organics, clay, debris, and other unsuitable material. **All structural fill should be pre-qualified prior to importing and placing.** Soils removed from the building cut areas can be used in this area also. Approved sand fill should be placed in loose lifts not exceeding twelve (12) inches in thickness and should be compacted to a minimum of ninety-eight (98) percent of the maximum Modified Proctor dry density. Density tests to confirm compaction should be performed in each fill lift before the next lift is placed.
6. Undercutting clayey soils should follow the recommendations in the previous section.
7. A representative from our firm should be retained to provide on-site observation of earthwork activities. The field technician would monitor the excavation of detrimental soil such as organics and plastic soils, placement of approved fills, proof-rolling and provide compaction testing. Density tests should be performed in surficial sands after proof rolling and in each fill lift thereafter. It is important that careful observation be made to confirm that the subsurface conditions are as we have discussed herein, and that foundation construction and fill placement is in accordance with our recommendations.

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Ocala, Florida

October 10, 2023  
Project No. 23-3006.206.1

### **Flexible/Semi-Flexible Pavement Structure**

Limerock could be considered as a base course for this site. Normal wet season groundwater levels should be controlled to at least eighteen (18) inches below a limerock base or associated stabilized subgrade (clean sand subgrade stabilized with a suitable imported cohesive soil), if one is used. Traffic loading conditions were not supplied to Geo-Tech at the time of this report writing, however, this design has been used as a general pavement section design and should be reviewed by Geo-Tech after loading conditions have been established.

As a guideline for pavement design, we recommended that the base course be a minimum of six (6) inches thick in standard parking areas and should be compacted to at least ninety-eight (98) percent of the Modified Proctor maximum dry density. A stabilized subgrade (LBR= forty [40]) should be used below the limerock base course. Stabilized subgrade soils should be a minimum of eight (8) inches (standard pavement section) to twelve (12) inches (heavy pavement section) thick and should be compacted to at least ninety-eight (98) percent of the Modified Proctor maximum dry density. Limerock should conform to FDOT specifications and should have a minimum LBR value of one-hundred (100), and should be compacted to at least ninety-eight (98) percent of the Modified maximum dry density (ASTM D-1557).

At a minimum, the asphaltic concrete wearing surface should consist of at least one and one-half (1½) inches of either Superpave 9.5 or Superpave 12.5 asphaltic concrete meeting current Florida Department of Transportation specifications and placement and compaction procedures. **Specific requirements for asphaltic concrete are outlined in sections 333 and 331 in FDOT Standard Specifications for Road and Bridge Construction – latest edition.** Superpave 9.5, although somewhat more expensive, offers increased stability. Superpave 12.5, which is more durable, should not be used unless the surface course is at least one and one-half (1½) inches thick because of the coarse aggregate. Superpave 9.5, which is somewhat finer aggregate, is also relatively durable and can be used in one (1) inch thickness. Superpave 9.5 or Superpave 12.5 is the preferred surface course. It is, however, important to point out that many combinations of asphaltic concrete, base course, and stabilized subgrade can be considered and that the above suggestions/guidelines are based only on our past experience with similar projects.

### **Rigid Pavement Structure**

Experience has indicated that high quality concrete placed on compacted free draining clean natural or fill subgrade can provide satisfactory, long-term performance as a pavement wearing surface. Good performance and low maintenance is highly dependent on satisfactory subgrade drainage and closely spaced joints. A control pattern of fifteen (15) feet by fifteen (15) feet is highly recommended by the Florida Concrete Products Association. We suggest that there should be at least twenty-four (24) inches between the bottom of the surface course and the seasonal high groundwater table.

Pavement thickness and concrete design strength will depend on such variables as anticipated wheel loads, number of load applications, and the subgrade LBR value of the native soils. Based on our local experience, Geo-Tech recommends stabilizing the subgrade beneath all concrete pavements to a depth of twelve (12) inches and a minimum LBR of forty (40). Reinforcement should consist of 6"x 6" ten (10) gauge wire mesh.





YOUR TAXES AT WORK....

## Ocala North Complex

PROJECT ITB # CIP/240254  
CITY OF OCALA, FLORIDA

### **CITY COUNCIL:**

**BARRY MANSFIELD**

(COUNCIL PRESIDENT)

DISTRICT 1

**KRISTEN DREYER**

(President Pro-Tem)

DISTRICT 4

**IRE BETHEA Sr.**

DISTRICT 2

**JAY MUSLEH**

DISTRICT 3

**JAMES HILTY Sr.**

District 4

**BEN MARCIANO**

MAYOR

### **CITY OF OCALA**

**CAPITAL IMPROVEMENT  
PROJECTS DIVISION**

**CONTRACTOR**

(Name)

**PROJECT COST**

(Dollar Amount)

