512.439.4700
TBPELS F-1386
TBPELS 10110501
www.LJA.com
7500 Rialto Boulevard, Building II, Suite 100, Austin, Texas 78735

February 2, 2026

Franklin Anciano
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality – Region 11
12100 Park 35 Circle, Bldg A, Rm 179
Austin TX 78753

Re: Barton Creek Holden Hills Block B Lot 1 CZP
LJA Project No. A111-0437

Dear Franklin:

Please find enclosed the response to the comments dated October 27,2025, regarding the Barton Creek Holden Hills Block B Lot 1 CZP:

General Comments

1. Line 8. Site is defined as the entire area included within the legal boundaries of the property as described on the Travis CAD Map. If legal boundaries have changed, please include documentation from the county within the revised application. If proposing Metes and Bounds, include a RPLS sealed and signed survey within the revised application. If not, please update information throughout the application to reflect the acreage as described on CAD Map.
   Response: The development has since been replated (Travis County Doc. #202600012), matching the boundary shown in the application. A copy of the recorded plat has been attached with the subject property boundary highlighted.

2. Line 9. Application fee may change based on Administrative NOD Item #1 response.
   Response: Acknowledged.

3. Please see Administrative NOD Item #2.
   Response: Acknowledged.

If you have any questions, please do not hesitate to call.

Sincerely,

Lauren Crone

Lauren Crone, P.E.

Unofficial Document

12 pgs 202600012

PLAT

ASSOCIATED DOCUMENTS:
Certificate 2026007234

☒ STAYS IN FILE EMAIL:
sara.sternberg@traviscountytx.gov

☐ CALL FOR PICK UP

☐ RETURN TO:

FILED AND RECORDED
OFFICIAL PUBLIC RECORDS

Dyana Limon-Mercado

Dyana Limon-Mercado, County Clerk
Travis County, Texas

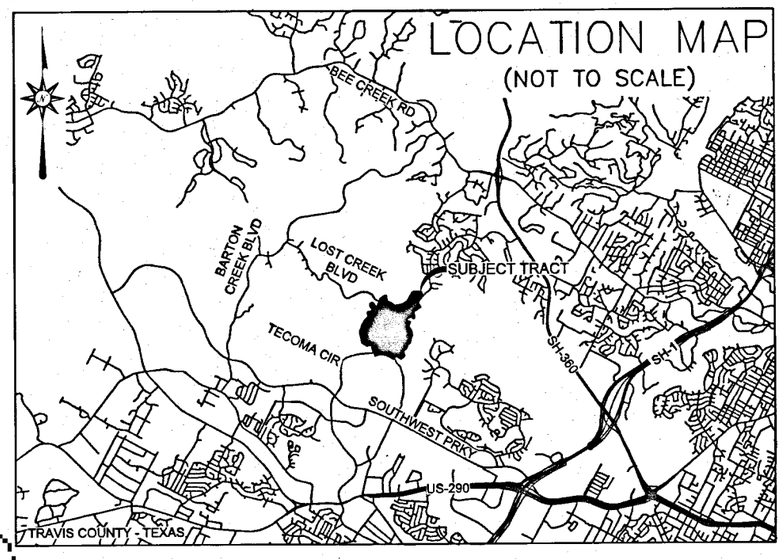
202600012 Jan 22, 2026 11:53 AM
Fee: $344.00 YOUNGA

01/22/2026 $344.00 202600012

S:\Sectors\Survey\Projects\LJAS001\A111 (Stratus)\(2401) Barton Creek KLO\06-CAD\Civil 3D\Plats\LJAS001-A111-2401 Barton Creek Holden_Hills_Phase_1_Final_Plat.dwg 12/8/2025

UNOFFICIAL DOCUMENT

FINAL PLAT OF BARTON CREEK HOLDEN HILLS PHASE 1



TRAVIS COUNTY CONSUMER PROTECTION NOTICE FOR HOMEBUYERS

IF YOU ARE BUYING A LOT OR HOME, YOU SHOULD DETERMINE WHETHER IT IS INSIDE OR OUTSIDE THE CITY LIMITS.

DEPENDING ON STATE LAW AND OTHER FACTORS, LAND OUTSIDE THE CITY LIMITS MAY BE SUBJECT TO FEWER LOCAL GOVERNMENT CONTROLS OVER THE DEVELOPMENT AND USE OF LAND THAN INSIDE THE CITY LIMITS. BECAUSE OF THIS, LOCAL GOVERNMENT MAY NOT BE ABLE TO RESTRICT THE NATURE OR EXTENT OF DEVELOPMENT NEAR THE LOT OR HOME NOR PROHIBIT NEARBY LAND USES THAT ARE INCOMPATIBLE WITH A RESIDENTIAL NEIGHBORHOOD. THIS CAN AFFECT THE VALUE OF YOUR PROPERTY.

TRAVIS COUNTY REQUIRES THIS NOTICE TO BE PLACED ON SUBDIVISION PLATS. IT IS NOT A STATEMENT OR REPRESENTATION OF THE OWNER OF THE PROPERTY, THE SUBDIVIDER, OR THEIR REPRESENTATIVES.

CASE NUMBER: S-25-353

SHEET 1 OF 12	**LJA Surveying, Inc.** 7500 Rialto Blvd., Building II Suite 100 Austin, Texas 78735 Phone 512.439.4700 T.B.P.E.L.S. Firm No. 10194382	A FINAL SUBDIVISION PLAT OF BARTON CREEK HOLDEN HILLS PHASE 1 THE J.L. BRAY SURVEY, ABSTRACT NO. 74, TRAVIS COUNTY, TEXAS	PROJECT NO. LJAS304-2401 DATE REVISIONS DRAWN BY JBC APPROVED BY DET DATE 12/08/25

FINAL PLAT OF BARTON CREEK HOLDEN HILLS PHASE 1

20260012

SHEET	DESCRIPTION
1.	COVER SHEET
2.	LEGAL DESCRIPTION AND NOTES
3.	SHEET INDEX
4.–12.	PLAT PAGES
4.	LINE AND CURVE TABLES
6.	LEGEND
6.	LOT/ROAD TABLES

PLAT NOTES:

1. ALL STREETS, DRAINAGE, SIDEWALKS, EROSION CONTROL AND WATER AND WASTEWATER LINES SHALL BE CONSTRUCTED AND INSTALLED TO TRAVIS COUNTY STANDARDS.
2. BY APPROVING THIS PLAT, TRAVIS COUNTY ASSUMES NO OBLIGATION TO CONSTRUCT ANY INFRASTRUCTURE IN CONNECTION WITH THIS SUBDIVISION. ANY SUBDIVISION INFRASTRUCTURE REQUIRED FOR THE DEVELOPMENT OF THE LOT IN THIS SUBDIVISION IS THE RESPONSIBILITY OF THE DEVELOPER AND/OR THE OWNERS OF THE LOT.
3. THE 237.07 ACRE PROPERTY COVERED BY THIS PLAT IS A PORTION OF A LARGER 495.104 ACRE TRACT OF LAND SUBJECT TO AN APPROVED TRAFFIC IMPACT ANALYSIS (TIA) AND BARTON CREEK SECTIONS K, L, & O PHASING AGREEMENT RECORDED AS DOCUMENT NUMBER 2020040341. THE APPROVED TIA PERMITS CONSTRUCTION OF 480 RESIDENTIAL UNITS WITHIN A 495.104–ACRE TRACT OF LAND, OF THE 480 RESIDENTIAL UNITS PERMITTED BY THE TIA, 300 RESIDENTIAL UNITS ARE ALLOCATED TO THIS 237.07 ACRE PROPERTY, LEAVING 180 RESIDENTIAL UNITS FOR THE REMAINING PORTION OF THE 495.104 ACRE TRACT, TO BE PLATTED AT A FUTURE DATE. THE OWNER/APPLICANT OF ANY FUTURE PLAT AND/OR SITE PLAN APPLICATION WITHIN THIS 237.07–ACRE PROPERTY SHALL SUBMIT A TIA TRACKING MEMORANDUM, IN FORM APPROVED BY TRAVIS COUNTY, CERTIFYING (1) THE PROPOSED NUMBER OF RESIDENTIAL UNITS ALLOCATED TO SUCH APPLICATION OUT OF THE TOTAL 300 UNITS ALLOCATED TO THE 237.07–ACRE PROPERTY; AND (2) THE REMAINING NUMBER OF UNALLOCATED UNITS AVAILABLE FOR FUTURE APPLICATIONS COVERING ANY PORTION OF THE 237.07 ACRE PROPERTY AFTER DEDUCTING THE UNITS ALLOCATED BY SUCH APPLICATION. THE TIA TRACKING MEMORANDUM SHALL BE SIGNED AND CERTIFIED BY A LICENSED ENGINEER.
4. REQUIRED PARKLAND IS CALCULATED AS (5 X 300 UNITS X 2.8)/1000 = 4.20 ACRES. PARKLAND REQUIREMENTS HAVE BEEN MET WITH THE DEDICATION OF A 6.47 ACRE TRAIL EASEMENT CONTAINING A NATURAL, AT–GRADE HIKE AND BIKE TRAIL. THE TRAIL EASEMENT, IS DEDICATED TO CITY OF AUSTIN IN DOCUMENT NO. 2022058542 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS. PARKLAND DEDICATION WAIVER APPROVED BY COMMISSIONERS COURT ON 12/16/25. THE TRAIL SHALL BE MAINTAINED BY THE BARTON CREEK EAST MASTER COMMUNITY INC.
5. THE OWNER OF THIS SUBDIVISION, AND HIS/HER SUCCESSORS AND ASSIGNS, ASSUMES RESPONSIBILITY FOR THE PLANS FOR CONSTRUCTION OF SUBDIVISION IMPROVEMENTS WHICH COMPLY WITH APPLICABLE CODES AND REQUIREMENTS OF TRAVIS COUNTY. THE OWNER UNDERSTANDS AND ACKNOWLEDGES THAT PLAT VACATION OR RE–PLATTING MAY BE REQUIRED AT THE OWNER'S SOLE EXPENSE IF PLANS TO CONSTRUCT THIS SUBDIVISION DO NOT COMPLY WITH SUCH CODES AND REQUIREMENTS.
6. CUT AND FILL MUST COMPLY WITH CHAPTER 482.943.
7. AS DEPICTED ON THE PLAT, EACH PROTECTIVE EASEMENT FROM A CRITICAL ENVIRONMENTAL FEATURE, MUST REMAIN IN ITS EXISTING, UNDEVELOPED NATURAL STATE. NATURAL VEGETATIVE COVER MUST BE RETAINED. CONSTRUCTION ACTIVITIES, WASTEWATER DISPOSAL, AND WASTEWATER IRRIGATION ARE PROHIBITED WITHIN A PROTECTIVE EASEMENT IN ACCORDANCE WITH TRAVIS COUNTY CODE CHAPTER 482.941 [illegible]
8. AS DEPICTED ON THE PLAT, THE SETBACK AREA IDENTIFIED FOR EACH WATERWAY IS A PROTECTIVE EASEMENT IN ACCORDANCE WITH TRAVIS COUNTY CODE CHAPTER 482.941 [illegible]
9. BEFORE BEGINNING CONSTRUCTION ACTIVITIES ON A SUBDIVISION LOT, THE OWNER MUST OBTAIN A TRAVIS COUNTY DEVELOPMENT PERMIT AND, WHEN APPLICABLE, OBTAIN AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWP3). IN ACCORDANCE WITH TRAVIS COUNTY CODE CHAPTER 482.950 [illegible]
10. TRAVIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 4 IS RESPONSIBLE FOR MAINTAINING AND OPERATING ALL PERMANENT WATER QUALITY CONTROLS IN COMPLIANCE WITH ALL APPLICABLE STANDARDS AND REQUIREMENTS OF THE TRAVIS COUNTY CODE. MAINTENANCE AND OPERATING PLAN SHALL BE FINALIZED PRIOR TO FINAL PLAT APPROVAL.
11. AN ACTIVITY THAT MAY ADVERSELY AFFECT A TREE OF EIGHT INCHES OR MORE IN TRUNK DIAMETER (MEASURED AT FOUR FEET HEIGHT ABOVE THE GROUND) IN A RIGHT–OF–WAY ACCEPTED FOR MAINTENANCE BY TRAVIS COUNTY MUST COMPLY WITH ALL STANDARDS AND REQUIREMENTS IN ACCORDANCE WITH TRAVIS COUNTY CODE CHAPTER 482.973 EFFECTIVE 9/1/2019.
12. THE 100 YEAR FLOODPLAIN AND ALL WATERWAY SETBACKS SHALL BE WITHIN A DRAINAGE EASEMENT. ALL WATERWAY SETBACK WIDTHS SHALL BE PER SECTION 482.941(H) OF THE TRAVIS COUNTY CODE.
13. TRAVIS COUNTY DEVELOPMENT PERMIT IS REQUIRED PRIOR TO SITE DEVELOPMENT.
14. PROPERTY OWNER AND/OR HIS/HER ASSIGNS SHALL PROVIDE FOR ACCESS TO THE DRAINAGE EASEMENT AS MAY BE NECESSARY AND SHALL NOT PROHIBIT ACCESS BY TRAVIS COUNTY AND TRAVIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 4 FOR INSPECTION OR MAINTENANCE OF SAID EASEMENT.
15. NO OBJECTS, INCLUDING BUT NOT LIMITED TO, BUILDINGS, FENCES, OR LANDSCAPING SHALL BE ALLOWED IN A DRAINAGE EASEMENT EXCEPT AS APPROVED BY TRAVIS COUNTY AND TRAVIS COUNTY MUD NO.4.
16. THE WATER QUALITY EASEMENTS (W.Q.E.), DRAINAGE EASEMENTS(D.E.), STORM SEWER EASEMENTS (S.S.E.), WATER LINE EASEMENTS (W.L.E.) AND WASTEWATER EASEMENTS SHOWN ON THIS PLAT SHALL BE OWNED AND MAINTAINED BY EITHER TRAVIS COUNTY MUD NO. 4 OR TRAVIS COUNTY MUD NO. 5, A POLITICAL SUBDIVISION OF THE STATE OF TEXAS.
17. THIS PROPERTY IS SUBJECT TO THE MASTER DECLARATION OF COVENANTS, CONDITIONS, AND RESTRICTIONS AS RECORDED IN DOCUMENT NUMBER 2020230788 AND AS AMENDED AND RECORDED IN DOCUMENT NUMBER 2025120299 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS.
18. ALL STRUCTURES SHALL MEET THE CURRENT FIRE CODE AS ADOPTED BY TRAVIS COUNTY FIRE MARSHAL, OR THEIR SUCCESSOR.
19. THE BEARINGS ON THIS PLAT ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, 4203, NAD83.
20. NO STRUCTURE IN THIS SUBDIVISION SHALL BE OCCUPIED UNTIL CONNECTED TO AN APPROVED WATER AND WASTEWATER SYSTEM.
21. THIS SUBDIVISION IS LOCATED WITHIN TRAVIS COUNTY AND IS NOT LOCATED WITHIN ANY OTHER CITY'S EXTRA TERRITORIAL JURISDICTION (ETJ).
22. LOTS 1, 2, 3, 4, AND 5, BLOCK B, LOTS 1, 2, 3, 8, 9, 10, 11, 12, 13, 19, AND 30, BLOCK C, AND LOT 1, BLOCK D CONTAIN EASEMENTS INCLUDING WATERWAY SETBACKS AND/OR CRITICAL ENVIRONMENTAL FEATURE SETBACKS AS INDICATED HEREON THAT MUST REMAIN FREE OF CONSTRUCTION DEVELOPMENT, OR OTHER ALTERATIONS IN ACCORDANCE WITH TRAVIS COUNTY CODE CHAPTER 482.941 [illegible] 482.216
23. IMPERVIOUS COVER SHALL COMPLY WITH CHAPTER [illegible]
24. THIS SUBDIVISION IS SUBJECT TO [illegible] TRAVIS COUNTY WATER QUALITY RULES.
25. WITHIN A SIGHTLINE EASEMENT, ANY OBSTRUCTION OF SIGHTLINE BY VEGETATION, FENCING, EARTHWORK, BUILDINGS, SIGNS, OR ANY OTHER OBJECT, WHICH IS DETERMINED TO CAUSE A TRAFFIC HAZARD, IS PROHIBITED AND MAY BE REMOVED BY ORDER OF THE TRAVIS COUNTY COMMISSIONERS COURT AT THE OWNERS EXPENSE. THE PROPERTY OWNER IS TO MAINTAIN AN UNOBSTRUCTED VIEW CORRIDOR WITHIN THE BOUNDS OF SUCH EASEMENT AT ALL TIMES.
26. SLOPE EASEMENT DEDICATION WILL BE REQUIRED FOR FILL/CUT SLOPES SUPPORTING ROADWAYS, WHICH EXTEND BEYOND THE RIGHT–OF–WAY.
27. ALL DRAINAGE LOTS/EASEMENTS MUST BE OF SUFFICIENT WIDTH TO PROVIDE CONTINUOUS ACCESS FOR THE OPERATION, MAINTENANCE, OR REPAIR OF A DRAINAGE FACILITY OR CONVEYANCE OF STORMWATER. A MINIMUM OF 25 FT IN WIDTH FOR AN OPEN DRAINAGE SYSTEM; OR A MINIMUM OF 15 FT IN WIDTH FOR AN ENCLOSED DRAINAGE SYSTEM.
28. ALL PROPOSED CONSTRUCTION OR SITE ALTERATION REQUIRES THE APPROVAL OF A SEPARATE DEVELOPMENT PERMIT.
29. AS DEPICTED ON THE PLAT, ALL WATER QUALITY EASEMENT AREAS ARE SUBJECT TO PERIODIC INSPECTION AND MONITORING BY TRAVIS COUNTY FOR THE PURPOSE OF ENSURING WATER QUALITY COMPLIANCE, AS APPLICABLE, ACCORDING TO SEC. 16.014 OF THE TEXAS WATER CODE.
30. ALL PRIVATE STREETS SHOWN HEREON, VIVIER DRIVE AND LOLO LANE, AND ANY SECURITY GATES OR DEVICES CONTROLLING ACCESS TO SUCH STREETS WILL BE OWNED AND MAINTAINED BY THE ESTABLISHED HOMEOWNERS ASSOCIATION OF THIS SUBDIVISION.
31. PRIOR TO ISSUANCE OF A BASIC DEVELOPMENT PERMIT FOR THE CONSTRUCTION OF THE PRIVATE STREET SUBDIVISION IMPROVEMENTS, THE DEVELOPER MUST SUBMIT A COPY OF THE HOMEOWNERS ASSOCIATION'S CERTIFICATE OF INCORPORATION TO TNR.
32. JOINT USE ACCESS EASEMENTS WILL BE MAINTAINED BY THE BARTON CREEK EAST MASTER COMMUNITY INC. PER THE RESTRICTIVE COVENANTS.
33. A WAIVER HAS BEEN GRANTED FOR 15' FLAG LOTS PER 482.302(d)(9).
34. A WAIVER HAS BEEN GRANTED FOR THE SIDEWALK REQUIREMENT PER 482.202(q).
35. DRAINAGE PLANS SHALL BE SUBMITTED TO TRAVIS COUNTY FOR REVIEW PRIOR TO SITE DEVELOPMENT. RAINFALL RUN–OFF SHALL BE HELD TO THE AMOUNT EXISTING AT UNDEVELOPED STATUS BY PONDING OR OTHER APPROVED METHODS.
36. DETENTION FOR BLOCK A, LOT 1 IS PROVIDED BY THE EXISTING DETENTION POND CONSTRUCTED UNDER TRAVIS COUNTY PERMIT #14–4756. DETENTION FOR BLOCK C, LOTS 1–36 IS PROVIDED BY FACILITIES CONSTRUCTED WITH PERMIT #22–41069.
37. DETENTION SHALL BE PROVIDED FOR THE FOLLOWING LOTS: BLOCK D, LOTS 1, 2, 3, 4, AND 5 AT THE TIME OF SITE DEVELOPMENT PERMIT, EITHER BY INDIVIDUAL DETENTION PONDS OR ONE REGIONAL DETENTION POND. IF ONE REGIONAL DETENTION POND IS PROVIDED, IT SHALL BE CONSTRUCTED WITH FIRST DEVELOPED SITE PLAN. ALL NECESSARY EASEMENTS FOR THE DETENTION POND(S) SHALL BE DEDICATED BY SEPARATE INSTRUMENT AT THE TIME OF SITE DEVELOPMENT PERMIT.
38. DETENTION FOR BLOCK D, LOT 1 SHALL BE PROVIDED WITH THE SITE DEVELOPMENT PERMIT.

