

REQUEST FOR PROPOSAL

BASTROP COUNTY COMBINED SERVICES FACILITY CONSTRUCTION - PHASE 2 RFP 24BCP05D

July 1, 2024

ADDENDUM #1

Notice to Respondents:

This addendum will be considered a part of Bastrop County's Request for Proposals for Bastrop County Combined Services Facility Construction - Phase 2. Where provisions of this addendum differ from those of the original Request for Proposals, this addendum will govern.

ACKNOWLEDGED

Printed Name of Respondent	Authorized Signature	 Date

RETURN ONE COPY SIGNED COPY OF THIS ADDENDUM TO THE PURCHASING OFFICE WITH YOUR SEALED PROPOSAL. FAILURE TO DO SO, MAY AUTOMATICALLY DISQUALIFY YOUR RESPONSE FROM CONSIDERATION FOR AWARD.

Bastrop County RFP 24BCP05D Page 1

ITEMS FOR ADDENDUM #1:

The original request for proposal (RFP 24BCP05D - Bastrop County Combined Services Facility Construction - Phase 2) document was missing the civil drawings for the project site. Attached to this Addendum #1 are the civil drawings that were produced by BEFCO Engineering. These updated civil drawings are to be considered part of the solicitation package.

Pre-Proposal Meeting: 10:00 A.M. (CST), July 10, 2024 at the proposed Bastrop County Combined Services Facility located at 1041 Lovers Lane, Bastrop, Texas 78602.

Proposal Closing Date: 2:00 P.M. (CST), July 31, 2024

Bastrop County RFP 24BCP05D Page 2

BASTROP COUNTY

COMBINE SERVICES FACILITY



COUNTY JUDGE PAUL PAPE

COUNTY COMMISSIONERS

MEL HAMNER, PRECINCT 1
MARK MEUTH, PRECINCT 3

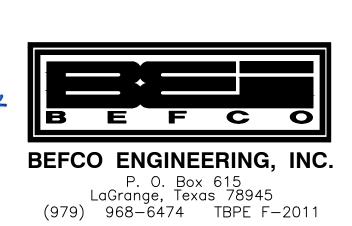
CLARA BECKETT, PRECINCT 2 DONNA SNOWDEN, PRECINCT 4

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BEFCO ENGINEERING, INC.

JULY 2022





GENERAL NOTES:

- 1. At time of bidding, CONTRACTOR shall make site visit to review existing site conditions and review the proposed scope of work required for this project. For example, trees and brush may need to be cleared from the site that are not shown on the plans. CONTRACTOR to coordinate site visits with the OWNER.
- 2. CONTRACTOR shall verify benchmarks and datum prior to commencing construction or staking of improvements.
- 3. CONTRACTOR shall be responsible for all construction staking. CAD files can be made available, however, sealed
- 4. Phasing of construction shall be coordinated and approved by OWNER.
- 5. All horizontal dimensions given are to face of curb/edge of pavement and to pipe centerlines, unless otherwise noted on
- 6. Proposed pavement elevations shown are top of finished pavement or sidewalk (P) or curb (T). Other possible plan designations are (TW) top of walls, (G) ground, & (FL) flowline elevation.
- 7. Any discrepancies on the drawings shall be immediately brought to the attention of the ENGINEER before commencing work. No field changes or deviations from design are to be made without prior approval of the OWNER and notification to the ENGINEER. No consideration will be given to change orders for which the OWNER and ENGINEER were not contacted prior to construction of the affected item.
- 8. All paving, grading, and earthwork to be constructed according to recommendations provided in geotechnical reports prepared by Terracon Consultants, Inc. dated 08.23.21 & 06.17.22 (Project #90215005 & 90225168) and all addenda and are to be incorporated into these construction drawings by reference.
- 9. The CONTRACTOR shall be responsible for furnishing all material and labor to construct the project as shown and described in the construction documents in accordance with the appropriate approving authorities, specifications and requirements.
- 10. The CONTRACTOR shall immediately repair or replace any physical damage to private property, including, but not limited to fences, walls, pavement, grass, trees, lawn sprinkler and irrigation systems at no cost to the OWNER. This work shall be subsidiary to the contract (unless otherwise noted) and is not a separate pay item.
- 11. The CONTRACTOR shall remove all surplus material from the site. This work shall be subsidiary to the contract and is not a separate pay item. All fill import required for the project shall be provided by the CONTRACTOR. This work shall be subsidiary to the contract and not a separate pay item. All fill shall be approved by the geotechnical engineer.
- 12. All copies of compaction, concrete and other required test results are to be sent to the OWNER and design ENGINEER of record directly from the testing agency. CONTRACTOR shall coordinate directly with the testing agency for testing
- 13. Any roots, trash, excess excavated material, debris, and/or other materials exposed or uncovered during site work shall be removed from site and disposed of in accordance with local, state, and federal rules and regulations, as required.
- 14. CONTRACTOR shall provide and implement a Trench Protection Plan as required by OSHA for construction of this
- 15. Drop-offs greater than 2 inches adjacent to the existing streets or highways will not be allowed to remain open overnight.
- 16. Upon completion of construction, CONTRACTOR shall provide as-built plans identifying all deviations or variations of original plans. As-built plans are subsidiary to all other bid items and shall not be paid for as a separate line item.

DEMOLITION NOTES:

- 1. BEFCO Engineering, Inc. is not responsible for the means and methods employed by the CONTRACTOR to implement demolition of this site. These plans indicate the known objects on the site that are to be demolished and removed from the site. BEFCO Engineering, Inc. does not warrant or represent that the plans show all improvements and utilities, that the improvements and utilities are shown accurately, or that the utilities shown can be removed. The CONTRACTOR is responsible for performing his own site investigation to scope his work and to confirm with the OWNERS of improvements and utilities the ability and process for the removal of their facilities. The plans are intended to give a general guide to the CONTRACTOR. The goal of the demolition is to leave the site in a state suitable for the construction of the proposed project. Removal or preservation of improvements, utilities, etc. to accomplish this goal are the responsibility of the CONTRACTOR. CONTRACTOR shall comply with all local and state regulations regarding demolition and disposal of the materials off-site and obtain required permits.
- CONTRACTOR to verify location and elevation of existing utilities prior to demolition
- 3. CONTRACTOR is responsible for damage to existing utilities, irrigation lines, pavement, etc. to remain resulting from demolition activities and repair at his own expense.
- 4. CONTRACTOR is responsible for obtaining all permits required for demolition and disposal.
- 5. Perimeter erosion control devices shall be in place prior to demolition.

CONCRETE PAVING NOTES:

- . Mixes shall be designed to provide concrete in compliance with ASTM C94 with 4,000 psi (Class A) compressive strength at 28 days, mix should be designed with 4-6% air entrainment.
- 2. Pavement section details are per the provided geotechnical report. Questions relating to the pavement section shall be directed to the geotechnical engineer of record.
- 3. Portland cement shall be a single brand conforming to ASTM C-150, Type 1, unless otherwise approved.
- 4. Normal weight aggregates shall conform to ASTM C-33. The maximum size of coarse aggregate shall be the following:
- 5. Additives for air entrainment, water reduction, and set control shall be used in accordance with the manufacturer's directions, and approved by engineer
- 6. Slump shall not exceed 5" for pavements placed by methods other than slipform equipment or 1-1/2" for concrete placed with slipform equipment.
- 7. Spray white pigmented membrane-forming curing compounds meeting ASTM C309, Type 2, Class A directly after
- 8. Steel reinforcing bars shall conform to ASTM A-615. No. 3 and larger bars shall be Grade 60.
- 9. Mild steel reinforcement shall be placed and secured in accordance with CRSI "Recommended Practice for Placing Reinforcing Bars".
- 10. Reinforcing steel will not be accepted without appropriate chairing. Brick chairs are NOT acceptable. Manufactured plastic rebar chairing that are adequate in strength and number to prevent displacement of reinforcing steel shall be used. Chair supports shall be placed per manufacture's recommendation, but shall not in any case exceed a maximum of 4-ft each direction.
- 11. Place isolation joints where sidewalks or concrete paving meets building foundation. Provide dowels between building foundation and sidewalks at points of egress as specified by structural engineer.
- 12. Expansion joints are to be 3/4" red wood. Joints are to be sealed with premolded elastomeric expansion joint caps
- 13. All slopes within accessible parking areas shall not exceed 2.0% in all directions. All slopes along accessible routes shall not exceed 5.0% longitudinally and 2.0% in cross-slope.
- 14. The maximum slope of a ramp in new construction is 1:12. The maximum rise for any ramp run is 30 inches with handrails. Typical is 6 inches without handrails. A minimum 5'x5' landing with maximum slopes of 2% in all directions to be provided at all door locations.
- 15. Contractor shall ensure compliance with all TAS standards for accessibility. Discrepancies between the plans and TAS standards shall defer to TAS requirements. Notify engineering in the event of a discrepancy.
- 16. Faulty concrete paving workmanship including, but not limited to, bird baths, raveling, spalling, scaling, early and/or extreme cracking, etc. shall be removed by sawcutting entire effected panel from nearest contraction and/or expansion joints. Replacement shall incorporate appropriate doweling and distributed reinforcement per plan details.

