

March 25, 2024 AVO 37449.004

Ms. Ramie Hammonds
Development Services Director/Building Official
City of Sanger
201 Bolivar Street
P.O. Box 1729
Sanger, Texas 76266

Re: Lakeside Estates Final Plat and Drainage Study -Review #1

Dear Ms. Hammonds,

Halff Associates, Inc. (Halff) was requested by the City of Sanger to review the final plat and drainage study in support of the engineering plans for the Lakeside Estates located near the intersection of McReynolds Road and FM 455 E. The subject tract is located within the City of Sanger's ETJ. The submittal was prepared by Kirkman Engineering and dated March, 2024. The preliminary plat and drainage comments were found acceptable by Halff in September 2023.

We have completed our review and offer the following comments. Please address comments on attached markups and in the Drianage Study and provide annotated responses on markups. Please note, not all comments are written on letter since some comments are easier to show and explain on the markups. Please annotate markup with responses. Please note, an accepted drainage study is required prior to plans acceptance.

Final Plat

- 1. Text is illegible in the vicinity map.
- 2. A small portion of the site lies within the floodplain. Revise plat and notes as such
- 3. Show centerline of existing street. Dimensions from centerline to edges of existing and proposed right-of-way on both sides of the centerline per ordinance 10.104(d)(10)(H).
- 4. Per the grading plans, additional drainage easements are required for swales.
- 5. Provide a drainage easement for the proposed pond including access.

Civil Plans

Cover

- 1. Provide drainage area maps for the proposed culverts along with drainage area calculations and hydraulic calculations.
- 2. Based on the grading plan, many properties will require driveway culverts for access. Provide calculations and sizes for each future driveway culvert.
- 3. Culverts shall meet the requirements outline in ordinance 10.106(d)(7).
- 4. Provide water and sanitary sewer plans.

Grading Plans

1. Proposed swales between properties do not have any proposed grading.



- 2. Add drainage easements to the plat for proposed swales.
- 3. Revise wall line style for clarity in the plans. The wall will require a Structural Engineer's approval.
- 4. Point discharges onto USACE property will require approval.
- 5. A maintenance agreement will be needed for any proposed pond.
- 6. Maintenance access must be provided for proposed detention areas.
- 7. Drainage easement is needed for proposed pond.
- 8. The Hillside Pond outfall plan is unclear. It appears this will direct concentrated flow onto the adjacent property. Clarify.

Paving Plans

- 1. Ditch profiles with 100-year HGL shall be shown on all road profiles.
- 2. Vertical curves do not meet minimum K values or minimum length throughout the paving plans. Reconcile.
- 3. It is suggested to round vertical curve lengths to whole numbers.
- 4. Provide missing ROW lines on Sunrise Drive.
- 5. Show all culvert crossings in the paving profiles.
- 6. Revise leaders on Hillside.
- 7. Provide vertical curves where the algebraic difference in grade is greater than 1%.

Culvert Plan and profiles

- 1. 100-year HGL shall be shown on all culvert profiles
- 2. A minimum of 2' of cover is desired for the sunrise culvert. Provide the class of concrete pipe to be used and/or deload calculations.
- 3. Provide drainage area maps for the proposed culverts along with drainage area calculations and hydraulic calculations.
- 4. Based on the grading plan, many properties will require driveway culverts for access. Provide calculations and sizes for each future driveway culvert.

If you have any questions or need additional information, please do not hesitate to call me at (214) 937-3928.

Sincerely, HALFF

TBPELS Firm No. 312

Jan alm

Jamie Akomer, PE, PMP

Attachments:

Plans markups

OWNER/DEVELOPER:

SOUTHLAKE, TEXAS 76092

CONTACT: RAMESH RAAVI

KIRKMAN ENGINEERING, LLC

CONTACT: JEREMY NELSON, P.E.

5200 STATE HIGHWAY 121 COLLEYVILLE, TX 76034

Jeremy.Nelson@trustke.com

BARTON CHAPA SURVEYING

CONTACT: JACK BARTON, RPLS

5200 STATE HIGHWAY 121 COLLEYVILLE, TX 76034 PHONE: (817) 864 - 1957

PHONE: (817) 488 - 4960

PHONE: (312) 206 - 8673

Ramesh@sr3systems.com

ENGINEER:

SURVEYOR:

Jack@bcsdfw.com

803 W SOUTHLAKE BLVD, SUITE 100

AUSTIN LANDS LLC

FILENAME: COVER SHEET_SR322002.d, PLOTTED BY: Michael Heimlich COTTED ON: Tuesday, March 12, 2024 PLOTTED AT: 8:15:57 AM PLOTTED WITH: _DWG TO PDF.pc3

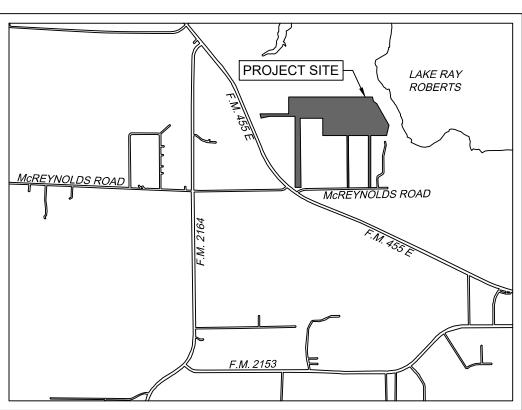
REV: DATE: DESCRIPTION:

PLANS FOR THE CONSTRUCTION OF PAVING, GRADING & DRAINAGE IMPROVEMENTS

TO SERVE

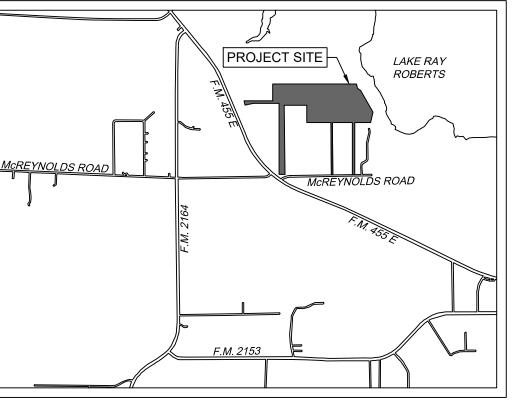
LAKESIDE ESTATES

TRACT 1 & TRACT 2 (68.028 ACRES) C. MANCHACA SURVEY ABSTRACT NO. 790



N.T.S.

THE CITY OF SANGER ETJ, DENTON COUNTY, TEXAS



VICINITY MAP



PROJECT NO. SR322002

MARCH 2024

PRELIMINARY FOR REVIEW ONLY THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND NOT INTENDED FOR THE PURPOSES OF CONSTRUCTION BIDDING OR PERMIT. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF JEREMY B. NELSON DATE: 03/13/2024

SHEET LIST INDEX

NUMBER TITLE

C7.0

COVER SHEET FINAL PLAT SHEET 1 OF 1 **GENERAL NOTES** OVERALL GRADING PLAN LOT GRADING PLAN MEGAVIEW DRIVE PLAN & PROFILE STA 1+00 TO 10+00 MEGAVIEW DRIVE PLAN & PROFILE STA 8+50 TO 16+50 MEGAVIEW DRIVE PLAN & PROFILE STA 14+50 TO 22+00 SUNRISE DRIVE PLAN & PROFILE STA 1+00 TO 8+00 SUNRISE DRIVE PLAN & PROFILE STA 8+00 TO 14+00 SUNRISE DRIVE PLAN & PROFILE STA 14+00 TO 18+50 HILLSIDE DRIVE PLAN & PROFILE STA 1+00 TO 7+00 HILLSIDE DRIVE PLAN & PROFILE STA 7+00 TO 13+50 HILLSIDE DRIVE PLAN & PROFILE STA 13+50 TO 21+00 **CULVERT PLAN & PROFILE EROSION CONTROL PLAN** PAVING DETAILS

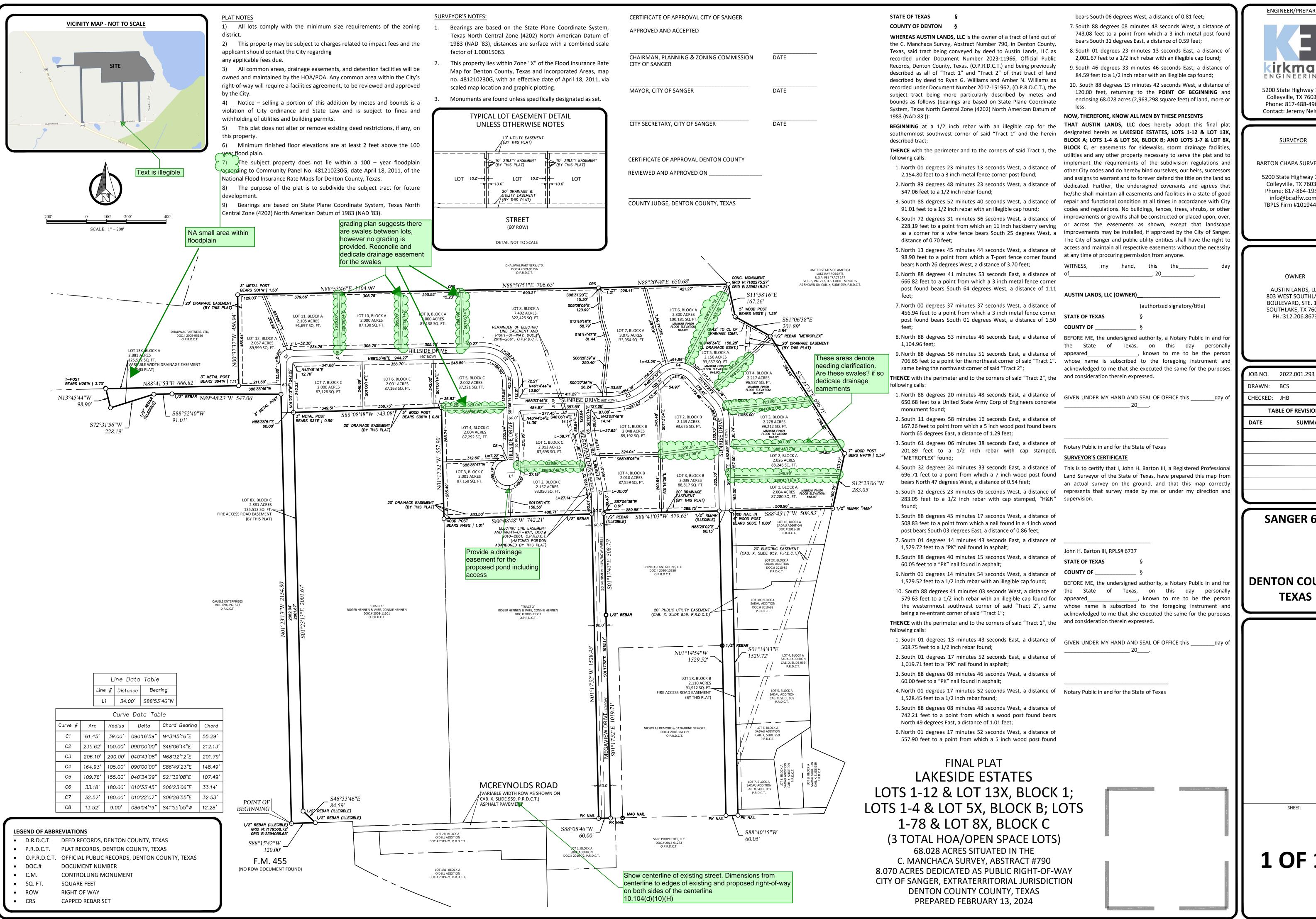
> Provide drainage area maps for the proposed culverts along with drainage area calculations and hydraulic calculations www.

DRAINAGE DETAILS

EROSION CONTROL DETAILS

Provide water and sanitary sewer plans

Based on the grading plan. many of these > properties will require driveway culverts for raccess. Provide calculations and sizes for each future driveway culvert minimum



ENGINEER/PREPARER

irkman

5200 State Highway 121 Colleyville, TX 76034 Phone: 817-488-4960 Contact: Jeremy Nelson

BARTON CHAPA SURVEYING

SURVEYOR

5200 State Highway 121 Colleyville, TX 76034 Phone: 817-864-1957 info@bcsdfw.com TBPLS Firm #10194474

OWNER

AUSTIN LANDS, LLC 803 WEST SOUTHLAKE BOULEVARD, STE. 100 SOUTHLAKE, TX 76092 PH.:312.206.8673

DRAWN: BCS CHECKED: JHB TABLE OF REVISIONS **SUMMARY**

SANGER 68

DENTON COUNTY TEXAS

1 OF 1

- STANDARDS AND SPECIFICATIONS: ALL MATERIALS. CONSTRUCTION METHODS. WORKMANSHIP. EQUIPMENT. SERVICES AND TESTING FOR ALL PUBLIC IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' ORDINANCES. REGULATIONS. REQUIREMENTS. STATUTES. SPECIFICATIONS AND DETAILS. LATEST PRINTING AND AMENDMENTS THERETO. THE GOVERNING AUTHORITIES' PUBLIC WORKS AND WATER DEPARTMENT REQUIREMENTS. PLUMBING CODES. AND FIRE DEPARTMENT REGULATIONS SHALL TAKE PRECEDENT FOR ALL PRIVATE IMPROVEMENTS WHERE APPLICABLE. ALL OTHER PRIVATE CONSTRUCTION, NOT REGULATED BY THE GOVERNING AUTHORITY. SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. NORTH CENTRAL TEXAS
- COUNCIL OF GOVERNMENTS, LATEST PRINTING AND AMENDMENTS THERETO, EXCEPT AS MODIFIED BY THE PROJECT CONTRACT DOCUMENTS EXAMINATION OF PLANS: PRIOR TO COMMENCING ANY CONSTRUCTION, THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE CONTRACTOR DOCUMENTS ONSTRUCTION DOCUMENTS, AND SPECIFICATIONS. FAILURE ON THE PART OF THE CONTRACTOR TO FAMILIARIZE THEIR SELF WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THE WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PERFORMING THE WORK IN ACCORDANCE WITH
- ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS. EXAMINATION OF SITE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR INVESTIGATING AND SATISFYING THEIR SELF AS TO THE CONDITIONS AFFECTING THE WORK INCLUDING BUT NOT RESTRICTED TO THE BEARING UPON TRANSPORTATION, DISPOSAL, HANDLING AND STORAGE OF MATERIALS, AVAILABILITY OF LABOR, WATER, ELECTRIC POWER. ROADS AND UNCERTAINTIES OF WEATHER, OR SIMILAR PHYSICAL CONDITIONS AT THE SITE, CONDITIONS OF THE GROUND, THE CHARACTER OF EQUIPMENT AND FACILITIES NEEDED PRELIMINARY TO AND DURING THE PERFORMANCE OF THE WORK.

FAILURE BY THE CONTRACTOR TO ACQUAINT HIMSELF WITH THE AVAILABLE INFORMATION WILL NOT RELIEVE HIM FROM RESPONSIBILITY FOR ESTIMATING THE DIFFICULTY OR COST OF SUCCESSFULLY PERFORMING THE WORK

- ADEQUATE AREA TO PERFORM WORK: CONTRACTOR TO VERIFY ADEQUATE AREA EXISTS ON-SITE TO PERFORM THE WORK SHOWN IN THESE CONSTRUCTION DOCUMENTS. IF ADDITIONAL AREA IS REQUIRED TO PERFORM THE WORK. THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION SUBSURFACE INVESTIGATION: SUBSURFACE EXPLORATION TO ASCERTAIN THE NATURE OF SOILS HAS BEEN PERFORMED BY THE GEOTECHNICAL ENGINEER OF
- ECORD ON THE PROJECT. THE SUBSURFACE INFORMATION WILL BE MADE AVAILABLE FOR THE CONTRACTOR'S USE. THE ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR THE ACCURACY, TRUE LOCATION AND EXTENT OF THE SOILS INFORMATION PREPARED BY OTHERS. TOPOGRAPHY SURVEY: TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THE PLANS IS PROVIDED FOR INFORMATIONAL PURPOSES. THE CONTRACTOR SHALL BE
- ESPONSIBLE FOR VERIFYING THAT THE INFORMATION SHOWN IS CORRECT, AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY ERRORS, DISCREPANCIES OR OMISSIONS TO THE SURVEY INFORMATION PROVIDED. COMPLIANCE WITH LAWS: THE CONTRACTOR SHALL FULLY COMPLY WITH ALL LOCAL, STATE AND FEDERAL LAWS, INCLUDING ALL CODES, ORDINANCES AND
- HAVING JURISDICTION OR AUTHORITY FOR SUCH ENACTMENT. ALL WORK REQUIRED UNDER THIS CONTRACT SHALL COMPLY WITH ALL REQUIREMENTS OF LAW. REGULATION, PERMIT OR LICENSE. IF THE CONTRACTOR FINDS THAT THERE IS A VARIANCE, HE SHALL IMMEDIATELY REPORT THIS TO THE OWNER FOR RESOLUTION PUBLIC CONVENIENCE AND SAFETY: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE. INCLUDING SAFETY OF ALL PERSONNEL AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS

REGULATIONS APPLICABLE TO THIS CONTRACT AND THE WORK TO BE DONE THEREUNDER, WHICH EXIST OR MAY BE ENACTED LATER BY GOVERNMENTAL BODIES

- REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. MATERIALS STORED ON THE WORK SITE SHALL BE PLACED. AND THE WORK SHALL AT ALL TIMES BE SO CONDUCTED, AS TO CAUSE NO GREATER OBSTRUCTION TO THE TRAVELING PUBLIC THAN IS CONSIDERED ACCEPTABLE BY THE GOVERNING AUTHORITIES AND THE DEVELOPER AND NOT TO PREVENT FREE UNINTERRUPTED ACCESS TO ALL FIRE HYDRANTS, WATER VALVES, GAS VALVES, MANHOLES AND FIRE ALARM OR POLICE CALL BOXES IN THE VICINITY.
- STORM WATER POLLUTION PREVENTION PLAN (SWPPP): THE CONTRACTOR SHALL COMPLY WITH THE CONDITIONS OF THE SWPPP WHILE CONDUCTING THEIR ACTIVITIES ON THE PROJECT.
- PERMITS AND LICENSES: THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND LICENSES NECESSARY FOR THE EXECUTION OF THE WORK AND SHALL FULLY COMPLY WITH ALL THEIR TERMS AND CONDITIONS. WHENEVER THE WORK UNDER THIS CONTRACT REQUIRES THE OBTAINING OF PERMITS FROM THE GOVERNING AUTHORITIES, THE CONTRACTOR SHALL FURNISH DUPLICATE COPIES OF SUCH PERMITS TO THE DEVELOPER BEFORE THE WORK COVERED THEREBY IS STARTED. NO WORK WILL BE ALLOWED TO PROCEED BEFORE SUCH PERMITS HAVE BEEN OBTAINED. COSTS ASSOCIATED WITH PERMITS SHALL BE INCLUDED IN THE
- APPROVED PLANS: THE CONTRACTOR SHALL HAVE AT LEAST ONE SET OF APPROVED PLANS ON-SITE AT ALL TIMES. WORK PERFORMED WITHOUT THE USE OF PPROVED PLAN SETS IS NOT AUTHORIZED AND SHALL BE AT THE RISK OF THE CONTRACTOR.
- BONDS: PERFORMANCE, PAYMENT AND MAINTENANCE BONDS MAY BE REQUIRED FROM THE CONTRACTOR FOR "PUBLIC" IMPROVEMENTS. IF REQUIRED. THE CONTRACTOR SHALL PROVIDE THE BONDS IN THE FORM AND IN THE AMOUNTS AS REQUIRED BY THE GOVERNING AUTHORITIES. COSTS ASSOCIATED WITH PROVIDING THE BONDS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- TESTING: THE TESTING AND CONTROL OF ALL MATERIALS USED IN THE WORK SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY, EMPLOYED AND PAID DIRECTLY BY THE CONTRACTOR. IN THE EVENT THE RESULTS OF THE INITIAL TESTING DO NOT COMPLY WITH THE PLANS AND SPECIFICATIONS, SUBSEQUENT TESTS NECESSARY TO DETERMINE THE ACCEPTABILITY OF MATERIALS OR CONSTRUCTION SHALL BE AT THE CONTRACTOR'S EXPENSE
- INSPECTION: THE GOVERNING AUTHORITIES AND/OR THE DEVELOPER WILL PROVIDE INSPECTION OF THE PROPOSED CONSTRUCTION. THE OWNER WILL PAY THE COSTS FOR INSPECTION SERVICES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE WELL IN ADVANCE OF PENDING CONSTRUCTION ACTIVITIES TO THE GOVERNING AUTHORITIES AND/OR OWNER FOR SCHEDULING OF INSPECTION SERVICES.
- SHOP DRAWINGS: THE CONTRACTOR SHALL PREPARE, REVIEW, AND SUBMIT ALL SHOP DRAWING, PRODUCT DATA AND SAMPLES REQUIRED BY THE GOVERNING AUTHORITIES AND THE PROJECT CONTRACT DOCUMENTS IN ACCORDANCE WITH ITEM 1.28 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, NORTH CENTRAL TEXAS - NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS.
- SURVEYING: ALL SURVEYING REQUIRED FOR CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE OWNER SHALL PROVIDE TWO BENCHMARKS FOR USE AS HORIZONTAL AND VERTICAL DATUM. THE CONTRACTOR SHALL EMPLOY A REGISTERED PROFESSIONAL LAND SURVEY TO PERFORM ALL ADDITIONAL SURVEY, LAYOUT AND MEASUREMENT WORK NECESSARY FOR THE COMPLETION OF THE PROJECT. THE COSTS ASSOCIATED WITH THE CONSTRUCTION STAKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- PROTECTION OF PROPERTY CORNERS AND BENCHMARKS: THE CONTRACTOR SHALL PROTECT ALL PROPERTY CORNER MARKERS AND BENCHMARKS. WHEN ANY SUCH MARKERS OR MONUMENTS ARE IN DANGER OF BEING DISTURBED, THEY SHALL BE PROPERLY REFERENCED AND IF DISTURBED SHALL BE RESET BY A REGISTERED PUBLIC SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
- EXISTING STRUCTURES: THE PLANS SHOW THE LOCATION OF ALL KNOWN SURFACE AND SUB SURFACE STRUCTURES, HOWEVER, THE DEVELOPER AND ENGINEER ASSUME NO RESPONSIBILITY FOR THE FAILURE TO SHOW ANY OR ALL OF THESE STRUCTURES ON THE PLANS, OR TO SHOW THEM IN THEIR EXACT LOCATION. SUCH FAILURE SHALL NOT BE CONSIDERED SUFFICIENT BASIS FOR CLAIMS FOR ADDITIONAL COMPENSATION FOR EXTRA WORK OR FOR INCREASING THE PAY QUANTITIES IN ANY MANNER WHATSOEVER, UNLESS THE OBSTRUCTION ENCOUNTERED IN SUCH AS TO REQUIRE CHANGES IN THE LINES OR GRADES, OR REQUIRE THE CONSTRUCTION OF SPECIAL WORK, FOR WHICH PROVISIONS ARE NOT MADE IN THE PLANS.
- PROTECTION OF EXISTING UTILITIES: AS REQUIRED BY "THE TEXAS UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT". TEXAS ONE CALL SYSTEM MUST BE CONTACTED (800-245-4545) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATIONS BEING PERFORMED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEXAS ONE CALL SYSTEM. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS ARE BASED ON THE BEST RECORDS AND/OR FIELD INFORMATION AVAILABLE AND ARE NOT GUARANTEED BY THE DEVELOPER OR ENGINEER TO BE ACCURATE AS TO THE LOCATION AND DEPTH. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY LOCATIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF HIS ACTIVITIES IN ORDER THAT HE MAY NEGOTIATE SUCH LOCAL ADJUSTMENTS AS NECESSARY IN THE CONSTRUCTION PROCESS TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL TAKE ALI NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL EXISTING UTILITIES, SERVICES, AND STRUCTURES ENCOUNTERED WHETHER OR NOT THEY ARE ON THE PLANS ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT HIS EXPENSE. TO AVOID UNNECESSARY INTERFERENCE'S OR DELAYS, THE CONTRACTOR SHALL COORDINATE ALL UTILITY REMOVALS, REPLACEMENTS AND CONSTRUCTION WITH THE APPROPRIATE GOVERNING AUTHORITIES. THE DEVELOPER WILL NOT BE LIABLE FOR DAMAGES DUE TO DELAY BECAUSE OF THE ABOVE.
- DAMAGE TO EXISTING FACILITIES: ALL DAMAGE DURING CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE TO A CONDITION AS GOOD
- AS OR BETTER THAN THE CONDITIONS PRIOR TO STARTING THE WORK. FIRE AND LIFE SAFETY SYSTEMS: THE CONTRACTOR SHALL NOT REMOVE, DISABLE OR DISRUPT EXISTING FIRE OR LIFE SAFETY SYSTEMS WITHOUT RECEIVING PRIOR
- WRITTEN PERMISSION FROM THE GOVERNING AUTHORITY. TRENCH SAFETY: THE CONTRACTOR IS RESPONSIBLE FOR HAVING A TRENCH SAFETY PLAN PREPARED IN ACCORDANCE WITH OSHA REQUIREMENTS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS FOR THE IMPLEMENTATION OF TRENCH SAFETY CONTROL MEASURES THAT WILL BE IN EFFECT DURING
- THE CONSTRUCTION OF THE PROJECT. THE COSTS FOR PREPARATION OF THE TRENCH SAFETY PLAN SHALL BE INCLUDED IN THE CONTRACT AMOUNT. TRAFFIC CONTROL: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT TRAFFIC CONTROL. THE COSTS ASSOCIATED WITH THE IMPLEMENTATION THE TRAFFIC CONTROL PLAN SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- 24. ACCESS TO ADJACENT PROPERTIES: ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE GOVERNING
- AUTHORITIES AND/OR OWNER. ACCESS ROUTES, STAGING AREAS AND STORAGE AREAS: ALL PRIVATE HAUL ROADS AND ACCESS ROUTES AND THE LOCATION OF ALL STAGING AREAS AND STORAGE AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND REPAIRING ALL ROADS AND OTHER FACILITIES USED DURING CONSTRUCTION. UPON COMPLETION OF THE PROJECT, ALL HAUL ROADS, ACCESS ROADS, STAGING AREAS AND STORAGE AREAS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT AT THE TIME THE CONTRACTOR COMMENCES WORK ON THE PROJECT.
- PARKING OF CONSTRUCTION EQUIPMENT: AT NIGHT AND DURING ALL PERIODS OF TIME WHEN EQUIPMENT IS NOT BEING ACTIVELY USED FOR THE CONSTRUCTION WORK, THE CONTRACTOR SHALL PARK THE EQUIPMENT AT LOCATIONS WHICH ARE APPROVED BY THE OWNER. DURING THE CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL COMPLY WITH THE PRESENT ZONING REQUIREMENTS OF THE GOVERNING AUTHORITIES IN THE USE OF VACANT PROPERTY FOR STORAGE PURPOSES. THE CONTRACTOR SHALL ALSO PROVIDE ADEQUATE BARRICADES, MARKERS AND LIGHTS TO PROTECT THE OWNER, THE GOVERNING AUTHORITIES, THE PUBLIC AND THE OTHER WORK, ALL BARRICADES, LIGHTS, AND MARKERS MUST MEET THE REQUIREMENTS OF THE GOVERNING AUTHORITIES' REGULATIONS.
- 27. WATER FOR CONSTRUCTION: THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR PURCHASING WATER FROM THE GOVERNING AUTHORITY FOR HIS USE ON THE PROJECT SITE. COST ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT
- TEMPORARY ELECTRIC AND COMMUNICATIONS FOR CONSTRUCTION: THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR THE INSTALLATION AND URCHASING OF TEMPORARY ELECTRIC AND COMMUNICATIONS SERVICES FROM THE GOVERNING AUTHORITIES FOR HIS USE ON THE PROJECT SITE. COSTS ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- 29. FENCES: ALL FENCES ENCOUNTERED AND REMOVED DURING CONSTRUCTION, EXCEPT THOSE DESIGNATED TO BE REMOVED OR RELOCATED. SHALL BE RESTORED TO THE ORIGINAL OR BETTER THAN CONDITION UPON COMPLETION OF THE PROJECT. WHERE WIRE FENCING, EITHER WIRE MESH OR BARBED WIRE, IS NOT TO BE CROSSED, THE CONTRACTOR SHALL SET CROSS-BRACED POSTS ON EITHER SIDE OF THE CROSSING. TEMPORARY FENCING SHALL BE ERECTED IN PLACE OF THE FENCING REMOVED WHENEVER THE WORK IS
- NOT IN PROGRESS AND WHEN THE SITE IS VACATED OVERNIGHT AND/OR AT ALL TIMES TO PREVENT PERSONS AND/OR LIVESTOCK FROM ENTERING THE CONSTRUCTION AREA. THE COST OF FENCE REMOVAL, TEMPORARY CLOSURES AND REPLACEMENT SHALL BE INCLUDED IN THE CONTRACT AMOUNT. COORDINATION WITH OTHERS: IN THE EVENT THAT OTHER CONTRACTORS ARE DOING WORK IN THE SAME AREA SIMULTANEOUSLY WITH THE PROJECT, THE
- CONTRACTOR SHALL COORDINATE HIS PROPOSED CONSTRUCTION WITH THAT OF THE OTHER CONTRACTORS. CONDITION OF THE SITE DURING CONSTRUCTION: THE CONTRACTOR SHALL KEEP THE SITE OF THE WORK AND ADJACENT PREMISES AS FREE FROM MATERIAL, DEBRIS
- AND RUBBISH AS IS PRACTICABLE. THE CONTRACTOR SHALL REMOVE MATERIAL, DEBRIS AND RUBBISH FROM ANY PORTION OF THE SITE IF, IN THE OPINION OF THE DEVELOPER, SUCH MATERIAL, DEBRIS AND RUBBISH CONSTITUTES A NUISANCE OR IS OBJECTIONABLE.
- EXISTING ROADWAYS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CLEANLINESS OF EXISTING PAVED ROADS. COSTS ASSOCIATED WITH
- MAINTAINING THE CLEANLINESS OF EXISTING ROADS SHALL BE INCLUDED IN THE CONTRACT AMOUNT. 33. SITE RECONNAISSANCE: THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING CONDITIONS.
- CONSULTANT COORDINATION: CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER/ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.
- 35. DUST CONTROL: THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO CONTROL DUST ON THE PROJECT SITE BY SPRINKLING OF WATER, OR ANY OTHER METHODS APPROVED BY THE GOVERNING AUTHORITIES. COSTS ASSOCIATED WITH DUST CONTROL SHALL BE INCLUDED IN THE CONTRACT AMOUNT. 36. CLEAN UP FOR FINAL ACCEPTANCE: THE CONTRACTOR SHALL MAKE A FINAL CLEAN UP OF ALL PARTS OF THE WORK BEFORE ACCEPTANCE BY THE OWNER. THIS
- CLEAN UP SHALL INCLUDE REMOVAL OF ALL OBJECTIONABLE E MATERIALS AND, IN GENERAL, PREPARING THE SITE OF THE WORK IN AN ORDERLY MANNER OF APPEARANCE. REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK: ALL WORK, WHICH HAS BEEN REJECTED OR CONDEMNED, SHALL BE REPAIRED, OR IF IT CANNOT BE REPAIRED SATISFACTORILY. IT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. DEFECTIVE MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE WORK SITE. WORK DONE BEYOND THE LINE OR NOT IN THE CONFORMITY WITH THE GRADES SHOWN ON THE DRAWINGS OR AS WRITTEN AUTHORITY AND PRIOR
- AGREEMENT IN WRITING AS TO PRICES, SHALL BE AT THE CONTRACTOR'S RISK, AND WILL BE CONSIDERED UNAUTHORIZED, AND AT THE OPTION OF THE OWNER MAY NOT BE MEASURED AND PAID FOR AND MAY BE ORDERED REMOVED AT THE CONTRACTOR'S EXPENSE. UPON FAILURE OF THE CONTRACTOR TO REPAIR SATISFACTORY OR TO REMOVE AND REPLACE, IF SO DIRECTED, REJECTED, UNAUTHORIZED OR CONDEMNED WORK OR MATERIALS IMMEDIATELY AFTER RECEIVING NOTICE FROM THE OWNER, THE OWNER WILL, AFTER GIVING WRITTEN NOTICE TO THE CONTRACTOR. HAVE THE AUTHORITY TO CAUSE DEFECTIVE WORK TO BE REMEDIED OR REMOVED AND REPLACED, OR TO CAUSE UNAUTHORIZED WORK TO BE REMOVED AND TO DEDUCT THE COST THEREOF ANY MONIES DUE OR TO BECOME DUE THE CONTRACTOR DISPOSITION AND DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS: ALL MATERIALS TO BE REMOVED FROM THE SITE INCLUDED BUT NOT LIMITED TO EXCESS MATERIAL AND UNSUITABLE MATERIALS SUCH AS CONCRETE, ASPHALT, LARGE ROCKS, REFUSE, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE
- CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE PROJECT. CONTRACTOR SHALL ALSO COMPLY WITH ALL APPLICABLE LAWS GOVERNING SPILLAGE OF DEBRIS WHILE TRANSPORTING TO A DISPOSAL SITE. COSTS ASSOCIATED WITH THE DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
- RECORD DRAWINGS: THE CONTRACT SHALL MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF ALL MATERIALS AND SYSTEM COVERED BY THE PROJECT CONTRACT DOCUMENTS. THE COMPLETE SET OF "RECORD DRAWINGS" MUST BE DELIVERED TO THE OWNER AND/OR ENGINEER BEFORE REQUESTING FINAL PAYMENT. 40. FRANCHISE UTILITIES: THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE INSTALLATION OF FRANCHISE UTILITIES THAT ARE NECESSARY FOR ON-SITE AND OFF-SITE CONSTRUCTION, AND SERVICE TO THE PROPOSED DEVELOPMENT.
- SCOPE OF WORK: THE SCOPE OF WORK FOR THE CIVIL IMPROVEMENTS SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. REFERENCE THE BUILDING PLANS (E.G. ARCHITECTURAL/STRUCTURAL/MEP) FOR AREAS WITHIN 5-FEET OF THE BUILDING AND WITHIN THE BUILDING FOOTPRINT.
- 42. SITE DRAINAGE: CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
- 43. THE CONTRACTOR SHALL FULLY EXECUTE THE WORK DESCRIBED AS SHOWN IN THE CONSTRUCTION PLANS OR REASONABLY INFERABLE THEREFROM OR ASCERTAINABLE IN THE EXERCISE OF PROFESSIONAL EFFORTS (AS HEREINAFTER DEFINED) AS NECESSARY TO PRODUCE THE RESULTS INTENDED BY THE CONSTRUCTION PLANS, EXCEPT AS SPECIFICALLY INDICATED IN THE CONSTRUCTION PLANS TO BE THE RESPONSIBILITY OF OTHERS. AS USED HEREIN, THE TERM "PROFESSIONAL EFFORTS" MEANS THAT LEVEL OF SKILL AND CARE ORDINARILY EXERCISED BY EXPERIENCED CONTRACTORS AND CONSTRUCTION MANAGERS COMPARABLE TO CONTRACTOR ENGAGING IN INSTITUTIONAL AND COMMERCIAL PROJECTS SIMILAR IN SIZE AND COMPLEXITY TO THE PROJECT IN MAJOR UNITED STATES URBAN AREAS. WHEN PERFORMING DUTIES. RESPONSIBILITIES AND OBLIGATIONS COMPARABLE TO THOSE UNDER THE CONTRACT DOCUMENTS.