AUSTIN ENERGY NOTES:

1. AUSTIN ENERGY HAS THE RIGHT TO PRUNE AND/OR REMOVE TREES, SHRUBBERY, AND OTHER OBSTRUCTIONS TO THE EXTENT NECESSARY TO KEEP THE EASEMENTS CLEAR. AUSTIN ENERGY WILL PERFORM ALL TREE WORK IN COMPLIANCE WITH TRAVIS COUNTY DEVELOPMENT REGULATIONS.
2. THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR MAINTAINING CLEARANCES REQUIRED BY THE NATIONAL ELECTRIC SAFETY CODE, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS AND TEXAS STATE LAWS PERTAINING TO CLEARANCES WHEN WORKING IN CLOSE PROXIMITY TO OVERHEAD POWER LINES AND EQUIPMENT.
3. AUSTIN ENERGY WILL NOT RENDER ELECTRIC SERVICE UNLESS REQUIRED CLEARANCES ARE MAINTAINED. ALL COSTS INCURRED BECAUSE OF FAILURE TO COMPLY WITH THE REQUIRED CLEARANCES WILL BE CHARGED TO THE OWNER.
4. THE OWNER/DEVELOPER OF THIS SUBDIVISION/LOT SHALL PROVIDE AUSTIN ENERGY WITH ANY EASEMENT AND/OR ACCESS REASONABLY REQUIRED, IN ADDITION TO THOSE INDICATED, FOR THE INSTALLATION AND ONGOING MAINTENANCE OF OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES. THESE EASEMENTS AND/OR ACCESSES ARE REQUIRED TO PROVIDE ELECTRIC SERVICE AND WILL NOT BE LOCATED SO AS TO CAUSE THE SITE TO BE OUT OF COMPLIANCE WITH TRAVIS COUNTY DEVELOPMENT REGULATIONS.
5. OWNER SHALL BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY EROSION CONTROL, REVEGETATION AND TREE PROTECTION. IN ADDITION, THE OWNER SHALL BE RESPONSIBLE FOR ANY INITIAL TREE PRUNING AND TREE REMOVAL THAT IS WITHIN TEN FEET OF THE CENTER LINE OF THE PROPOSED OVERHEAD ELECTRIC FACILITIES DESIGNED TO PROVIDE ELECTRIC SERVICE TO THIS PROJECT. THE OWNER SHALL INCLUDE AUSTIN ENERGY'S WORK WITHIN THE LIMITS OF CONSTRUCTION FOR THIS PROJECT.

STATE OF TEXAS

COUNTY OF TRAVIS

THAT HOLDEN HILLS, L.P., A TEXAS LIMITED PARTNERSHIP BY HOLDEN HILLS GP, L.L.C., A TEXAS LIMITED LIABILITY COMPANY, GENERAL PARTNER, BEING THE OWNER OF THAT CERTAIN 273.07 TRACT OF LAND OUT OF THE JOHN L. BRAY SURVEY NO. 72, ABSTRACT NO. 74, AND THE JOHN D. MCALLISTER SURVEY NO. 71, ABSTRACT NO. 561 SITUATED IN TRAVIS COUNTY, TEXAS, AS CONVEYED BY DEED AS RECORDED IN DOCUMENT NUMBER 2023013051 OF THE OFFICIAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS AND REPLACING THE CANCELED PLAT OF BARTON CREEK SECTIONS K, L & O PHASE 1 (PREVIOUSLY RECORDED IN DOCUMENT NUMBER 202200093, OFFICIAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS) AS RECORDED IN CANCELLATION DOCUMENT NUMBER 2026007826 DOES HEREBY SUBDIVIDE 273.07 ACRES OF LAND IN ACCORDANCE WITH THE ATTACHED MAP OR PLAT SHOWN HEREON, PURSUANT TO CHAPTER 232 OF THE TEXAS LOCAL GOVERNMENT CODE, TO BE KNOWN AS:

BARTON CREEK HOLDEN HILLS PHASE 1

SUBJECT TO THE COVENANTS AND RESTRICTIONS SHOWN HEREON, AND HEREBY DEDICATES TO THE OWNERS OF THE LOTS IN THE SUBDIVISION, PUBLIC UTILITIES SERVING THE SUBDIVISION, EMERGENCY SERVICES PROVIDERS WITH JURISDICTION, AND PUBLIC SERVICE AGENCIES, THE USE OF ALL THE PRIVATE STREET AND OTHER EASEMENTS SHOWN HEREON, SUBJECT TO ANY EASEMENTS AND/OR RESTRICTIONS HERETOFORE GRANTED AND NOT RELEASED. THE MAINTENANCE AND PAYMENT OF REAL PROPERTY TAXES ON SUCH PRIVATE STREETS ARE THE RESPONSIBILITY OF THE OWNER(S) OF THE SUBDIVISION OR ANY DULY CONSTITUTED HOMEOWNERS ASSOCIATION UNDER THAT CERTAIN INSTRUMENT OF RECORD AT DOCUMENT NUMBER 2020230788 IN THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS. AN EXPRESS EASEMENT IS HEREBY GRANTED ACROSS SAID PRIVATE STREETS AND ANY COMMON AREAS FOR THE USE OF THE SURFACE FOR ALL GOVERNMENTAL FUNCTIONS, VEHICULAR AND NON–VEHICULAR, INCLUDING FIRE AND POLICE PROTECTION, SOLID AND OTHER WASTE MATERIAL PICKUP, INSPECTION OR INVESTIGATION OF STORM WATER MANAGEMENT, AND ANY OTHER PURPOSE ANY GOVERNMENTAL AUTHORITY DEEMS NECESSARY; AND OWNER FURTHER AGREES THAT ALL GOVERNMENTAL ENTITIES, THEIR AGENTS OR EMPLOYEES, SHALL NOT BE RESPONSIBLE OR LIABLE FOR ANY DAMAGE OCCURRING TO THE SURFACE OF THE SAID PRIVATE STREET AND ANY COMMON AREA AS A RESULT OF ANY SUCH USE BY GOVERNMENTAL VEHICLES.

ALL PRIVATE STREETS SHOWN HEREON VIVIER DRIVE AND ANY SECURITY GATES OR DEVICES CONTROLLING ACCESS TO SUCH STREETS WILL BE OWNED AND MAINTAINED BY THE ESTABLISHED HOMEOWNERS ASSOCIATION OF THIS SUBDIVISION.

IN WITNESS WHEREOF, HOLDEN HILLS, L.P., A TEXAS LIMITED PARTNERSHIP HAS CAUSED THESE PRESENTS TO BE EXECUTED BY THEIR GENERAL PARTNER, HOLDEN HILLS GP, L.L.C., A TEXAS LIMITED LIABILITY COMPANY THIS THE 23rd DAY OF December 2025, A.D.

BY: HOLDEN HILLS, L.P., A TEXAS LIMITED PARTNERSHIP

BY: HOLDEN HILLS GP, L.L.C., A TEXAS LIMITED LIABILITY COMPANY, GENERAL PARTNER

BY: [signature]
SPENCER BAILEY EDWARDS, VICE PRESIDENT – FINANCE
212 LAVACA STREET, SUITE 300
AUSTIN, TEXAS 78701
PHONE: 512.478.5788

THE STATE OF TEXAS

COUNTY OF TRAVIS

THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THIS THE 23rd DAY OF December, 2025, A.D. BY SPENCER BAILEY EDWARDS, VICE PRESIDENT – FINANCE OF HOLDEN HILLS GP, L.L.C., A TEXAS LIMITED LIABILITY COMPANY, GENERAL PARTNER OF HOLDEN HILLS, L.P., A TEXAS LIMITED PARTNERSHIP, ON BEHALF OF EACH SAID ENTITY.

[signature]
NOTARY PUBLIC IN AND FOR STATE OF TEXAS

LETICIA L. SILVA
Notary Public, State of Texas
Notary ID# 1975321
My Commission Expires
FEBRUARY 23, 2027

STATE OF TEXAS
COUNTY OF TRAVIS

I, DYANA LIMON–MERCADO, CLERK OF TRAVIS COUNTY, TEXAS, DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT OF WRITING AND ITS CERTIFICATE OF AUTHENTICATION WAS FILED FOR RECORD IN MY OFFICE ON THE 22nd DAY OF January, 2026 A.D. AT 1:32 O'CLOCK P.M., DULY RECORDED ON THE 22nd DAY OF January, 2026 AT 1:32 O'CLOCK P.M., OF SAID COUNTY AND STATE IN DOCUMENT NUMBER 202600012 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY.

WITNESS MY HAND AND SEAL OF THE OFFICE OF THE COUNTY CLERK, THIS THE 22 DAY OF January 2026 A.D.

PH
DYANA LIMON–MERCADO, COUNTY CLERK
TRAVIS COUNTY, TEXAS.

BY APPROVING THIS PLAT, THE TRAVIS COUNTY ASSUMES NO OBLIGATION TO CONSTRUCT ANY INFRASTRUCTURE IN CONNECTION WITH THIS SUBDIVISION. ANY SUBDIVISION INFRASTRUCTURE REQUIRED FOR THE DEVELOPMENT OF THE LOTS IN THIS SUBDIVISION IS THE RESPONSIBILITY OF THE DEVELOPER AND/OR THE OWNERS OF THE LOTS. FAILURE TO CONSTRUCT ANY REQUIRED INFRASTRUCTURE TO TRAVIS COUNTY STANDARDS MAY BE JUST CAUSE FOR THE TRAVIS COUNTY TO DENY APPLICATIONS FOR CERTAIN DEVELOPMENT PERMITS INCLUDING BUILDING PERMITS, SITE PLAN APPROVALS, AND/OR CERTIFICATES OF OCCUPANCY.

APPROVED, ACCEPTED AND AUTHORIZED FOR RECORD, UNDER SECTION 482.201, TRAVIS COUNTY SUBDIVISION REGULATIONS, BY THE COUNTY EXECUTIVE OF TRANSPORTATION AND NATURAL RESOURCES, TRAVIS COUNTY, THIS THE 6 DAY OF January 2026 AD.

[signature] for 1/6/26
CYNTHIA G. MCDONALD, COUNTY EXECUTIVE — DATE
TRANSPORTATION AND NATURAL RESOURCES

ENGINEERS CERTIFICATION:

A PORTION OF THIS TRACT IS WITHIN THE DESIGNATED FLOOD HAZARD AREA AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) #48453C0440J, TRAVIS COUNTY, TEXAS, DATED JANUARY 22, 2020, COMMUNITY #481026.

I, LAUREN CRONE, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF ENGINEERING, AND HEREBY CERTIFY THAT THIS PLAT IS FEASIBLE FROM AN ENGINEERING STANDPOINT AND COMPLIES WITH THE ENGINEERING RELATED PORTIONS OF CHAPTER 482 OF THE TRAVIS COUNTY CODE, AS AMENDED, IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER

[signature] 12/23/25
LAUREN CRONE, P.E. — DATE
REGISTERED PROFESSIONAL ENGINEER NO. 128018
LJA ENGINEERING, INC.
TBPE FIRM NO. F–1386
7500 RIALTO BLVD., SUITE 100
AUSTIN, TEXAS 78735
PHONE: 512.439.4700

SURVEYOR'S CERTIFICATION:

I, DUSTIN TROUSIL, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF SURVEYING, AND HEREBY CERTIFY THAT THIS PLAT COMPLIES WITH THE SURVEY RELATED PORTIONS OF CHAPTER 482 OF THE TRAVIS COUNTY CODE, AS AMENDED, IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, AND WAS PREPARED FROM AN ACTUAL SURVEY OF THE PROPERTY MADE UNDER MY SUPERVISION ON THE GROUND.

STATE OF TEXAS
REGISTERED
DUSTIN E. TROUSIL
6335
PROFESSIONAL
LAND SURVEYOR

[signature] 12.23.25.
DUSTIN TROUSIL, R.P.L.S. — DATE
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 6335
LJA SURVEYING, INC.
TBPELS FIRM NO. 10194382
7500 RIALTO BLVD., BUILDING II, SUITE 100
AUSTIN, TEXAS 78735
PHONE: 512.439.4700

CASE NUMBER: S–25–353

REVISIONS	DATE

PROJECT NO.	LJA5304–2401
DRAWN BY	JBC
APPROVED BY	DET
DATE	12/23/25

A FINAL SUBDIVISION PLAT OF
BARTON CREEK HOLDEN HILLS PHASE 1
THE J.L. BRAY SURVEY, ABSTRACT NO. 74,
TRAVIS COUNTY, TEXAS

LJA Surveying, Inc.
7500 Rialto Blvd., Building II
Suite 100
Austin, Texas 78735
Phone 512.439.4700
T.B.P.E.L.S. Firm No. 10194382

SHEET 2 OF 12

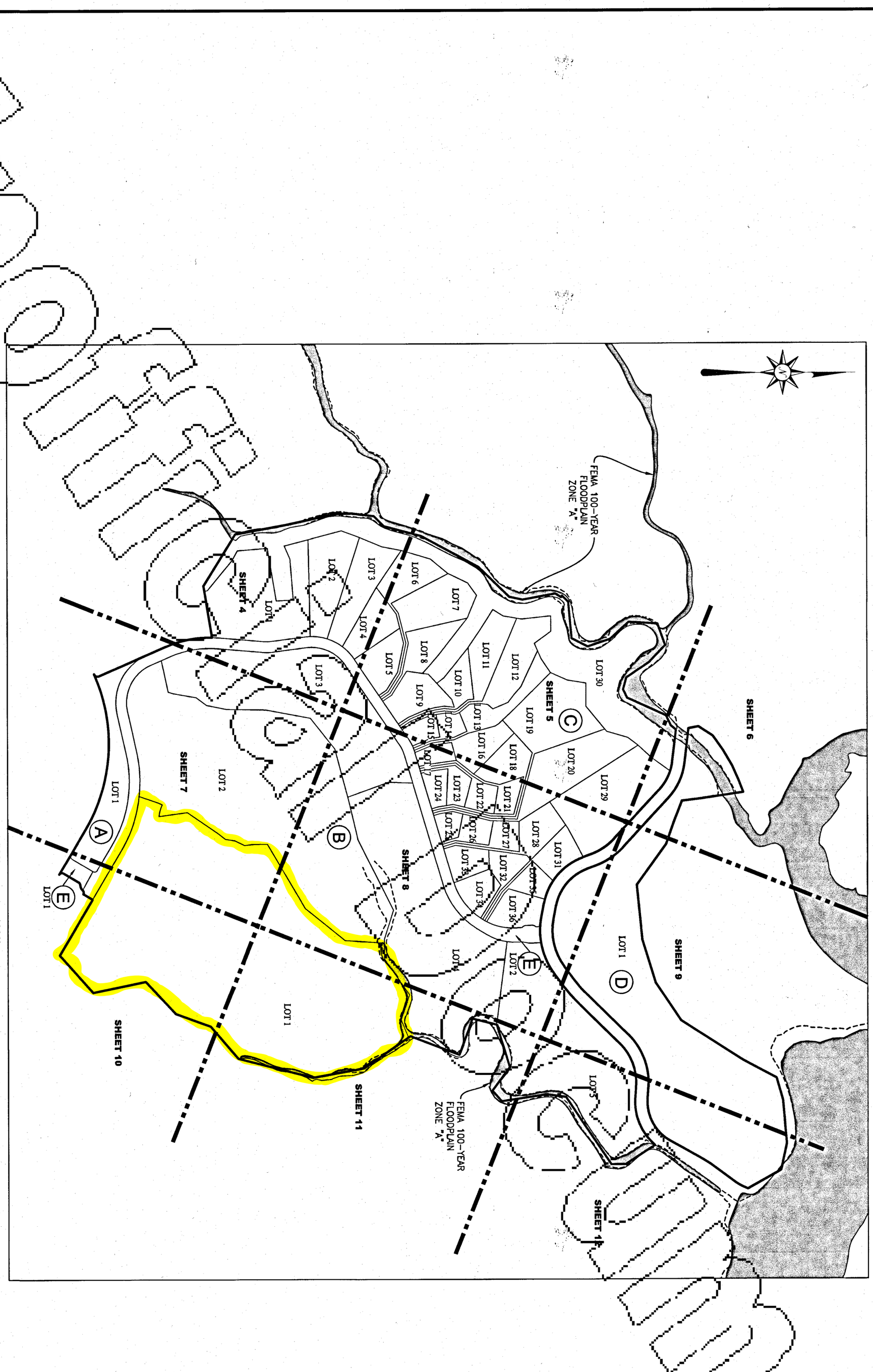
S:\Sectors\Survey\Projects\LJA5001\A111 (Stratus)\(2401) Barton Creek KLO\06–CAD\Civil 3D\Plats\LJA5001–A111–2401 Barton Creek Holden_Hills_Phase_1_Final_Plat.dwg 12/23/2025

202600012

S:\Sectors\Survey\Projects\LJAS001\A111 (Stratus)\(2401) Barton Creek KLO\06-CAD\Civil 3D\Plats\LJAS001-A111-2401 Barton Creek Holden_Hills_Phase_1_Final_Plat.dwg 12/8/2025

UNRECORDED

SHEET INDEX



CASE NUMBER: S-25-353

UNRECORDED

SHEET 3 OF 12

LJA Surveying, Inc.
7500 Rialto Blvd., Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
T.B.P.E.L.S. Firm No. 10194382

A FINAL SUBDIVISION PLAT OF
BARTON CREEK HOLDEN HILLS PHASE 1
THE J.L. BRAY SURVEY, ABSTRACT NO. 74,
TRAVIS COUNTY, TEXAS

PROJECT NO.	LJAS304-2401	DATE	REVISIONS
DRAWN BY	JBC		
APPROVED BY	DET		
DATE	12/08/25		

202600012

S:\Sectors\Survey\Projects\LJAS001\A111 (Stratus)\(2401) Barton Creek KLO\06-CAD\Civil 3D\Plats\LJAS001-A111-2401 Barton Creek Holden_Hills_Phase_1_Final_Plat.dwg 12/8/2025

MATCHLINE SHEET 4

SCALE: 1" = 100'
1 INCH = 100 FEET

LOT 42
CALLED 25.943 ACRES

BARTON CREEK
SECTION J
PHASE 2
DOCUMENT NO. 199900174
O.P.R.T.C.TX.

LOT 1
0.67 ACRES

LOT 2
8.90 ACRES

LOT 3
1.66 ACRES

LOT 4
1.86 ACRES

LOT 5
1.66 ACRES

LOT 6
2.14 ACRES

LOT 7
3.07 ACRES

LOT 8
1.75 ACRES

LOT 9
1.96 ACRES

LOT 10
1.22 ACRES

LOT 11
2.34 ACRES

LOT 12
2.97 ACRES

LOT 13
1.87 ACRES

LOT 14
0.64 ACRES

LOT 15
0.67 ACRES

LOT 16
1.70 ACRES

LOT 17
1.88 ACRES

LOT 18
1.88 ACRES

LOT 19
4.84 ACRES

LOT 20
4.55 ACRES

LOT 29
6.28 ACRES

LOT 30
18.83 ACRES
OPEN SPACE W/O ESMT/DE

LUCENT COVE (PVT)

HAYDE RUN (PVT)

REVERIE RUN (PVT)

HALFORD RUN (PVT)

WATER DRIVE
(ACCESS/DRAINAGE/P.U.E.)
PRIVATE STREET

WATERWAY SETBACK

FEMA 100-YEAR FLOODPLAIN ZONE "A"

FULLY DEVELOPED 100-YEAR ATLAS-14 FLOODPLAIN

C.E.F. SETBACK EASEMENT DOCUMENT NO. 2005[illegible] O.P.R.T.C.TX.

25' D.E. DOCUMENT NO. 2005[illegible] O.P.R.T.C.TX.

30' JOINT USE ACCESS EASEMENT DOCUMENT NO. 2005[illegible] O.P.R.T.C.TX.

VARIABLE WIDTH D.E. DOCUMENT NO. 2005[illegible] O.P.R.T.C.TX.