STORMWATER POLLUTION PREVENTION PLAN NOTES:

1. The project will disturb greater than 5 acres or is part of a larger common plan of development.

- 2. CONTRACTOR must prepare, review and maintain a copy of the Stormwater Pollution Prevention Plan with all conditions, attachments, exhibits, and permit modifications in good condition at the construction site. The complete SWPPP must be made readily available at the time of an on-site inspection to: the executive director; a federal, state, or local agency approving sediment and erosion plans, grading plans, or stormwater management plans; local government officials; and the operator of a Municipal Separate Storm Sewer (MS4) receiving discharges from the site.
- 3. A copy of the SWPPP, including contractor certifications and any revisions, shall be submitted to the OWNER and ENGINEER by the CONTRACTOR and filed with the construction plans, and shall be retained on-site during construction.
- 4. CONTRACTOR is responsible for preparing and implementation of the SWPPP, including NOI's and NOT's to TCEQ, if
- 5. Any entity that meets the definition of a "Primary Operator" for a large construction activity (five or more acres) shall be responsible for completing and submitting a Notice of Intent (NOI) and a Notice of Termination (NOT) with the Texas Commission on Environmental Quality (TCEQ).
- 6. CONTRACTOR shall sign and post a Construction Site Notice and provide a copy of the site notice at least two (2) days prior to beginning construction to the operator of any Municipal Separate Storm Sewer System (MS4) into which stormwater will be discharged.
- 7. All CONTRACTORS and SUBCONTRACTORS providing services related to the SWPPP shall sign a contractor certification statement acknowledging their responsibilities as specified in the SWPPP.
- 8. CONTRACTOR shall record installation, maintenance or modification, and removal dates for each BMP employed (whether called out on original SWPPP or not) on the site map.
- 9. Temporary controls must be installed prior to commencement of construction activities. Permanent stabilization practices and BMP's shall be installed at the earliest possible time during construction sequence. As an example, perimeter silt fence shall be installed before commencement of any demolition and grading activities. Other BMP's shall be installed as soon as possible and shall be maintained until final site stabilization is attained. CONTRACTOR to be
- 10. The cost associated with implementation, inspection, maintenance and removal of erosion control measures shall be considered subsidiary to the various other bid items.

responsible for erosion control during and after construction until cover is established & erosion siltation has stabilized.

- 11. The CONTRACTOR shall topsoil (min. 4-6 inches), block sod, hydromulch or seed and fertilize all areas disturbed by construction. The CONTRACTOR shall provide whatever measures are needed including temporary irrigation to ensure full coverage of grassing. Unless otherwise noted, private lawn areas and parkways in front of private lawn areas disturbed by construction shall be replaced with block sod of a similar grass to that existing. Any areas disturbed for any reason prior to final acceptance of the job shall be corrected by the CONTRACTOR at no additional cost to the OWNER.
- 12. The CONTRACTOR shall be responsible for the control of dust and dirt rising and scattering in the air during construction and shall provide water sprinkling or other suitable methods of control. The CONTRACTOR shall comply with all governing regulations pertaining to environmental protection.
- 13. BMP's have been located as indicated on this plan in accordance with generally accepted engineering practices in order to minimize sediment transfer. For example: silt fences located at toe of slope and rock berms located at major site discharge locations.
- 14. A Notice of Termination (NOT) shall be submitted to TCEQ by any primary operator within 30 days after all soil disturbing activities at the site have been completed and a uniform vegetative cover of the density of 70% has been established on all unpaved areas and areas not covered by structures, a transfer of operational control has occurred, or the operator has obtained alternative authorization under a different permit. A copy of the NOT shall be provided to the operator of any MS4 receiving discharge from the site.

REVEGETATION REQUIREMENTS:

of 1.4 pounds per 1000 square feet.

- 1. The CONTRACTOR shall topsoil and either Hydraulic Seed, block sod or seed and fertilize all areas disturbed by construction. The CONTRACTOR shall provide whatever measures are needed including temporary irrigation to ensure full coverage of grassing. Unless otherwise noted, private lawn areas and parkways in front of private lawn areas disturbed by construction shall be replaced with block sod of a similar grass to that existing.
- All seeded or sodded areas shall receive 4-6 inches of topsoil. Finished grading should be smooth, free of rocks, dirt clods, tree branches, roots and construction debris with the understanding and appreciation that typical yard maintenance equipment will be used for landscape maintenance post construction.
- 3. The work of Hydraulic Seeding shall be governed by the provisions of Texas Department of Transportation Item 164 Seeding For Erosion Control, Item 166 Fertilizer and Item 168 Vegetative Watering) except as noted below. Block sodding shall be covered by TxDOT Item 162. CONTRACTOR to provide adequate topsoil prior to placement of sod to
- 4. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 3 pounds per 1000 square feet. From September 15 to March 1, seeding shall be a combination of 1 pound per 1000 square feet of unhulled Bermuda and 7
- 5. Fertilizer shall be a pelleted or granular slow release with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of 1.5 pounds per 1000 square feet.
- 6. Mulch type shall be hay, straw or mulch applied at a rate of 45 pounds per 1000 square feet, with self-tackifier at a rate

pounds per 1000 square feet of Winter Rye. Seed shall have a purity of 95% with 85% germination.

- 7. The seeded and sodded area shall be irrigated or sprinkled in a manner that will not erode the soil, but will sufficiently soak the soil to a depth of six inches. The irrigation or sprinkling shall occur at a minimum ten-day interval during the first two months. Rainfall occurrences of 1/2 inch or more shall postpone the watering schedule for one week. CONTRACTOR to provide all water\temporary irrigation.
- 8. Seeded restoration shall be acceptable when the grass has grown at least 1-1/2 inches high with 95% even coverage, providing no bare spots larger than 15 square feet.
- 9. Any areas disturbed for any reason prior to final acceptance of the job shall be corrected by the CONTRACTOR at no

Benchmark/Control Point List

NO.	DESCRIPTION	COORDINATES	ELEVATION
BM# 1	Cotton spindle set in asphalt. Approx. 39' northwest from northernmost corner of subject tract.	N 10012624.07 E 3250761.88	362.49
BM# 2	Cotton spindle set in asphalt. Approx. 37' southwest from southwestern corner of subject tract.	N 10012240.83 E 3250683.13	362.54

1. Topographic survey prepared by BEFCO Engineering, Inc. 2. Contact BEFCO Engineering, Inc. for any benchmark or control point related questions. 3. Vertical datum: NAVD 88.; Horizontal datum: Texas State Plane Coordinate System NAD83(CORS 96), Central Zone

GRADING NOTES:

- 1. Contractor shall verify benchmarks and datum prior to commencing construction or staking of improvements. 2. All earthwork to be completed according to recommendations provided in geotechnical report prepared by Terracon
- 3. Strip & remove approximately 3" of surface soils, trees (as required), vegetation, organics & soft or wet surface

Consultants, Inc. dated 08.23.21 & 06.17.22 (Project #90215005 & 90225168).