EROSION CONTROL NOTES:

- LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY THE GOVERNING AUTHORITIES, PERMITS ARE OBTAINED, AND ALL EROSION CONTROL MEASURES ARE IN PLACE.
- CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY. THE GENERAL CONTRACTOR (AND ALL SUBCONTRACTORS INVOLVED WITH ANY CONSTRUCTION ACTIVITIES RELATED TO EARTHWORK, EROSION CONTROL.
- ETC. OR WHICH UTILIZE POSSIBLE POLLUTANTS AS DEFINED IN THE TPDES GENERAL PERMIT) SHALL REVIEW AND ADHERE TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE PROJECT, AS WELL AS ALL THE TCEQ REQUIREMENTS SET FORTH IN THE TPDES GENERAL PERMIT.
- THIS EROSION CONTROL PLAN IS A SUPPLEMENT TO THE SWPPP PREPARED BY OTHERS. REFER TO THE SWPPP FOR ADDITIONAL REQUIREMENTS. ALL WASH WATER SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN WASH WATER POLLUTANTS AND STORM RUNOFF DISCHARGED
- 6. OIL AND GREASE ABSORBING MATERIALS SHALL BE READILY AVAILABLE ON-SITE AND SHALL BE PROMPTLY USED TO CONTAIN AND/OR CLEAN UP ALL FUEL OR
- CHEMICAL SPILLS OR LEAKS. DUST CONTROL SHALL BE ACCOMPLISHED BY WATERING DRY, EXPOSED AREAS ON A REGULAR BASIS. SPRAYING OF PETROLEUM BASED OR TOXIC LIQUIDS FOR THIS IS PROHIBITED.
- 8. DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 14 DAYS SHALL BE TEMPORARILY PLANTED AND/OR SEEDED
- DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED SHALL BE PERMANENTLY PLANTED AND/OR SEEDED WITHIN 14
- 10. PLANTING AND/OR SEEDING OF VEGETATED AREAS TO ACCOMPLISH STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE LANDSCAPING PLAN. AREAS BEYOND THE LIMITS OF THE LANDSCAPING PLAN (OR WHEN A LANDSCAPING PLAN DOES NOT EXIST) SHALL BE HYDROMULCHED WITH HIGHWAY MIX AND WATERED WITH TEMPORARY ABOVE GROUND IRRIGATION UNTIL THE VEGETATION IS ESTABLISHED.
- 11. ALL VEHICLES SHALL BE CLEANED AT THE CONSTRUCTION EXIT POINT(S) BEFORE LEAVING THE SITE. 12. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ONTO ADJACENT ROADWAYS BY ANY VEHICLES EXITING THE SITE SHALL BE CLEANED OR
- REMOVED IMMEDIATELY 13. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SILT IN ANY STORM SEWER INLETS AND PIPES, AND ALONG SILT FENCES, WITHIN 48 HOURS AFTER
- INSPECTION OF DEVICES REVEALS THE PRESENCE OF EXCESS SILTATION. 14. SILT FENCES SHALL BE PLACED AROUND ANY STOCKPILES USED ON THE SITE. STONE OVERFLOW POINTS SHALL BE ADDED AT ALL LOW POINTS ALONG SILT
- 15. ADDITIONAL EROSION CONTROL MEASURES MAY BE IMPLEMENTED BY THE CONTRACTOR AT HIS DISCRETION AT NO ADDITIONAL EXPENSE TO THE OWNER. THE ADDITION OR DELETION OF ANY EROSION CONTROL MEASURE MAY REQUIRE THAT THE SWPPP BE MODIFIED IN ACCORDANCE WITH THE TCEQ'S TPDES
- GENERAL PERMIT GUIDELINES. 16. ALL TEMPORARY EROSION CONTROL DEVICES (SILT FENCE, ETC.) SHALL BE REMOVED AND PROPERLY DISPOSED OF OFF SITE WITHIN THIRTY DAYS AFTER
- STABILIZATION OF ALL DISTURBED SURFACES IS COMPLETE.
- 17. THE CONTRACTOR SHALL ASSUME LIABILITY FOR DAMAGE TO ADJACENT PROPERTIES AND/OR PUBLIC RIGHT OF WAY RESULTING FROM FAILURE TO FULLY IMPLEMENT AND EXECUTE ALL EROSION CONTROL PROCEDURES SHOWN AND NOTED IN THESE PLANS AND IN THE SWPPP
- 18. THE CONTRACTOR SHALL MODIFY THIS PLAN TO SHOW LOCATIONS OF TEMPORARY WASH DOWN AREA, PORTABLE TOILETS, EQUIPMENT MAINTENANCE/REPAIR AREAS, STOCKPILE AREAS, FUEL STORAGE AREAS, ETC. AND POLLUTANT CONTROLS FOR EACH.
- 19. THE GENERAL CONTRACTOR, AS THE TCEQ DEFINED "OPERATOR," SHALL PERFORM ALL REQUIRED INSPECTIONS OF STORM WATER CONTROLS AND PRACTICES AT FREQUENCIES OUTLINED IN THE TPDES GENERAL PERMIT. AND SHALL FILL OUT APPROPRIATE INSPECTION FORMS (AS PROVIDED IN THE
- 20. IF DIRT OR ROCK IS EXPORTED FROM THIS SITE, OR IF DIRT OR ROCK IS IMPORTED FROM AN OFF SITE BORROW LOCATION, THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR COMPLIANCE WITH ALL TCEQ STORM WATER REQUIREMENTS FOR THE REMOTE SITE. THE CONTRACTOR SHALL FURNISH THE OWNER WITH A COPY OF THE WRITTEN AGREEMENT WITH THE LANDOWNER OF THE REMOTE SITE INDICATING PERMITTING AND EROSION CONTROL MEASURES WILL BE IMPLEMENTED THEREON
- 21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REESTABLISHING VEGETATION IN ALL DISTURBED AREAS WHETHER SHOWN IN THIS PLAN SET OR NOT. VEGETATION SHALL BE REESTABLISHED IN ACCORDANCE WITH THE STANDARDS OF THE GOVERNING MUNICIPALITY.
- 22. CONTRACTOR TO MAINTAIN EXISTING DRAINAGE PATTERNS DURING CONSTRUCTION UNTIL SUCH TIME THAT THE PROPOSED DRAINAGE INFRASTRUCTURE SHOWN IN THESE CONSTRUCTION PLANS IS INSTALLED AND OPERATIONAL

PAVING NOTES

FENCING.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF OF PASSING FIELD DENSITY TESTS ON THE STABILIZED SUBGRADE FOR SITE PAVING EQUAL TO THE RATIO OF 1 PER 5,000 SQUARE FEET OF PAVEMENT (AND ALL FAILING DENSITY TESTS AND REQUIRED MOISTURE DENSITY CURVES). ADDITIONAL FIELD DENSITY TESTS MAY BE REQUIRED FOR FOUNDATIONS. REFER TO STRUCTURAL PLANS AND SPECIFICATIONS FOR SUCH. IN ADDITION, THE CONTRACTOR SHALL PROVIDE THE OWNER TEN (10) PASSING SITE PAVEMENT CORES FOR THE OWNERS USE IN THE OWNER'S TESTING FOR THICKNESS AND COMPRESSIVE STRENGTH. CORE LOCATIONS SHALL BE DESIGNATED BY THE OWNER. CONTRACTOR SHALL PATCH CORE HOLES AND FINISH WITH LIKE AND MATCHING MATERIALS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL TESTING COSTS SHOULD THE ABOVE TESTS FAIL MINIMUM CRITERIA AS ESTABLISHED BY NCTCOG. ANY NON-CONFORMING PAVING SHALL BE REPLACED OR RESOLVED IN ACCORDANCE WITH NCTCOG SPECIFICATIONS AND THESE
- ALL EARTHWORK AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION AND REPORT FOR THIS PROJECT AND THOSE RECOMMENDATIONS LISTED WITHIN THE REPORT. REFER TO THIS REPORT FOR ALL EARTHWORK AND RELATED ITEMS. REFER TO STRUCTURAL FOR BUILDING PREP. THE REPORT REFERENCES AGENCY/INDUSTRY STANDARDS. IN THE EVENT THAT THERE IS A QUESTION OR DISPUTE BETWEEN GOVERNING SPECIFICATIONS, THE MOST STRINGENT SHALL APPLY SUCH THAT THE OWNER RECEIVES THE MOST ADVANTAGEOUS FINISHED PRODUCT.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PERFORMING ALL CONSTRUCTION LAYOUTS FROM THE SITE LAYOUT CONTROL POINTS AND FROM THE DIMENSIONS SHOWN. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN ADVANCE AND ALLOW FOR THE ENGINEER'S RESPONSE BEFORE PROCEEDING WITH THE WORK.
- ALL PAVING DIMENSIONS ARE TO FACE OF CURB, AND EDGE OF PAVEMENT UNLESS OTHERWISE NOTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE CITY AND THE ENGINEER WITH A CONCRETE MIX DESIGN AT THE PRE-CONSTRUCTION MEETING FOR REVIEW AND APPROVAL. THE COST OF THIS DESIGN SHALL BE INCLUDED IN THE UNIT PRICE OF PAVEMENT MATERIAL
- THE CONTRACTOR SHALL PROTECT ANY EXISTING AND/OR PROPOSED UTILITIES, WHICH ARE IN THE PROPOSED SUBGRADE DURING THE SUBGRADE STABILIZATION PROCESS.
- CONTRACTOR SHALL ADJUST ALL UTILITIES (EXISTING AND PROPOSED) TO FINAL GRADE AT CONTRACTORS EXPENSE. ALL UTILITIES AND APPURTENANCES SHALL BE EXTENDED UP TO FINAL GRADE. UTILITY CLEAN-OUTS, VALVES, MANHOLES, ETC. LOCATED WITHIN PAVED AREAS SHALL BE PAVED PER DETAIL. IN NON-PAVED AREAS, SAID APPURTENANCES SHALL HAVE A 4" THICK CONCRETE PAD EXTENDING 12" BEYOND SAID APPURTENANCE (BLOCK OUT) POURED AT FINAL GRADE FOR PROTECTION AGAINST DAMAGE FROM MOWING AND MAINTENANCE EQUIPMENT.
- 8. CONTRACTOR SHALL PLACE IRRIGATION, UTILITY CONDUITS, AND OTHER SLEEVES AS NECESSARY FOR CONSTRUCTION PRIOR TO ANY PAVING CONSTRUCTION, PER THE IRRIGATION AND ARCHITECTURAL/MEP PLANS, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE WITH THE CURBS SCORED TO
- IDENTIFY THE SLEEVE LOCATIONS UNLESS OTHERWISE NOTED, SUBGRADE SHALL BE STABILIZED TO 12" BEYOND THE BACK OF CURB OR EDGE OF PAVEMENT PER GEOTECH RECOMMENDATIONS UNLESS STATED OTHERWISE. ALL CONCRETE STRENGTH AND REINFORCING STEEL SHALL BE PER PROJECT GEOTECHNICAL
- 10. FIRE LANES. PARKING, AND ROADWAY STRIPING & MARKINGS SHALL CONFORM TO CITY STANDARDS. 11. SIDEWALKS WITHIN LANDSCAPE AREAS SHALL BE MINIMUM 4" THICK. LARGE EXPANSES OF CONCRETE FLATWORK (SUCH AS MAJOR PEDESTRIAN AREAS. PLAZA AREAS BETWEEN BUILDINGS OR OTHER STRUCTURES) SHALL BE TREATED LIKE VEHICULAR CONCRETE PAVEMENT AND RECEIVE SAME SUBGRADE
- JOINTS) SHALL BE SEALED WITH SELF LEVELING POLYURETHANE SEALANT. ALL PAVEMENT WITHIN 5' OF PROPOSED BUILDING(S) SHALL ADHERE TO THE STRUCTURAL RECOMMENDATIONS AND OR ARCHITECTURAL REQUIREMENTS REFER TO STRUCTURAL AND ARCHITECTURAL PLANS AND RELATED TECHNICAL SPECIFICATIONS. CIVIL PAVEMENT LIMITS BEGIN 5' OUTSIDE THE BUILDING. IN

STABILIZATION AS VEHICULAR PAVEMENT (6" DEEP MINIMUM AND IN ACCORDANCE WITH A LIME SERIES TEST) AND ALL JOINTS (CONTRACTION AND EXPANSION

- THE EVENT OF OF A CONFLICT WITH THE STRUCTURAL AND OR ARCHITECTURAL WITHIN THIS AREA, THE STRUCTURAL/ ARCHITECT REQUIREMENTS SHALL 13. FOR "CURB INLETS" SUBTRACT 0.5' (6 INCHES) FOR STANDARD THROAT RECESS AT INLETS PER STANDARD DETAILS. SURROUNDING PAVEMENT AND GUTTER
- SHALL BE WARPED TO DRAIN FOR INLETS ON GRADE, FLUMES, AND SAG INLETS. INLETS ON GRADE SHALL BE SET IN PLACE TO MATCH THE CURB GRADE LINE. 14. ALL REINFORCING STEEL AND DOWEL BARS IN PAVEMENT SHALL BE SUPPORTED AND MAINTAINED AT THE CORRECT CLEARANCES BY THE USE OF BAR
- CHAIRS OR OTHER APPROVED SUPPORT. 15. CONNECTION OF THE PROPOSED SIDEWALK TO EXISTING PAVING, SIDEWALK, BUILDING, AND WHEELCHAIR RAMPS SHALL BE CONSIDERED SUBSIDIARY TO THE COST OF THE CONSTRUCTION OF THE SIDEWALK. ALL JOINTS (EXPANSION, ISOLATION, CONTRACTION, & CONSTRUCTION) FOR CONCRETE PAVING AND INCIDENTAL CRACKS SHALL BE SEALED AND INSTALLED IN ACCORDANCE WITH THE AMERICAN CONCRETE PAVEMENT ASSOCIATION (ACPA) RECOMMENDATIONS. CONTRACTOR SHALL OBSERVE THE ARCHITECTURAL AND STRUCTURAL JOINTING LAYOUTS. IN THE EVENT OF A DISCREPANCY OR
- LAYOUT OF PAVEMENT JOINTS (NON-PAY ITEM) 16. THE CONTRACTOR SHALL USE CARE DURING SOIL STABILIZATION AND COMPACTION ACTIVITIES SO AS NOT TO ADVERSELY AFFECT LANDSCAPE AREAS OR UTILITY LINES WITH SOIL STABILIZATION TREATMENTS. AFTER COMPACTION AND PRIOR TO PLACING GRASS, THE UPPER 8 INCHES (8") OF ALL LANDSCAPED AREAS SHALL BE AERATED, TILLED, OR OTHERWISE PROCESSED SO AS TO PROMOTE HEALTHY ROOT GROWTH FOR TURF AND OTHER VEGETATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY REPAIRS, UNDERCUTTING, REMOVAL, DISPOSAL, AND BACKFILLING OF THESE AREAS IF STABILIZATION IS

CONFLICT FOR SITE PAVING, THE CONTRACTOR SHALL REFER TO ACPA PUBLICATION IS061.01P AND IS400.01P FOR THE JOINT SPECIFICATIONS AND THE

DISCOVERED (NON-PAY ITEM). 17. THE CONTRACTOR SHALL SUBMIT A JOINT SPACING PLAN FOR ENGINEER APPROVAL PRIOR TO CONSTRUCTION.

RETAINING WALLS:

RECOMMENDATIONS.

- 1. RETAINING WALLS SHOWN ARE FOR SITE GRADING PURPOSES ONLY, AND INCLUDE ONLY LOCATION AND SURFACE SPOT ELEVATIONS AT THE TOP AND
- BOTTOM OF THE WALL.
- RETAINING WALL TYPE OR SYSTEM SHALL BE SELECTED BY THE OWNER. RETAINING WALL DESIGN SHALL BE PROVIDED BY OTHERS AND SHALL FIT IN THE WALL ZONE OR LOCATION SHOWN ON THESE PLANS. STRUCTURAL DESIGN AND PERMITTING OF RETAINING WALLS, RAILINGS, AND OTHER WALL SAFETY DEVICES SHALL BE PERFORMED BY A LICENSED ENGINEER AND ARE NOT PART
- 4. RETAINING WALL DESIGN SHALL MEET THE INTENT OF THE GRADING PLAN AND SHALL ACCOUNT FOR ANY INFLUENCE ON ADJACENT BUILDING FOUNDATIONS, UTILITIES. PROPERTY LINES AND OTHER CONSTRUCTABILITY NOTES.
- RETAINING WALL ENGINEER SHALL CONSULT THESE PLANS AND THE GEOTECHNICAL REPORT FOR POTENTIAL CONFLICTS.