N28°26'34"E 421.41'

N10°15'26"W 215.27'

N44°21'34"E 276.69'

N12°02'36"E 87.53'

N26°13'18"E 117.79'

N18°39'49"W 151.88'

N42°04'26"W 161.75'

N03°30'36"E 186.13'

S27°19'08"E 414.79'

S34°07'13"E 358.72'

S67°23'08"E 159.34'

S51°51'02"E 299.43'

S57°52'12"E 183.15'

S78°31'00"E 206.66'

S87°15'58"E 481.66'

S44°53'23"E 334.50'

S45°07'59"E 372.99'

S16°19'33"E 462.22'

S14°58'05"E 182.41'

S33°40'48"E 176.38'

S46°24'57"E 152.05'

N24°35'11"E 275.91'

N70°20'10"E 147.90'

N64°45'06"E 237.82'

N64°47'22"W 252.67'

N51°19'06"W 249.62'

N55°30'26"W 140.47'

N57°50'32"W 152.72'

N32°28'03"W 678.68'

N38°43'54"E 88.32'

N49°24'25"E 119.96'

N23°56'19"E 117.96'

N09°07'30"E 123.18'

N89°47'26"E 191.70'

N18°23'48"E 139.35'

S89°46'37"E 149.62'

S87°15'58"E 481.66'

S52°04'52"E 1.69'

N58°13'50"W 2.53'

N55°58'56"E 2.75'

N68°34'25"E 1.46'

CASE NUMBER: S-25-353

MATCHLINE SHEET 8

MATCHLINE SHEET 6

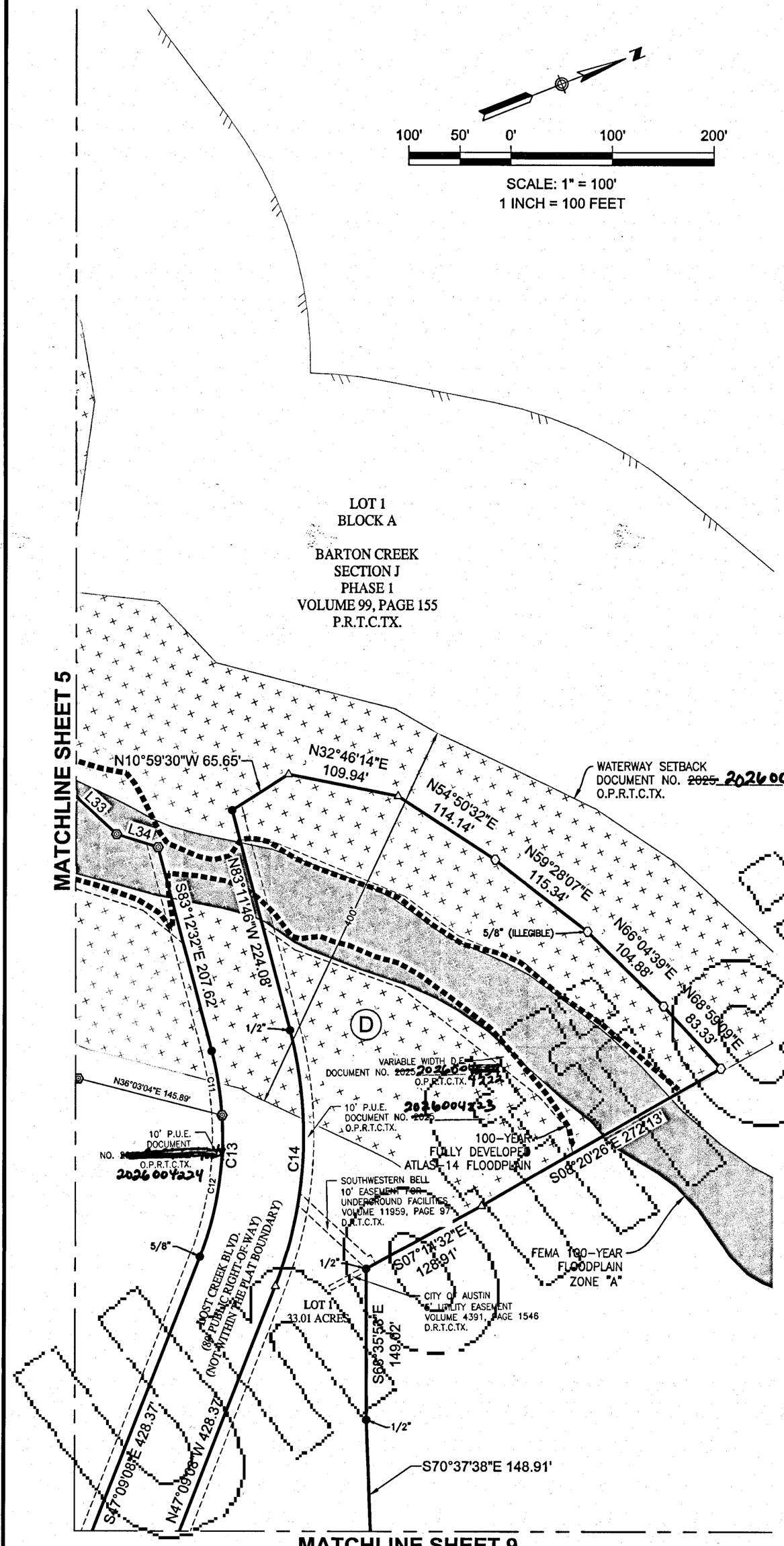
SHEET 5 OF 12

LJA Surveying, Inc.
7500 Rialto Blvd., Building II
Suite 100
Austin, Texas 78735
Phone 512.439.4700
T.B.P.E.L.S. Firm No. 10194382

A FINAL SUBDIVISION PLAT OF
BARTON CREEK HOLDEN HILLS PHASE 1
THE J.L. BRAY SURVEY, ABSTRACT NO. 74,
TRAVIS COUNTY, TEXAS

PROJECT NO.	LJAS304-2401	DATE	REVISIONS
DRAWN BY	JBC		
APPROVED BY	DET		
DATE	12/08/25		

2026000012



Block Table	
Block	Acres
BLOCK A	4.44
BLOCK B	137.03
BLOCK C	89.23
BLOCK D	33.01
BLOCK E	9.37

Lot Table Block E		
Lot #	Acres	Land Use
1	8.90	ACCESS/DRAINAGE/P.U.E.
2	0.47	ACCESS/DRAINAGE/P.U.E.

Street Table	
NAME	LINEAR FEET
VIVIER DR.	5324 FT.
LOLO LN.	180 FT.

TOTAL NUMBER OF RESIDENTIAL UNITS PERMITTED: 300

Lot Table Block A		
Lot #	Acres	Land Use
1	4.44	MULTI-FAMILY/CONDO

Lot Table Block B		
Lot #	Acres	Land Use
1	51.33	MULTI-FAMILY/CONDO
2	33.19	MULTI-FAMILY/CONDO
3	15.57	MULTI-FAMILY/CONDO
4	20.00	MULTI-FAMILY/CONDO
5	16.95	MULTI-FAMILY/CONDO

Lot Table Block D		
Lot #	Acres	Land Use
1	33.01	MULTI-FAMILY/CONDO

TOTAL MULTI-FAMILY/CONDO LOTS: 7

Lot Table Block C			Lot Table Block C		
Lot #	Acres	Land Use	Lot #	Acres	Land Use
1	7.34	SINGLE FAMILY RESIDENTIAL	21	0.89	SINGLE FAMILY RESIDENTIAL
2	3.43	SINGLE FAMILY RESIDENTIAL	22	0.93	SINGLE FAMILY RESIDENTIAL
3	2.99	SINGLE FAMILY RESIDENTIAL	23	0.81	SINGLE FAMILY RESIDENTIAL
4	1.86	SINGLE FAMILY RESIDENTIAL	24	0.74	SINGLE FAMILY RESIDENTIAL
5	1.66	SINGLE FAMILY RESIDENTIAL	25	0.60	SINGLE FAMILY RESIDENTIAL
6	2.14	SINGLE FAMILY RESIDENTIAL	26	0.81	SINGLE FAMILY RESIDENTIAL
7	3.07	SINGLE FAMILY RESIDENTIAL	27	0.88	SINGLE FAMILY RESIDENTIAL
8	1.75	SINGLE FAMILY RESIDENTIAL	28	1.67	SINGLE FAMILY RESIDENTIAL
9	1.93	SINGLE FAMILY RESIDENTIAL	29	6.28	SINGLE FAMILY RESIDENTIAL
10	1.22	SINGLE FAMILY RESIDENTIAL	30	8.83	OPEN SPACE/ WQ ESMT/DE
11	2.34	SINGLE FAMILY RESIDENTIAL	31	1.49	SINGLE FAMILY RESIDENTIAL
12	2.97	SINGLE FAMILY RESIDENTIAL	32	0.98	SINGLE FAMILY RESIDENTIAL
13	1.87	SINGLE FAMILY RESIDENTIAL	33	1.14	SINGLE FAMILY RESIDENTIAL
14	0.64	SINGLE FAMILY RESIDENTIAL	34	1.29	SINGLE FAMILY RESIDENTIAL
15	0.67	SINGLE FAMILY RESIDENTIAL	35	0.97	SINGLE FAMILY RESIDENTIAL
16	1.70	SINGLE FAMILY RESIDENTIAL	36	1.51	SINGLE FAMILY RESIDENTIAL
17	0.63	SINGLE FAMILY RESIDENTIAL			
18	1.88	SINGLE FAMILY RESIDENTIAL			
19	4.84	SINGLE FAMILY RESIDENTIAL			
20	4.85	SINGLE FAMILY RESIDENTIAL			

TOTAL SINGLE FAMILY RESIDENTIAL LOTS: 35

MAXIMUM NUMBER OF RESIDENTIAL UNITS REMAINING: 265

LEGEND

- 5/8" IRON ROD SET WITH CAP STAMPED "LJA SURVEY"
- 1/2" "RL SURVEYING RPLS 4532"
- 5/8" "RUST E&I RPLS 4532"
- 60D NAIL IN ROCK
- IRON ROD (AS NOTED)
- 5/8" "SURVEY WORKS 6356"
- CALCULATED POINT
- PHASE LINE
- BOUNDARY LINE
- EASEMENT LINE
- LOT LINE
- P.R.T.C.TX. — PLAT RECORDS TRAVIS COUNTY, TEXAS
- O.P.R.T.C.TX. — OFFICIAL PUBLIC RECORDS TRAVIS COUNTY, TEXAS
- R.O.W. — RIGHT-OF-WAY
- C.E.F. — CRITICAL ENVIRONMENTAL FEATURE
- D.E. — DRAINAGE EASEMENT
- P.U.E. — PUBLIC UTILITY EASEMENT
- S.S.E. — SANITARY SEWER EASEMENT
- W.L.E. — WATER LINE EASEMENT
- W.W.E. — WASTEWATER EASEMENT
- W.Q. ESMT — WATER QUALITY EASEMENT
- AC. — ACRE
- (C) — SUBDIVISION BLOCK (TYP.)
- FEMA 100-YEAR FLOODPLAIN ZONE "A"
- WATERWAY SETBACK
- SPRING C.E.F.
- 400-FOOT SITE BUFFER
- 100-YEAR FULLY DEVELOPED ATLAS-14 FLOODPLAIN

Official Document

REVISIONS	DATE

PROJECT NO.	LJA\$304-2401
DRAWN BY	JBC
APPROVED BY	DET
DATE	12/08/25

A FINAL SUBDIVISION PLAT OF
BARTON CREEK HOLDEN HILLS PHASE 1
THE J.L. BRAY SURVEY, ABSTRACT NO. 74,
TRAVIS COUNTY, TEXAS

LJA Surveying, Inc.
7500 Rialto Blvd., Building II
Suite 100
Austin, Texas 78735
Phone 512.439.4700
T.B.P.E.L.S. Firm No. 10194382

SHEET 6 OF 12

CASE NUMBER: S-25-353

S:\Sectors\Survey\Projects\LJA\S001\A111 (Stratus)\(2401) Barton Creek KLO\06-CAD\Civil 3D\Plats\LJA\S001-A111-2401 Barton Creek Holden_Hills_Phase_1_Final_Plat.dwg 12/8/2025

202600012

S:\Sectors\Survey\Projects\LJAS001\A111 (Stratus)\(2401) Barton Creek KLO\06-CAD\Civil 3D\Plats\LJAS001-A111-2401 Barton Creek Holden_Hills_Phase_1_Final_Plat.dwg 12/8/2025

UNRECORDED

BARTON CREEK SECTION N BLOCK B, LOT 4 CALLED 44.888 ACRES DOCUMENT NO. 201400316 O.P.R.T.C.TX.

5/8" (ILLEGIBLE)

TECOMA CIRCLE (VARIABLE WIDTH RIGHT-OF-WAY) DOCUMENT NO. 202400163 O.P.R.T.C.TX.

10' P.U.E. DOCUMENT NO. 2025 202600 4225 O.P.R.T.C.TX.

W.L.E. DOCUMENT NO. 2025 202600 4238 O.P.R.T.C.TX.

N23°35'30"W 336.50'

N23°35'30"W 135.02'

C15 C16 C17 C18 C19 C20 C21 C22

15' P.U.E. DOCUMENT NO. 2025 202600 4227 O.P.R.T.C.TX.

N59°22'37"W 322.18'

S59°22'37"E 185.81'

N59°20'33"W 185.88'

VIVIER DRIVE PRIVATE STREET (ACCESS/DRAINAGE/P.U.E.)

S17°10'28"W 259.35'

N17°10'28"E 259.35'

LOT 2 8.90 ACRES

LOT 1 4.44 ACRES

10' P.U.E. DOCUMENT NO. 2025 202600 4226 O.P.R.T.C.TX.

VARIABLE WIDTH P.U.E. DOCUMENT NO. 2025 202600 4226 O.P.R.T.C.TX.

20' S.S.E. DOCUMENT NO. 2025 202600 4229 O.P.R.T.C.TX.

N19°07'29"E 128.20'

N07°57'35"W 184.29'

N34°23'07"E 240.57'

N27°37'09"E 60.58'

N39°54'36"E 61.56'

N25°22'30"E 70.63'

N00°33'28"W 56.36'

N00°33'28"W 93.27'

WATERWAY SETBACK DOCUMENT NO. 2025 202600 4247 O.P.R.T.C.TX.

50'

73.50'

61.53' S23°35'30"E

N17°23'47"E 34.41'

N17°03'38"E 208.41'

30' D.E. DOCUMENT NO. 2025 202600 4238 O.P.R.T.C.TX.

N09°50'42"E 150.24'

N36°53'46"E 84.31'

N11°35'01"E 131.18'

N01°05'29"E 258.56'

N10°37'35"E 293.67'

WATERWAY SETBACK DOCUMENT NO. 2025 202600 4247 O.P.R.T.C.TX.

CITY OF AUSTIN TRAIL EASEMENT DOCUMENT NO. 2022058542 O.P.R.T.C.TX.

30' D.E. DOCUMENT NO. 2025 202600 4238 O.P.R.T.C.TX.

SCALE: 1" = 100'
1 INCH = 100 FEET

100' 50' 0' 100' 200'

MATCHLINE SHEET 10

MATCHLINE SHEET 4

MATCHLINE SHEET 8

CASE NUMBER: S-25-353

SHEET 7 OF 12

LJA Surveying, Inc.
7500 Rialto Blvd., Building II
Suite 100
Austin, Texas 78735
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T.B.P.E.L.S. Firm No. 10194382

A FINAL SUBDIVISION PLAT OF
BARTON CREEK HOLDEN HILLS PHASE 1
THE J.L. BRAY SURVEY, ABSTRACT NO. 74,
TRAVIS COUNTY, TEXAS

PROJECT NO.	LJAS304-2401	DATE	REVISIONS
DRAWN BY	JBC		
APPROVED BY	DET		
DATE	12/08/25		

202600012

S:\Sectors\Survey\Projects\LJAS001\A111 (Stratus)\(2401) Barton Creek KLO\06-CAD\Civil 3D\Plats\LJAS001-A111-2401 Barton Creek Holden_Hills_Phase_1_Final_Plat.dwg 12/8/2025

MATCHLINE SHEET 7

SCALE: 1" = 100'
1 INCH = 100 FEET

MATCHLINE SHEET 5

MATCHLINE SHEET 11

MATCHLINE SHEET 9

CASE NUMBER: S-25-353

SHEET 8 OF 12

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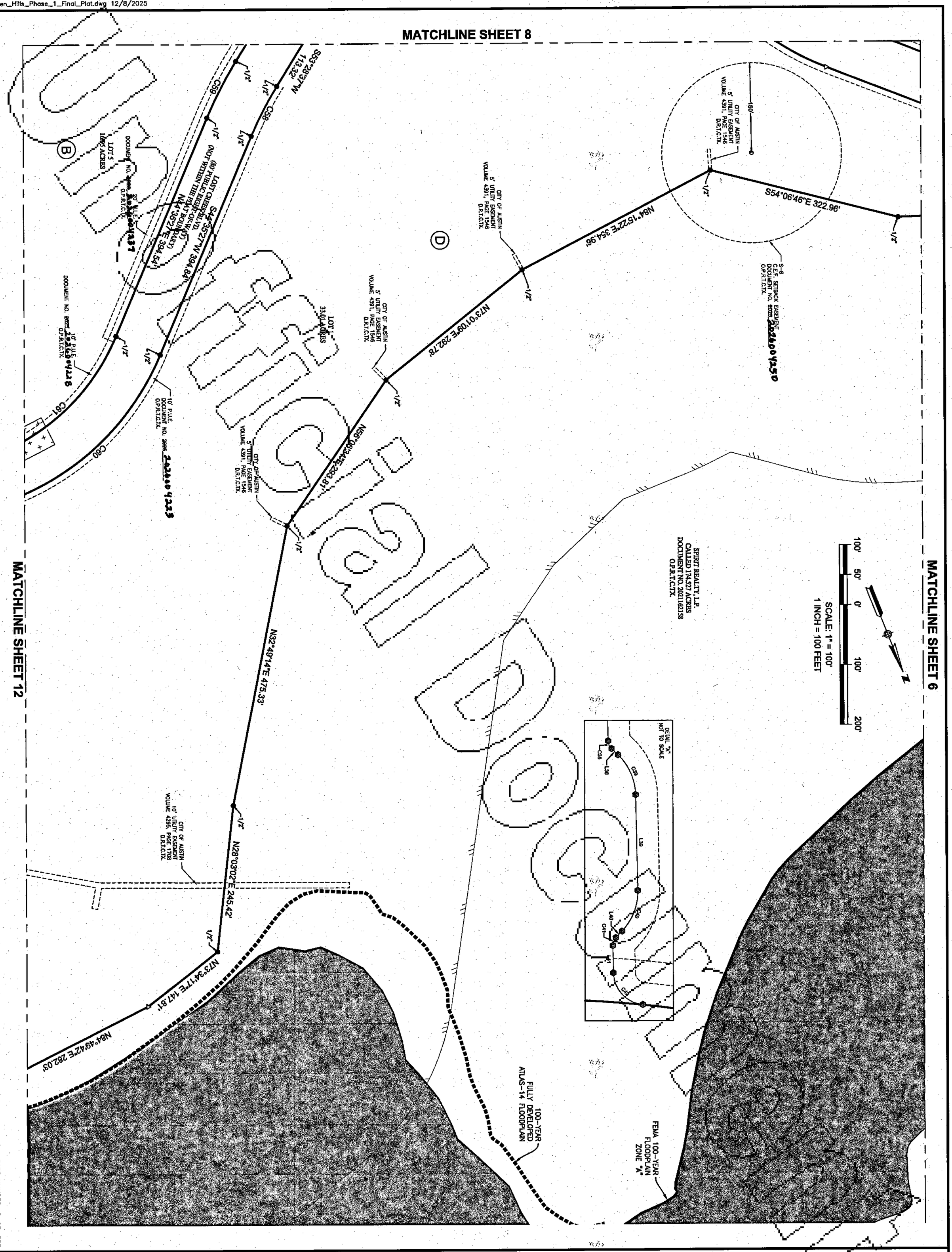
202600012

S:\Sectors\Survey\Projects\LJAS001\A111 (Stratus)\(2401) Barton Creek KLO\06-CAD\Civil 3D\Plats\LJAS001-A111-2401 Barton Creek Holden_Hills_Phase_1_Final_Plat.dwg 12/8/2025

MATCHLINE SHEET 8

MATCHLINE SHEET 6

MATCHLINE SHEET 12



CASE NUMBER: S-25-353

SHEET 9 OF 12

LJA Surveying, Inc.
7500 Rialto Blvd., Building II
Suite 100
Austin, Texas 78735
Phone 512.439.4700
T.B.P.E.L.S. Firm No. 10194382

A FINAL SUBDIVISION PLAT OF
BARTON CREEK HOLDEN HILLS PHASE 1
THE J.L. BRAY SURVEY, ABSTRACT NO. 74,
TRAVIS COUNTY, TEXAS

PROJECT NO.	LJAS304-2401	DATE	REVISIONS
DRAWN BY	JBC		
APPROVED BY	DET		
DATE	12/08/25		

202600012

S:\Sectors\Survey\Projects\LJAS001\A111 (Stratus)\(2401) Barton Creek KLO\06-CAD\Civil 3D\Plats\LJAS001-A111-2401 Barton Creek Holden_Hills_Phase_1_Final_Plat.dwg 12/8/2025

UNRECORDED

TECOMA CIRCLE
(VARIABLE WIDTH RIGHT-OF-WAY)
DOCUMENT NO. 202200163
O.P.R.T.C.TX.

LOLO LN.
PRIVATE STREET
(ACCESS/DRAINAGE/P.U.E.)

LOT 1
0.47 ACRES

LOT 2
8.90 ACRES

LOT 1
51.33 ACRES

C64
C65
C66
C67
C68
C82
C83

S30°37'23"W 112.13'
N59°22'37"W 136.37'
N30°37'23"E 158.78'
S30°39'27"W 70.00'
S60°55'59"E 138.16'

N59°20'33"W 419.79'
S59°20'33"E 363.61'
S48°13'56"W 325.70'
S14°40'13"E 947.03'
S46°45'09"W 284.37'
S20°00'19"W 240.47'

HOLDEN HILLS, L.P.
CALLED 153.59 ACRES
DOCUMENT NO. 2023013501
O.P.R.T.C.TX.

CITY OF AUSTIN
TRAIL EASEMENT
DOCUMENT NO. 2022058542
O.P.R.T.C.TX.

WATERWAY SETBACK
DOCUMENT NO. 2025202600426?
O.P.R.T.C.TX.

C.E.F. SETBACK EASEMENT
DOCUMENT NO. 2025202600426?
O.P.R.T.C.TX.

ORIGINAL DEED LINE

S-26

150'

50'

Ⓔ

Ⓑ

MATCHLINE SHEET 7

MATCHLINE SHEET 11

SCALE: 1" = 100'
1 INCH = 100 FEET

100' 50' 0' 100' 200'

CASE NUMBER: S-25-353

SHEET 10 OF 12

LJA Surveying, Inc.
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Suite 100
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Phone 512.439.4700
T.B.P.E.L.S. Firm No. 10194382

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TRAVIS COUNTY, TEXAS

PROJECT NO.	LJAS304-2401	DATE	REVISIONS
DRAWN BY	JBC		
APPROVED BY	DET		
DATE	12/08/25		

S:\Sectors\Survey\Projects\LJAS001\A111 (Stratus)\(2401) Barton Creek KLO\06-CAD\Civil 3D\Plats\LJAS001-A111-2401 Barton Creek Holden_Hills_Phase_1_Final_Plat.dwg 12/8/2025

2026000124

UNOFFICIAL DOCUMENT

MATCHLINE SHEET 10

100' 50' 0' 100' 200'

SCALE: 1" = 100'
1 INCH = 100 FEET

LOT 1
51.33 ACRES

S-26 C.E.F. SETBACK EASEMENT DOCUMENT NO. ~~2025~~ 2026004245 O.P.R.T.C.TX.

S-28 C.E.F. SETBACK EASEMENT DOCUMENT NO. ~~2025~~ 2026004245 O.P.R.T.C.TX.

S-27 C.E.F. SETBACK EASEMENT DOCUMENT NO. ~~2025~~ 2026004245 O.P.R.T.C.TX.

VARIABLE WIDTH D.E. DOCUMENT NO. ~~2025~~ 2026004239 O.P.R.T.C.TX.