- materials from property line to property line. Refer to the geotechnical report for specific stripping and exposed subgrade preparation instructions. Stock pile clean top soil for reuse in planting areas as needed.
- 4. The CONTRACTOR shall clear and grub the site, proof roll (with 20 ton roller), and scarify, place, compact, and moisture condition all fill per the project geotechnical engineer's specifications. Any undesirable material exposed during proofrolling should be removed and recompacted. The fill material to be used shall be approved by the geotechnical engineer prior to import and placement. Fill shall be compacted in 8-inch loose lifts to at least 95% of Standard Proctor max dry density and at moisture content specified in the geotech report.
- 5. Ref. STRUCTURAL plans and geotechnical engineering report for select fill\building pad preparation and limits required under the buildings and adjacent concrete flatwork\pavement\sidewalk. Reference geotech report for required site fill requirements in pavement and landscape areas regarding soil type, compaction and moisture content. On-site materials free of debris, organics and deleterious materials can be used as fill under site pavement and landscape areas if approved by geotechnical engineer.
- 6. Fill placed on existing slopes steeper than 6:1 shall be benched into the existing slopes in such a manner as to provide a minimum bench width of 5 feet. This should provide good contact between existing soils and new fill materials and reduce potential sliding planes.
- 7. Maximum cut or fill slopes are not to exceed 3 ft. horizontal to 1 ft. vertical, unless shown otherwise on the plans.
- 8. After placement of subgrade and prior to placement of pavement, CONTRACTOR shall test and observe pavement areas for evidence of ponding. All areas shall adequately drain towards the intended structure to convey storm runoff. CONTRACTOR shall immediately notify OWNER and ENGINEER if any discrepancies are discovered.
- 9. Insure that no drainage on or off the site is blocked by proposed construction. Finished grades are to be sloped to provide proper drainage. All fill material shall be compacted, including the final dressing. Special attention is drawn to the "Fill Placement Behind Curb" detail provided in the plan set.
- 10. The CONTRACTOR shall maintain adequate site drainage during all phases of construction. The CONTRACTOR shall use silt fences (or other methods approved by the ENGINEER and CITY) as required to prevent silt and construction debris from flowing onto adjacent properties. CONTRACTOR shall comply with all applicable federal, state, or local erosion, conservation, and siltation requirements. CONTRACTOR shall remove all temporary erosion control devices upon completion of permanent drainage facilities and the establishment of a stand of grass or other growth to prevent erosion. CONTRACTOR is responsible for filing a NOI and a NOT with the TCEQ. CONTRACTOR solely responsible for all mandated SWPPP record keeping and reporting.
- 11. Erosion control devices shown on the plan are recommended to be installed prior to commencing construction. Best management practices (BMPs) shown are suggestions only. CONTRACTOR is solely responsible for BMP selection, implementation, and maintenance.
- 12. The CONTRACTOR shall be responsible for the control of dust and dirt rising and scattering in the air during construction and shall provide water sprinkling or other suitable methods of control. The CONTRACTOR shall comply with all governing regulations pertaining to environmental protection.
- 13. All excavation is unclassified and shall include all materials encountered. Unusable excavated material and all waste and excess material resulting from site clearing and grubbing and site grading shall be disposed of off site by the grading CONTRACTOR at his expense.
- 14. Protect excavations from flooding due to groundwater infiltration and runoff.
- 15. No tree shall be removed or damaged without prior authorization of the OWNER. CONTRACTOR shall provide minimum of 1 week notice for OWNER approval of tree removal. Existing trees shall be preserved whenever possible.
- 16. Trees outside of construction limits shall be protected from damage. No cut or fill will be allowed near trees to remain. Trees within limits of buildings and parking construction activities shall be removed to 3' minimum depth. Stump holes shall be back filled with select fill materials compacted in 6" lifts to 95% density as determined by ASTM D-698.
- 17. CONTRACTOR to match existing grade, gutter, and asphalt when tying into existing roadways or pavement.
- 18. CONTRACTOR to coordinate final perimeter building\foundation grades with final ARCHITECTURAL plans and
- 19. CONTRACTOR shall coordinate with the utility companies for any required utility adjustments prior to fine grading and paving. Existing utilities requiring adjustment to be made, coordinated and paid by contractor.
- 20. CONTRACTOR to ensure positive drainage away from the building foundation.
- 21. Elevations shown are finished grades including any gravel, topsoil, grass, etc. Proposed pavement elevations shown are top of finished pavement or sidewalk (P) or curb (T). Other possible plan designations are (TW) top of walls, (G) ground, & (FL) flowline elevation.
- 22. Roof drainage to discharge at grade by downspout. Reference ARCHITECTURAL plans for details.
- 23. Slopes, if shown, are approximate.

OWNER requirements.

24. All disturbed areas to be revegetated that are not covered by pavement, buildings, or gravel.

LEGEND - EXISTING — E — — Overhead electric line ——ue— — Underground electric line — T — — Overhead telephone cable —— ut — — Underground telephone cable ———foc—— — Underground fiber optic — ∪ — - Multiple overhead utilities

———TV—— — Overhead TV cable ——uc—— — Underground cable ——— s —— — Sanitary Sewer line ———— — Sewer force main ——— w —— — Water line ——— 9 —— — Underground gas line Water meter Water valve Fire hydrant → Water Shut-Off ◯[©] — Gas meter → Utility Pole

∴ — Light pole ● – Wire guide pole □' - Telephone pedestal S – Sanitary sewer manhole o^s — Sewer clean—out o[∞] - Building Sewer clean-out _____ x _____ _ Wire fence

— o o o Pipe fence — Existing Asphalt - Existing Concrete - Existing Gravel

UTILITY NOTES:

- 1. CONTRACTOR shall verify depth and location of water, sewer, storm, gas and all franchise utilities by notifying proper utility entity and Texas 811 a minimum of 48 hours prior to needing locator service. The CONTRACTOR shall preserve and protect public and private utilities at all times during construction. The CONTRACTOR agrees to be fully responsible for any and all damages which may occur as a result of his failure to exactly locate underground utilities. Any damage to utilities resulting from CONTRACTOR's operations shall be restored at their expense.
- 2. The locations, elevations, and dimensions of existing utilities shown on the plans were obtained from available utility company records and plans and are considered approximate. Other underground utility lines may exist, with no record of their location. It shall be the CONTRACTOR's responsibility to verify all utility tie-ins prior to ordering materials and starting construction to assure feasibility of all utility services. Report any discrepancies to engineer.
- 3. Proposed services other than water and sewer which may be shown on the civil site plans, are conceptual. Reference MEP plans and utility companies for proposed locations of telephone, electric, and gas service.
- 4. The CONTRACTOR is responsible for coordinating relocation, adjustment and installation of franchise utilities and other site private utilities necessary for on and off site construction. Adjustments include but are not limited to guy wire relocation, raising utility box lids, valves, telephone boxes, etc. CONTRACTOR to replace grass and restore property to original condition in all disturbed areas.
- 5. Reference MEP plans for conduit locations, sizes and quantity. Conduit locations shown on this plan are preliminary. Lines shown may represent multiple conduits.
- 6. Coordinate all utility service with the utility companies and the OWNER.
- 7. Maintain clearance of all existing utilities as required by the Texas Commission on Environmental Quality (TCEQ) and
- 8. Utility construction and materials to meet the requirements of the TCEQ.
- 9. Utility construction shall not commence until earthwork for paving and drainage is complete (down to subgrade) to prevent conflicts with lines and to assure proper line depths. Field verify depth of existing utility service lines to remain prior to excavation near these utilities.
- 10. The CONTRACTOR shall verify all dimensions shown, coordinating the horizontal and vertical location of all utility services entering the building and/or crossing other utilities.
- 11. Site sewer and water lines are lines which are over 5 feet outside face of building. Lines within 5 feet of building are to conform to building plumbing specifications.

12. Utility lines shall terminate within five (5) feet of the building. Concrete collars, cement stabilized sand, or clay plug shall

be provided in the full width and depth of trench at the trench\building pad preparation line to prevent water from traveling in trench backfill to migrate into the building pad. 13. All water lines shall maintain a minimum cover of 48 inches and water service lines shall maintain a minimum of 30

inches of cover. 14 gauge solid core tracer wire shall be provided for water service and fire lines and shall be brought up

in meter and valve boxes. All water tees, bends, reducers, etc. shall have a Mega Lug or approved equal at the joints

- with thrust blocking per details.
- 14. Site gravity sewer pipe to be SDR-26 polyvinyl chloride (PVC). 15. All gravity utilities to be constructed downstream to upstream and verify tie in elevation with the plans.
- 16. Site water service lines shall be SCH 40 PVC.
- 17. All utility trenches shall be backfilled per detail and compacted per geotech requirements. Trenches shall be tested at a
- 18. Water service: N/A Onsite well is proposed.

21. Natural gas: N/A

rate of one test per lift per each 200 lineal feet of trench.

- 19. Electricity: Coordinate service with Bluebonnet Electric Cooperative, Inc.
- 20. Telephone: Service location to be determined by contractor through his coordination with telephone service provider. Conduit to be constructed with min. 24" of cover from bottom of proposed pavement or finished grades.
- 22. <u>Sanitary sewer:</u> Onsite septic system is proposed. System design by others.
- 23. Follow trench safety requirements in accordance with Occupational Safety & Health Administration (OSHA) publication OSHA 29 Part 1926 (latest revision) where excavations exceed 5' depth. A trench safety plan should be prepared by a Texas Registered Professional Engineer and a "competent person" appointed prior to any and all excavating operations. This plan shall be on-site at all times work is proceeding.