UTILITY PROVIDER INDEX					
UTILITY	PROVIDER	CONTACT	PHONE NUMBER	EMAIL ADDRESS	
GAS	COSERV	JENNIFER ELLIOT	940-321-7809	JELLIOT@COSERV.COM	
ELECTRIC	COSERV	JENNIFER ELLIOT	940-321-7809	JELLIOT@COSERV.COM	
TELEPHONE/FIBER					

DEMOLITION NOTES

- NO EARTH-DISTURBING ACTIVITIES SHALL COMMENCE UNTIL ALL PERMITS ARE OBTAINED AND PERIMETER EROSION CONTROL MEASURES ARE IN PLACE. ALL DEMOLITION SHALL BE CLOSELY COORDINATED WITH THE OWNER'S REPRESENTATIVE REGARDING ITEMS TO BE SALVAGED, THOSE TO BE REMOVED, ETC. INCLUDING ANY AND ALL TREE PRESERVATION AND TRANSPLANTING ACTIVITIES, AS OUTLINED IN THE PRE-CONSTRUCTION MEETING. REMOVAL, RELOCATION AND/OR DISPOSAL OF ANY PRE-EXISTING ON-SITE TRASH, DEBRIS, OR STOCKPILES SHALL BE INCLUDED IN THE TOTAL COST OF DEMOLITION AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE AT ALL TIMES
- CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING AGENCIES REGARDING THE DEMOLITION, REMOVAL TRANSPORTATION AND DISPOSAL OF ALL DEMOLITION DEBRIS.
- INGRESS AND EGRESS POINTS, PROPOSED DISPOSAL SITES, AND HAUL ROUTES MUST BE APPROVED BY CITY OFFICIALS PRIOR TO REMOVAL OF DEMOLITION DEBRIS OFF-SITE
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING DISCONNECTION OF ALL UTILITIES SERVING THE EXISTING SITE WITH THE APPROPRIATE
- UTILITY COMPANY, AND SHALL OBTAIN APPROVAL FROM SAME TO COMMENCE DEMOLITION ACTIVITIES. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS FOR EXCAVATION AND TRENCHING PROCEDURES. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, ETC. AS NECESSARY FOR THESE OPERATIONS, AND SHALL COMPLY WITH ALL OSHA
 - PERFORMANCE CRITERIA THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL PROPERTY CORNER MONUMENTS, BENCHMARKS, CONTROL POINTS,
- ETC, AND SHALL HAVE, AT HIS EXPENSE, ALL CORNER MONUMENTS REPLACED WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL INCUR ALL COSTS FOR MAINTENANCE AND REPAIR OF THE EXISTING FENCES TO REMAIN, IRRIGATION SYSTEMS TO REMAIN,
- UTILITY LINES. ETC. AS OUTLINED IN THE SPECIFICATIONS. THE CONTRACTOR SHALL LOCATE, REMOVE, RELOCATE, AND LOWER ALL UNDERGROUND UTILITY CABLES (ELECTRIC, TELEPHONE, ETC.) UP TO A DEPTH OF 24 INCHES BELOW GRADE AS PART OF THE BASE BID.
- 10. THE CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY PIPING, CONDUIT, AND CABLES, REGARDLESS OF DEPTH, IN THE AREA OF TH PROPOSED BUILDING(S) FOUNDATIONS
- 11. NOTES SHOWN HEREON REGARDING SPECIFIC ITEMS OF DEMOLITION ARE GENERAL IN NATURE, AND ARE NOT INTENDED TO BE WHOLLY INCLUSIVE. THE
- CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING IMPROVEMENTS TO THE SATISFACTION OF THE OWNER, AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS, AND TO THE EXTENT AS NOTED IN THE SPECIFICATIONS.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLUGGING, CAPPING, OR OTHERWISE TERMINATING UTILITY SERVICE LINES AT EXISTING METER LOCATIONS, CLEANOUTS, ETC. A MIN. DISTANCE OF 1 FOOT OUTSIDE THE LIMITS OF THE TRACT SHOWN. 13. THE CONTRACTOR SHALL CREATE AMPLE STAGING AND STOCKPILING AREAS FOR THE DELIVERIES OF CONSTRUCTION MATERIALS, CONCRETE DELIVERIE
- TOPSOIL, ETC. IN ACCORDANCE WITH THE OWNER'S REPRESENTATIVE AND THE PROJECT SPECIFICATIONS. 14. IF ASBESTOS, LEAD-BASED ITEMS OR ANY OTHER HAZARDOUS MATERIALS ARE ENCOUNTERED THE CONTRACTOR IS REQUIRED TO FOLLOW ALL LOCAL,
- STATE, AND FEDERAL GUIDELINES FOR THE CONTAINMENT, REMOVAL, AND DISPOSAL PROCEDURES. 15. KE IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS DEMOLITION PLAN
- SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACT THAT ARE TO BE DEMOLISHED AND REMOVED FROM THE SITE. . KE DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON SURVEY AND UTILITY INFORMATION PROVIDED BY OTHERS, SHOWS 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 ITS OWN SITE RECONNAISSANCE TO SCOPE ITS WORK AND TO CONFIRM WITH THE OWNERS OF IMPROVEMENTS AND UTILITIES THE ABILITY AND PROCESS FOR THE REMOVAL OR THEIR FACILITIES. . THIS DEMOLITION PLAN IS INTENDED TO GIVE GENERAL GUIDANCE TO THE CONTRACTOR, NOTHING MORE. THE GOAL OF THE DEMOLITION IS TO LEAVE THE SITE IN A STATE SUITABLE FOR THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC.
- TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR. 18. CONTRACTOR IS STRONGLY CAUTIONED TO REVIEW THE FOLLOWING REPORTS DESCRIBING SITE CONDITIONS PRIOR TO BIDDING AND IMPLEMENTING THE
- DEMOLITION PLAN: 18.1. ENVIRONMENTAL SITE ASSESSMENT PROVIDED BY THE OWNER
- 18.2. ASBESTOS BUILDING INSPECTION REPORT(S) PROVIDED BY THE OWNER,
- 18.3. GEOTECHNICAL REPORT PROVIDED BY THE OWNER, 18.4 OTHER REPORTS THAT ARE APPLICABLE AND AVAILABLE
- 19. CONTRACTOR SHALL CONTACT THE OWNER TO VERIFY WHETHER ADDITIONAL REPORTS OR AMENDMENTS TO THE ABOVE CITED REPORTS HAVE BEEN
- PREPARED AND TO OBTAIN/REVIEW/AND COMPLY WITH THE RECOMMENDATION OF SUCH STUDIES PRIOR TO STARTING ANY WORK ON THE SITE. 20. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW THE SITE, DETERMINE THE APPLICABLE
- REGULATIONS, RECEIVE THE REQUIRED PERMITS AND AUTHORIZATIONS, AND COMPLY. 21. KE DOES NOT REPRESENT THAT THE REPORTS AND SURVEYS REFERENCED ABOVE ARE ACCURATE, COMPLETE, OR COMPREHENSIVE SHOWING ALL ITEMS THAT WILL NEED TO BE DEMOLISHED AND REMOVED.
- 22. SURFACE PAVEMENT INDICATED MAY OVERLAY OTHER HIDDEN STRUCTURES, SUCH AS ADDITIONAL LAYERS OF PAVEMENT, FOUNDATIONS OR WALLS, THAT ARE ALSO TO BE REMOVED.

UTILITY NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES, WHETHER PRIVATE OR PUBLIC, PRIOR TO MOBILIZATION. CONTRACTOR SHALL VISIT THE SITE AND MAKE ALL NECESSARY OBSERVATIONS AND INSPECTIONS TO FAMILIARIZE THEMSELVES WITH THE SITE AND THE SITE FACILITIES. THE INFORMATION AND DATA SHOWN WITH RESPECT TO EXISTING UNDERGROUND FACILITIES AT OR CONTIGUOUS TO THE SITE IS APPROXIMATE AND BASED ON INFORMATION FURNISHED BY THE OWNERS OF SUCH UNDERGROUND FACILITIES OR ON PHYSICAL APPURTENANCES OBSERVED IN THE FIELD. THE OWNER AND ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY SUCH INFORMATION OR DATA; AND, THE CONTRACTOR, SHALL HAVE FULL RESPONSIBILITY FOR REVIEWING AND CHECKING ALL SUCH INFORMATION AND DATA, FOR LOCATING ALL UNDERGROUND FACILITIES. FOR COORDINATION OF THE WORK WITH THE OWNERS OF SUCH UNDERGROUND FACILITIES DURING CONSTRUCTION. FOR THE SAFETY AND PROTECTION THEREOF, AND REPAIRING ANY DAMAGE THERETO RESULTING FROM THE WORK. THE COST OF ALL WILL BE
- CONSIDERED AS HAVING BEEN INCLUDED IN THE CONTRACT PRICE. CONTRACTOR SHALL, IN BASE BID PROVIDE ALL NECESSARY FITTINGS AND APPURTENANCES REQUIRED TO COMPLETE ALL CONNECTIONS, RESOLVE UTILITY CONFLICTS AND OTHER INCIDENTAL UTILITY WORK SHOWN ON THE PLANS OR CONTAINED IN THE SPECIFICATIONS OR REQUIRED BY GOVERNING AGENCIES TO INCLUDE, BUT NOT LIMITED TO TEMPORARY SERVICES: VALVES, BOXES, METERS, BACKFLOW PREVENTORS, FIRE DEPARTMENT CONNECTIONS, ETC. INCLUDING THE REPAIR OR REPLACEMENT OF ANY EXISTING IRRIGATION SYSTEM. CONTRACTOR SHALL
- RAISE/LOWER OR ADJUST ALL EXISTING UTILITY MAINS IN CONFLICT WITH PROPOSED UTILITIES AS PART OF THE BASE BID FOR ALL KNOWN OR UNKNOWN LINES. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITY COMPANIES OR AGENCIES IN WRITING AT LEAST 1 WEEK PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND MAKE ARRANGEMENTS FOR ANY AND ALL TEMPORARY UTILITIES, PERMITS, AND AGREEMENTS. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL GIVE THE CITY, RESIDENTS AND BUSINESSES AFFECTED BY ANY ANTICIPATED WATER OR SEWER SERVICE DISRUPTIONS AT LEAST FORTY-EIGHT (48) HOURS PRIOR NOTICE. CONTRACTOR SHALL EXERCISE CAUTION AND MAINTAIN ADEQUATE CLEAR ZONE BETWEEN THE CONTRACTOR'S EQUIPMENT AND ANY POWER LINES.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING POWER POLES. SIGNS. MANHOLES. TELEPHONES RISERS. WATER VALVES. UTILITIES. ETC. DURING ALI CONSTRUCTION PHASES. CONTRACTOR WILL BE RESPONSIBLE TO REPLACE ANY DAMAGED ITEMS AND RESTORE ANY SERVICES THAT HAVE BEEN DISTURBED. ALL MANHOLES, CLEAN-OUTS, WATER VALVES, FIRE HYDRANTS AND OTHER APPURTENANCES MUST BE ADJUSTED TO FINAL GRADE BEFORE THE OWNER WILL ACCEPT THE WORK
- THE CONTRACTOR SHALL SALVAGE ALL EXISTING CITY UTILITIES (INCLUDING SIGNS, VALVES, FIRE HYDRANTS, ETC.) IN ACCORDANCE WITH CITY REQUIREMENTS AND PROVIDE TO THE CITY 8. ALL UTILITIES WITHIN 5' OF PROPOSED BUILDING(S) SHALL ADHERE TO THE MEP'S RECOMMENDATIONS AND OR REQUIREMENTS. CONTRACTOR SHALL PROVIDE STORM DRAIN CONNECTIONS FOR ALL ROOF DRAIN LINES. REFER TO MEP'S PLANS AND RELATI

MULTIPLE BOX CULVERT

MATCH EXISTING

(WATER, SANITARY SEWER & STORM SEWER) LIMITS BEGIN 5' OUTSIDE THE BUILDING. IN THE EVENT OF OF A CONFLICT WITH THE MEP'S WITHIN THIS AREA, THE MEP'S REQUIREMENTS SHALL GOVERN. TESTING OF UTILITY TRENCH BACKFILL COMPACTION SHALL BE AT 75' INTERVALS AND EACH LIFT'S BACKFILL UNLESS OTHERWISE DEFINED IN THE GEOTECHNICAL REPORT FOR THIS PROJECT, BACKFILL SHALL BE PROCESSED SUCH THAT NO DIRT CLODS ARE IN EXCESS OF 4" DIAMETER. ALL SANITARY SEWER LINES AND STORM SEWER LINES SHALL BE TV TESTED AT THE COMPLETION OF THE PROJECT (IN ADDITION TO MINIMUM CODE OR OTHER REQUIREMENTS) TO CHECK FOR DAMAGE CAUSED BY OTHER TRADES, UTILITY CONFLICTS, TRENCH SETTLEMENT, ETC. THE COST OF SUCH

STANDARD ABBREVIATIONS:

SHALL BE INCLUDED IN THE CONTRACTORS BASE PRICE.

APPROXIMATELY

ASPHALT

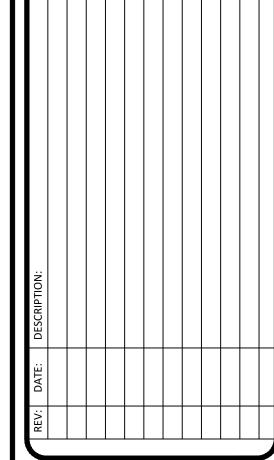
АЗРП	ASPHALI	IVI⊏	WATCH EXISTING
BC	BACK OF CURB	MH	MANHOLE
B-B	BACK TO BACK OF CURB	N/A	NOT APPLICABLE
BFR	BARRIER FREE RAMPS	NG	NATURAL GROUND (EXISTING)
BM	BENCHMARK	PC	POINT OF CURVATURE
BW	BOTTOM OF WALL	PCC	POINT OF COMPOUND CURVATURE
CATV	CABLE TV	PI	POINT OF INTERSECTION
CFS	CUBIC FEET PER SECOND	PIV	POST INDICATOR VALVE
CI	CURB INLET	PL	PROPERTY LINE
CMP	CORRUGATED METAL PIPE	PP	POWER POLE
CO	CLEANOUT	PRC	POINT OF REVERSE CURVATURE
		PROP	
CONC	CONCRETE		PROPOSED
CONN	CONNECTION	PT	POINT OF TANGENCY
CONST	CONSTRUCT	PVC	POLYVINYL CHLORIDE PIPE
CL	CENTER LINE	PVMT	PAVEMENT
DCO	DOUBLE CLEANOUT	OCEW	ON CENTER EACH WAY
DE	DRAINAGE EASEMENT	OHE	OVERHEAD ELECTRIC
DI	DROP INLET	R	RADIUS
DIA	DIAMETER	RCB	REINFORCED CONCRETE BOX
DIP	DUCTILE IRON PIPE	RCI	
			RECESSED CURB INLET
DW	DOMESTIC WATER	RCP	REINFORCED CONCRETE PIPE
EJ	EXPANSION JOINT	RCCP	REINFORCED CONCRETE CYLINDRICAL PIPE
ELEV	ELEVATION	REINF	REINFORCED
EMH	ELECTRIC MANHOLE	RL	RIDGE LINE
EP	EDGE OF PAVEMENT	ROW	RIGHT OF WAY
ESMT	EASEMENT	RT	RIGHT
EX	EXISTING	SF	SQUARE FEET
FC	FACE OF CURB	SD	STORM DRAIN
F-F	FACE TO FACE OF CURB	SQ	SQUARE
FFE	FINISH FLOOR ELEVATION	SS	SANITARY SEWER
FH	FIRE HYDRANT	SSE	SANITARY SEWER EASEMENT
FM	FORCE MAIN	STA	STATION
FO	FIBER OPTICS	SY	SQUARE YARD
FG	FINISHED GRADE	T	TELEPHONE
FP	FINISHED PAD	TC	TOP OF CURB
FPS	FEET PER SECOND	TG	TOP OF GROUND
FL	FLOW LINE	TMH	TELEPHONE MANHOLE
G	GUTTER	TP	TOP OF PAVEMENT
GI	GRATE INLET	TPIPE	TOP OF PIPE
GM	GAS METER	TW	TOP OF WALL
HDPE		TYP	
	HIGH DENSITY POLYETHYLENE PIPE		TYPICAL
HDWL	HEADWALL	UE	UTILITY EASEMENT
HMAC	HOT MIX ASPHALTIC CONCRETE	UGE	UNDERGROUND ELECTRIC
HORIZ	HORIZONTAL	VCP	VITRIFIED CLAY PIPE
HP	HIGH POINT	WTR	WATER
HVAC	HEATING, VENTILATION AND AIR CONDITIONING	WE	WATER EASEMENT
IRR	IRRIGATION	WL	WATER LINE
JB	JUNCTION BOX	WM	WATER METER
JT	JOINT	WMH	WATER MANHOLE
LF	LINEAR FEET	WV	WATER VALVE
LP	LOW POINT	WW	WASTE WATER
Li	LOW FORT	* * * *	WHOLE WATER