S-30 C.E.F. SETBACK EASEMENT DOCUMENT NO. ~~2025~~ 2026004263 O.P.R.T.C.TX.

S-31 C.E.F. SETBACK EASEMENT DOCUMENT NO. ~~2025~~ 2026004263 O.P.R.T.C.TX.

S-18 C.E.F. SETBACK EASEMENT DOCUMENT NO. ~~2025~~ 2026004265 O.P.R.T.C.TX.

S-19 C.E.F. SETBACK EASEMENT DOCUMENT NO. ~~2025~~ 2026004255 O.P.R.T.C.TX.

S14°24'37"W 499.72'

S10°22'19"E 334.80'

S34°41'10"E 350.86'

S71°23'14"E 170.04'

N67°48'55"E 124.91'

S34°41'10"E 15.44'

S21°06'43"W 338.21'

S69°58'08"E 249.40'

S14°17'56"W 161.34'

S73°01'21"W 287.94'

N53°19'53"W 187.55'

S48°59'36"W 91.49'

5/8"

50'

150'

ORIGINAL DEED LINE

HOLDEN HILLS, L.P.
CALLED 153.59 ACRES
DOCUMENT NO. 2023013501
O.P.R.T.C.TX.

CITY OF AUSTIN TRAIL EASEMENT DOCUMENT NO. 2022058842 O.P.R.T.C.TX.

WATERWAY SETBACK DOCUMENT NO. ~~2025~~ 2026004267 O.P.R.T.C.TX.

100-YEAR FULLY DEVELOPED ATLAS-14 FLOODPLAIN

FEMA 100-YEAR FLOODPLAIN ZONE "A"

VARIABLE WIDTH D.E. DOCUMENT NO. ~~2025~~ 2026004239 O.P.R.T.C.TX.

10' W.L.E. DOCUMENT NO. ~~2022~~ 2026004239 O.P.R.T.C.TX.

LOT 4
20.00 ACRES

S-20 C.E.F. SETBACK EASEMENT DOCUMENT NO. ~~2025~~ 2026004269 O.P.R.T.C.TX.

MATCHLINE SHEET 8

MATCHLINE SHEET 12

CASE NUMBER: S-25-353

SHEET 11 OF 12

LJA Surveying, Inc.
7500 Rialto Blvd., Building II, Suite 100
Austin, Texas 78735
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T.B.P.E.L.S. Firm No. 10194382

A FINAL SUBDIVISION PLAT OF
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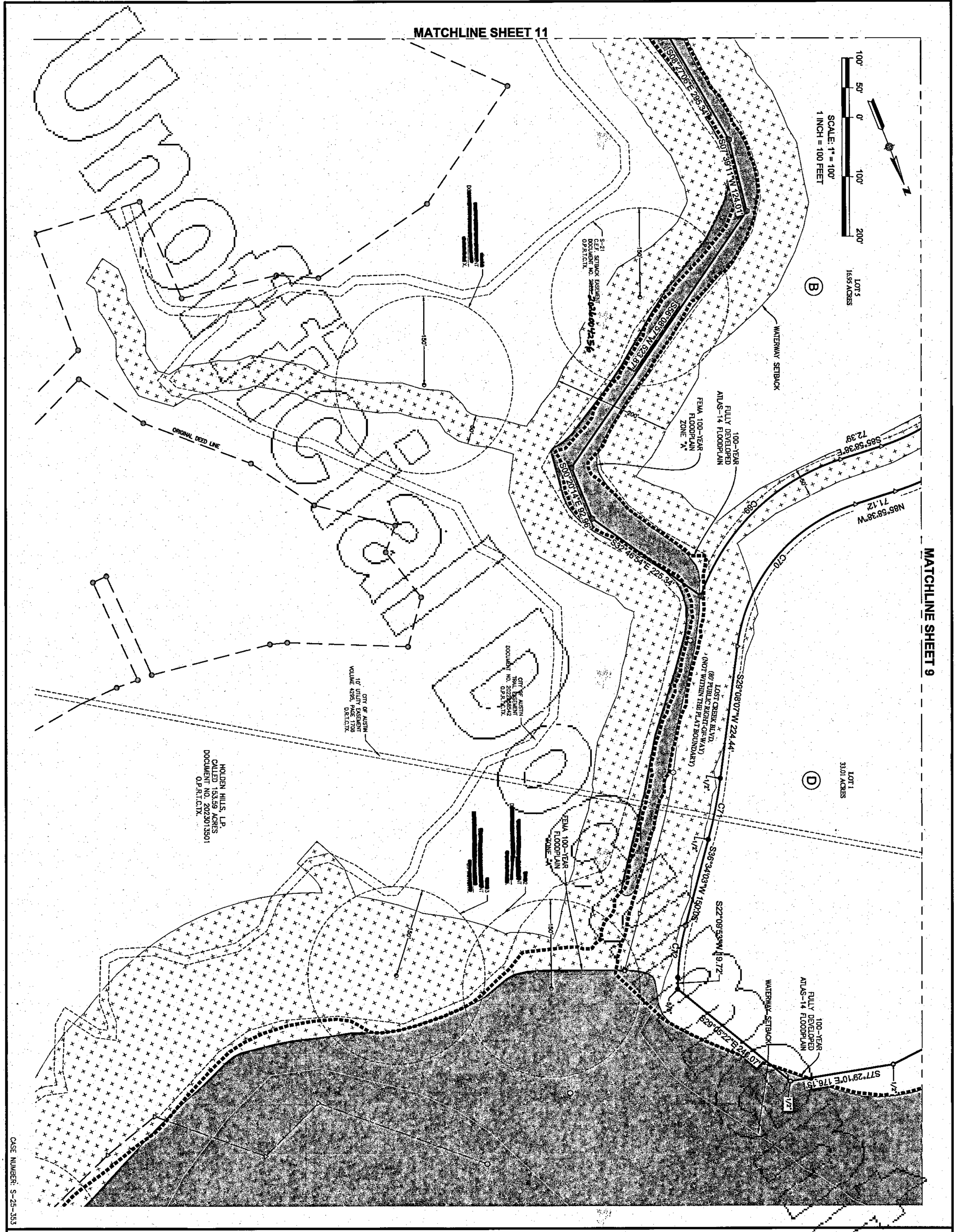
THE J.L. BRAY SURVEY, ABSTRACT NO. 74,
TRAVIS COUNTY, TEXAS

PROJECT NO.	LJAS304-2401	DATE	REVISIONS
DRAWN BY	JBC		
APPROVED BY	DET		
DATE	12/08/25		

202600012

S:\Sectors\Survey\Projects\LJAS001\A111 (Stratus)\(2401) Barton Creek KLO\06-CAD\Civil 3D\Plats\LJAS001-A111-2401 Barton Creek Holden_Hills_Phase_1_Final_Plat.dwg 12/8/2025



CASE NUMBER: S-25-353

SHEET 12 OF 12

LJA Surveying, Inc.
7500 Rialto Blvd., Building II
Suite 100
Austin, Texas 78735
Phone 512.439.4700
T.B.P.E.L.S. Firm No. 10194382

A FINAL SUBDIVISION PLAT OF
BARTON CREEK HOLDEN HILLS PHASE 1
THE J.L. BRAY SURVEY, ABSTRACT NO. 74,
TRAVIS COUNTY, TEXAS

PROJECT NO.	LJAS304-2401	DATE	REVISIONS
DRAWN BY	JBC		
APPROVED BY	DET		
DATE	12/08/25		

512.439.4700
TBPELS F-1386
TBPELS 10110501
www.LJA.com
7500 Rialto Boulevard, Building II, Suite 100, Austin, Texas 78735

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CONTRIBUTING ZONE PLAN

FOR

BARTON CREEK HOLDEN HILLS
BLOCK B LOT 1

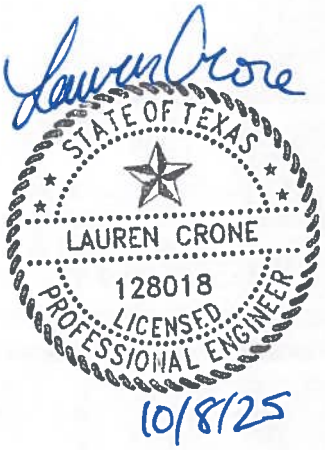
OCTOBER 2025

PREPARED FOR

HOLDEN HILLS, L.P.
212 LAVACA STREET, SUITE 300
AUSTIN, TEXAS 78701
(512) 478-5788

PREPARED BY

LJA ENGINEERING, INC.
7500 RIALTO BLVD, BUILDING II, SUITE 100
AUSTIN, TEXAS 78735
(512) 439-4700
FIRM NO. F-1386



Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with 30 TAC 213.

Administrative Review

1. Edwards Aquifer applications must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.

   To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: http://www.tceq.texas.gov/field/eapp.

2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.

3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.

4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

   An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.

5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.

6. If the geologic assessment was completed before October 1, 2004 and the site contains "possibly sensitive" features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.

2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.

3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied **the application fee will be forfeited**.
4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available:

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

If the application is denied/withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the affected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact TCEQ's Austin Regional Office at 512-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact TCEQ's San Antonio Regional Office at 210-490-3096

Please fill out all required fields below and submit with your application.

1. Regulated Entity Name: Barton Creek Holden Hills Block B Lot 1					**2. Regulated Entity No.:**				
3. Customer Name: Holden Hills, L.P.					**4. Customer No.:** CN606123644				
5. Project Type: **(Please circle/check one)**	(New)		Modification		Extension		Exception		
6. Plan Type: **(Please circle/check one)**	WPAP	(CZP)	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		(Non-residential)			**8. Site (acres):**		51.33 acres	
9. Application Fee:	$8,000		**10. Permanent BMP(s):**			Batch Detention/Vegetative Filter Strips			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Travis		**14. Watershed:**			City of Austin – Colorado River			

Application Distribution

Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the "Texas Groundwater Conservation Districts within the EAPP Boundaries" map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf

For more detailed boundaries, please contact the conservation district directly.

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	X	___
Region (1 req.)	___	X	___
County(ies)	___	X	___
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	X Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___ Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence ___Georgetown ___Jerrell ___Leander ___Liberty Hill ___Pflugerville ___Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	___	___	___	___
Region (1 req.)	___	___	___	___	___
County(ies)	___	___	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	___Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park ___San Antonio (SAWS) ___Shavano Park	___Bulverde ___Fair Oaks Ranch ___Garden Ridge ___New Braunfels ___Schertz	NA	___San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review. Lauren Crone, P.E.
Print Name of Customer/Authorized Agent
Lauren Crone 10/3/25 Signature of Customer/Authorized Agent Date

FOR TCEQ INTERNAL USE ONLY				
Date(s)Reviewed:		Date Administratively Complete:		
Received From:		Correct Number of Copies:		
Received By:		Distribution Date:		
EAPP File Number:		Complex:		
Admin. Review(s) (No.):		No. AR Rounds:		
Delinquent Fees (Y/N):		Review Time Spent:		
Lat./Long. Verified:		SOS Customer Verification:		
Agent Authorization Complete/Notarized (Y/N):		Fee Check:	Payable to TCEQ (Y/N):	
Core Data Form Complete (Y/N):			Signed (Y/N):	
Core Data Form Incomplete Nos.:			Less than 90 days old (Y/N):	

Contributing Zone Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Contributing Zone to the Edwards Aquifer and Relating to 30 TAC §213.24(1), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Contributing Zone Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: Lauren Crone, P.E.

Date: 10/3/25

Signature of Customer/Agent:

Regulated Entity Name: Barton Creek Holden Hills Block B Lot 1

Project Information

1. County: Travis
2. Stream Basin: Barton Creek
3. Groundwater Conservation District (if applicable): Barton Springs
4. Customer (Applicant):

   Contact Person: Erin D. Pickens
   Entity: Holden Hills, L.P.
   Mailing Address: 212 Lavaca Street, Suite 300
   City, State: Austin, Texas Zip: 78701
   Telephone: 512-478-5788 Fax: _____
   Email Address: epickens@stratusproperties.com

5. Agent/Representative (If any):

   Contact Person: Lauren Crone, P.E.
   Entity: LJA Engineering, Inc.
   Mailing Address: 7500 Rialto Blvd., Building II, Suite 100
   City, State: Austin, Texas Zip: 78735
   Telephone: 512-439-4700 Fax: N/A
   Email Address: lcrone@lja.com

6. Project Location:

   ☐ The project site is located inside the city limits of _____.
   ☐ The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.
   ☒ The project site is not located within any city's limits or ETJ.

7. ☒ The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

   The project is located at the intersection of Pico Lane and Bellissimo Lane.

8. ☒ **Attachment A - Road Map**. A road map showing directions to and the location of the project site is attached. The map clearly shows the boundary of the project site.

9. ☒ **Attachment B - USGS Quadrangle Map**. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') is attached. The map(s) clearly show:

   ☒ Project site boundaries.
   ☒ USGS Quadrangle Name(s).

10. ☒ **Attachment C - Project Narrative**. A detailed narrative description of the proposed project is attached. The project description is consistent throughout the application and contains, at a minimum, the following details:

    ☒ Area of the site
    ☒ Offsite areas
    ☒ Impervious cover
    ☒ Permanent BMP(s)
    ☒ Proposed site use
    ☒ Site history
    ☒ Previous development
    ☐ Area(s) to be demolished

11. Existing project site conditions are noted below:

    ☐ Existing commercial site
    ☐ Existing industrial site
    ☐ Existing residential site

☐ Existing paved and/or unpaved roads
☐ Undeveloped (Cleared)
☒ Undeveloped (Undisturbed/Not cleared)
☐ Other: _____

12. The type of project is:

☒ Residential: # of Lots: 46
☐ Residential: # of Living Unit Equivalents: _____
☐ Commercial
☐ Industrial
☐ Other: _____

13. Total project area (size of site): 51.33 Acres

Total disturbed area: 24.69 Acres

14. Estimated projected population: 161

15. The amount and type of impervious cover expected after construction is complete is shown below:

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	***Sq. Ft.***	***Sq. Ft./Acre***	***Acres***
Structures/Rooftops	402,841	÷ 43,560 =	9.25
Parking	0	÷ 43,560 =	0
Other paved surfaces	149,500	÷ 43,560 =	3.43
Total Impervious Cover	552,341	÷ 43,560 =	12.68

Total Impervious Cover 12.68 **÷ Total Acreage** 51.33 **X 100 =** 24.70**% Impervious Cover**

16. ☒ **Attachment D - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water quality is attached. If applicable, this includes the location and description of any discharge associated with industrial activity other than construction.

17. ☒ Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

For Road Projects Only

Complete questions 18 - 23 if this application is exclusively for a road project.

☒ N/A

18. Type of project:

- ☐ TXDOT road project.
- ☐ County road or roads built to county specifications.
- ☐ City thoroughfare or roads to be dedicated to a municipality.
- ☐ Street or road providing access to private driveways.

19. Type of pavement or road surface to be used:

- ☐ Concrete
- ☐ Asphaltic concrete pavement
- ☐ Other: _____

20. Right of Way (R.O.W.):

Length of R.O.W.: _____ feet.
Width of R.O.W.: _____ feet.
L x W = _____Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.

21. Pavement Area:

Length of pavement area: _____ feet.
Width of pavement area: _____ feet.
L x W = _____Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.
Pavement area _____ acres ÷ R.O.W. area _____ acres x 100 = _____% impervious cover.

22. ☐ A rest stop will be included in this project.

☐ A rest stop will not be included in this project.

23. ☐ Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

Stormwater to be generated by the Proposed Project

24. ☒ **Attachment E - Volume and Character of Stormwater**. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Wastewater to be generated by the Proposed Project

25. ☐ Wastewater is to be discharged in the contributing zone. Requirements under 30 TAC §213.6(c) relating to Wastewater Treatment and Disposal Systems have been satisfied.

☒ N/A

26. Wastewater will be disposed of by:

☐ On-Site Sewage Facility (OSSF/Septic Tank):

☐ **Attachment F - Suitability Letter from Authorized Agent**. An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities.

☐ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

☒ Sewage Collection System (Sewer Lines):

The sewage collection system will convey the wastewater to the Travis County MUD No. 4 Barton Creek WWTP (name) Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.

☐ N/A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

Complete questions 27 - 33 if this project includes the installation of AST(s) with volume(s) greater than or equal to 500 gallons.

☒N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

AST Number	*Size (Gallons)*	*Substance to be Stored*	*Tank Material*
1			
2			
3			
4			
5			

Total x 1.5 = _____ Gallons

28. ☐ The AST will be placed within a containment structure that is sized to capture one and one-half (1 1/2) times the storage capacity of the system. For facilities with more than

one tank system, the containment structure is sized to capture one and one-half (1 1/2) times the cumulative storage capacity of all systems.

☐ **Attachment G - Alternative Secondary Containment Methods**. Alternative methods for providing secondary containment are proposed. Specifications showing equivalent protection for the Edwards Aquifer are attached.

29. Inside dimensions and capacity of containment structure(s):

Table 3 - Secondary Containment

Length (L)(Ft.)	*Width(W)(Ft.)*	*Height (H)(Ft.)*	*L x W x H = (Ft3)*	*Gallons*

Total: _____ Gallons

30. Piping:

☐ All piping, hoses, and dispensers will be located inside the containment structure.
☐ Some of the piping to dispensers or equipment will extend outside the containment structure.
☐ The piping will be aboveground
☐ The piping will be underground

31. ☐ The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of: _____.

32. ☐ **Attachment H - AST Containment Structure Drawings**. A scaled drawing of the containment structure is attached that shows the following:

☐ Interior dimensions (length, width, depth and wall and floor thickness).
☐ Internal drainage to a point convenient for the collection of any spillage.
☐ Tanks clearly labeled
☐ Piping clearly labeled
☐ Dispenser clearly labeled

33. ☐ Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.

☐ In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.

☐ In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

Site Plan Requirements

Items 34 - 46 must be included on the Site Plan.

34. ☒ The Site Plan must have a minimum scale of 1" = 400'.

    Site Plan Scale: 1" = 70'.

35. 100-year floodplain boundaries:

    ☒ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.

    ☐ No part of the project site is located within the 100-year floodplain.

    The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): _____.

36. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.

    ☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot contour intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.

37. ☒ A drainage plan showing all paths of drainage from the site to surface streams.

38. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.

39. ☒ Areas of soil disturbance and areas which will not be disturbed.

40. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

41. ☒ Locations where soil stabilization practices are expected to occur.

42. ☒ Surface waters (including wetlands).

    ☐ N/A

43. ☒ Locations where stormwater discharges to surface water.

    ☐ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

    ☒ Temporary aboveground storage tank facilities will not be located on this site.

45. ☐ Permanent aboveground storage tank facilities.

☒ Permanent aboveground storage tank facilities will not be located on this site.

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

Practices and measures that will be used during and after construction is completed.

47. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

☐ N/A

48. ☒ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____.

☐ N/A

49. ☒ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

☐ N/A

50. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

☐ The site will be used for low density single-family residential development and has 20% or less impervious cover.

☐ The site will be used for low density single-family residential development but has more than 20% impervious cover.

☒ The site will not be used for low density single-family residential development.

51. The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

    ☐ **Attachment I - 20% or Less Impervious Cover Waiver**. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.
    ☐ The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.
    ☒ The site will not be used for multi-family residential developments, schools, or small business sites.

52. ☒ **Attachment J - BMPs for Upgradient Stormwater**.

    ☒ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.
    ☐ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.
    ☐ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

53. ☒ **Attachment K - BMPs for On-site Stormwater**.

    ☒ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached.
    ☐ Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, and an explanation is attached.

54. ☒ **Attachment L - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams is attached.

    ☐ N/A

55. ☒ **Attachment M - Construction Plans**. Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. Construction plans for the proposed permanent BMPs and measures are

attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

☐ N/A

56. ☒ **Attachment N - Inspection, Maintenance, Repair and Retrofit Plan**. A site and BMP specific plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan fulfills all of the following:

    ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
    ☒ Signed by the owner or responsible party
    ☒ Outlines specific procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofit.
    ☒ Contains a discussion of record keeping procedures

    ☐ N/A

57. ☐ **Attachment O - Pilot-Scale Field Testing Plan**. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.

    ☒ N/A

58. ☒ **Attachment P - Measures for Minimizing Surface Stream Contamination**. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that result in water quality degradation.

    ☐ N/A

Responsibility for Maintenance of Permanent BMPs and Measures after Construction is Complete.