PAVING AND STRIPING NOTES:

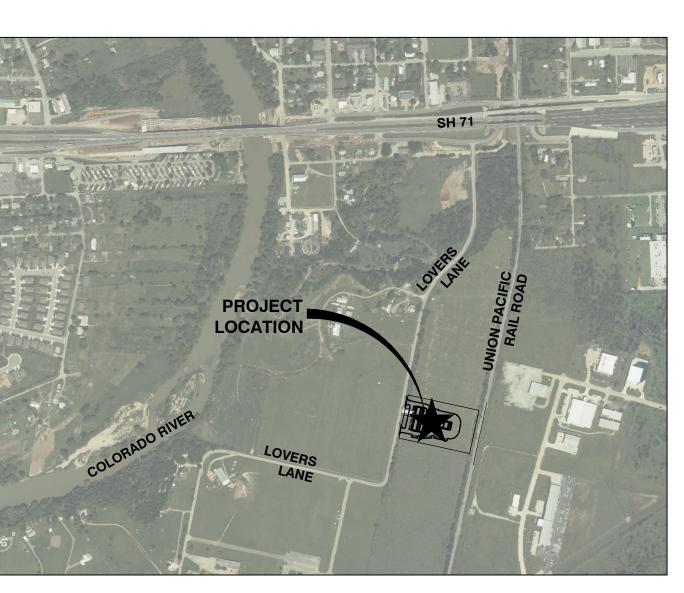
- 1. All signs, pavement markings, and other traffic control devices shall conform to the "Texas Manual on Uniform Traffic
- 2. Provide traffic control as required by Bastrop County officials for driveway construction.
- 3. Reference MEP plans and irrigation plans for conduit\sleeve locations including size, quantity and location. Locations shown on this plan are preliminary. Lines may represent multiple conduits.
- 4. CONTRACTOR shall coordinate with the utility companies for any required utility adjustments prior to fine grading and paving. Existing utilities requiring adjustment to be made, coordinated and paid for by CONTRACTOR.
- 5. Reference geotechnical engineering report prepared by Terracon Consultants, Inc. dated 08.23.21 & 06.17.22 (Project #90215005 & 90225168) and all addenda for all grading, earthwork, pavement and subgrade recommendations.
- 6. All pavement striping color to be yellow.
- 7. Pavement marking shall be 4" wide stripes applied in two coats of reflective yellow traffic marking paint. Surfaces to be clean and dry prior to application.
- 8. Fire lanes markings to be provided as required by the local fire department. Contractor to coordinate with fire
- department on striping requirements.

9. All regular parking spaces are 10 feet wide 20 feet deep unless noted otherwise.

- 10. All dimensions are to face of curb\edge of pavement unless noted otherwise.
- 11. Coordinate with County officials for exact & final placement of pipe bollards.
- Splash blocks to be 18"x36"x4" thick concrete splash blocks by Macon precast products or approved equal. 13. Knox access at all gates are to be coordinated and approved by local Fire Department by CONTRACTOR.
- 14. Firelane markings to be provided as required by local Fire Department. CONTRACTOR to coordinate with fire

12. Provide concrete splash blocks at any location a downspout discharges at grade on base material or landscape areas.

- department on striping requirements. 15. Fire lanes are to maintain minimum vertical clearance of 14'.
- 16. See site plan sheet for additional notes.







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22-8278 PLOT SCALE 1" = N/ASHEET TITLE **GENERAI** NOTES

DATE ISSUED: 7/11/22

DRAWN BY:

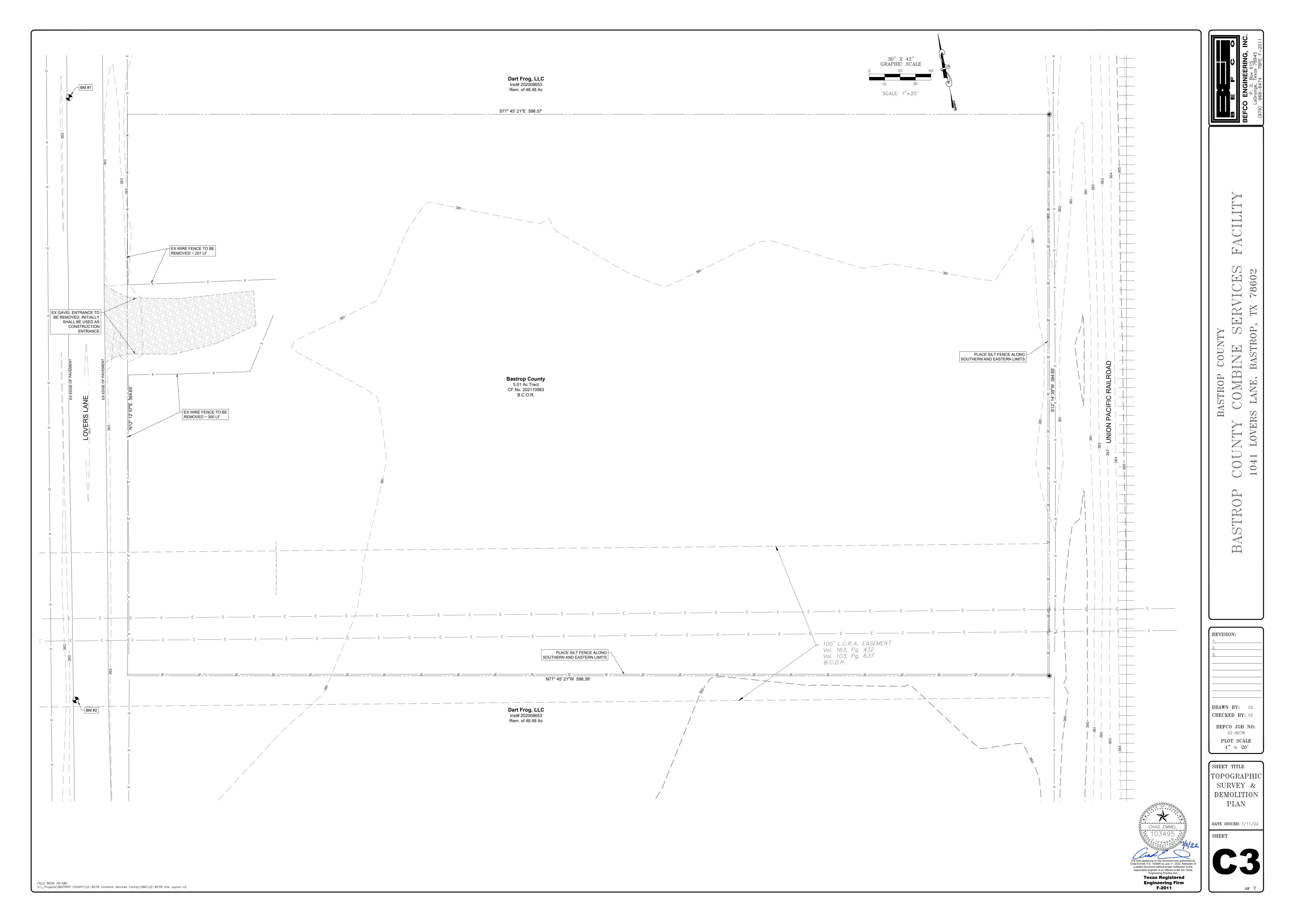
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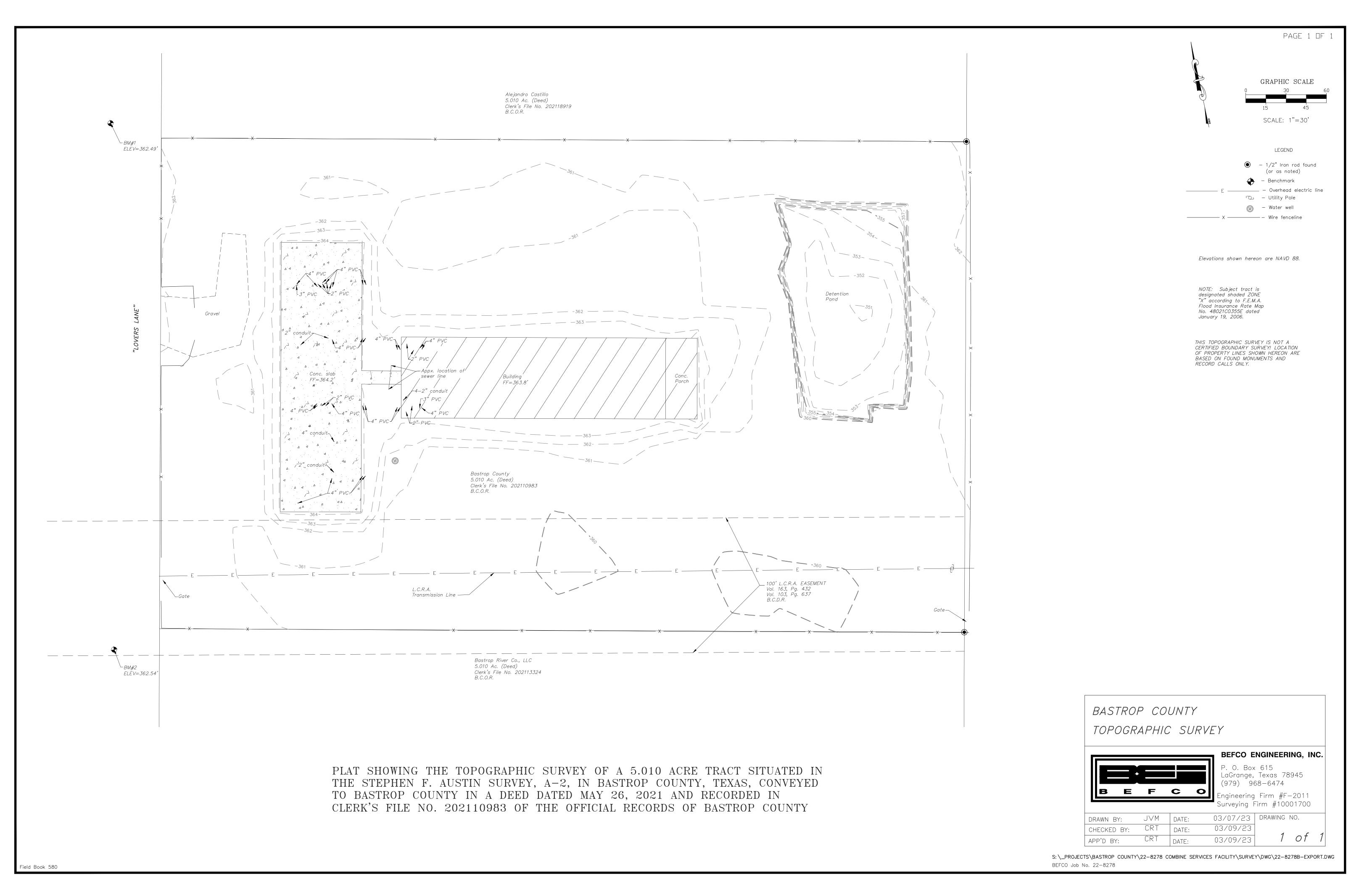
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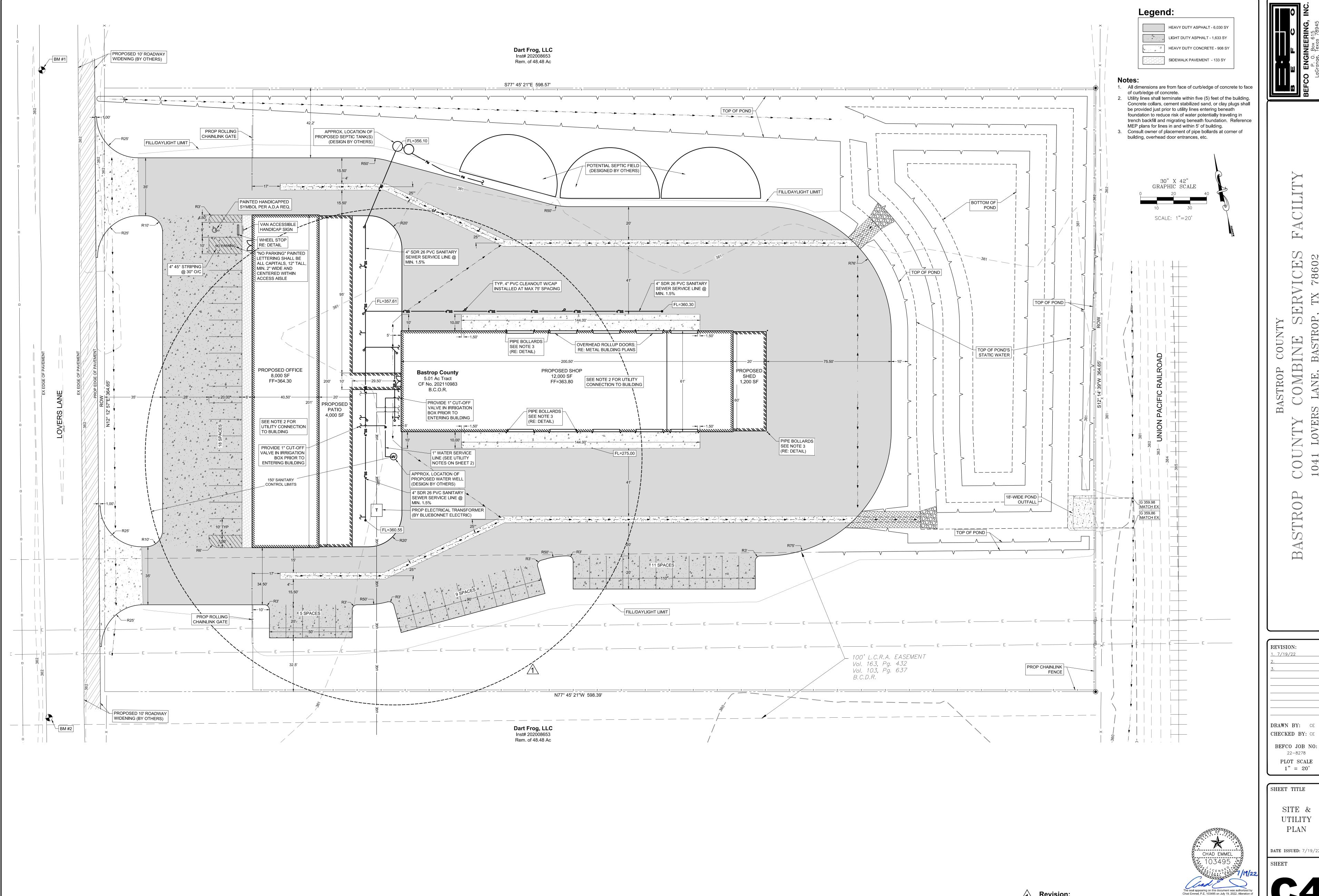
REVISION:

SHEET

Chad Emmel, P.E. 103495 on July 11, 2022. Altera a sealed document without proper notification to the **Texas Registered**







FIELD BOOK NO.580
S:_Projects\BASTROP COUNTY\22-8278 Combine Services Facility\DWG\22-8278 Site Layout-v2

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REVISION: 1. 7/19/22

DRAWN BY: CE CHECKED BY: CE

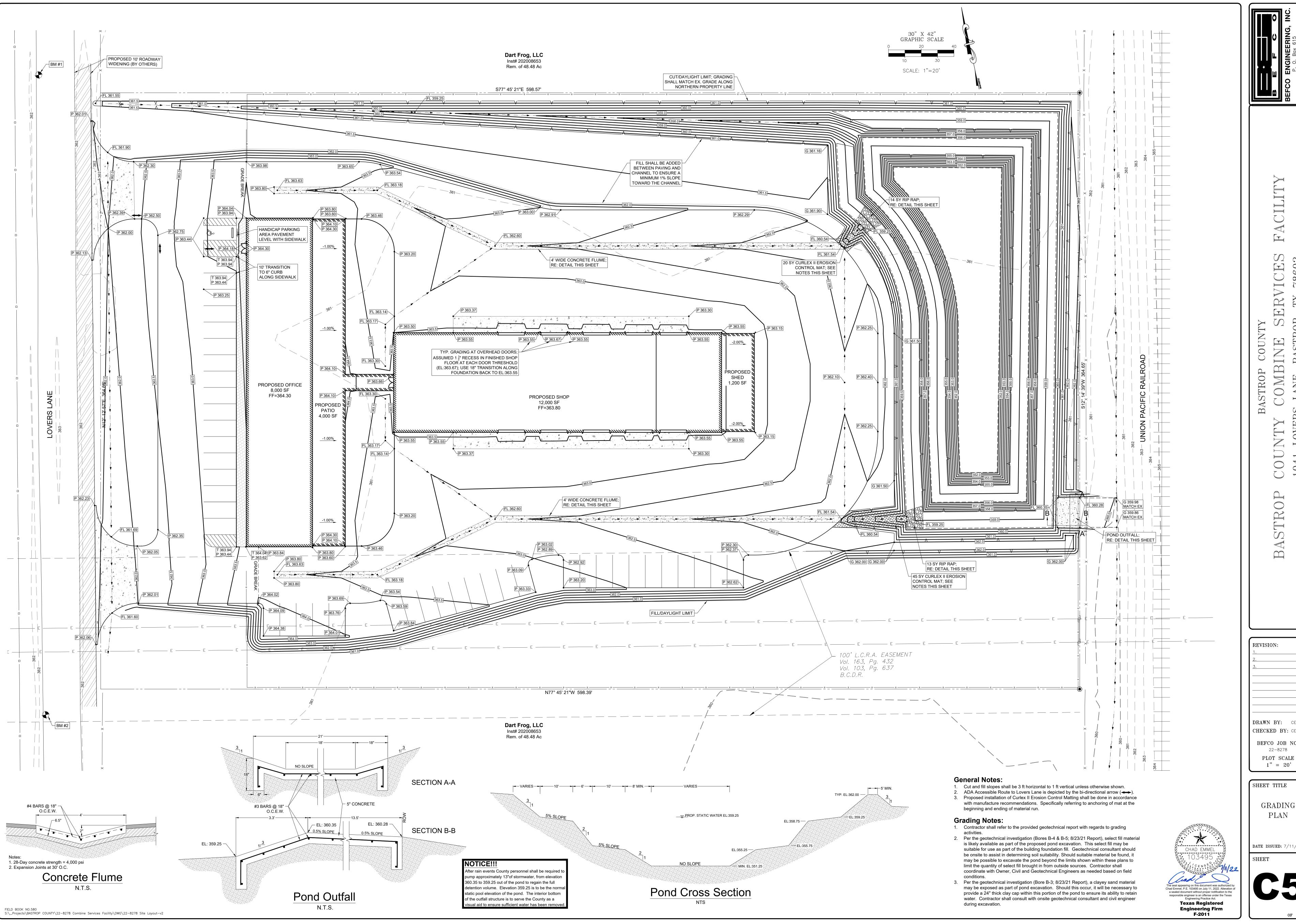
SITE & UTILITY

DATE ISSUED: 7/19/22



a sealed document without proper notification to the responsible engineer is an offense under the Texas Engineering Practice Act. **Texas Registered**