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DATE: 03/13/2024

803 W SOUTHLAKE BLVD, SUITE 100 SOUTHLAKE, TX 76092 312-206-8673

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5200 STATE HIGHWAY 121

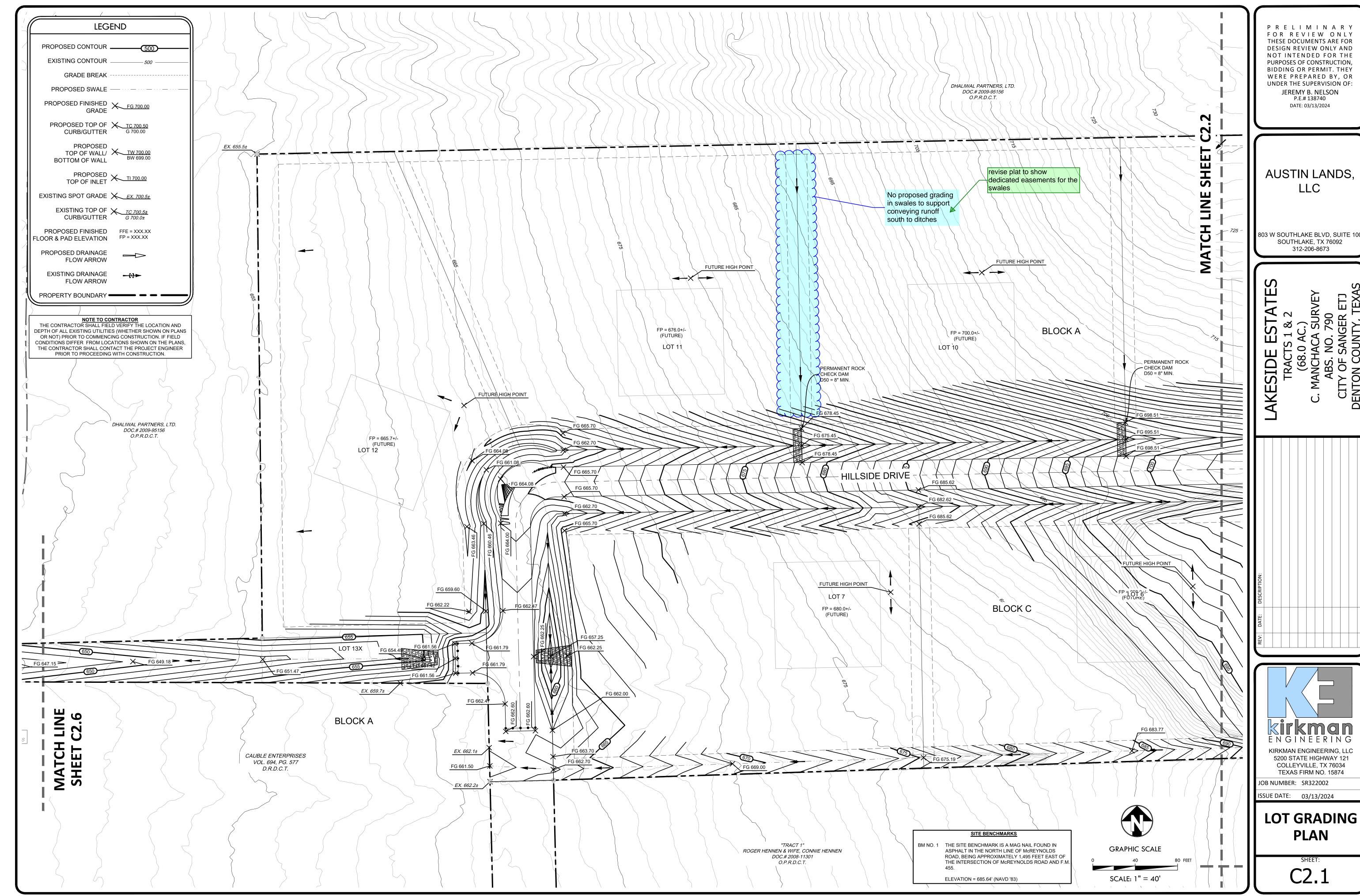
COLLEYVILLE, TX 76034

TEXAS FIRM NO. 15874

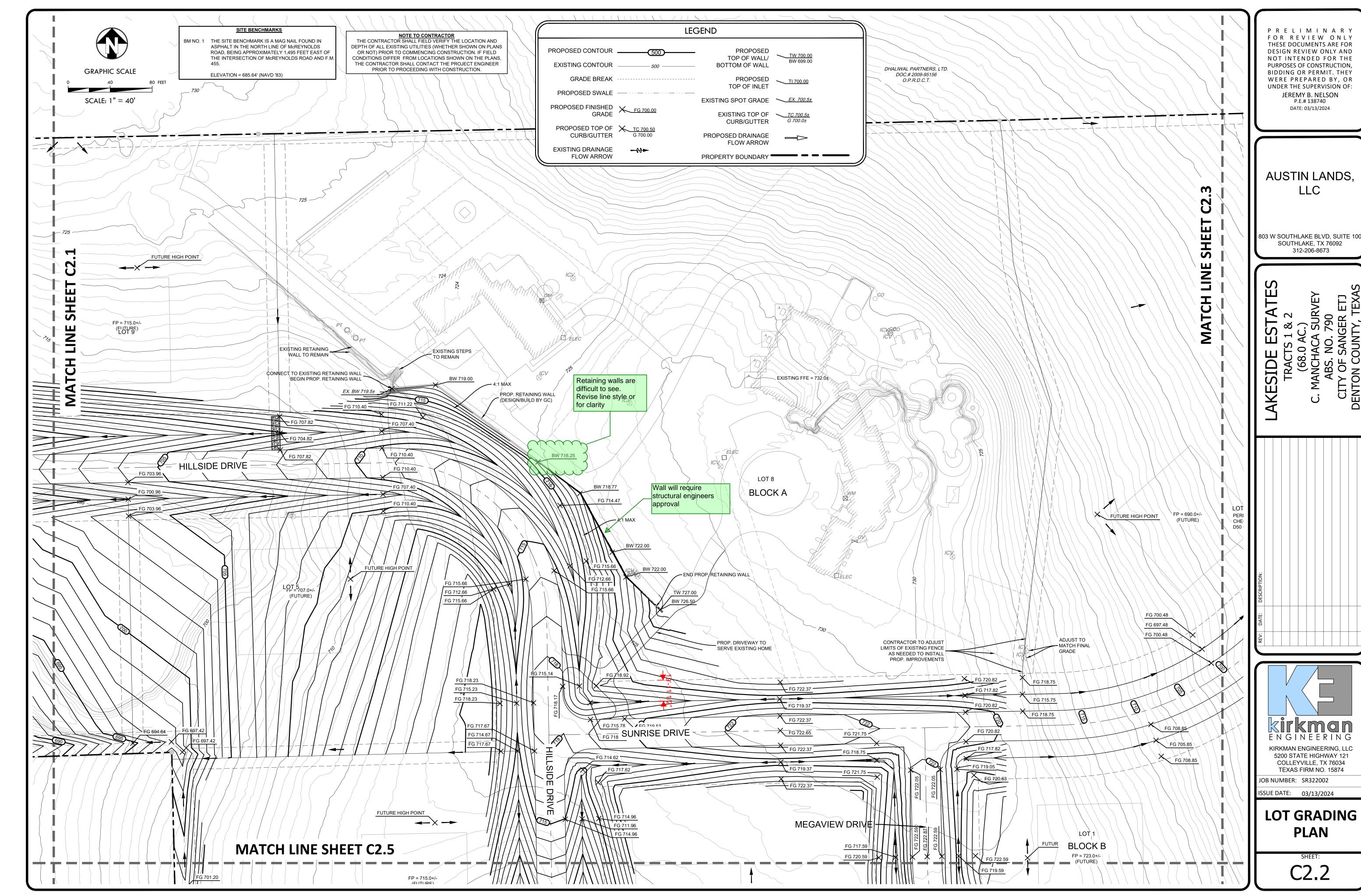
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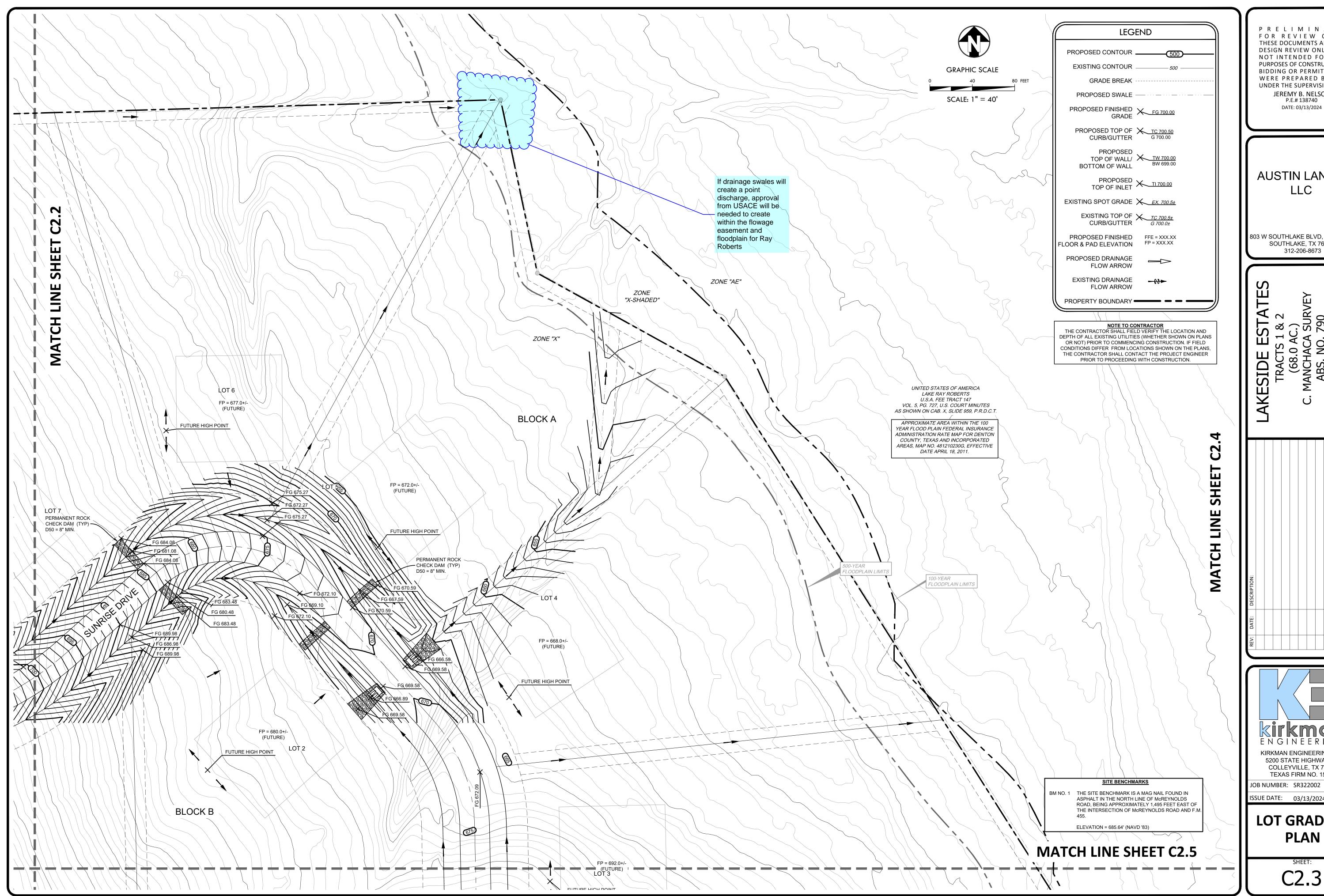
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803 W SOUTHLAKE BLVD, SUITE 100





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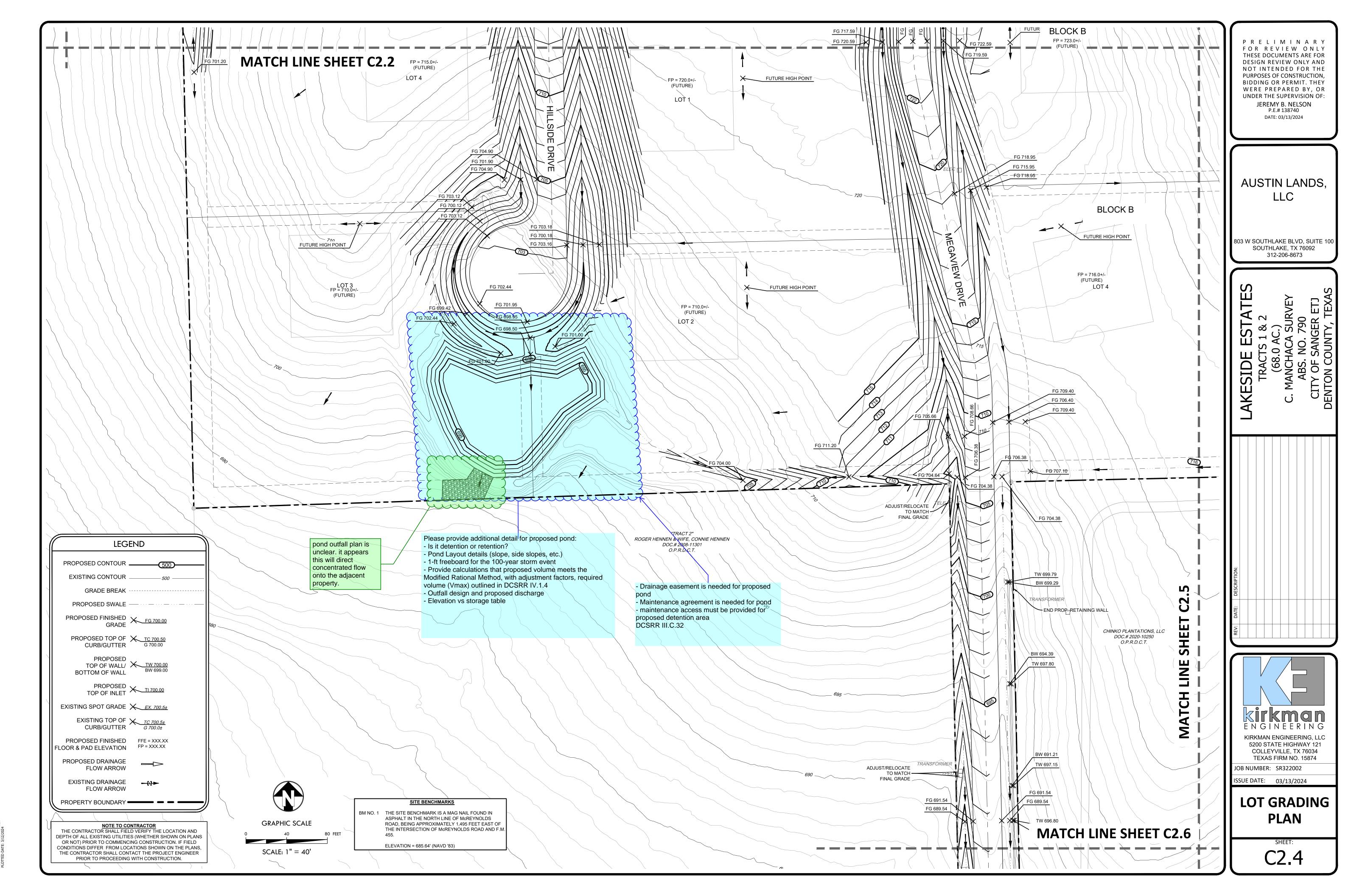
312-206-8673



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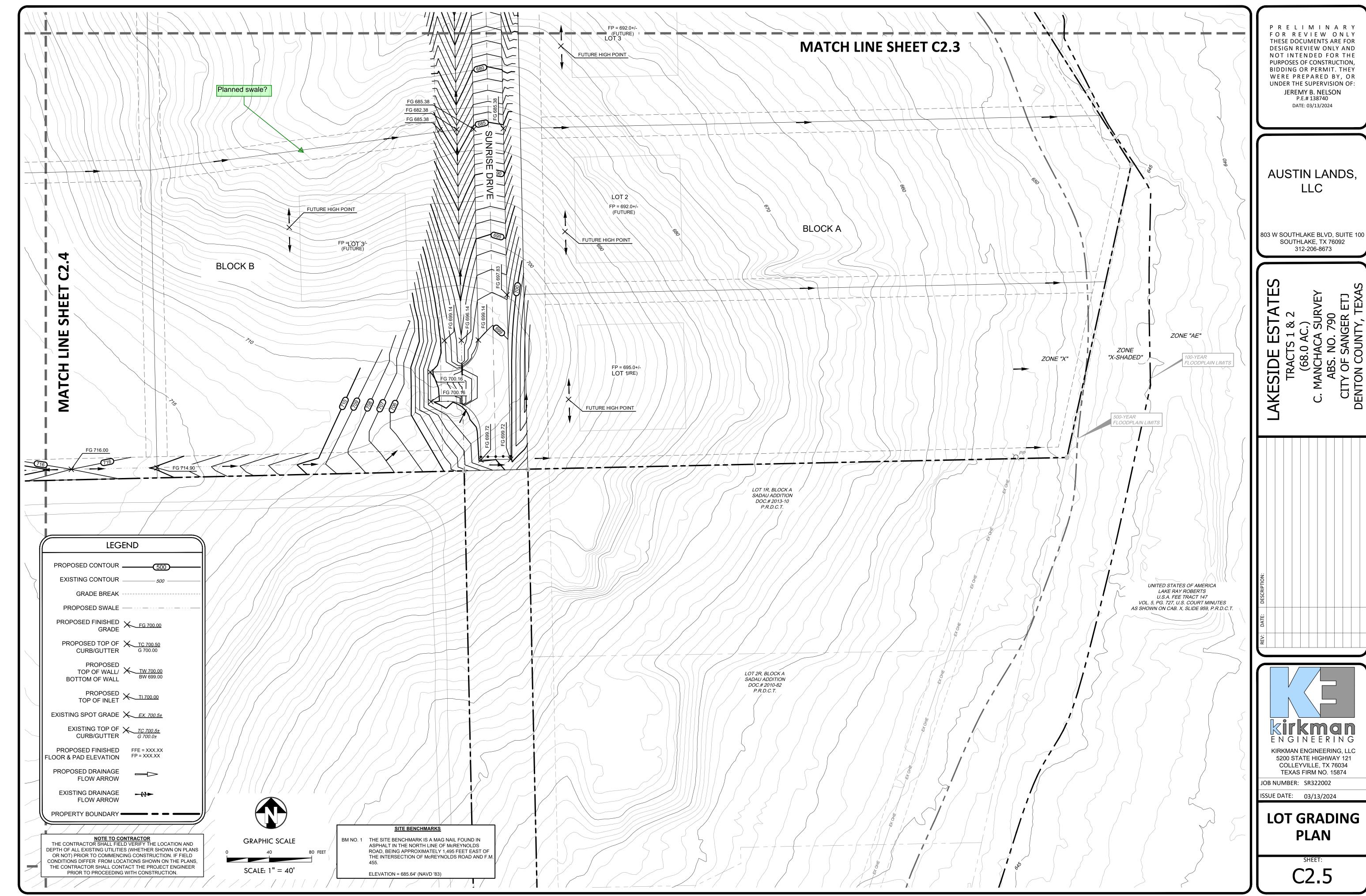
ISSUE DATE: 03/13/2024