59. ☒ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

60. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development,

or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

Administrative Information

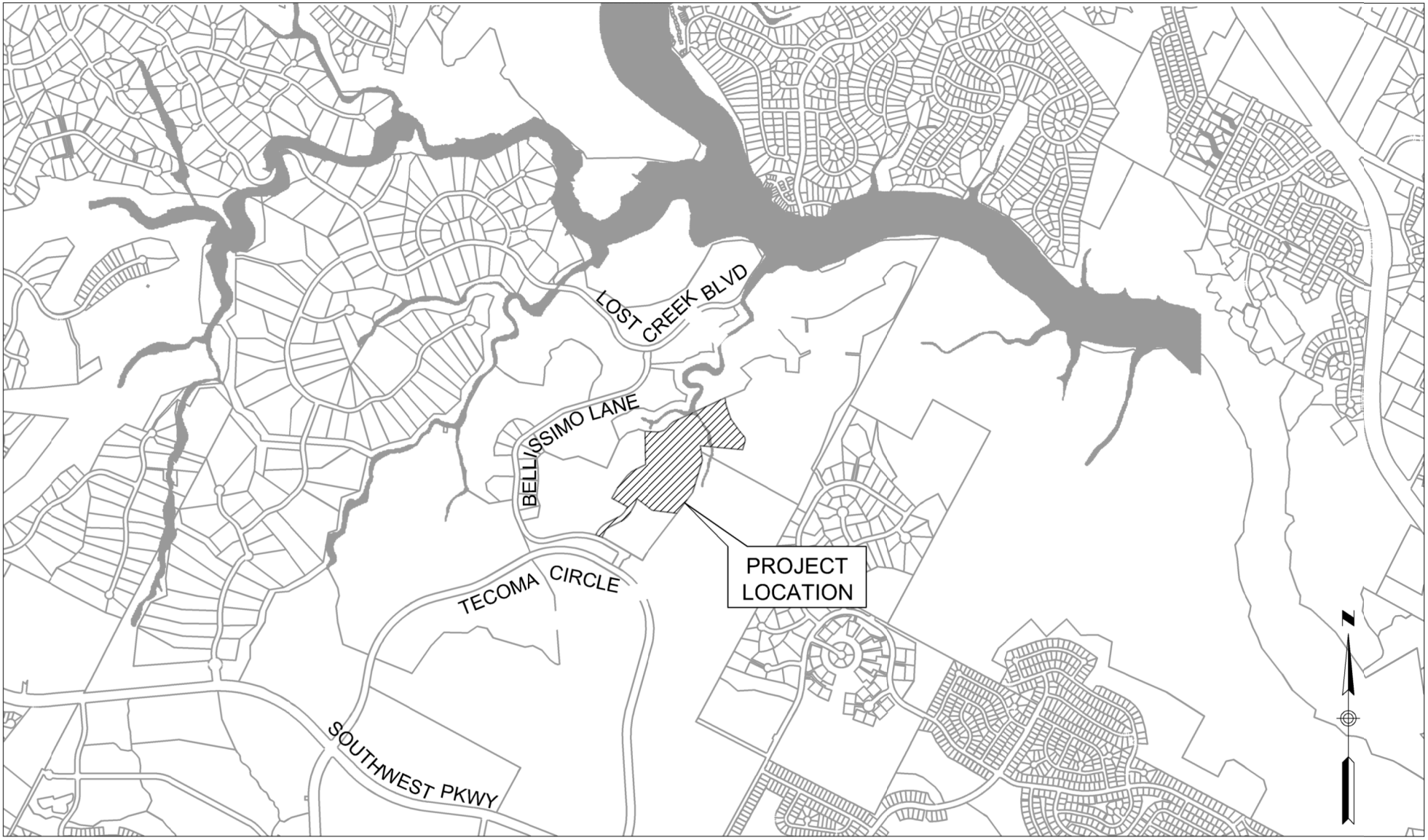
61. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions.

62. ☒ Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.

63. ☒ The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.

☐ The Temporary Stormwater Section (TCEQ-0602) is included with the application.

ATTACHMENT A – Road Map



LJA Engineering

7500 Rialto Blvd, Building II
Suite 100
Austin, Texas 78735

Phone 512.439.4700
Fax 512.439.4716

BARTON CREEK HOLDEN HILLS BLOCK B LOT 1 ROAD MAP

SCALE: 1" = 2000'

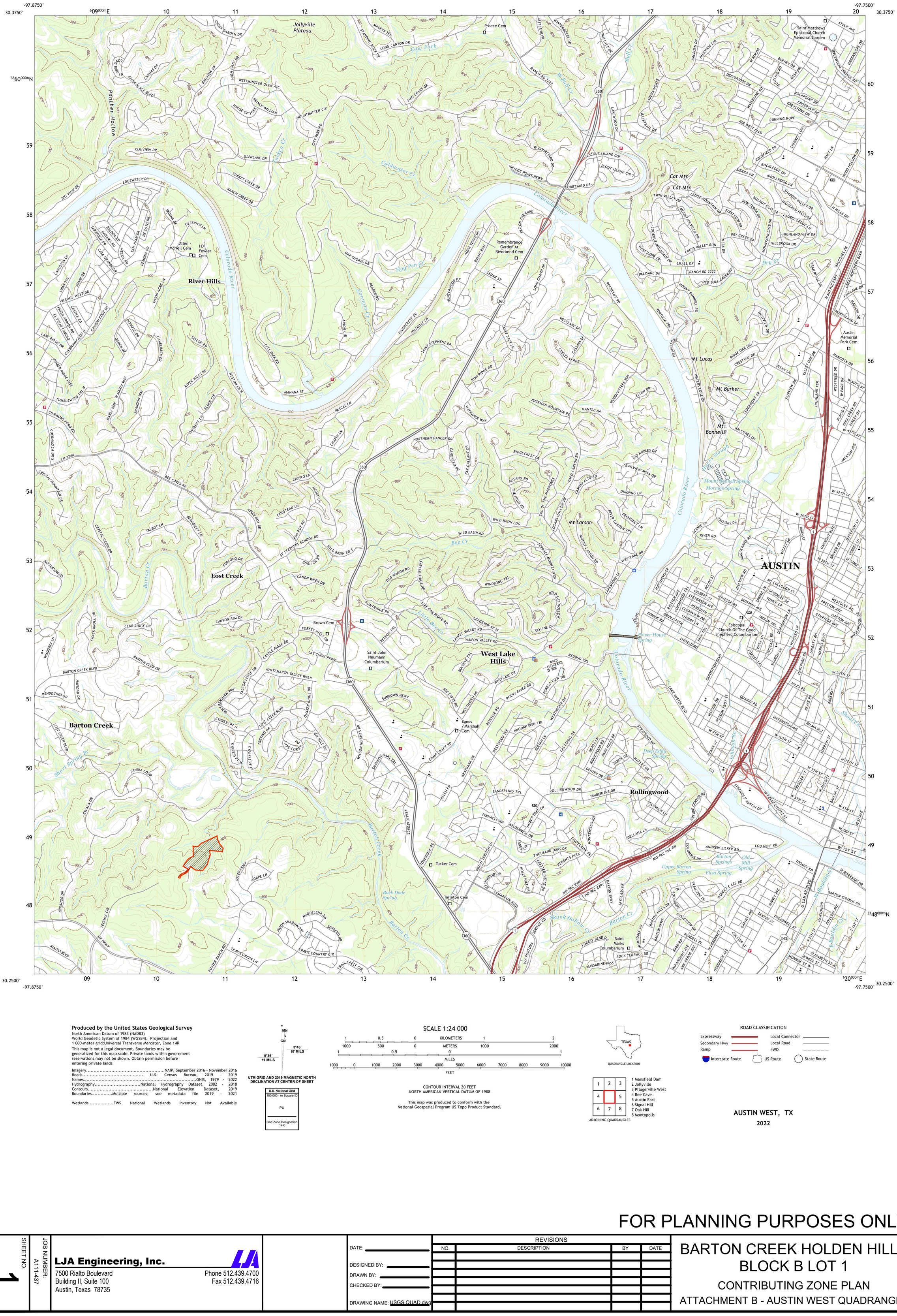
ATTACHMENT B – USGS Quadrangle Map

USGS science for a changing world

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

AUSTIN WEST QUADRANGLE
TEXAS - TRAVIS COUNTY
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 14R

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, September 2016 - November 2016
Roads..... U.S. Census Bureau, 2015 - 2019
Names.....GNIS, 1979 - 2022
Hydrography.....National Hydrography Dataset, 2002 - 2018
Contours.....National Elevation Dataset, 2019
Boundaries.....Multiple sources; see metadata file 2019 - 2021

Wetlands.....FWS National Wetlands Inventory Not Available

UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 - m Square ID
PU
Grid Zone Designation 14R

SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1 MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 FEET

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard.

QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

1 Mansfield Dam
2 Jollyville
3 Pflugerville West
4 Bee Cave
5 Austin East
6 Signal Hill
7 Oak Hill
8 Montopolis

ADJOINING QUADRANGLES

ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

AUSTIN WEST, TX
2022

FOR PLANNING PURPOSES ONLY

SHEET NO. 1 OF 1 SHEETS

JOB NUMBER: A111-437

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: USGS QUAD.dwg

REVISIONS

NO.	DESCRIPTION	BY	DATE

BARTON CREEK HOLDEN HILLS BLOCK B LOT 1
CONTRIBUTING ZONE PLAN
ATTACHMENT B - AUSTIN WEST QUADRANGLE

ATTACHMENT C – Project Narrative

The proposed Barton Creek Holden Hills Phase 1 Block B Lot 1 Condos Site Plan consists of 46 detached condos, drives, and streets/drainage/water and wastewater improvements on 51.33 acres outside the 2-mile Extra Territorial Jurisdiction of the City of Austin. The land is located in the Barton Creek Watershed and the Edwards Aquifer Contributing Zone. The limits of construction consists of 24.69 acres. The proposed impervious cover equals 24.70 percent of the site area.

Water and wastewater will be provided by Travis County MUD Nos. 4, 7, and 9. The City has agreed to waive the requirement to review and inspect the design and construction of water and infrastructure in Barton Creek, provided that Travis County Municipal Utility District No. 4 will ensure the design and construction of facilities to meet the fire flow requirements as specified by the International Fire Code. Therefore, the City of Austin will not be responsible for review of the water and wastewater.

This project is being designed to comply with the current water quality ordinance. Water Quality is provided for this project by batch detention ponds and vegetative filter strips.

ATTACHMENT D – Factors Affecting Surface Water Quality

Potential sources of sediment to stormwater runoff:

- Clearing and grubbing operations
- Grading and site excavation operations
- Vehicle tracking
- Topsoil stripping and stockpiling
- Landscaping operation

Potential sources other than sediment:

- small fueling activities
- minor equipment maintenance
- sanitary facilities
- solvents, adhesives, paints, etc.
- paving materials, concrete, mortar

ATTACHMENT E – Volume and Character of Stormwater

The proposed project will drain to drainage channels located within the development and then routed to batch detention ponds. The proposed development will cause an increase in runoff due to impervious cover and reduced time of concentration; however, that increase will be offset through a retention irrigation pond proposed for this project. The water quality calculations to demonstrate the removal of the minimum eighty percent (80%) pollutant load for the developed site are provided following these attachments.

As a result of these measures, the volume and character of the stormwater runoff from the site will be effectively unchanged from predevelopment levels. Currently, the site area is represented by a composite 25-year and 100-year runoff coefficient of 0.39 and 0.46, respectively. After construction is completed, the composite 25-year and 100-year runoff coefficients will be 0.58 and 0.65, respectively.

ATTACHMENT F – Suitability Letter from Authorized Agent (if OSSF is proposed)

Not Applicable.

ATTACHMENT G – Alternative Secondary Containment Methods (if AST with an alternative method of secondary containment is proposed)

Not Applicable.

ATTACHMENT H – AST Containment Structure Drawings (if AST is proposed)

Not Applicable.

ATTACHMENT I – 20% or Less Impervious Cover Waiver

Not Applicable.

ATTACHMENT J – BMPs for Upgradient Stormwater

All upgradient flow is routed around the proposed project site.

ATTACHMENT K – BMPs for On-Site Stormwater

Temporary Controls: Prior to site clearing, grading and excavation, the stabilized construction entrance will be installed, tree protection/limit of construction fencing will be installed, and silt fencing and rock berms will be installed at the downstream edge of disturbed areas where shallow sheet runoff occurs. Rock berms will be placed where more concentrated flow occurs. The water quality ponds will act as a sediment trap for the project. There are 24.69 acres of disturbed area draining to the sediment trap while under construction. 3,600 c.f. of storage volume is required per acre of disturbed area; therefore 88,884 c.f. of volume is required in the sediment trap. 109,010 c.f. of volume is provided by the sediment trap. During all aspects of construction, the contractor shall maintain these controls. The contractor will be responsible for stabilization practices (revegetation). The contractor will be responsible for removing the temporary controls once the revegetation is established.

Permanent Controls: After construction there will be runoff from building surfaces, paved areas and managed lawn/landscape areas. These areas will be mitigated by permanent revegetation of disturbed areas and through the use of vegetative filter strips and batch detention ponds. The provided water quality volume is 109,010 cf.

ATTACHMENT L – BMPs for Surface Streams

Temporary Controls: Prior to site clearing, grading and excavation, the stabilized construction entrance will be installed, tree protection/limit of construction fencing will be installed, and silt fencing and rock berms will be installed at the downstream edge of disturbed areas where shallow sheet runoff occurs. Rock berms will be placed where more concentrated flow occurs. The water quality ponds will act as a sediment trap for the project. There are 24.69 acres of disturbed area draining to the sediment trap while under construction. 3,600 c.f. of storage volume is required per acre of disturbed area; therefore 88,884 c.f. of volume is required in the sediment trap. 109,010 c.f. of volume is provided by the sediment trap. During all aspects of construction, the contractor shall maintain these controls. The contractor will be responsible for stabilization practices (revegetation). The contractor will be responsible for removing the temporary controls once the revegetation is established.

Permanent Controls: After construction there will be runoff from building surfaces, paved areas and managed lawn/landscape areas. These areas will be mitigated by permanent revegetation of disturbed areas and through the use of vegetative filter strips and batch detention ponds. The provided water quality volume is 109,010 cf.

ATTACHMENT M – Construction Plans

Copies of the construction plans are included in this submittal.

ATTACHMENT N – Inspection, Maintenance, Repair, and Retrofit Plan

See attached document labeled “Maintenance Plan for Permanent Best Management Practices for Barton Creek Holden Hills Block B Lot 1”.

ATTACHMENT O – Pilot-Scale Field Testing Plan, if BMPs not based on Complying with the Edwards Aquifer Rules: Technical Guidance for BMPs
Not Applicable

ATTACHMENT P – Measures for Minimizing Surface Stream Contamination
Temporary Controls: Prior to site clearing, grading and excavation, the stabilized construction entrance will be installed, tree protection/limit of construction fencing will be installed, and silt fencing and rock berms will be installed at the downstream edge of disturbed areas where shallow sheet runoff occurs. Rock berms will be placed where more concentrated flow occurs. The water quality ponds will act as a sediment trap for the project. There are 24.69 acres of disturbed area draining to the sediment trap while under construction. 3,600 c.f. of storage volume is required per acre of disturbed area; therefore 88,884 c.f. of volume is required in the sediment trap. 109,010 c.f. of volume is provided by the sediment trap. During all aspects of construction, the contractor shall maintain these controls. The contractor will be responsible for stabilization practices (revegetation). The contractor will be responsible for removing the temporary controls once the revegetation is established.

Permanent Controls: After construction there will be runoff from building surfaces, paved areas and managed lawn/landscape areas. These areas will be mitigated by permanent revegetation of disturbed areas and through the use of vegetative filter strips and batch detention ponds. The provided water quality volume is 109,010 cf.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Holden Hills B-1
Date Prepared: 10/7/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.68	acres
Total post-development impervious cover fraction * =	0.32	
P =	32	inches

$L_{M\ TOTAL\ PROJECT}$ = 11037 lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 10

WATER QUALITY SUMMARY TABLE

WATER QUALITY DRAINAGE AREA	DRAINAGE AREA (acre)	I.C. (acre)	L_m REQ. (lbs.)	= L_m DES. (lbs.)	WQV REQ. (c.f.)	WQV DES. (c.f.)
1 - UNTREATED	3.22	0.31	270			
2 - BATCH DETENTION	8.99	2.20	1915	2310	36980	37146
3 - VEGETATIVE FILTER STRIP	5.06	1.87	1628	1807		
4 - BATCH DETENTION	7.65	2.87	2498	2590	17701	18003
5 - UNTREATED	0.28	0.15	131			
6 - VEGETATIVE FILTER STRIP	2.06	0.84	731	808		
7 - UNTREATED	0.87	0.45	392			
8 - BATCH DETENTION	6.09	2.21	1924	2230	28527	30022
9 - BATCH DETENTION	5.59	1.62	1410	1650	21647	23839
10 - UNTREATED	0.42	0.16	139			
TOTAL	40.23	12.68	11037	11395	104856	109010

Lauren Crone

STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER

10/8/25

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Holden Hills B-1
Date Prepared: 10/7/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	11.87	acres
Total post-development impervious cover fraction * =	0.30	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	10330	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 10

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	3.22	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.31	acres
Post-development impervious fraction within drainage basin/outfall area =	0.10	
$L_{M\ THIS\ BASIN}$ =	270	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Untreated
Removal efficiency = 0 percent

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Holden Hills B-1
Date Prepared: 10/7/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.68	acres
Total post-development impervious cover fraction * =	0.32	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	11037	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 10

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = 2

Total drainage basin/outfall area =	8.99	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	2.20	acres
Post-development impervious fraction within drainage basin/outfall area =	0.24	
$L_{M\ THIS\ BASIN}$ =	1915	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 91 percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:

A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	8.99	acres
A_I =	2.20	acres
A_P =	6.79	acres
L_R =	2323	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = 2310 lbs.

F = 0.99

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	3.66	inches
Post Development Runoff Coefficient =	0.26	
On-site Water Quality Volume =	30816	cubic feet
Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	6163	
Total Capture Volume (required water quality volume(s) x 1.20) =	36980	cubic feet

Lauren Crone

STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER

10/8/25

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Holden Hills B-1
Date Prepared: 10/7/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan * =	12.68	acres
Total post-development impervious cover fraction * =	0.32	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	11037	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 10

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = 3

Total drainage basin/outfall area =	5.06	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	1.87	acres
Post-development impervious fraction within drainage basin/outfall area =	0.37	
$L_{M\ THIS\ BASIN}$ =	1628	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter Strips
Removal efficiency = 85 percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:

A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	5.06	acres
A_I =	1.87	acres
A_P =	3.19	acres
L_R =	1807	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = 1807 lbs.

F = 1.00

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
10/8/25

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Holden Hills B-1
Date Prepared: 10/7/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.68	acres
Total post-development impervious cover fraction * =	0.32	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	11037	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 10

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = 4

Total drainage basin/outfall area =	7.65	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	2.87	acres
Post-development impervious fraction within drainage basin/outfall area =	0.38	
$L_{M\ THIS\ BASIN}$ =	2498	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 91 percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: $L_R = (\text{BMP efficiency}) \times P \times (A_I \times 34.6 + A_P \times 0.54)$

where:

A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	7.65	acres
A_I =	2.87	acres
A_P =	4.78	acres
L_R =	2967	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = 2590 lbs.

F = 0.87

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	1.44	inches
Post Development Runoff Coefficient =	0.37	
On-site Water Quality Volume =	14751	cubic feet
Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	2950	
Total Capture Volume (required water quality volume(s) x 1.20) =	17701	cubic feet

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Holden Hills B-1
Date Prepared: 10/7/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.68	acres
Total post-development impervious cover fraction * =	0.32	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	11037	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 10

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = 5

Total drainage basin/outfall area =	0.28	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.15	acres
Post-development impervious fraction within drainage basin/outfall area =	0.54	
$L_{M\ THIS\ BASIN}$ =	131	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Untreated
Removal efficiency = 0 percent

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Holden Hills B-1
Date Prepared: 10/7/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.68	acres
Total post-development impervious cover fraction * =	0.32	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	11037	lbs

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 10

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = 6

Total drainage basin/outfall area =	2.06	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.84	acres
Post-development impervious fraction within drainage basin/outfall area =	0.41	
$L_{M\ THIS\ BASIN}$ =	731	lbs

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter Strips
Removal efficiency = 85 percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:

A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	2.06	acres
A_I =	0.84	acres
A_P =	1.22	acres
L_R =	808	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = 808 lbs

F = 1.00

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
10/8/25

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Date Prepared: 10/7/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.68	acres
Total post-development impervious cover fraction * =	0.32	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	11037	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 10

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = 7

Total drainage basin/outfall area =	0.87	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.45	acres
Post-development impervious fraction within drainage basin/outfall area =	0.52	
$L_{M\ THIS\ BASIN}$ =	392	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Untreated
Removal efficiency = 0 percent

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Holden Hills B-1
Date Prepared: 10/7/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
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P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.68	acres
Total post-development impervious cover fraction * =	0.32	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	11037	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 10

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = 8

Total drainage basin/outfall area =	6.09	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	2.21	acres
Post-development impervious fraction within drainage basin/outfall area =	0.36	
$L_{M\ THIS\ BASIN}$ =	1924	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 91 percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:

A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	6.09	acres
A_I =	2.21	acres
A_P =	3.88	acres
L_R =	2288	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = 2230 lbs.

F = 0.97

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	3.00	inches
Post Development Runoff Coefficient =	0.36	
On-site Water Quality Volume =	23773	cubic feet
Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	4755	
Total Capture Volume (required water quality volume(s) x 1.20) =	28527	cubic feet

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Holden Hills B-1
Date Prepared: 10/7/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.68	acres
Total post-development impervious cover fraction * =	0.32	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	11037	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 10

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = 9

Total drainage basin/outfall area =	5.59	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	1.62	acres
Post-development impervious fraction within drainage basin/outfall area =	0.29	
$L_{M\ THIS\ BASIN}$ =	1410	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 91 percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: $L_R = (\text{BMP efficiency}) \times P \times (A_I \times 34.6 + A_P \times 0.54)$

where:

A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	5.59	acres
A_I =	1.62	acres
A_P =	3.97	acres
L_R =	1695	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = 1650 lbs.

F = 0.97

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	3.00	inches
Post Development Runoff Coefficient =	0.30	
On-site Water Quality Volume =	18039	cubic feet
Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	3608	
Total Capture Volume (required water quality volume(s) x 1.20) =	21647	cubic feet

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Holden Hills B-1
Date Prepared: 10/7/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.68	acres
Total post-development impervious cover fraction * =	0.32	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	11037	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 10

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = 10

Total drainage basin/outfall area =	0.42	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.16	acres
Post-development impervious fraction within drainage basin/outfall area =	0.38	
$L_{M\ THIS\ BASIN}$ =	139	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Untreated
Removal efficiency = 0 percent

Maintenance Plan
For Permanent Best Management Practices
For Barton Creek Holden Hills Block B Lot 1

PROJECT NAME: *Barton Creek Holden Hills Block B Lot 1*

ADDRESS: *6900 - 7325 Bellissimo Lane*
CITY, STATE ZIP: *Austin, TX 78746*

The Best Management Practices associated with Water Quality for this project includes the use of a batch detentions ponds and vegetative filter strips.