**START DATE**

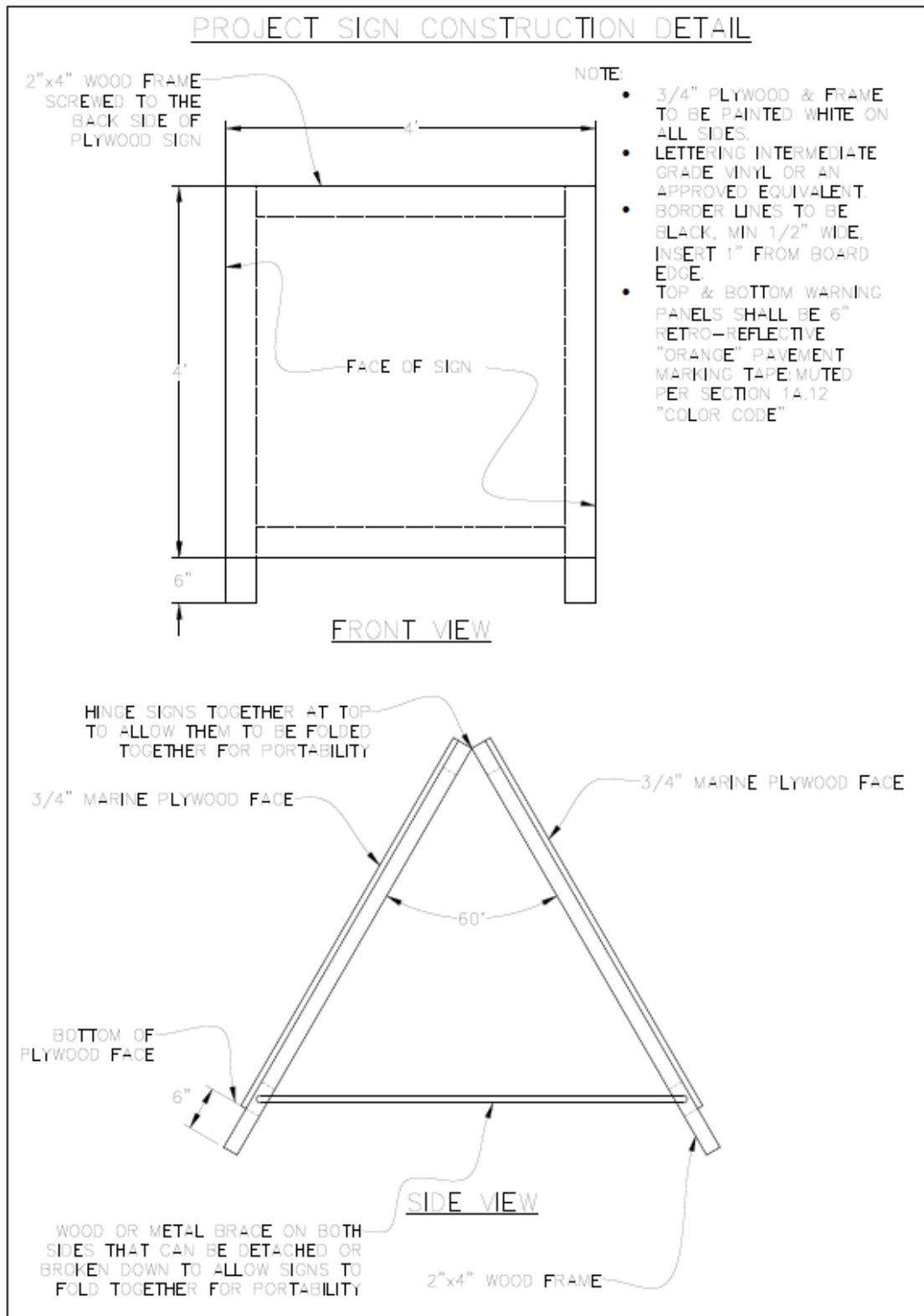
(month, day, year)

**COMPLETION DATE**

(month, day, year)

**FOR PROJECT INFORMATION CONTACT:  
CAPITAL IMPROVEMENT PROJECTS DIVISION**

**352-629-8419**



ITEM	DESCRIPTION	UNIT	UNIT COST
G-01	MOBILIZATION	LS	\$ 72,609.00
G-03	MAINTENANCE OF TRAFFIC	LS	\$ 8,450.00
G-06	SILT FENCE & SEDIMENT CONTROL	LF	\$ 1.20
G-10-2	CLEARING & GRUBBING	AC	\$ 10,500.00
G-11	EXCAVATION	CY	\$ 3.25
G-12-1	IMPORTED CLEAN BACKFILL MATERIAL	CY	\$ 21.25
G-17-1	REMOVE UNSUITABLE MATERIAL	CY	\$ 12.50
G-18-2	12" STABILIZED SUBGRADE AND SUB-BASE	SY	\$ 8.40
G-19-1	LIME ROCK BASE, 8"	SY	\$ 13.25
G-30	ASPHALT PAVEMENT @ 1.5" THICK	TN	\$ 248.00
G-52	CONSTRUCTION SURVEY / ASBUILTS	LS	\$ 18,338.00
G-56	CONCRETE CURB	LF	\$ 16.50
G-80-2	SOD-BAHIA	SY	\$ 4.00
G-93-2	TEMPORARY, WHITE, SOLID 12"	LF	\$ 9.50
G-94-2	THERMO, WHITE, SOLID 12"	LF	\$ 9.50
G-106-1	TYPE C STORMWATER INLET, 0'-6'	EA	\$ 5,015.00
G-106-2	TYPE C STORMWATER INLET, 6'-12'	EA	\$ 5,215.00
G-46-9	18" RCP STORMWATER PIPE, 0'-6'	LF	\$ 55.90
G-46-10	18" RCP STORMWATER PIPE, 6'-12'	LF	\$ 61.75
G-46-13	24" RCP STORMWATER PIPE, 0'-6'	LF	\$ 85.00
G-49-3	18" CONCRETE MITERED END W/SLASH PAD	EA	\$ 1,880.00
G-49-4	24" CONCRETE MITERED END W/SLASH PAD	EA	\$ 2,040.00