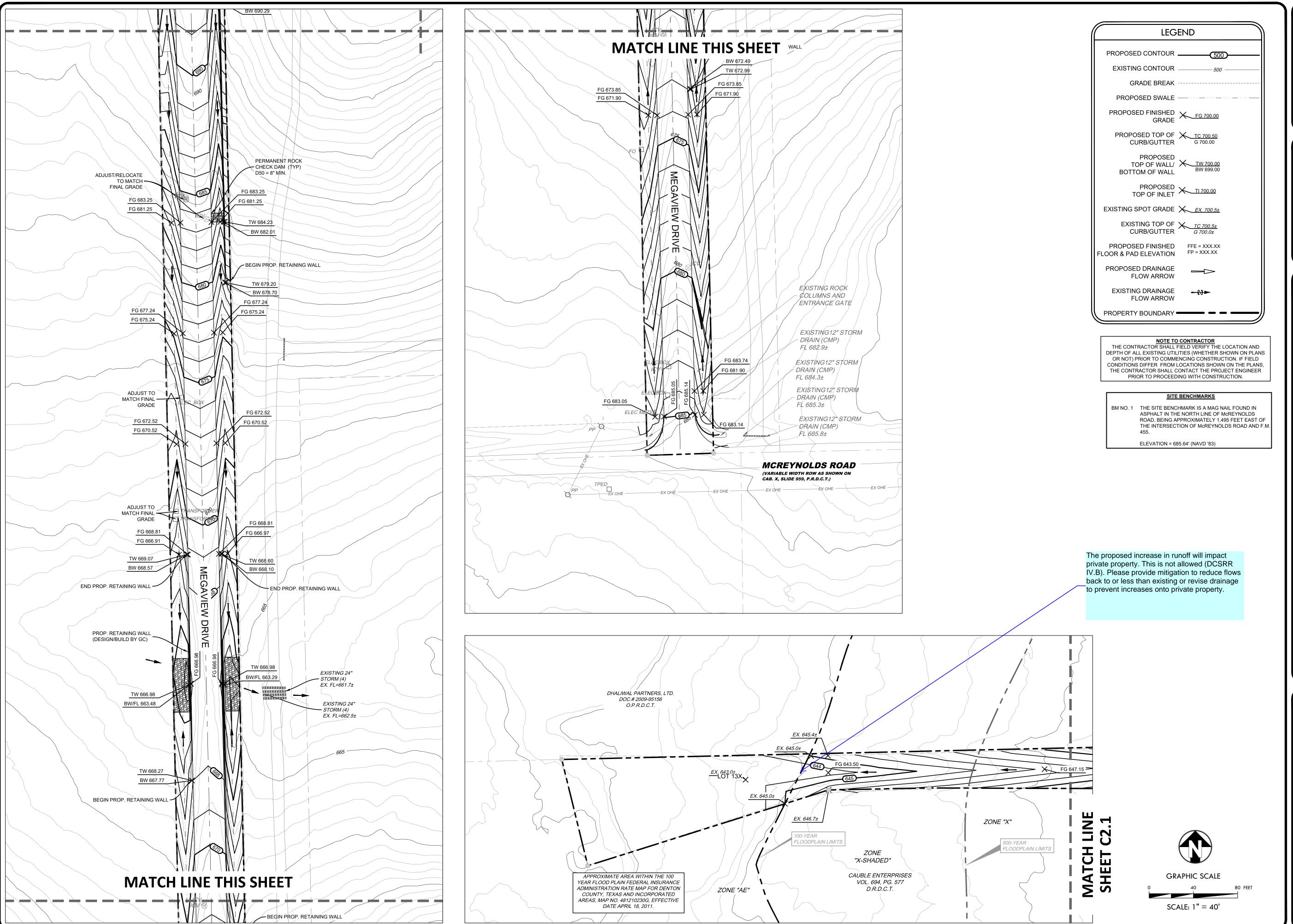
LOT GRADING PLAN



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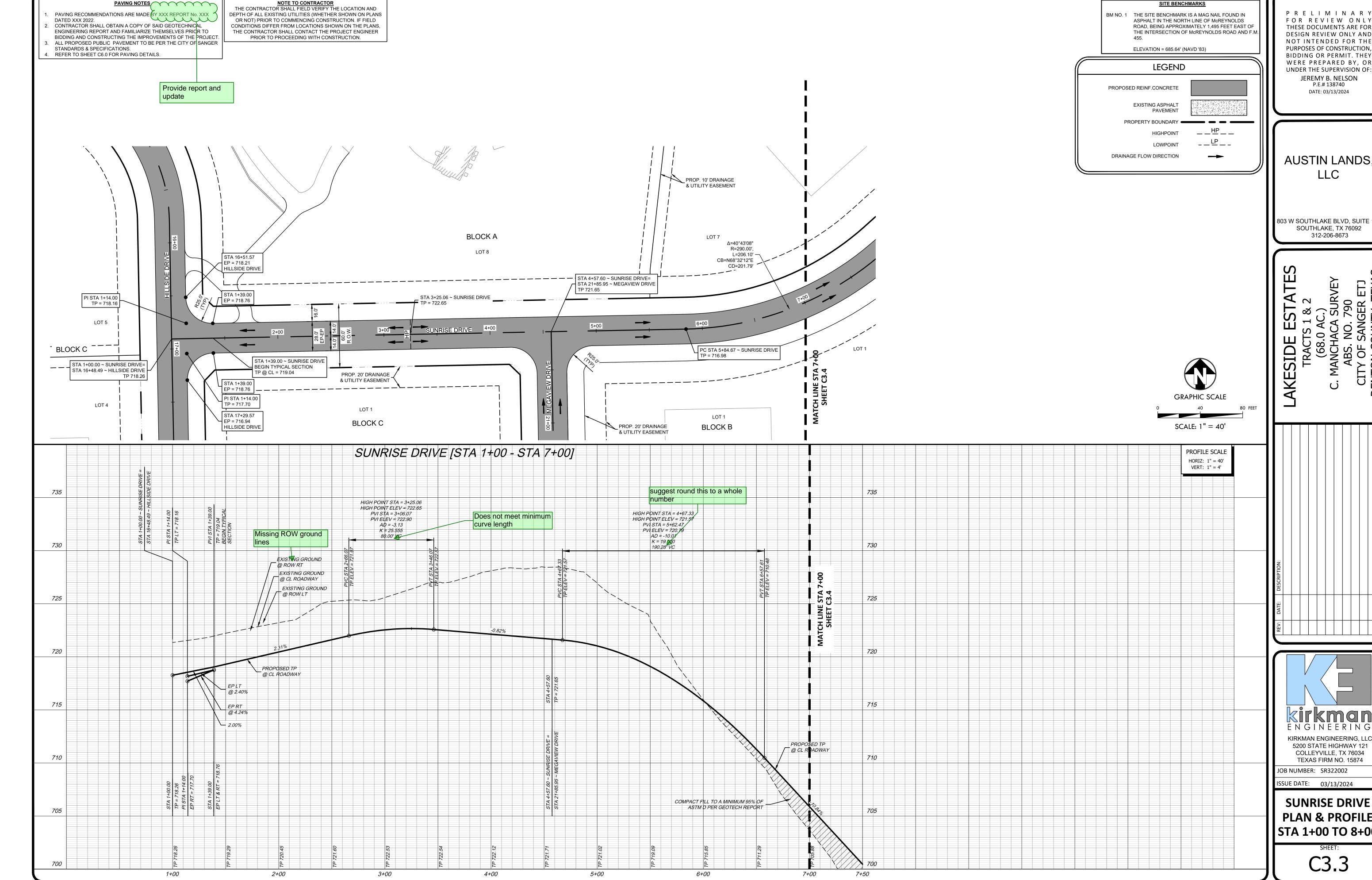
KIRKMAN ENGINEERING, LLC 5200 STATE HIGHWAY 121

COLLEYVILLE, TX 76034 TEXAS FIRM NO. 15874

JOB NUMBER: SR322002

ISSUE DATE: 03/13/2024

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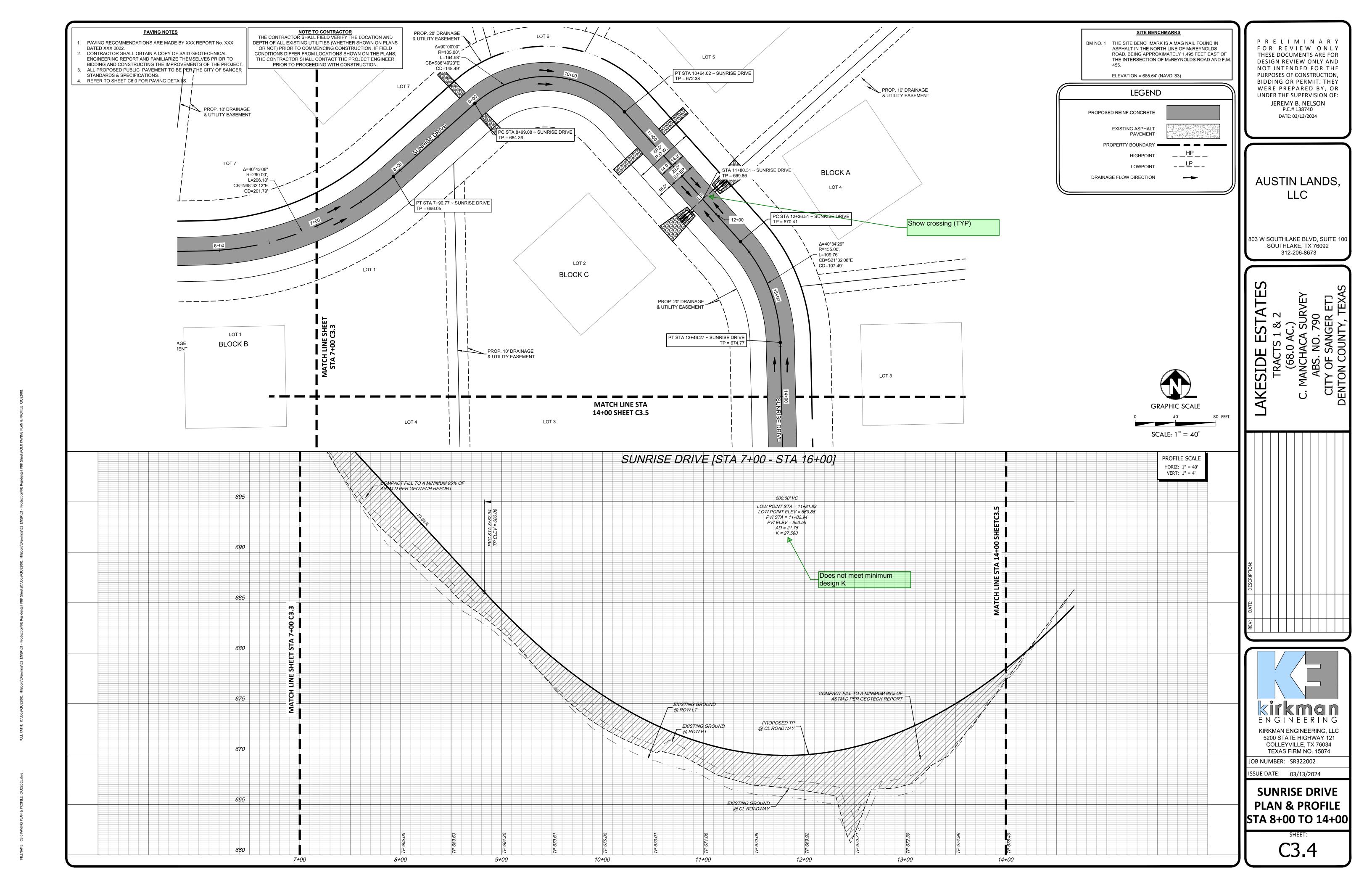
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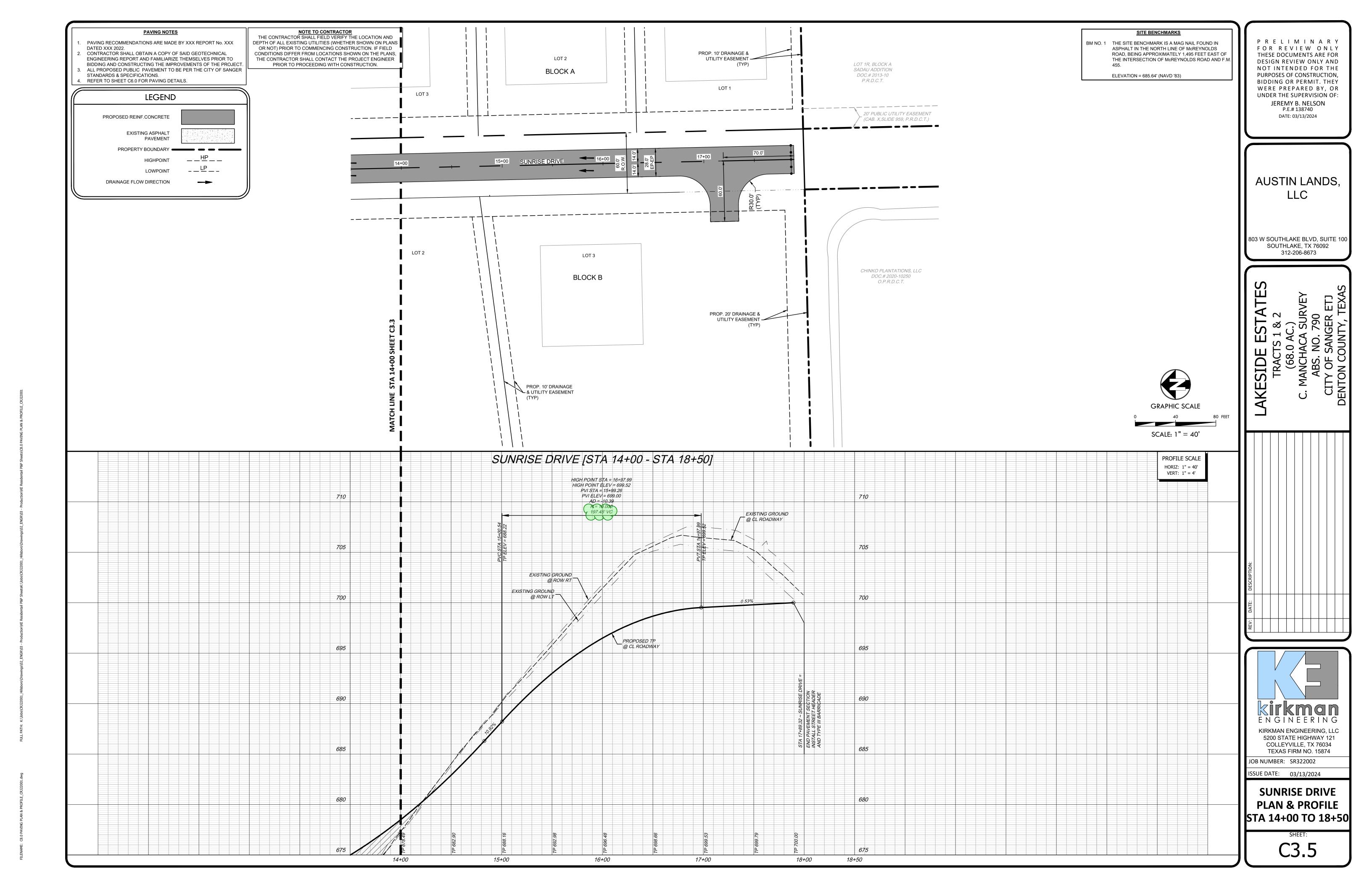
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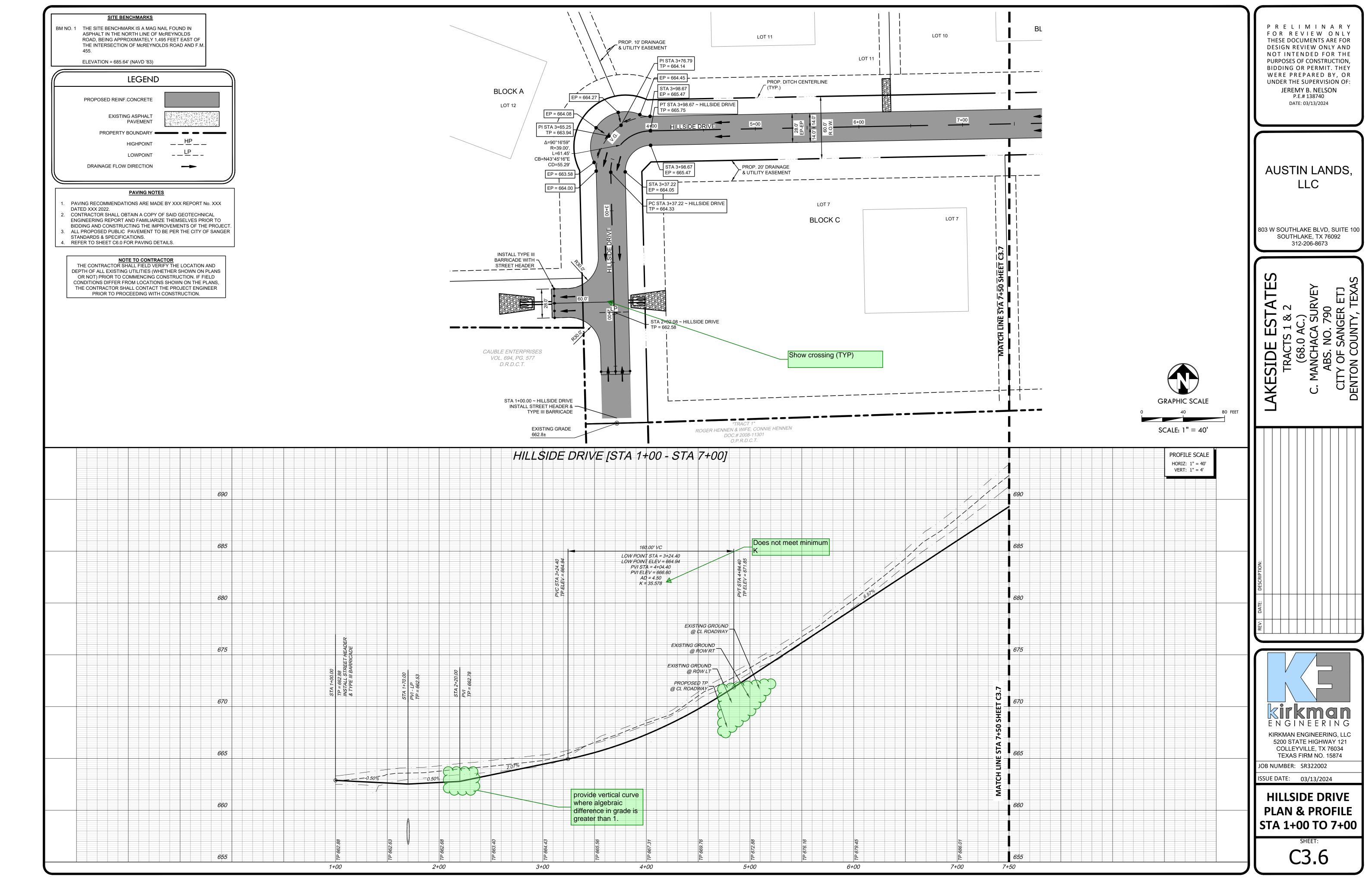
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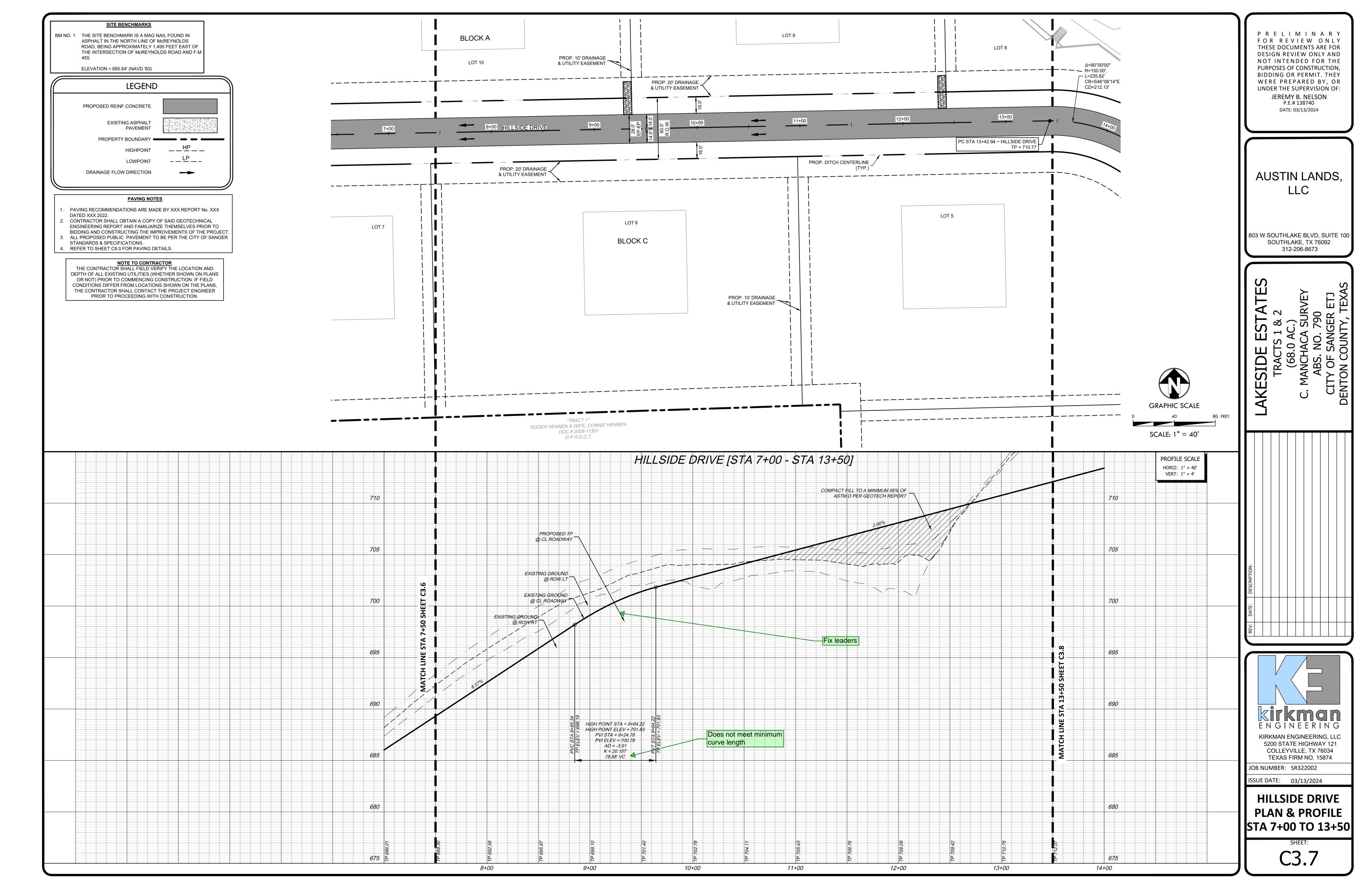