MAINTENANCE FOR STRUCTURAL (STORMWATER CAPTURE) SYSTEMS

Routine Maintenance for All Structural Systems

Water quality ponds of all types have similar routine maintenance requirements, although most ponds have some unique maintenance needs, as detailed in this section. The following general maintenance requirements apply to all pond BMPs.

BMP facilities must be inspected at least six times per year (twice during or immediately following wet weather) to evaluate facility operation.

During each inspection, erosion areas inside and downstream of the BMP must be identified and repaired or revegetated immediately.

Grass areas in and around earthen ponds must be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. When mowing of grass is performed, a mulching mower must be used, or grass clippings must be caught and removed, as with all water quality BMPs.

Debris and litter accumulated in the facility must be removed during each inspection.

Excessive sediment must be removed and properly disposed of in an approved off-site disposal area. Remove excessive sediment at least two times per year or when accumulations reach 3 inches in depth.

Design drawdown times must not be exceeded by more than 24 hours. The design drawdown time is 72 hours from the first accumulation of stormwater or when the pond reaches full capacity. If drawdown times are excessive, repairs should occur immediately.

With each inspection, any damage to the structural elements of the system (pipes, concrete drainage structures, gabions, retaining walls, etc.) must be identified and repaired immediately.

A maintenance access route shall extend to the pond from a public or private road. The maintenance access shall have a slope of no greater than 15 percent.

Inlet and outlet structures should be inspected and cleaned out of any debris or sediment. If there are major damage to either the inlet or outlet controls, the damaged areas should be repaired.

The Logic Controller should be inspected as part of the twice-yearly investigations. Verify that the

external indicators (active cycle in progress) are operating properly by turning the controller off and on, and by initiating a cycle by triggering the level sensor in the basin. The valve should be manually opened and closed using the open/close switch to verify valve operation and to assist in inspecting the valve for debris. The solar panel should be inspected and any dust or debris on the panel should be carefully removed. The controller and all other circuitry and wiring should be inspected for signs of corrosion, damage from insects, water leaks, or other damage. At the end of the inspection, the controller should be reset.

MAINTENANCE FOR SENSITIVE FEATURES AND BUFFER AREAS

Routine Maintenance for All Sensitive Features and Buffer Areas

All sensitive features and buffer areas shall be inspected twice annually for erosion or damage to vegetation or the feature itself. Additional inspections after periods of heavy runoff is most desirable.

Bare spots and areas of erosion or damage to the feature identified during semi-annual inspections must be replanted and restored to natural conditions. Excessive sediment build up must also be removed during semi-annual inspections. Debris and litter accumulated must also be removed.

Protective fences around buffer areas shall be inspected during semi-annual inspections to ensure damage has not occurred.

RECORD KEEPING OF INSPECTIONS, MAINTENANCE AND REPAIRS SHALL BE MAINTAINED BY THE RESPONSIBLE PARTY.

An amended copy of this document will be provided to the Texas Commission on Environmental Quality within thirty (30) days of any changes in the following information.

Responsible Party for Maintenance: Holden Hills, L.P.

Address: 212 Lavaca Street, Suite 300

City, State Zip: Austin, Texas 78701

Telephone Number: (512) 478 - 5788

HOLDEN HILLS, LP., a Texas limited partnership
By: Holden Hills GP, L.L.C., a Texas limited liability company,
General Partner
By: Erin D Pickens 10/07/2025

Signature of Responsible Party Date

Erin D. Pickens, Senior Vice President

BARTON CREEK HOLDEN HILLS
BLOCK B LOT 1

TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

STORMWATER POLLUTION PREVENTION PLAN

OCTOBER 2025

Prepared for:

HOLDEN HILLS, L.P.
212 LAVACA STREET, SUITE 300
Austin, Texas 78701
(512) 477-2400

Prepared by:

LJA ENGINEERING, INC.
7500 RIALTO BLVD., BUILDING II
SUITE 100
AUSTIN, TEXAS 78735
(512) 439-4700
FRN-F-1386

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BARTON CREEK HOLDEN HILLS
BLOCK B LOT 1

TEXAS POLLUTANT DISCHARGE
ELIMINATION SYSTEM

STORMWATER POLLUTION PREVENTION PLAN

A. SITE DESCRIPTION

1. Project Name: Barton Creek Holden Hills Block B Lot 1

2. Location: 6900-7325 Bellissimo Ln, Austin, TX 78746

3. Facility Operators: Holden Hills., L.P. *(Plans and Specifications)*
   212 Lavaca Street
   Austin, Texas 78701
   512-478-5788
   Date N.O.I. submitted:
   General Permit Authorization No.:

   _____ *(Contractor)*

   Date N.O.I. submitted:
   General Permit Authorization No.:

4. Property Owner: Holden Hills., L.P.
   212 Lavaca Street
   Austin, Texas 78701
   512-478-5788

5. Project Description: The proposed Barton Creek Holden Hills Block B Lot 1 consists of 46 detached condos, drives, and streets/drainage/water and wastewater improvements on 51.33 acres outside the 2-mile Extra Territorial Jurisdiction of the city of Austin. The land is located in the Barton Creek Watershed and the Edwards Aquifer Contributing Zone. The proposed impervious cover equals 12.68 acres or 24.70 percent of the site area.

6. Site Area: The construction limits and disturbance caused by construction will include approximately 24.69 acres.

7. Runoff Coefficient: Currently, the site area for the Barton Creek Holden Hills Block B Lot 1 property is represented by a composite 25-year and 100-year runoff coefficient of 0.39 and 0.46, respectively. After construction is completed, the composite 25-year and 100-year runoff coefficient will be 0.58 and 0.65, respectively.

8. Existing Soils: According to the USDA Soil Survey of Travis County, the soil classifications within the proposed project are Eckrant-Rock outcrop complex (TdF), Brackett-Rock outcrop complex (BlD), and Brackett-Rock outcrop-Real complex (BoF)

Eckrant-Rock outcrop complex (TdF): These soils occupy hilly to steep topography generally soils formed in residuum derived from limestone and occur on summits, shoulders, and backslopes of ridges on dissected plateaus. Typically, this soil has very stony clay about 5 inches thick. The subsoil, which extends down to a depth of about 8 inches, is extremely flaggy clay. The underlying material is bedrock which extends down to a depth of 30 inches. The slope ranges from 18 to 50 percent. The soil is well drained. The runoff class is very high. This soil belongs to the hydrologic group D.

Bracket-Rock outcrop complex (BlD): These soils occupy undulating to rolling topography generally on the ridges in the Edwards Plateau. Typically, this soil has a gravelly clay loam about 6 inches thick. The subsoil, which extends down to a depth of about 18 inches, is clay loam. The underlying material is bedrock which extends down to a depth of 60 inches. The slope ranges from 1 to 12 percent. The soil is well drained. The runoff class is high. This soil belongs to the hydrologic group D.

Bracket-Rock outcrop-Real complex (BoF): These soils occupy rolling to hilly topography generally on the ridges in the Edwards Plateau. Typically, this soil has a gravelly clay loam about 6 inches thick. The subsoil, which extends down to a depth of about 14 inches, is gravelly clay loam. The underlying material is bedrock which extends down to a depth of 60 inches. The slope ranges from 8 to 30 percent. The soil is well drained. The runoff class is high. This soil belongs to the hydrologic group D.

9. Factors Affecting Surface Water Quality:

   Potential sources of sediment to stormwater runoff:
   - Clearing and grubbing operations
   - Grading and site excavation operations
   - Vehicle tracking
   - Topsoil stripping and stockpiling
   - Landscaping operations

   Potential sources other than sediment:
   - small fueling activities
   - minor equipment maintenance
   - sanitary facilities
   - solvents, adhesives, paints, etc.
   - paving materials, concrete, mortar

10. Location of Receiving Waters: The Barton Creek Holden Hills Block B Lot 1 project is located within the City of Austin – Colorado River Watershed. Based on the boundary maps prepared by the Texas Commission on Environmental Quality, the property is not located in the Edward's Aquifer Recharge Zone, but it is located in the Edwards Aquifer Contributing Zone. There are no wetlands associated with this project.

11. Off-Site Operations: Disposal of spoil material will be the responsibility of the Contractors. Spoil shall be temporarily disposed of at the designated onsite temporary disposal area and permanently removed to a permitted off-site spoil disposal area. The Contractors shall be independently responsible as Operators for obtaining necessary permits in conjunction with the off-site disposal of spoil material or acquisition of borrow material.

12. Endangered Species: There are no known endangered species within the boundaries of the project.

B. POLLUTION PREVENTION CONTROLS

1. Sequence of Construction:

   (1) Install tree protection. (1 week) (0.3 acres)

   (2) Install temporary erosion and sedimentation controls. (1 week) (9.39 acres)

   (3) Clear and grub for roadways and underground utilities. (1 week) (1.98 acres)

   (4) Excavate and place embankment to roadway subgrade. (4 weeks) (1.33 acres)

   (5) Construct all underground utilities. (2 months) (1.33 acres)

   (6) Test utilities. (2 weeks)

   (7) Assure all utilities have been placed within roadway. (1 week) (1.33 acres)

   (8) Once all utilities below subgrade have been tested, finish subgrade and test. (1 Month) (1.33 acres)

   (9) Lay first coarse of base (2 weeks) (1.33 acres)

   (10) Lay curb and gutter. (4 weeks) (0.15 acres)

   (11) Dress up behind back of curb. (2 weeks) (0.97 acres)

   (12) Lay second coarse base. (2 weeks) (1.33 acres)

   (13) After base has been tested and passed, lay asphalt. (2 weeks) (0.91 acres)

   (14) Finish grading behind curb and revegetate. (2 weeks) (5.43 acres)

   (15) After vegetation is established, remove temporary erosion controls. (1 week)

2. Erosion and Sedimentation Controls:

Temporary vegetative stabilization:

1. From September 15 to March 1, seeding shall be with cool season cover crops (Wheat at 0.5 pounds per 1000 SF, Oats at 0.5 pounds per 1000 SF, Cereal Rye Grain at 0.5 pounds per 1000 SF) with a total rate of 1.5 pounds per 1000 SF. Cool season cover crops are not permanent erosion control.

2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 1 pound per 1000 SF.
   a. Fertilizer shall be water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of ½ pound per 1000 SF.
   b. Hydromulch shall comply with Table 1, below.

c. Temporary erosion control shall be acceptable when the grass has grown at least 1 ½ inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.
d. When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

Table 1 Hydromulching for Temporary Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Applications Rates
100% or any blend of wood, cellulose, straw, and/or cotton plant material (except no mulch shall exceed 30% paper)	70% or greater wood/straw 30% or less paper or natural fibers	0-3 Months	Moderate slopes From flat to 3:1	1500 to 2000 lbs per acre

Permanent vegetative stabilization:

1. From September 15 to March 1, seeding is considered to be temporary stabilization only. If cool season cover crops exist where permanent vegetation stabilization is desired, the grasses shall be mowed to a height of less than one half (1/2) inch and the area shall be re-seeded in accordance with 2. below.

2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 1 pound per 1000 SF with a purity of 95% with 85% germination. Bermuda grass is a warm season grass and is considered permanent erosion control.
   a. Fertilizer shall be water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of ½ pound per 1000 SF.
   b. Hydromulch shall comply with table 2,below.
   c. The planted area shall be irrigated or sprinkled in a manner that will not erode the topsoil, but will sufficiently soak the soil to a depth of six inches. The irrigation shall occur at daily intervals (minimum) during the first two months. Rainfall occurrences of ½ inch or more shall postpone the watering schedule for one week.
   d. Permanent erosion control shall be acceptable when the grass has grown at least 1 ½ inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.
   e. When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

Table 2 Hydromulching for Permanent Vegetation Stabilization

Material	Description	Longevity	Typical Applications	Applications Rates
Bonded Fiber Matrix (BFM)	80% Organic Defibrated Fibers 10% Tackifier	6 Months	On slopes up to 2:1 and erosive soil conditions	2500 to 4000 lbs per acre (see manufacturers recommendations)

Fiber Reinforced Matrix (FRM)	65% Organic Defibrated Fibers 25% Reinforcing Fibers or less 10% Tackifier	Up to 12 Months	On slopes up to 1:1 and erosive soil conditions	3000 to 4500 lbs per acre (see manufacturers recommendations)

b. Structural Controls:

(i) Erosion and sediment structural controls have been designed to retain sediment on-site to the extent practicable with consideration for local topography, soil type, and rainfall.

(ii) Control measures must be properly selected, installed, and maintained according to the manufacturer's or designer's specifications.

(iii) Holden Hills., LP will be the facility operator with control over the construction plans and specifications, including the ability to make modifications in the plans and specifications. Prior to site clearing, grading and excavation, stabilized construction entrances will be installed, tree protection/limit of construction fencing will be installed, and silt fences will be installed at the downstream edge of disturbed areas where shallow sheet runoff occurs. Rock berms will be placed downstream of the areas where concentrated runoff occurs. To insure that no additional areas are disturbed other than those included in the limits of construction, orange mesh fences will be placed on the upstream side of the limits of construction to keep construction activity out of areas not designated for construction. The Contractor will install the stabilized construction entrance and silt fence prior to the start of any construction and be responsible for maintenance of those facilities throughout construction. The Contractor will be responsible for stabilization (revegetation). The Contractor will also be responsible for removing the temporary controls once the revegetation is established.

3. Stormwater Management Controls:

a. Temporary Sediment Controls: A stabilized construction entrance will be place as shown on the *Erosion/Sedimentation Control & Tree Protection Plan* and silt fences will be constructed at the downstream edge of the disturbed areas. Silt fence will also be used at selected locations of significant fill, around material stockpile sites, and around any other area that would be a pollutant source during storm events. The rock berms will be placed immediately downstream of areas where concentrated runoff occurs, and within defined channels downstream from development, as appropriate. Additionally, silt fence will typically be utilized on the downstream side of rock berms to supplement sediment removal. The retention irrigation ponds proposed for this project will be rough graded at the beginning of construction so it can be used as a sediment trap during construction. The utility trenches will also be utilized as temporary sediment traps to the extent feasible during construction.

The contractor will install the erosion/sedimentation controls prior to the start of any construction. The contractor will be responsible for maintaining the erosion control measures and removing the controls once the revegetation is established. The locations of such controls are shown in *the Erosion/Sedimentation Control & Tree Protection Plan*.

b. Permanent Stormwater Controls: Once construction associated with this project is completed, the site will be revegetated in accordance with the stabilization practices identified in this plan. Four Batch Detention ponds proposed for this project will provide water quality control and treatment for stormwater runoff from the developed areas being conveyed to the creeks.

4. Other Controls:

   a. Waste Disposal: All construction-related waste materials will be collected and stored at a temporary onsite spoil disposal site. The Contractors will be independently responsible as Operators for controlling and preventing offsite migration of litter, construction debris, and construction materials.

   b. Sanitary Waste: The Contractors will be responsible for placing portable units onsite during construction, and waste will be collected and disposed of in accordance with state and local regulations.

   c. Off-site Vehicle Tracking: Stabilized construction entrances will be provided at the entry location to the construction project. The Contractors will be responsible for maintaining the entrances, and removing any sediment deposited onto adjacent streets. Vehicles leaving the site will be washed, as required.

   d. Dust Control: Contractors will spray water on disturbed areas and spoils areas, and apply mulch, as required, to control dust.

   e. Dewatering: When it becomes necessary to pump standing water from the site, the Contractors shall utilize the methods depicted in the Dewatering Detail included with this plan. Standing water removed via open channel will be routed through silt fence and/or rock berm before leaving the site.

5. Timing of Controls and Measures: Erosion and sediment structural control measures will be in place prior to clearing, grading or construction of any portion of the site. Construction phasing may occur, but in all instances erosion and sedimentation control measures will be in place in those areas prior to start of construction. Disturbed areas will be restored as described under Stabilization Practices. Temporary erosion and sediment controls will be removed only after all disturbed areas have been restored.

C. STATE AND LOCAL REQUIREMENTS

The stormwater pollution prevention plan complies with the requirements of the City of Austin, Travis County, and the Texas Commission on Environmental Quality (TCEQ) in effect at the time of permitting.

D. INSPECTION AND MAINTENANCE PROCEDURES

Holden Hills, L.P (and/or their qualified agents) and Contractors, as Operators, shall be independently responsible for inspection of the controls, and for required record keeping (reference Appendix A). All Operators will be responsible for revisions to the controls, as necessary, based on inspections. The Contractors will be responsible for maintenance of the controls.

1. Inspection of Controls:

    a. Personnel provided by the Operators shall inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, discharge locations, and structural controls for evidence of, or the potential for, pollutants entering the drainage system. Personnel conducting these inspections must be knowledgeable of TPDES General Permit No. TXR150000, familiar with the construction site, and knowledgeable of this plan. Sediment and erosion control measures identified in this plan shall be inspected to ensure that they are operating correctly. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking. Inspections must be conducted at least once every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.

    b. Where sites have been finally or temporarily stabilized, inspections shall be conducted at least once every month.

    c. In the event of flooding or other uncontrollable situations which prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable.

    d. This plan must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions to the plan must be completed within seven (7) calendar days following the inspection. If existing controls are modified or if additional controls are necessary, an implementation schedule must be described in this plan and/or Inspection and Maintenance Report, and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable.

    e. An Inspection and Maintenance Report summarizing the scope of the inspection, the dates of the inspection, and major observations relating to the implementation and/or revision of this plan must be made and retained as part of the plan. Major observations should include: The locations of discharges of sediment or other pollutants from the site; locations of controls that need to be maintained; locations of controls that failed to operate as designed or proved inadequate for a particular location; and locations where additional controls are needed. Reports must identify any incidents of non-compliance.

2. Maintenance of Controls:

    a. All protective measures and controls identified in this plan shall be maintained in effective operating condition. If, through inspections or other means, it is determined that controls are not operating effectively, then the Contractors, as Operators, shall perform maintenance as necessary to maintain the continued effectiveness of stormwater controls, and prior to the next rain event if feasible. If maintenance prior to the next anticipated storm event is impracticable, the reason shall be documented in the plan and maintenance must be scheduled and accomplished as soon as practicable. Erosion and sediment controls that have been intentionally disabled, run-over, removed, or otherwise rendered ineffective must be replaced or corrected

immediately upon discovery.

b. If periodic inspections or other information indicates a control has been used incorrectly, is performing inadequately, or is damaged, then the Operators shall replace or modify the control as soon as practicable after making the discovery.

c. Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%.

d. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.

e. If sediment escapes the site, accumulations must be removed at a frequency that minimizes off-site impacts, and prior to the next rain event if feasible. If the Operators do not own or operate the off-site conveyance, then the Operators must work with the owner or operator of the property to remove the sediment.

E. POLLUTION PREVENTION MEASURES

1. Non-Storm Water Discharges: The following non-stormwater discharges may occur from the site during the construction period:

   a. discharges from fire fighting activities;

   b. uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life), which include flushings from systems that utilize potable water, surface water, or groundwater that does not contain additional pollutants (uncontaminated fire hydrant flushings do not include systems utilizing reclaimed wastewater as a source water);

   c. water from the routine external washing of vehicles, the external portion of buildings or structures, and pavement, where detergents and soaps are not used and where spills or leaks of toxic or hazardous materials have not occurred (unless spilled materials have been removed; and if local, state, or federal regulations are applicable, the materials are removed according to those regulations), and where the purpose is to remove mud, dirt, or dust;

   d. uncontaminated water used to control dust;

   e. potable water sources including waterline flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);

   f. uncontaminated air conditioning condensate;

   g. uncontaminated ground water or spring water, including foundation or footing drains where flows are not contaminated with industrial materials such as solvents; and

   h. lawn watering and similar irrigation drainage.

2. Material Inventory: The materials or substances listed below are expected to be present onsite during construction:

    - Concrete and concrete products
    - Asphalt and asphalt products
    - Metal reinforcing materials - rebar, welded wire fabric
    - Fertilizers
    - Petroleum based products
    - Wood
    - Plastic (PVC) and metal pipe and fittings
    - Rock, gravel, sand, and soil
    - Paint

3. Material Management Practices: The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff:

    a. Good Housekeeping: The following good housekeeping practices will be followed onsite during the construction project:

        - An effort will be made to store only enough product required to do the job.
        - All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers.
        - Materials will be stored in the temporary spoils disposal area as shown on erosion/sedimentation control plan, or an area as may otherwise be approved by Standard Pacific of Texas, Inc. and Engineer.
        - Products will be kept in their original containers with the original manufacturers' labels.
        - Whenever possible, all of a product will be used before disposing of the container.
        - Manufacturers' recommendations for proper use and disposal will be followed.
        - The Contractor will inspect daily to ensure proper use and disposal of materials onsite.

    b. Hazardous Products: These practices are used to reduce the risks associated with hazardous materials (if applicable):

        - Products will be kept in original containers unless they are not resealable.

- Original labels and material safety data will be retained, as they contain important product information.

- If surplus product must be disposed of, manufacturers' and/or local and state recommended methods for proper disposal will be followed.

c. The following product specific practices will be followed onsite:

- Petroleum Products: All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers that are clearly labeled. Any asphaltic substances used onsite will be applied according to the manufacturers' recommendations.