Revision:
7/19/22: Added 150' Sanitary Control Limit

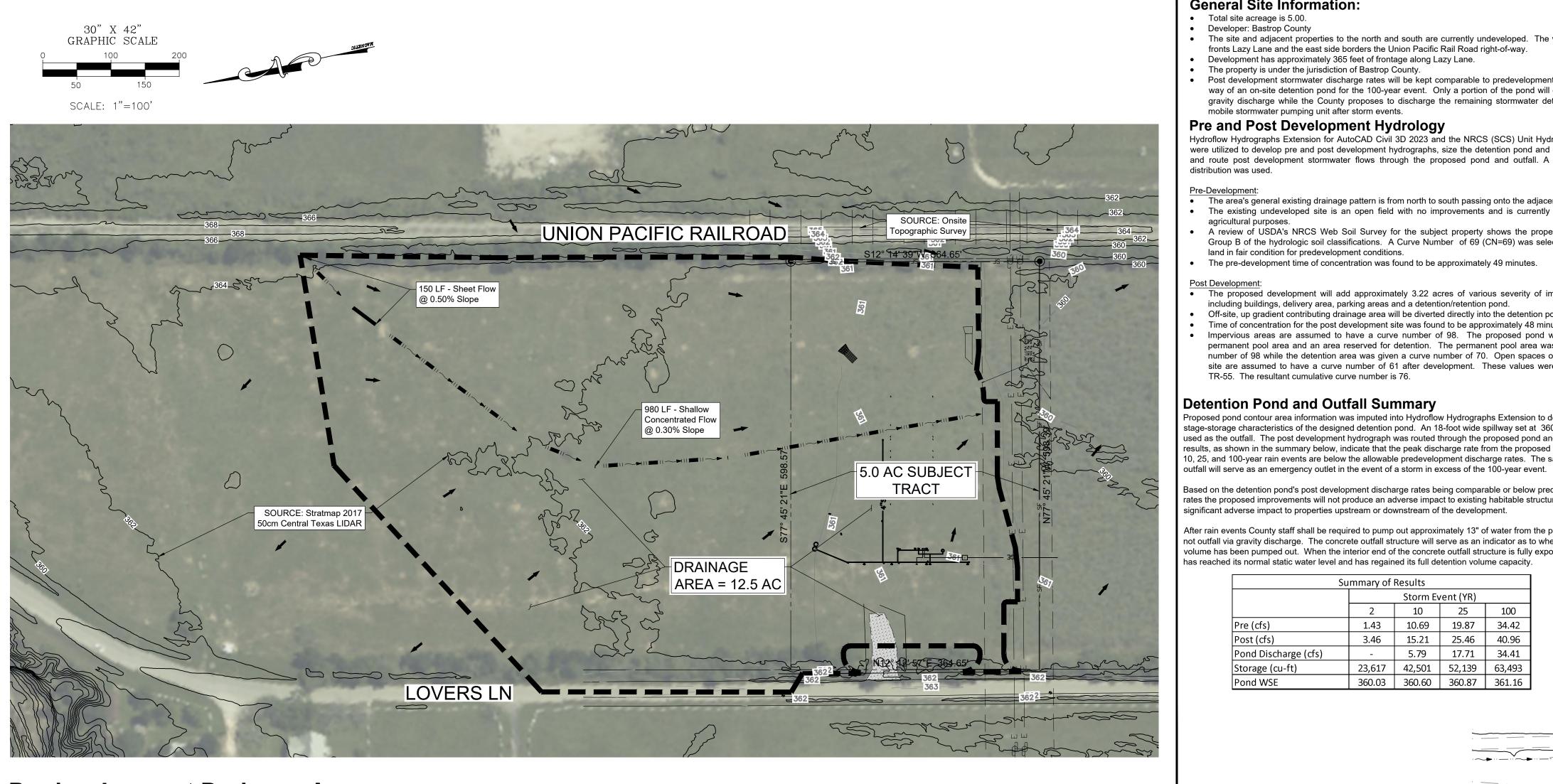


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SHEET TITLE

GRADING PLAN

DATE ISSUED: 7/11/22



General Site Information: Total site acreage is 5.00.

Developer: Bastrop County • The site and adjacent properties to the north and south are currently undeveloped. The west side fronts Lazy Lane and the east side borders the Union Pacific Rail Road right-of-way. Development has approximately 365 feet of frontage along Lazy Lane.

 The property is under the jurisdiction of Bastrop County. Post development stormwater discharge rates will be kept comparable to predevelopment rates by way of an on-site detention pond for the 100-year event. Only a portion of the pond will outfall via gravity discharge while the County proposes to discharge the remaining stormwater detain via a mobile stormwater pumping unit after storm events.

Pre and Post Development Hydrology

Hydroflow Hydrographs Extension for AutoCAD Civil 3D 2023 and the NRCS (SCS) Unit Hydrograph Me were utilized to develop pre and post development hydrographs, size the detention pond and outfall structure. and route post development stormwater flows through the proposed pond and outfall. A Type II r distribution was used.

The area's general existing drainage pattern is from north to south passing onto the adjacent property

The existing undeveloped site is an open field with no improvements and is currently being used A review of USDA's NRCS Web Soil Survey for the subject property shows the property to be Group B of the hydrologic soil classifications. A Curve Number of 69 (CN=69) was selected for pa land in fair condition for predevelopment conditions.

The proposed development will add approximately 3.22 acres of various severity of impervious

The pre-development time of concentration was found to be approximately 49 minutes.

including buildings, delivery area, parking areas and a detention/retention pond. Off-site, up gradient contributing drainage area will be diverted directly into the detention pond. Time of concentration for the post development site was found to be approximately 48 minutes. Impervious areas are assumed to have a curve number of 98. The proposed pond will have be permanent pool area and an area reserved for detention. The permanent pool area was given a number of 98 while the detention area was given a curve number of 70. Open spaces of the devel site are assumed to have a curve number of 61 after development. These values were selected

Detention Pond and Outfall Summary

TR-55. The resultant cumulative curve number is 76.

Proposed pond contour area information was imputed into Hydroflow Hydrographs Extension to determine the stage-storage characteristics of the designed detention pond. An 18-foot wide spillway set at 360.35 will be used as the outfall. The post development hydrograph was routed through the proposed pond and outfall. The results, as shown in the summary below, indicate that the peak discharge rate from the proposed pond for the 2, 10, 25, and 100-year rain events are below the allowable predevelopment discharge rates. The same proposed

Based on the detention pond's post development discharge rates being comparable or below predevelopment rates the proposed improvements will not produce an adverse impact to existing habitable structures nor significant adverse impact to properties upstream or downstream of the development.

After rain events County staff shall be required to pump out approximately 13" of water from the pond which will not outfall via gravity discharge. The concrete outfall structure will serve as an indicator as to when the detention volume has been pumped out. When the interior end of the concrete outfall structure is fully exposed, the pond has reached its normal static water level and has regained its full detention volume capacity.