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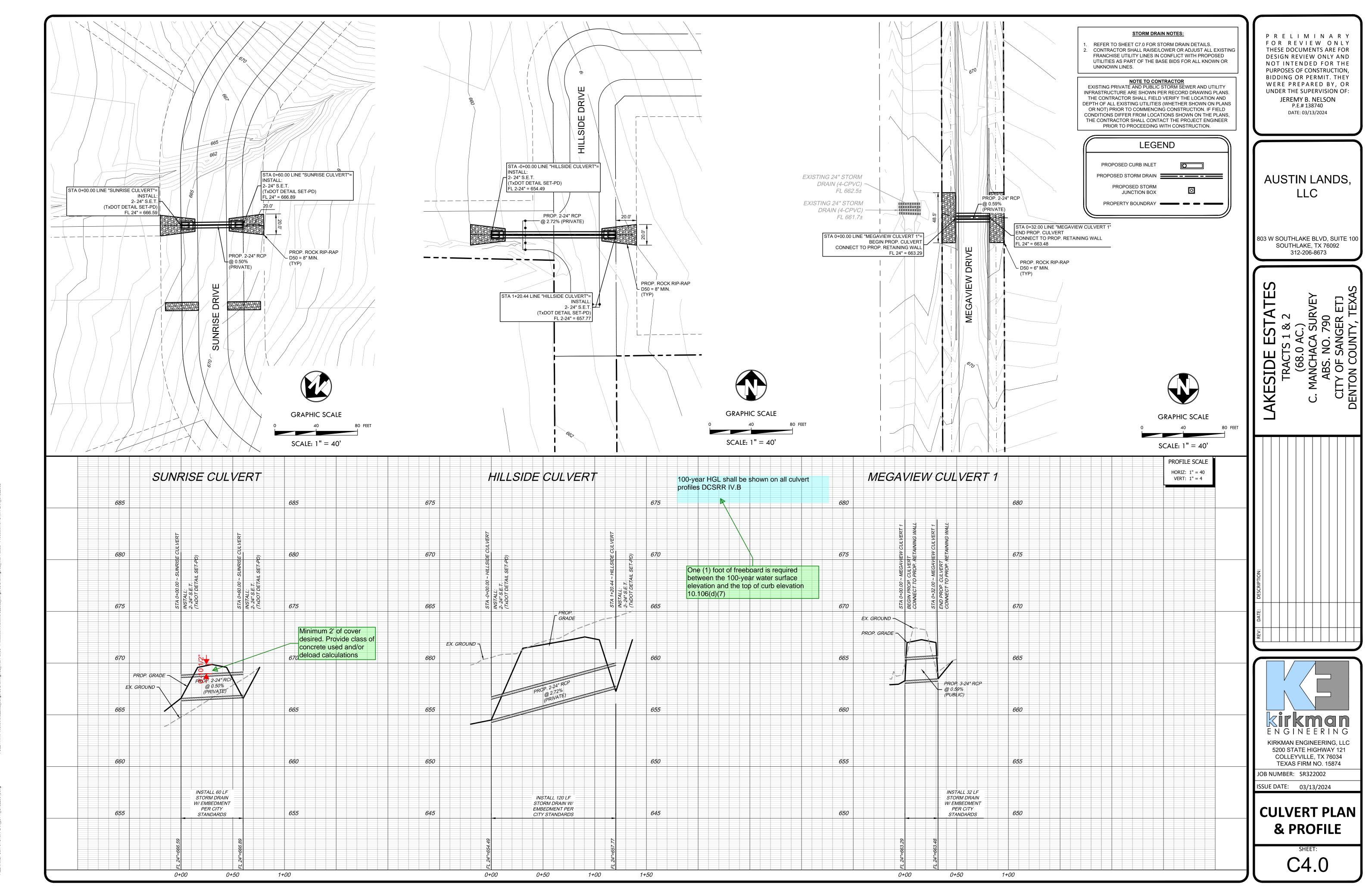


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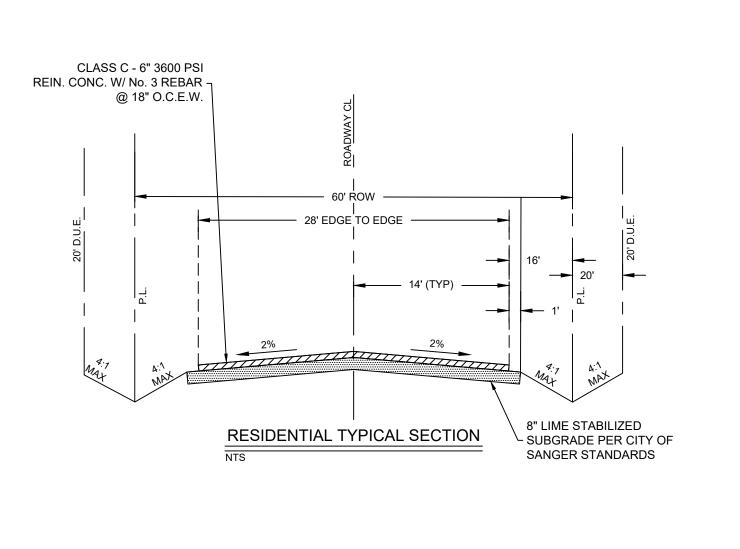
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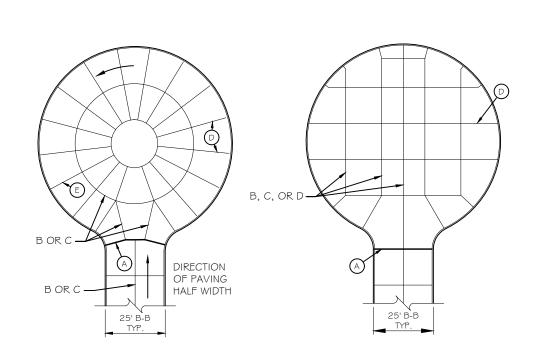


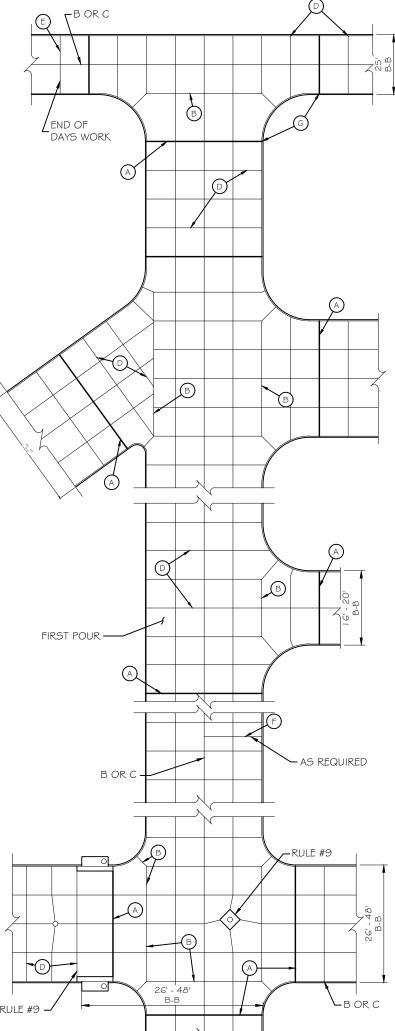


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KEY NOTES:
A. EXPANSION JOINT (ISOLATION)
B. LONGITUDINAL CONSTRUCTION JOINT
C. LONGITUDINAL CONTROL JOINT (CONTRACTION)
D. TRANSVERSE CONTROL JOINT (CONTRACTION)
E. PLANNED TRANSVERSE CONSTRUCTION JOINT

EMERGENCY TRANSVERSE CONSTRUCTION JOINT

G. PLACE 1/2" EXPANSION JOINT FILLER IN TOP OF CURB ONLY AT ALL RADIUS POINTS

2. MAXIMUM TRANSVERSE JOINT SPACING FOR PAVEMENT SHOULD EITHER BE 24 TO 30 TIMES THE SLAB THICKNESS OR 15ft.
3. LONGITUDINAL JOINT SPACING SHOULD NOT EXCEED 12.5ft
4. KEEP SLABS AS SQUARE AS POSSIBLE. LONG NARROW SLABS TEND TO CRACK MORE THAN SQUARE ONES.

10. WHEN THE PAVEMENT AREA HAS DRAINAGE STRUCTURES, PLACE JOINTS TO MEET THE STRUCTURES IF POSSIBLE.

TYPICAL JOINT LAYOUT

5. ALL TRANSVERSE CONTRACTION JOINTS MUST BE CONTINUOUS THROUGH THE CURB AND HAVE A DEPTH EQUAL TO $\!\!\!\!\!/\,$ THE PAVEMENT THICKNESS.

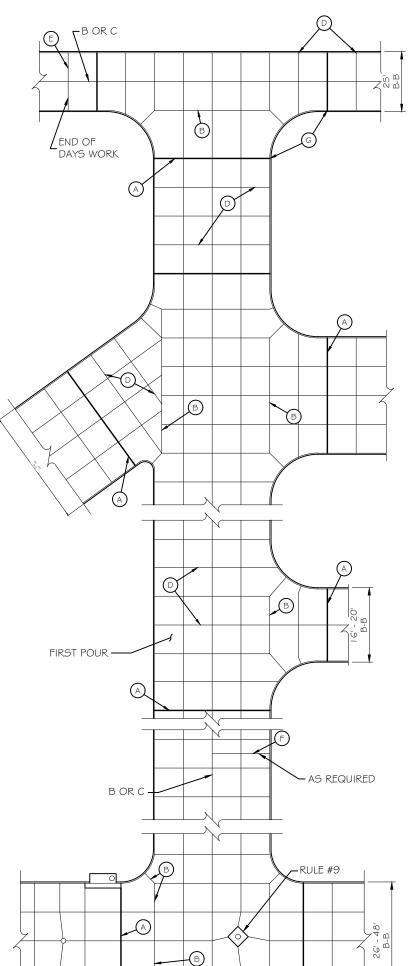
THICKNESS.

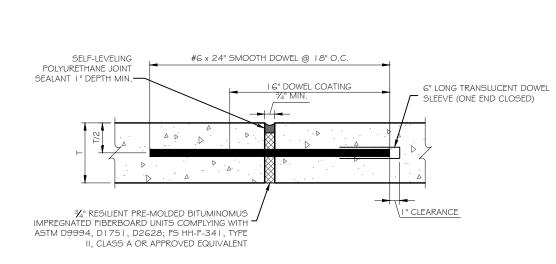
6. IN ISOLATION JOINTS, THE FILLER MUST BE FULL DEPTH AND EXTEND THROUGH THE CURB

7. IF THERE IS NO CURB, LONGITUDINAL JOINTS SHOULD BE TIED WITH DEFORMED BARS.

8. OFFSETS AT RADIUS POINTS SHOULD BE AT LEAST 1.5ft WIDE. JOINT INTERSECTION ANGLES LESS THAN 60° SHOULD BE AVOIDED.

9. MINOR ADJUSTMENTS IN JOINT LOCATION MADE BY SHIFTING OF SKEWING TO MEET INLETS AND MANHOLES WILL IMPROVE PAVEMENT





NOTES:

1. SLEEVES FOR DOWELS SHALL HAVE AN INSIDE DIAMETER OF (GREATER THAN THE DIAMETER OF THE DOWELS AND SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO USE.

2. EXPANSION JOINTS SHALL BE CONSTRUCTED A MAXIMUM OF 500' APART ON STRAIGHT PAVING, AND WHERE INDICATED PER THE AMERICAN CONCRETE PAVEMENT ASSOCIATION'S TECHNICAL PUBLICATION ACPA ISOG I.O I P (LATEST VERSION)

3. DOWEL COATING SHALL BE ASPHALTIC COATING.

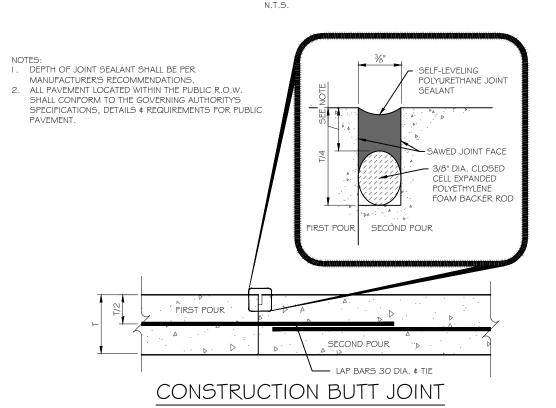
4. DOWELS SHALL NOT BE TIED TO OTHER REINFORCEMENT.

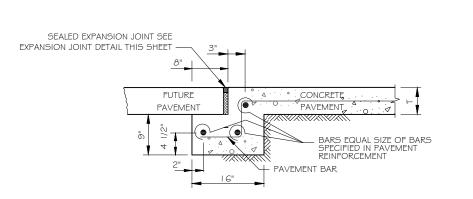
5. REFER TO SIDEWALK DETAILS THIS SHEET FOR EXPANSION JOINTS IN SIDEWALK AREAS.

6. ALL PAVEMENT LOCATED WITHIN THE PUBLIC R.O.W. SHALL CONFORM TO THE GOVERNING AUTHORITY'S SPECIFICATIONS, DETAILS & REQUIREMENTS FOR PUBLIC PAVEMENT.

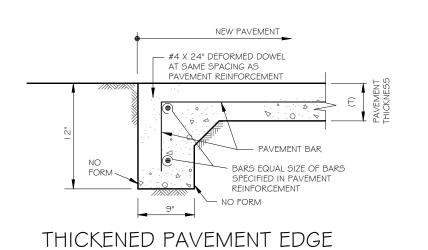
7. FINISHED SURFACES SHALL BE INSTALLED FLUSH WITH A DIFFERENTIAL ELEVATION NOT TO EXCEED 1/8".

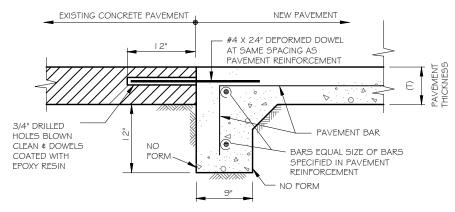
EXPANSION JOINT (ISOLATION)



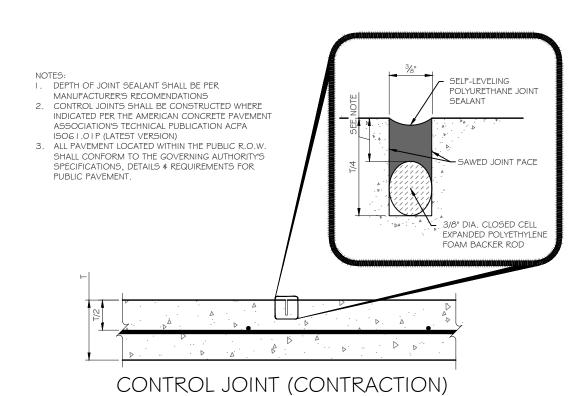


STREET HEADER FOR FUTURE PAVEMENT N.T.S.