- Fertilizers: Fertilizers will be applied only in the minimum amounts recommended by the manufacturer or as otherwise indicated on the plans. Once applied, fertilizer will be worked into the soil to limit exposure to stormwater. The contents of any partially used bags of fertilizer will be stored in a manner so as to avoid spills.

- Concrete: Onsite concrete truck wash out is allowed, but is restricted as noted below. Excess dried concrete will be removed from the site and transported to a permitted off-site spoil disposal area.

  - Direct discharge of concrete truck wash out water to surface water in the state, including discharge to storm sewers, is prohibited.

  - Concrete truck wash out water shall be discharged to areas at the construction site where structural controls have been established to prevent direct discharge to surface waters, or to areas that have minimal slope that allow infiltration and filtering of wash out water to prevent direct discharge to surface waters. Structural controls may consist of temporary berms, temporary shallow pits, temporary storage tanks with slow rate release, or other reasonable measure to prevent runoff from the construction site.

  - Wash out of concrete trucks during rainfall events shall be minimized. The direct discharge of concrete truck washout water is prohibited at all times, and the Operators shall insure that controls are sufficient to prevent the discharge of concrete truck wash out as the result of rain.
  - The discharge of wash out water shall not cause or contribute to groundwater contamination.

4. <u>Spill Control Practices:</u> In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Site personnel will be made aware of the manufacturers' recommended methods for spill cleanup and the location of the information and cleanup supplies.

- Materials and equipment necessary for spill cleanup will be kept onsite in an accessible location known to site personnel.

- All spills will be cleaned up immediately upon discovery.

5. Releases of Reportable Quantities (RQ): The EPA has issued regulations that define what reportable quantity levels are for oil and hazardous substances. These regulations can be found at 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302. The TCEQ has issued similar regulations under 30 TAC Chapter 327. If there is an RQ release during the construction period, then the following steps must be taken:

    - For quantities less than the reportable quantity* – The contractor will contain and isolate the spilled substance. The remaining spilled substance and contaminated soil will be removed and disposed of properly.

    - For quantities more than the reportable quantity* – The contractor will contain and isolate the spilled substance in accordance with 30 TAC Chapter 327. The contractor will then contact the appropriate spill response team and the TCEQ Austin Regional Office (512)339-2929 or the State Emergency Response Center at 1 (800)832-8224 and the National Response Center immediately at (800) 424-8802. The remaining spilled substance and contaminated soil will be removed and disposed of in an using approved emergency response methods. The proper authorities shall be kept informed during the cleanup process. Within 14 days, modify the SWPPP with a written description of the release providing the date and circumstances of the release and the steps to be taken to prevent another release.

    * Reportable quantity (RQ) is defined in 30 TAC Chapter 327. The RQ for petroleum products, oil, and industrial solid waste are shown below. For hazardous substances see 30 TAC Chapter 327.4 and 40 CFR Chapter 302.4.

    The RQ for *oil, petroleum product and used oil* is as follows:

    (1) The RQ for crude oil and oil other than that defined as petroleum product or used oil shall be:
        (A) for spills or discharges onto land – 210 gallons (five barrels); or
        (B) for spills or discharges directly into water in the state – quantity sufficient to create a sheen.
    (2) The RQ for petroleum product or used oil shall be:
        (A) except as noted under (B) below, for spills or discharges onto land – 25 gallons;
        (B) for spills or discharges to land from PST exempted facilities – 210 gallons (five barrels); or
        (C) for spills or discharges directly into water in the state – quantity sufficient to create a sheen.

    The RQ for spills or discharges into water in the state for *industrial solid waste or other substances* shall be 100 pounds.

6. Spill Response Handbook: The TCEQ Small-Business Handbook for Spill Response (RG-285) is provided as a supplementary resource and can be found in *Appendix D*.

F. POLLUTION PREVENTION PLAN CERTIFICATION

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility Operator *(Plans and Specifications)*:

By:_____ _____
Name Title Date

Printed Name: _____
Company: _____
Address: _____
_____

F. POLLUTION PREVENTION PLAN CERTIFICATION

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Facility Operator *(Contractor)*:

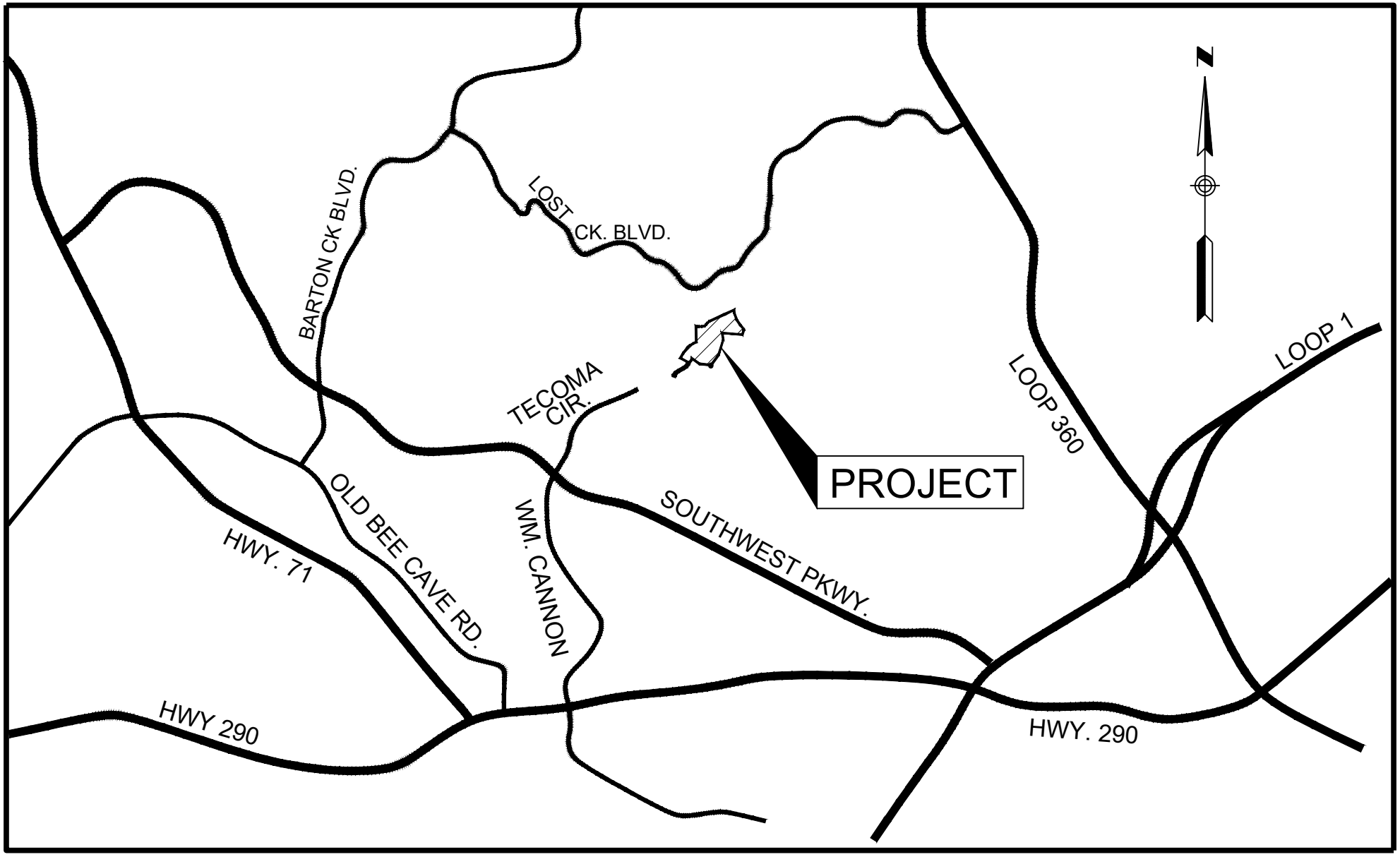
By:_____ _____
Name Title Date

Printed Name: _____
Company: _____
Address: _____
_____

EXHIBIT 1

PROJECT LOCATION MAP

I:\A111\A437- Block A Lot 43\Location Map.dwg
Plot Date/Time: Mar. 09, 23 - 14:58:16



LOCATION MAP

(N.T.S.)

EXHIBIT 2

SITE MAP / TEMPORARY EROSION/SEDIMENTATION CONTROL & TREE PROTECTION PLAN

NOTES:

1. ALL TREES THAT ARE LOCATED OUTSIDE THE SILT FENCE OR LIMITS OF CONSTRUCTION FENCING WILL NOT REQUIRE TREE FENCING UNLESS OTHERWISE INDICATED ON THE PLANS OR NOTES.

2. TREES TO REMAIN THAT ARE LOCATED INSIDE THE SILT FENCE OR LIMITS OF CONSTRUCTION FENCING SHALL HAVE TREE PROTECTION FENCING.

3. TEMPORARY SPOILS DISPOSAL SITE /CONSTRUCTION STAGING AREAS SHALL BE USED DURING TIME OF CONSTRUCTION BUT SHALL BE RESTORED AND REVEGETATED PER EROSION/SEDIMENTATION CONTROL NOTE 10 AFTER CONSTRUCTION. CONTRACTOR SHALL PROTECT ALL TREES 8" DIA. AND LARGER WITH TREE PROTECTION FENCING.

4. IT IS THE OWNER'S INTENT TO MINIMIZE CLEARING OF TREES AND BRUSH ALONG THE DRIVEWAYS, WHILE MAINTAINING A SAFE DRIVEWAY AND APPROPRIATE SIGHT DISTANCES. DRIVE CLEARING SHALL NOT EXTEND ANY FARTHER THAN NECESSARY TO ALLOW ADEQUATE ROOM FOR CONSTRUCTION, BUT SHALL BE A MINIMUM OF 7' FROM FINISHED PAVEMENT.

5. THE CRITICAL ROOT ZONE OF ALL TREES IDENTIFIED TO REMAIN SHALL BE HAND CLEARED.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT LIMBS AND ROOT SYSTEMS OF ALL TREES OUTSIDE OF CLEARING LIMITS BY NOT PARKING UNDER TREES, NOT DRIVING EQUIPMENT OVER ROOT ZONES AND NOT STORING MATERIALS UNDER TREES. PROTECTION OF VEGETATION TO REMAIN SHALL INCLUDE NOT ONLY HARDWOODS, BUT CEDARS AND UNDERBRUSH.

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8. THE LOCATIONS OF SILT FENCES OUTSIDE OF THE LIMITS OR RIGHT-OF-WAY AND/OR EASEMENTS ARE APPROXIMATE AND SHALL BE FIELD-VERIFIED BY THE ENGINEER PRIOR TO AND DURING INSTALLATION. NO CLEARING IS ALLOWED FOR THE INSTALLATION OF SILT FENCES WHICH ARE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AND/OR EASEMENTS UNLESS AUTHORIZED BY THE OWNER OR HIS DESIGNATED REPRESENTATIVE. MINOR TRIMMING OF TREE LIMBS IS ALLOWED.

9. CONTRACTOR SHALL MAINTAIN THE DEWATERING SYSTEM TO ENSURE PERFORMANCE. IF THE DEWATERING SYSTEM IS NOT PERFORMING THE CONTRACTOR MUST FOLLOW THE ENVIRONMENTAL INSPECTOR'S DIRECTION TO ENSURE ADEQUATE SYSTEM PERFORMANCE. SEE SHEET 15 FOR TYPICAL DEWATERING DETAIL. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT A DEWATERING PLAN PRIOR TO CONSTRUCTION IF HE PROPOSES AN ALTERNATIVE PLAN.

10. SEEDING / SODDING FOR PERMANENT EROSION CONTROLS.

A. FOR PUBLIC AND/OR PRIVATE STREET RIGHT-OF-WAY, EXCLUDING AREAS BEHIND ROCK RETAINING WALL, BUT INCLUDING DRIVESIDE DITCHES IMMEDIATELY ADLCENT TO RIGHT-OF-WAY: 419 TIFF BERMUDA SOD FOR ALL MONTHS OF THE YEAR.

B. FOR ALL AREAS OUTSIDE OF PUBLIC AND/OR PRIVATE STREET RIGHT OF WAY AND/OR BEHIND ROCK RETAINING WALLS, INCLUDING SPOIL DISPOSAL AREAS:

NATIVE SEED MIXTURE MEETING CITY OF AUSTIN STANDARD SPECIFICATIONS 604S.6, INCLUDING NATIVE WILDFLOWERS AND COOL SEASON COVER CROP (AS A APPLICABLE FROM SEPTEMBER 15 TO MARCH 1).

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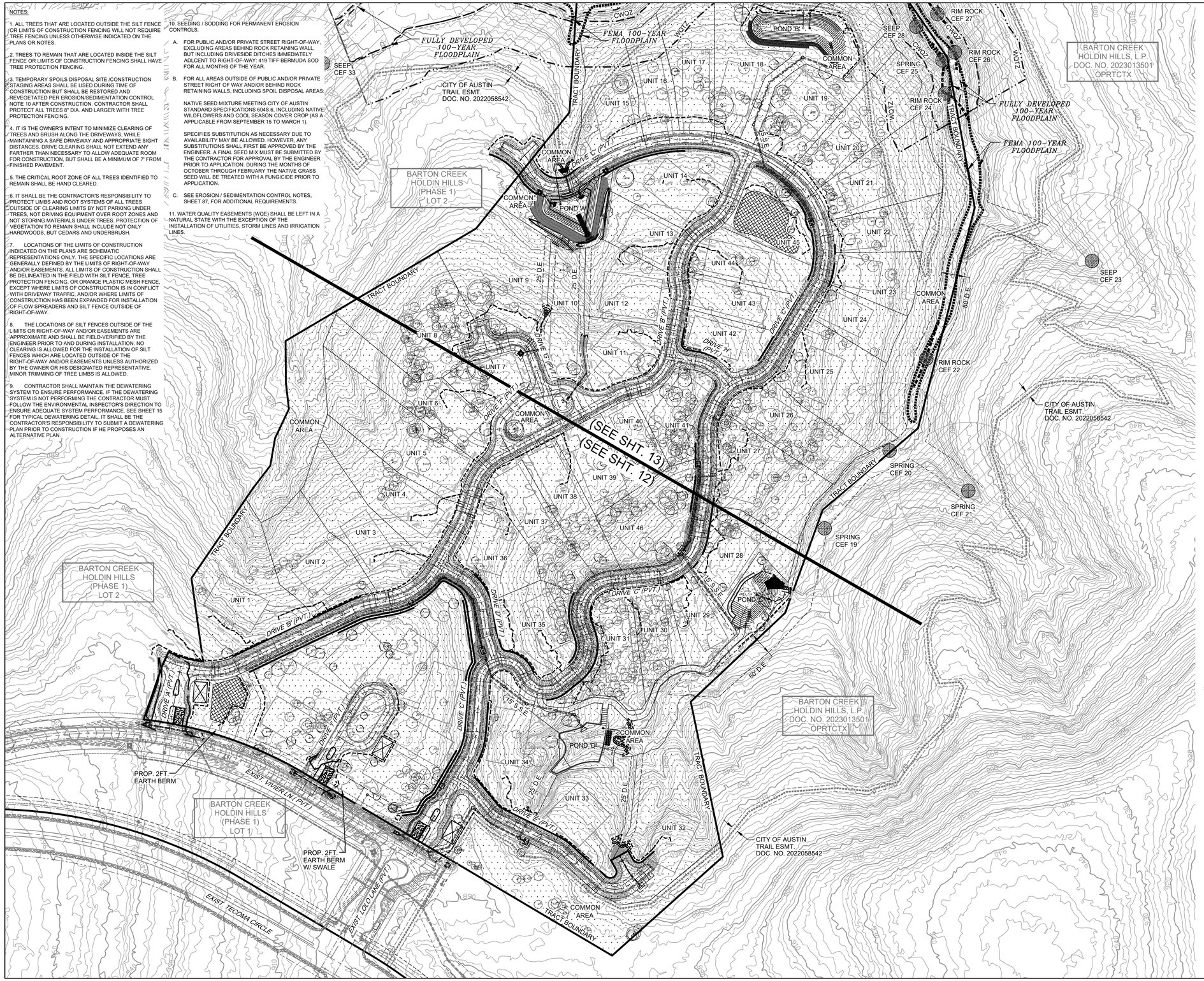
C. SEE EROSION / SEDIMENTATION CONTROL NOTES, SHEET 87, FOR ADDITIONAL REQUIREMENTS.

11. WATER QUALITY EASEMENTS (WQE) SHALL BE LEFT IN A NATURAL STATE WITH THE EXCEPTION OF THE INSTALLATION OF UTILITIES, STORM LINES AND IRRIGATION LINES.



TREE LEGEND

- 1200 — TREES TO REMAIN (TREE TAG & DESC.)
- 2811 — TREES TO BE REMOVED (TREE TAG & DESC.)
- TREE PROTECTION FENCING

LEGEND:

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- EXIST. FEMA 100-YR. FLOODPLAIN
- DIVERSION
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- SILT FENCE
- ROCK BERM
- TEMPORARY SPOILS & CONTRACTOR STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CONTRACTOR WASHOUT AREA
- CONDO BOUNDARY
- WATER QUALITY IRRIGATION AREA
- PROP. WATER LINE
- PROP. WASTEWATER LINE
- PROP. WASTEWATER LINE
- PROP. EFFLUENT FORCE MAIN
- PROP. STORM LINE
- EXIST. WATER LINE
- EXIST. WASTEWATER LINE
- EXIST. EFFLUENT FORCE MAIN
- EXIST. STORM LINE
- DITCH CURLEX MATTING

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN (OVERALL)

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-ES.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 11 OF 106 SHEETS

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Last Modified: Aug. 05, 25 - 13:53
Plot Date/Time: Sep. 02, 25 - 16:28:52
: ..\..\22\Barton Creek HLD PH 2\Cover\Topo-2.dwg
..\A43-Base.dwg
..\A43S.dwg

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MATCH LINE 'A' (SEE SHT. 13)

UNIT 1, UNIT 2, UNIT 3, UNIT 4, UNIT 5, UNIT 6, UNIT 7, UNIT 8, UNIT 28, UNIT 29, UNIT 30, UNIT 31, UNIT 32, UNIT 33, UNIT 34, UNIT 35, UNIT 36, UNIT 37, UNIT 38, UNIT 39, UNIT 46

COMMON AREA

SPRING CEF 19

POND 'C'

POND 'D'

DRIVE 'A' (PVT.)

DRIVE 'B' (PVT.)

DRIVE 'C' (PVT.)

DRIVE 'D' (PVT.)

DRIVE 'E' (PVT.)

EXIST. VIVIER LN.(PVT.)

EXIST. LOLO LANE (PVT.)

15' S.S.E.

50' D.E.

25' D.E.