Summary of Results									
		Storm Event (YR)							
	2	10	25	100					
Pre (cfs)	1.43	10.69	19.87	34.42					
Post (cfs)	3.46	15.21	25.46	40.96					
Pond Discharge (cfs)	-	5.79	17.71	34.41					
Storage (cu-ft)	23,617	42,501	52,139	63,493					
D LVAICE	200.02	200.00	200.07	264.46					

		Hydraflow Hydrographs Extension for Autodesk® Civil 3I								
Hyd. No. 1										
Pre-Development										
<u>Description</u>	<u>A</u>		<u>B</u>		<u>c</u>		<u>Totals</u>			
Sheet Flow										
Manning's n-value	= 0.240		0.011		0.011					
Flow length (ft)	= 150.0		0.0		0.0					
Two-year 24-hr precip. (in)	= 4.18 = 0.50		0.00 0.00		0.00 0.00					
Land slope (%)	- 0.50		0.00		0.00					
Travel Time (min)	= 30.07	+	0.00	+	0.00	=	30.07			
Shallow Concentrated Flov	V									
Flow length (ft)	= 980.00		0.00		0.00					
Watercourse slope (%)	= 0.30		0.00		0.00					
Surface description	= Unpaved =0.88		Paved 0.00		Paved 0.00					
Average velocity (ft/s)	-0.00		0.00		0.00					
Travel Time (min)	= 18.48	+	0.00	+	0.00	=	18.48			
Total Travel Time, Tc							48.60 min			
Hyd. No. 2										
Post Development										
Description	<u>A</u>		<u>B</u>		<u>C</u>		<u>Totals</u>			
Sheet Flow	- 0.240		0.011		0.011					
Manning's n-value Flow length (ft)	= 0.240 = 150.0		0.011 0.0		0.011 0.0					
Two-year 24-hr precip. (in)	= 4.18		0.00		0.00					
Land slope (%)	= 0.50		0.00		0.00					
,										
Travel Time (min)	= 30.07	+	0.00	+	0.00	=	30.07			

1.00

Unpaved

Unpaved

0.00

After rain events County personnel shall be required t

360.35 to 359.25 out of the pond to regain the full letention volume. Elevation 359.25 is to be the norma static pool elevation of the pond. The interior bottom of the outfall structure is to serve the County as a

Flow length (ft)

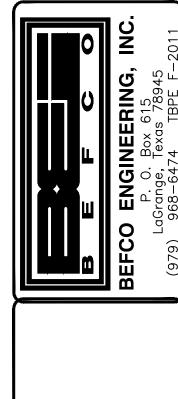
Watercourse slope (%)

Average velocity (ft/s)

Surface description

	Pond	Rep	ort										
desk, Inc. v2023	Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023										Т		
	Pond No.	1 - Dete	ention										
	Pond Data												
	Contours -C	Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 359.25 ft											
	Stage / St	Stage / Storage Table											
	Stage (ft)	E	levation (ft)	Contour area (sqft)			In	Incr. Storage (cuft)		Total sto	rage (cuft)		
	0.00		359.25		28,734			0			0		
	0.25		359.50		29,687			7,303		7.3	303		
	0.75		360.00		31,714			15,350		22,			
	1.25		360.50		33,902			16,404		39,			
	1.75		361.00		36,251			17,538		56,			
	2.00		361.25		47,508			10,470		67,			
	014/	Oifi 0	.4					W-: 04	4				
	Culvert / 0			i				Weir Str	ucture				
			[A]	[B]	[C]	[PrfRs	sr]			[A]	[B]	[C]	
	Rise (in)	= 0	.00	0.00	0.00	0.00		Crest Len	(ft)	= 18.00	0.00	0.00	
	Span (in)	= 0	.00	0.00	0.00	0.00		Crest El. (ft)	= 360.35	0.00	0.00	
	No. Barrels	= 0		0	0	0		Weir Coef	,	= 2.60	3.33	3.33	
				-	-								
	Invert El. (ft			0.00	0.00	0.00		Weir Type		= Broad			
	Length (ft)	= 0	.00	0.00	0.00	0.00		Multi-Stag	е	= No	No	No	
	Slope (%)	= 0	.00	0.00	0.00	n/a							
	N-Value	= .(013	.013	.013	n/a							
	Orifice Coef	f. = 0	.60	0.60	0.60	0.60		Exfil.(in/hr	.)	= 0.000 (by	(Contour)		
	Multi-Stage	- = n		No	No	No		TW Elev. (,	= 0.00	,		
				Note	: Culvert/Orific	e outflows are	analvze	d under inlet (ic) a	nd outlet (d	oc) control. Weir	risers checked	d for orifice co	nditi
	Stage / St	orage / I	Discharge				,			,			
	Stage	Storage	Elevation			Clv B	Clv C		Wr A	Wr B	Wr C	Wr D	Е
	ft	cuft	ft	cf	s	cfs	cfs	cfs	cfs	cfs	cfs	cfs	C
	0.00	0	359.25						0.00				
	0.03	730	359.27						0.00				
	0.05	1,461	359.30						0.00				
	0.08	2,191	359.32						0.00				
	0.10	2,921	359.35						0.00				
	0.13	3,651	359.37						0.00				
	0.15	4,382	359.40						0.00				
	0.18	5,112	359.42						0.00				
	0.20	5,842	359.45						0.00				
	0.23	6,572	359.47						0.00				
	0.25	7,303	359.50						0.00				
	0.30	8,838	359.55						0.00				
	0.35	10,373	359.60						0.00				
	0.40	11,908	359.65						0.00				
	0.45	13,443	359.70						0.00				
	0.50	14,978	359.75						0.00				
	0.55 0.60	16,513 18.048	359.80 359.85						0.00				
	0.00	10,040	JJ8.00						0.00				

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9.688
11.84
14.12
16.54
19.08
21.74
24.53
25.95
27.41
28.89
30.40
31.93
33.48
35.07
36.67
38.30
39.96 PROPOSED 18 LF WIDE BASIN OUTFALL TOP OF POND SECTION B-B 0.5% SLOPE Pond Outfall TYP. EL:362.00 — POND OUTFALL EL:360.35 _____ PROP. STATIC WATER EL:359.25 💆 $\frac{\text{Pond Cross Section}}{\frac{\text{C-C}}{\text{\tiny NTS}}}$



Thursday, 05 / 5 / 2022

[B] [C] [D]

0.00 0.00 0.00

0.00 0.00 0.00 3.33 3.33 3.33

REVISION:

DRAWN BY:

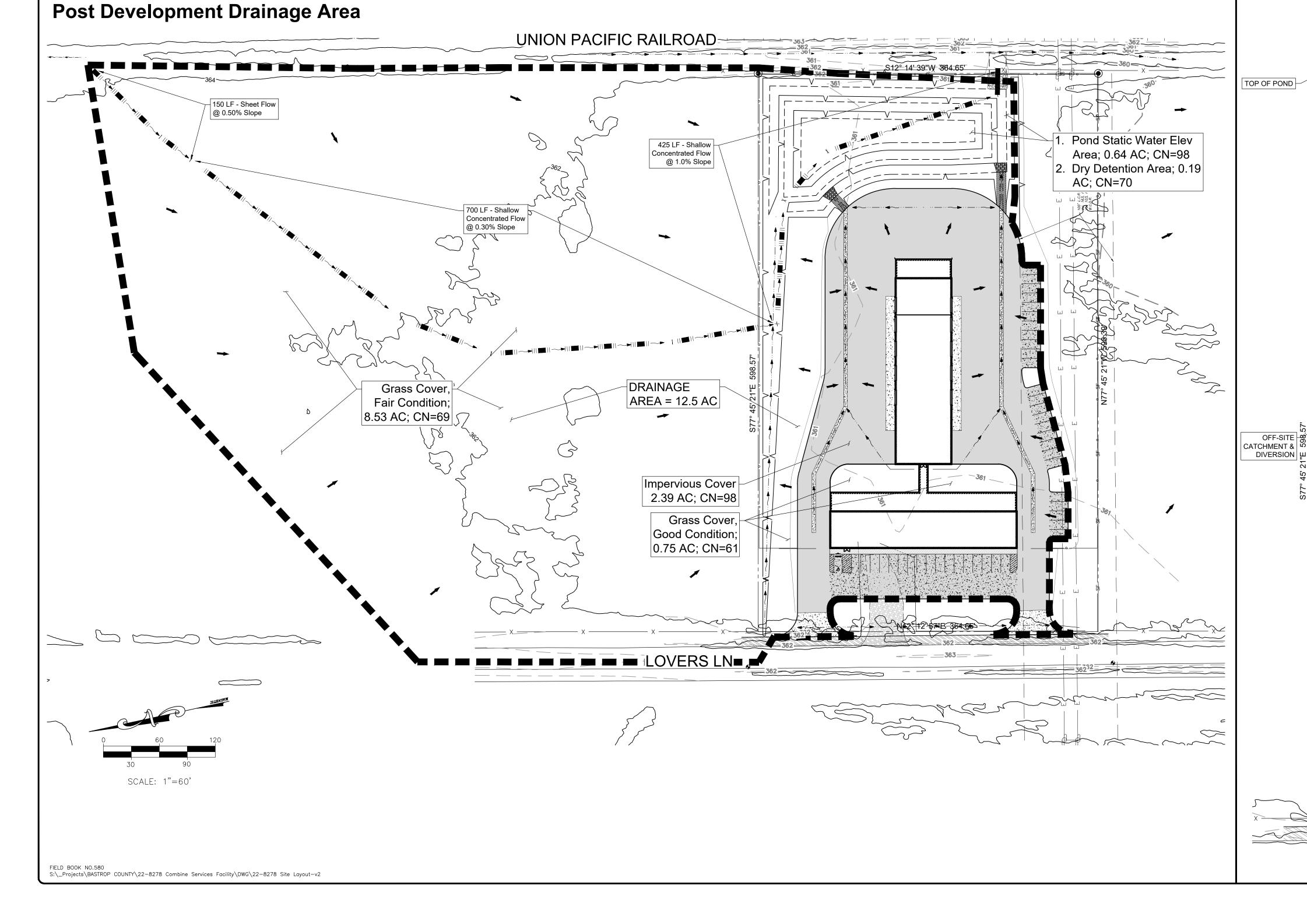
CHECKED BY: CE BEFCO JOB NO: 22-8278 PLOT SCALE