STREET HEADER AT EXISTING PAVEMENT

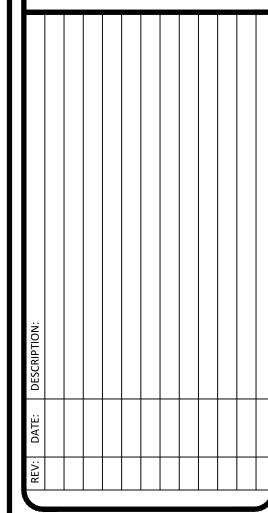


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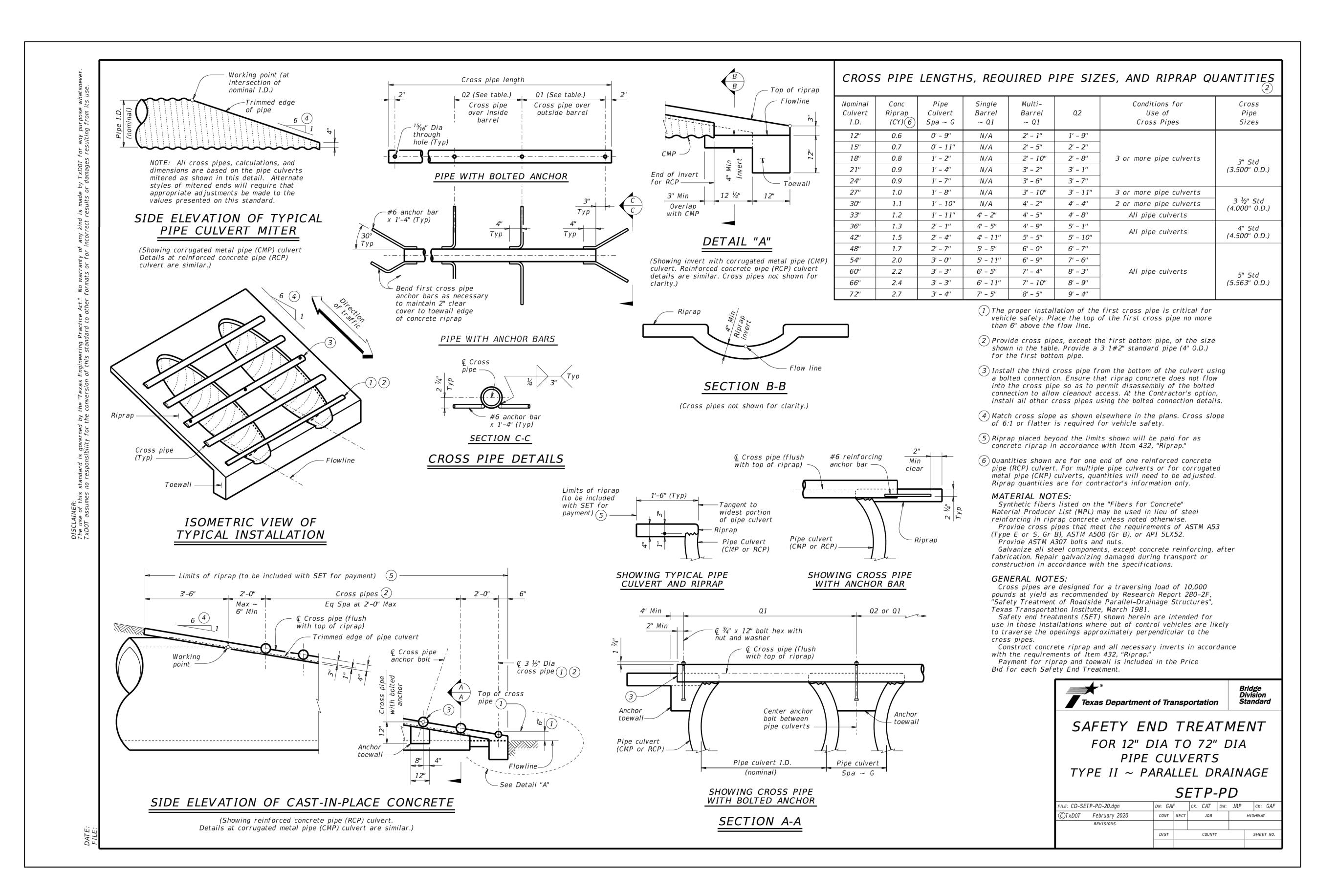




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PAVING DETAILS



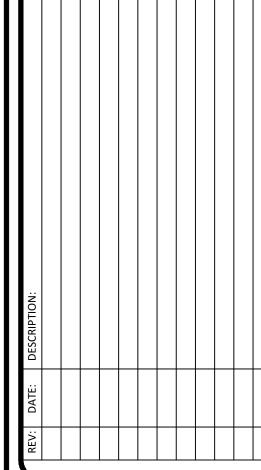
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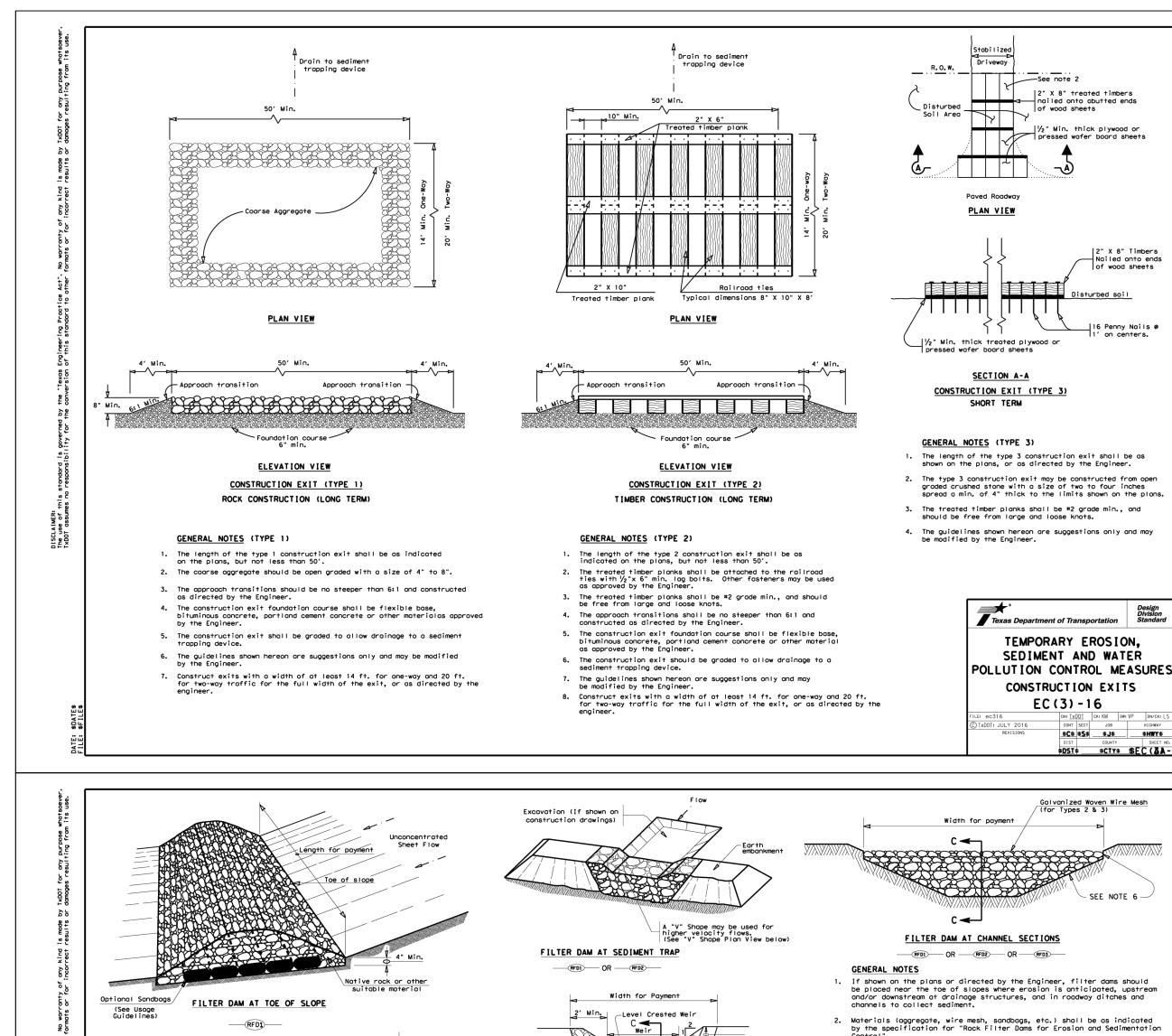
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DRAINAGE

DETAILS



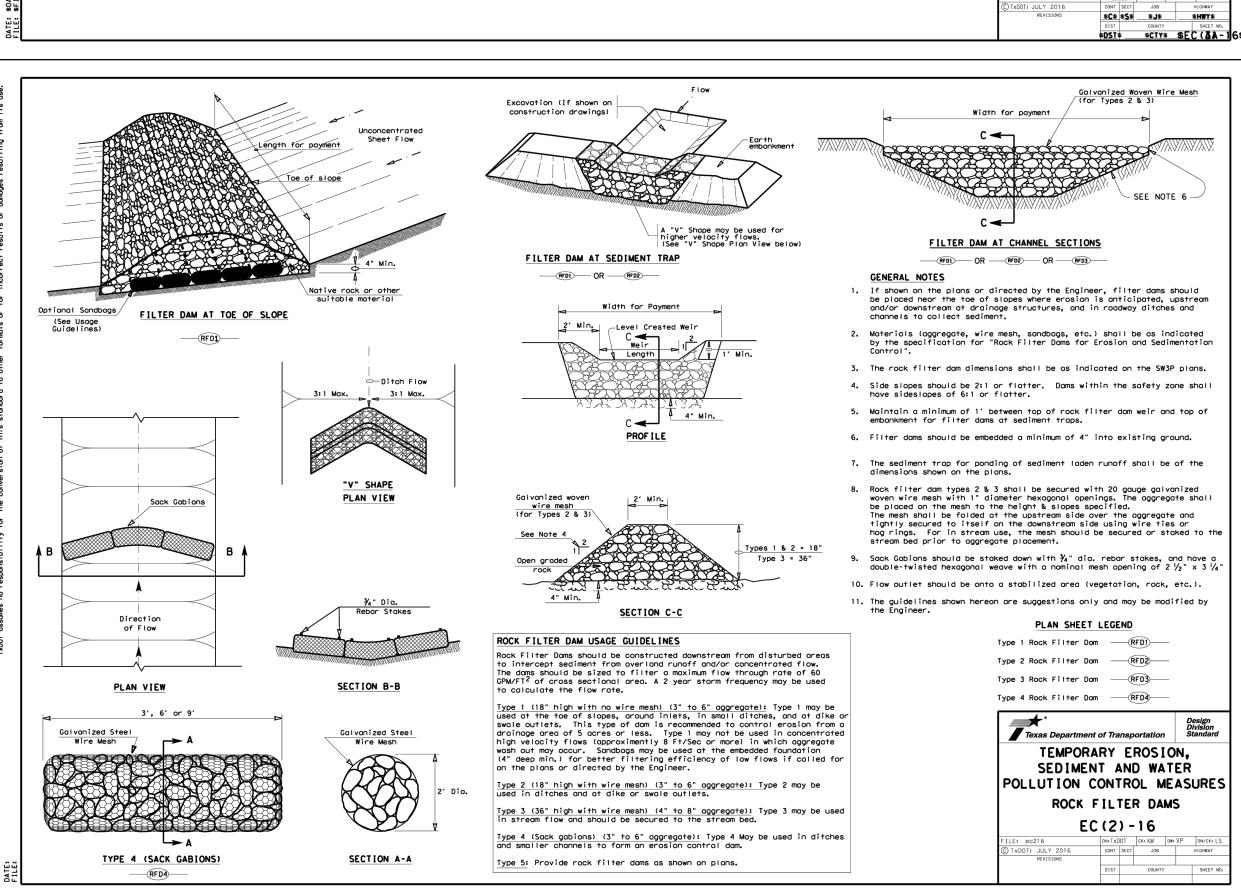
|2" X 8" treated timbers

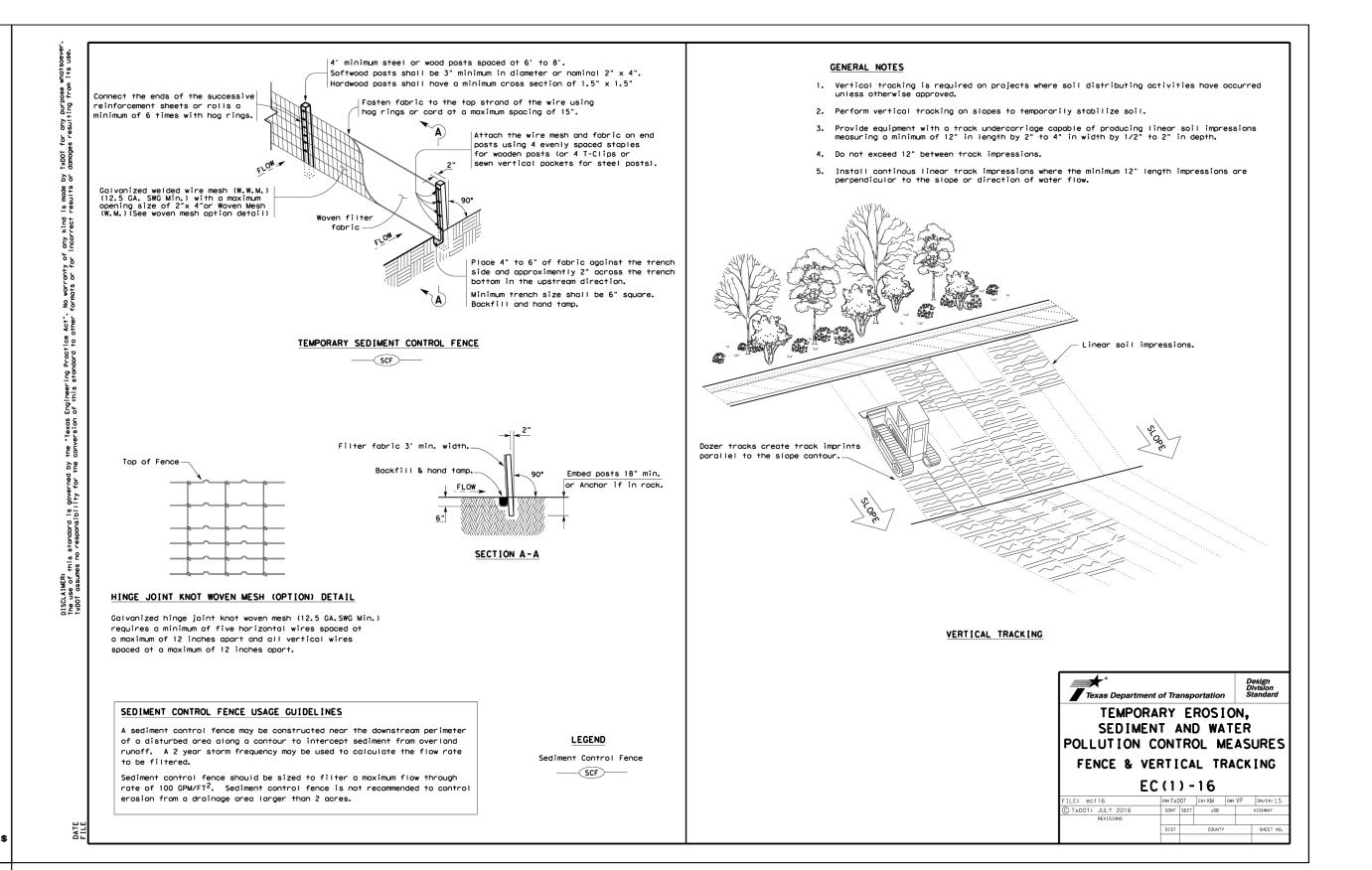
nailed onto abutted ends of wood sheets

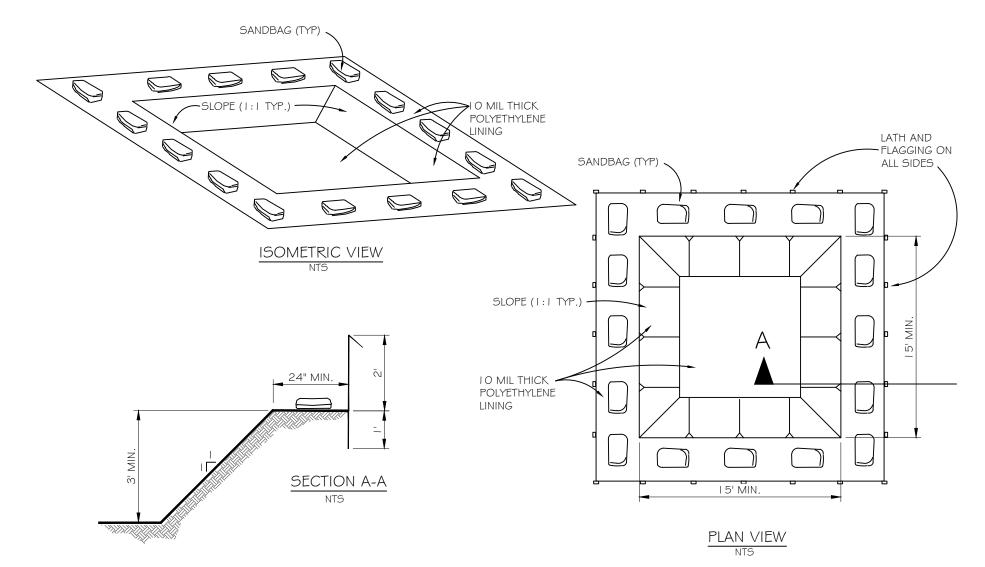
Nailed onto ends of wood sheets

isturbed soil

EC(3)-16







I. Actual layout, size and location to be determined by Contractor.

- The concrete washout sign shall be installed within 30 ft. of the temporary concrete washout facility.
- 3. Once concrete wastes are allowed to harden, the concrete should be broken up, removed and disposed of properly. dispose of hardened concrete on a regular basis.

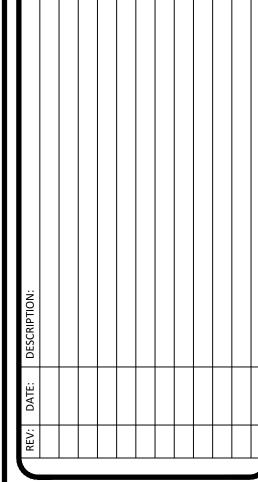
TEMPORARY CONCRETE WASHOUT AREA

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EROSION CONTROL DETAILS