SHEET TITLE DRAINAGE PLAN

DATE ISSUED: 7/11/22

responsible engineer is an offense under the Texa **Texas Registered**

Predevelopment Drainage Area



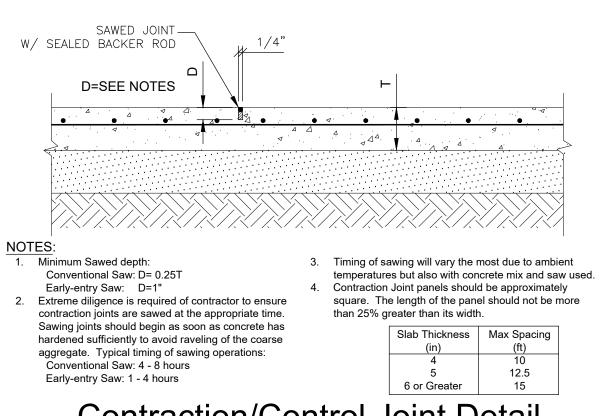
Service Cleanout Detail

FIELD BOOK NO.580

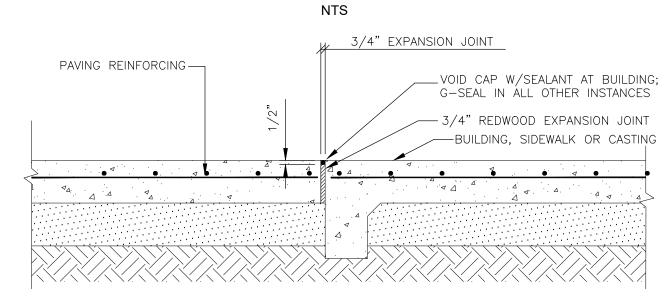
S:_Projects\BASTROP COUNTY\22-8278 Combine Services Facility\DWG\22-8278 Site Layout-v2

Water & Sewer Pipe

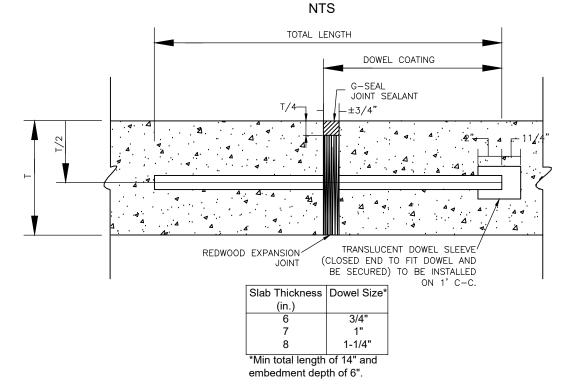
Bedding and Backfill



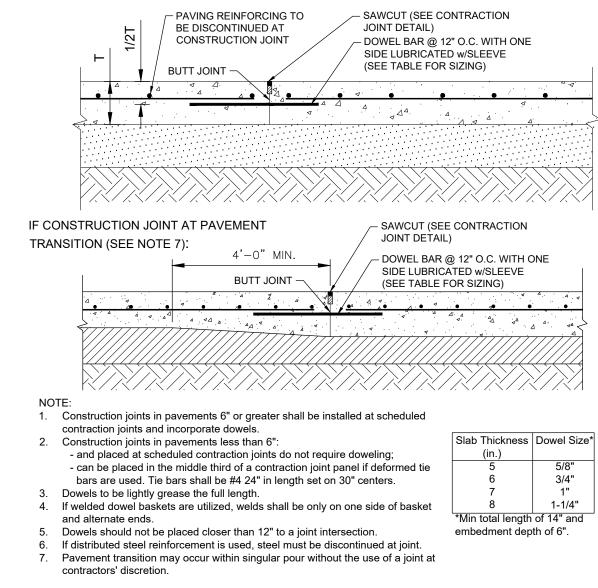
Contraction/Control Joint Detail



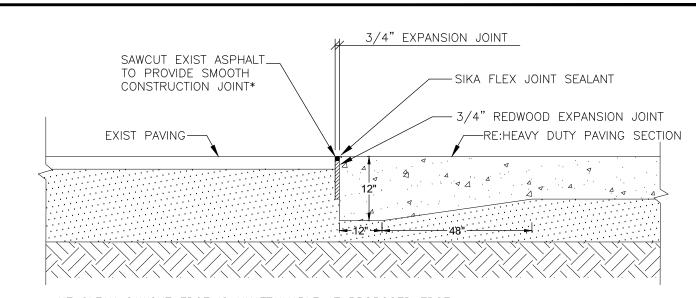
Isolation Joint



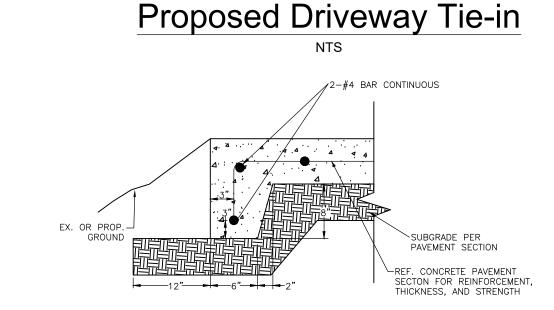
Expansion Joint Detail



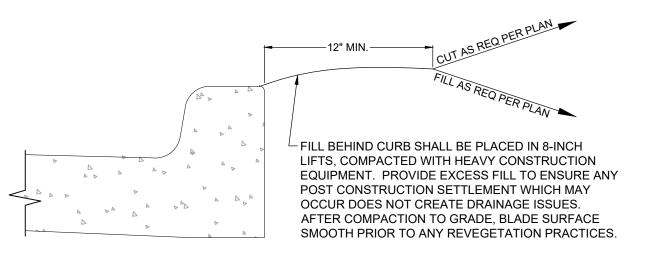
Construction Joint Detail



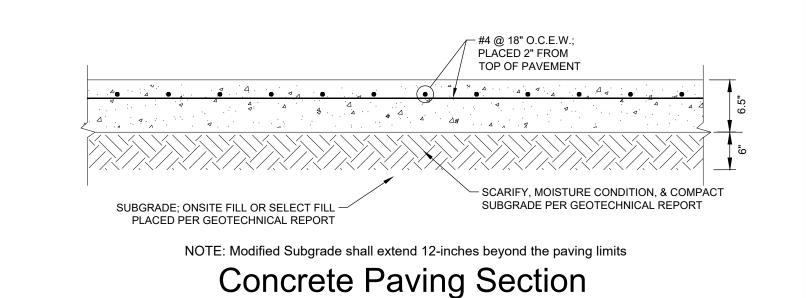
*IF CLEAN SAWCUT EDGE IS UNATTAINABLE AT PROPOSED EDGE OF CONCRETE, SAWCUT, REMOVE AND REPLACE AN ASPHALT STRIP A MINIMUM OF 12" WIDE OR AS REQUIRED.

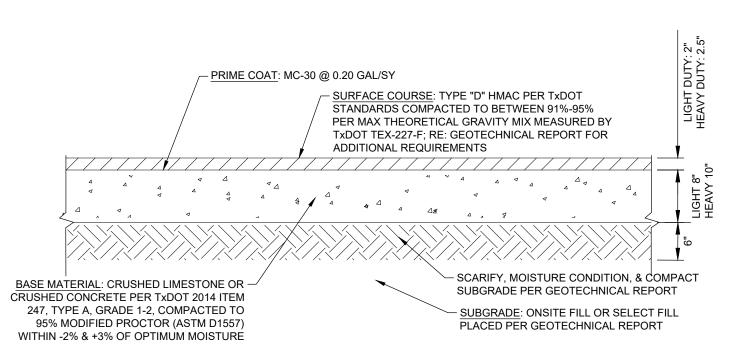


Edge of Concrete Pavement Detail

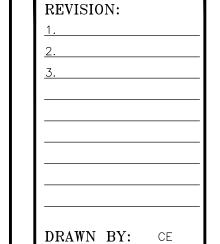


Fill Placement Behind Curb





NOTE: Subgrade and base work shall extend 12-inches beyond the paving limits **Asphalt Paving Section**



 \models

 \models

 \blacksquare

LOVERS

COUN

BASTR

8602

CHECKED BY: CE BEFCO JOB NO: 22-8278 PLOT SCALE 1" = N/A

SHEET TITLE DETAIL SHEET

DATE ISSUED: 7/11/22 SHEET