TRACT BOUNDARY

BARTON CREEK HOLDIN HILLS (PHASE 1) LOT 2

BARTON CREEK HOLDIN HILLS (PHASE 1) LOT 1

BARTON CREEK HOLDIN HILLS, L.P. DOC. NO. 2023013501 OPRTCTX

CITY OF AUSTIN TRAIL ESMT. DOC. NO. 2022058542

50 25 0 50 100

SCALE: 1"=50'

TREE LEGEND

1200 TREES TO REMAIN (TREE TAG & DESC.)

2811 TREES TO BE REMOVED (TREE TAG & DESC.)

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- EXIST. FEMA 100-YR. FLOODPLAIN
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- SILT FENCE
- ROCK BERM
- TEMPORARY SPOILS & CONTRACTOR STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CONTRACTOR WASHOUT AREA
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- DITCH CURLEX MATTING

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN (SHEET 1)

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-ES.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 12 OF 106 SHEETS

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Last Modified: Aug. 05, 25 - 13:33
Plot Date/Time: Sep. 02, 25 - 16:28:07

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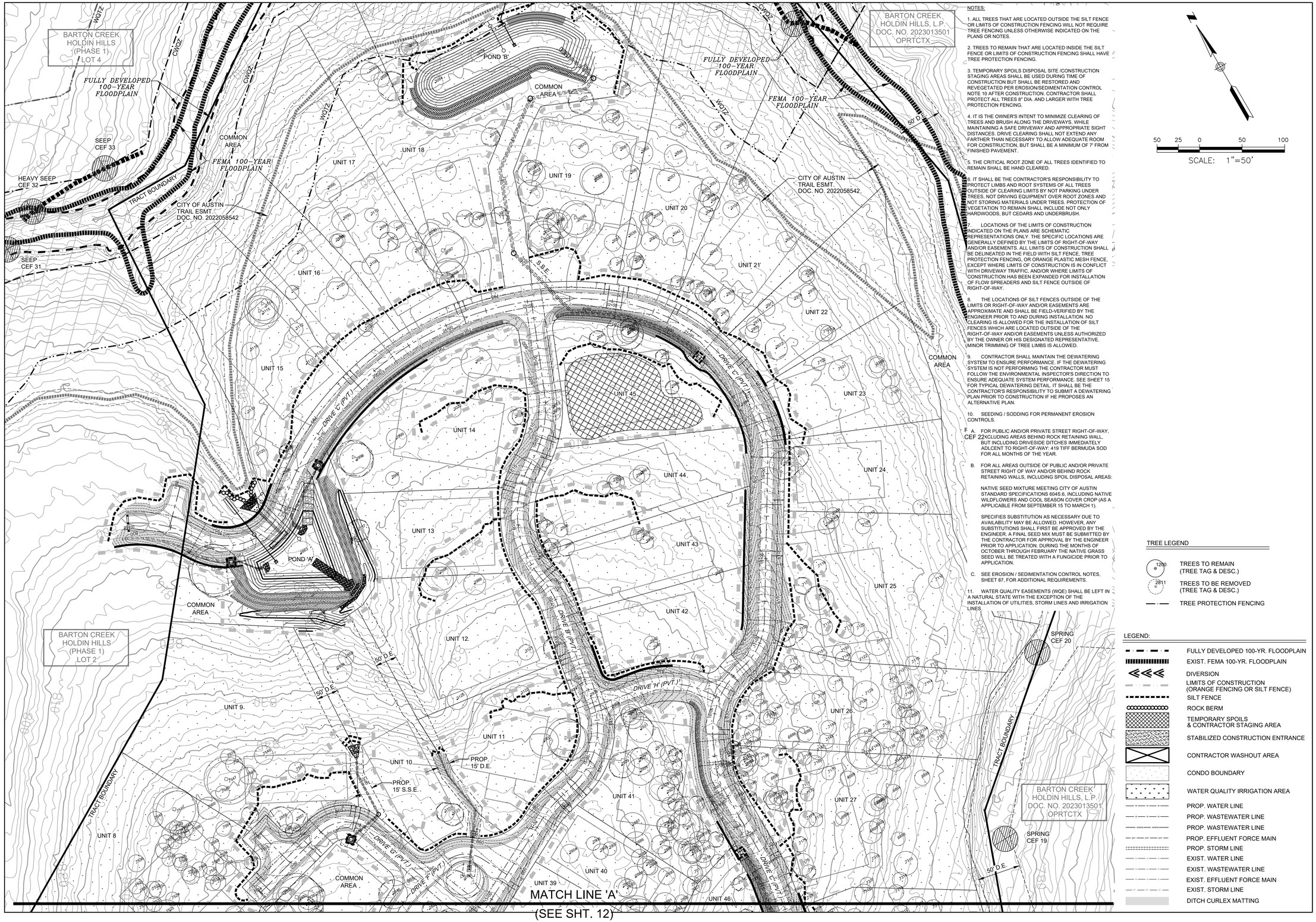
\A43-Base.dwg
\A43B.dwg



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50 25 0 50 100

SCALE: 1"=50'

TREE LEGEND

- 1200 — TREES TO REMAIN (TREE TAG & DESC.)
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LEGEND:

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- EXIST. FEMA 100-YR. FLOODPLAIN
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- LIMITS OF CONSTRUCTION (ORANGE FENCING OR SILT FENCE)
- SILT FENCE
- ROCK BERM
- TEMPORARY SPOILS & CONTRACTOR STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CONTRACTOR WASHOUT AREA
- CONDO BOUNDARY
- WATER QUALITY IRRIGATION AREA
- PROP. WATER LINE
- PROP. WASTEWATER LINE
- PROP. WASTEWATER LINE
- PROP. EFFLUENT FORCE MAIN
- PROP. STORM LINE
- EXIST. WATER LINE
- EXIST. WASTEWATER LINE
- EXIST. EFFLUENT FORCE MAIN
- EXIST. STORM LINE
- DITCH CURLEX MATTING

BARTON CREEK HOLDEN HILLS PHASE 1 LOT 1, BLOCK B

PAVING, DRAINAGE, WTR, WW IMPROVEMENTS

EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN (SHEET 2)

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-ES.dwg

Lauren Crone — STATE OF TEXAS — LAUREN CRONE 128018 — LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

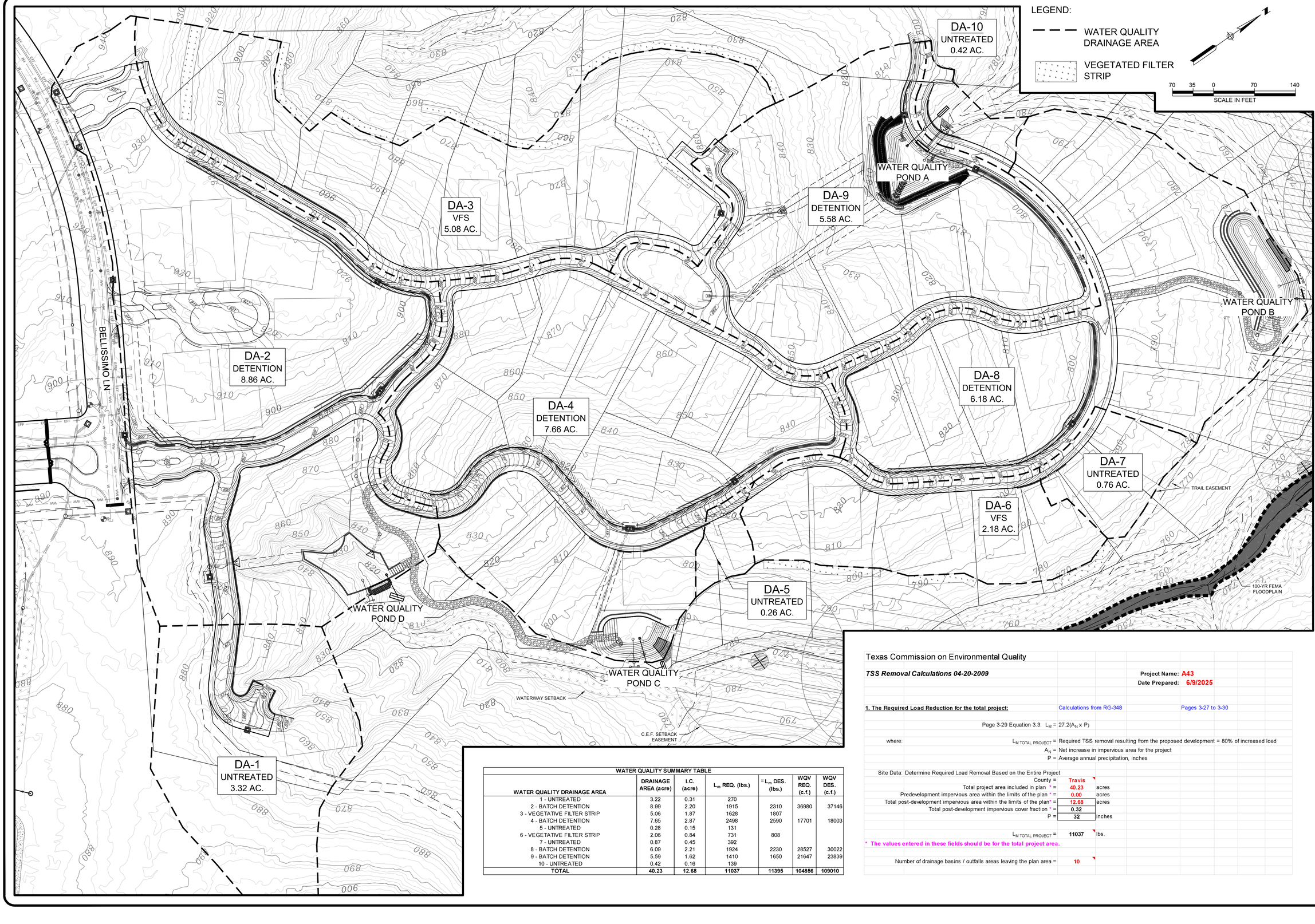
JOB NUMBER: A111-0437

SHEET NO. 13 OF 106 SHEETS

C:_Jobs\LJA\LJA\BC Condos A43\Const\A43-ES.dwg
User: Pope
Last Modified: Aug. 05, 25 - 13:33
Plot Date/Time: Sep. 02, 25 - 16:27:59
: ___\12\Barton Creek KLD PH 2\Const\Topo-2.dwg
: \A43-Base.dwg
: \24X36.dwg

EXHIBIT 3

WATER QUALITY PLAN / PERMANENT CONTROLS



WATER QUALITY SUMMARY TABLE

WATER QUALITY DRAINAGE AREA	DRAINAGE AREA (acre)	I.C. (acre)	L_m REQ. (lbs.)	$^{*}L_m$ DES. (lbs.)	WQV REQ. (c.f.)	WQV DES. (c.f.)
1 - UNTREATED	3.22	0.31	270			
2 - BATCH DETENTION	8.99	2.20	1915	2310	36980	37146
3 - VEGETATIVE FILTER STRIP	5.06	1.87	1628	1807		
4 - BATCH DETENTION	7.65	2.87	2498	2590	17701	18003
5 - UNTREATED	0.28	0.15	131			
6 - VEGETATIVE FILTER STRIP	2.06	0.84	731	808		
7 - UNTREATED	0.87	0.45	392			
8 - BATCH DETENTION	6.09	2.21	1924	2230	28527	30022
9 - BATCH DETENTION	5.59	1.62	1410	1650	21647	23839
10 - UNTREATED	0.42	0.16	139			
TOTAL	40.23	12.68	11037	11395	104856	109010

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: A43

Date Prepared: 6/9/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load

A_N = Net increase in impervious area for the project

P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.68	acres
Total post-development impervious cover fraction * =	0.32	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	11037	lbs.

* **The values entered in these fields should be for the total project area.**

Number of drainage basins / outfalls areas leaving the plan area = 10

BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE, WATER & WASTEWATER IMPROVEMENTS
WATER QUALITY IMPROVEMENTS PLAN

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: 5/28/2025
DESIGNED BY: CC
DRAWN BY: IR
CHECKED BY: LC
DRAWING NAME: A43-WQ MAP.dwg

LAUREN CRONE
STATE OF TEXAS
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-437

SHEET NO. 15 OF 103 SHEETS

I:\A111\A437- Block A Lot 4\DA\A43-WQ MAP.dwg
User: reedmunie
Last Modified: Sep 30, 25 - 09:23
Xref Attachment: XA1-437-11-05

BATCH DETENTION

2. Drainage Basin Parameters (This information should be provided for each basin):

2

Drainage Basin/Outfall Area No. = 2

Total drainage basin/outfall area =	**8.99**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**2.20**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.24**	
$L_{M\ THIS\ BASIN}$ =	**1915**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Batch Detention**
Removal efficiency = **91** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**8.99**	acres
A_I =	**2.20**	acres
A_P =	**6.79**	acres
L_R =	**2323**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **2310** lbs.

F = **0.99**

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**3.66**	inches
Post Development Runoff Coefficient =	**0.26**	
On-site Water Quality Volume =	**30816**	cubic feet
Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**6163**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**36980**	cubic feet

2. Drainage Basin Parameters (This information should be provided for each basin):

4

Drainage Basin/Outfall Area No. = 4

Total drainage basin/outfall area =	**7.65**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**2.87**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.38**	
$L_{M\ THIS\ BASIN}$ =	**2498**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Batch Detention**
Removal efficiency = **91** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**7.65**	acres
A_I =	**2.87**	acres
A_P =	**4.78**	acres
L_R =	**2967**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **2590** lbs.

F = **0.87**

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**1.44**	inches
Post Development Runoff Coefficient =	**0.37**	
On-site Water Quality Volume =	**14751**	cubic feet
Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**2950**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**17701**	cubic feet

2. Drainage Basin Parameters (This information should be provided for each basin):

8

Drainage Basin/Outfall Area No. = 8

Total drainage basin/outfall area =	**6.09**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**2.21**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.36**	
$L_{M\ THIS\ BASIN}$ =	**1924**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Batch Detention**
Removal efficiency = **91** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**6.09**	acres
A_I =	**2.21**	acres
A_P =	**3.88**	acres
L_R =	**2288**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **2230** lbs.

F = **0.97**

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**3.00**	inches
Post Development Runoff Coefficient =	**0.36**	
On-site Water Quality Volume =	**23773**	cubic feet
Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**4755**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**28527**	cubic feet

2. Drainage Basin Parameters (This information should be provided for each basin):

9

Drainage Basin/Outfall Area No. = 9

Total drainage basin/outfall area =	**5.59**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**1.62**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.29**	
$L_{M\ THIS\ BASIN}$ =	**1410**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Batch Detention**
Removal efficiency = **91** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**5.59**	acres
A_I =	**1.62**	acres
A_P =	**3.97**	acres
L_R =	**1695**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **1650** lbs.

F = **0.97**

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**3.00**	inches
Post Development Runoff Coefficient =	**0.30**	
On-site Water Quality Volume =	**18039**	cubic feet
Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**3608**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**21647**	cubic feet

SUMMARY

WATER QUALITY SUMMARY TABLE

WATER QUALITY DRAINAGE AREA	DRAINAGE AREA (acre)	I.C. (acre)	L_m REQ. (lbs.)	= L_m DES. (lbs.)	WQV REQ. (c.f.)	WQV DES. (c.f.)
1 - UNTREATED	3.22	0.31	270			
2 - BATCH DETENTION	8.99	2.20	1915	2310	36980	37146
3 - VEGETATIVE FILTER STRIP	5.06	1.87	1628	1807		
4 - BATCH DETENTION	7.65	2.87	2498	2590	17701	18003
5 - UNTREATED	0.28	0.15	131			
6 - VEGETATIVE FILTER STRIP	2.06	0.84	731	808		
7 - UNTREATED	0.87	0.45	392			
8 - BATCH DETENTION	6.09	2.21	1924	2230	28527	30022
9 - BATCH DETENTION	5.59	1.62	1410	1650	21647	23839
10 - UNTREATED	0.42	0.16	139			
TOTAL	**40.23**	**12.68**	**11037**	**11395**	**104856**	**109010**

VEGETATED FILTER STRIPS

2. Drainage Basin Parameters (This information should be provided for each basin):

3

Drainage Basin/Outfall Area No. = 3

Total drainage basin/outfall area =	**5.06**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**1.87**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.37**	
$L_{M\ THIS\ BASIN}$ =	**1628**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Vegetated Filter Strips**
Removal efficiency = **85** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**5.06**	acres
A_I =	**1.87**	acres
A_P =	**3.19**	acres
L_R =	**1807**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **1807** lbs.

F = **1.00**

2. Drainage Basin Parameters (This information should be provided for each basin):

6

Drainage Basin/Outfall Area No. = 6

Total drainage basin/outfall area =	**2.06**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.84**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.41**	
$L_{M\ THIS\ BASIN}$ =	**731**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Vegetated Filter Strips**
Removal efficiency = **85** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**2.06**	acres
A_I =	**0.84**	acres
A_P =	**1.22**	acres
L_R =	**808**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **808** lbs.

F = **1.00**

UNTREATED

2. Drainage Basin Parameters (This information should be provided for each basin):

1

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	**3.22**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.31**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.10**	
$L_{M\ THIS\ BASIN}$ =	**270**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Untreated**
Removal efficiency = **0** percent

2. Drainage Basin Parameters (This information should be provided for each basin):

5

Drainage Basin/Outfall Area No. = 5

Total drainage basin/outfall area =	**0.28**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.15**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.54**	
$L_{M\ THIS\ BASIN}$ =	**131**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Untreated**
Removal efficiency = **0** percent

2. Drainage Basin Parameters (This information should be provided for each basin):

7

Drainage Basin/Outfall Area No. = 7

Total drainage basin/outfall area =	**0.87**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.45**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.52**	
$L_{M\ THIS\ BASIN}$ =	**392**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Untreated**
Removal efficiency = **0** percent

2. Drainage Basin Parameters (This information should be provided for each basin):

10

Drainage Basin/Outfall Area No. = 10

Total drainage basin/outfall area =	**0.42**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.16**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.38**	
$L_{M\ THIS\ BASIN}$ =	**139**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Untreated**
Removal efficiency = **0** percent

BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE,
WATER & WASTEWATER IMPROVEMENTS
WATER QUALITY CALCULATIONS

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: 5/28/2025
DESIGNED BY: CC
DRAWN BY: IR
CHECKED BY: LC
DRAWING NAME: A43-WQ MAP.dwg

LAUREN CRONE
STATE OF TEXAS
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-437

SHEET NO. 16
OF 103 SHEETS

I:\A111\A437- Block A Lot 4\2CAD\A43-WQ MAP.dwg
User: lreekmans
Last Modified: Sep. 03, 25 - 09:23
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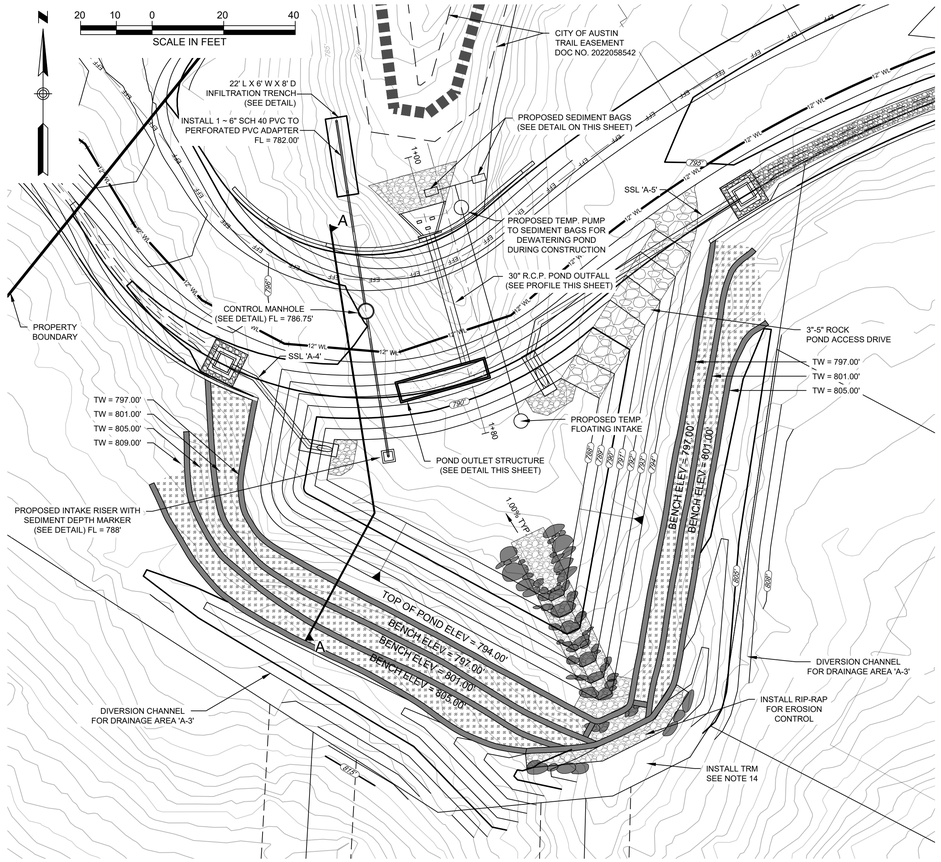

POND A
Stage - Storage - Discharge

Stage Elevation (ft)	Contour Area (sf)	Incremental Volume (cf)	Cumulative Volume (cf)	Cumulative Volume (ac-ft)	Pipe Discharge (cfs)	Weir Discharge (cfs)	Total Discharge (cfs)
788.00	**2537**	0	0	0.00	0.0	0.0	**0.0**
789.00	**3313**	2925	2925	0.07	1.2	0.0	**1.2**
790.00	**4190**	3752	6677	0.15	1.8	0.0	**1.8**
791.00	**5162**	4676	11353	0.26	2.2	0.0	**2.2**
792.00	**6221**	5692	17044	0.39	2.6	0.0	**2.6**
793.00	**7368**	6795	23839	0.55	3.0	0.0	**3.0**
794.00	**8604**	7986	31825	0.73	3.2	180.0	**183.2**

CONTROLS NARRATIVE:

BATCH DETENTION POND IS EQUIPPED WITH A RAIN SENSOR MOUNTED AT THE CONTROL PANEL AND A LEVEL SWITCH AT THE CONTROL MANHOLE. THE VALVE IS TO REMAIN NORMALLY CLOSED. WHEN CONTACT IS MADE BY LEVEL SWITCH, 12 HOUR DELAY TIMER SHALL BEGIN. AT THE END OF THE 12 HOURS, THE VALVE WILL OPEN. ONCE VALVE OPENS, IT WILL REMAIN OPEN UNTIL 2 HOURS AFTER THE LEVEL SENSOR DETECTS THE POND IS EMPTY TO ALLOW REMAINING SHALLOW WATER TO BE DISCHARGED. SUBSEQUENT RAINFALL EVENTS THAT OCCUR PRIOR TO THE POND DRAINING SHALL CAUSE THE VALVE TO REMAIN OPEN UNTIL ALL ADDITIONAL STORMWATER PASSES THROUGH THE POND. THE DRAWDOWN TIME OF THE BASIN SHOULD NOT EXCEED 48 HOURS FOR A SINGLE STORM EVENT AFTER THE 12 HOUR REQUIRED DETENTION TIME. WITH THE PROPOSED 6" OUTLET PIPE, THE ENTIRE WATER QUALITY VOLUME OF THE POND WILL HAVE A DRAWDOWN TIME OF APPROXIMATELY 9 HOURS.

Infiltration Trench (Secondary BMP)

Soil Type	Brackett (BiD)	
Permeability	0.31	in/hr
Porosity (n)	0.35	
VR%	0.3	
WQV_{req}	22858	cf
IT Volume Req. ($V_{IT,req}$)	368	cf
Trench Vol. Req. ($V_{T,req}$)	1,051	cf
Trench Depth	8	ft
Trench Width	6	ft
Trench Length	22	ft
$V_{T,provided}$	1056	cf OK
$V_{IT,provided}$	369.6	cf OK
Infiltration Area (Ai)	580	sf
$V_{provided}$ / Ai < 1	0.64	OK

$$V_{IT,req} = 0.023\ WQV_{req}\ (1 - VR\%)$$

$$V_{T,req} = \frac{V_{IT,req}}{n}$$

$$V_{IT,provided} = V_{T,provided} * n$$

NOTES:

1. FOR THE POND AND BERMS, EARTHWORK SHALL BE IN CONFORMANCE WITH TRAVIS COUNTY STANDARD SPECIFICATIONS AND EARTHWORK SECTION OF THE GEOTECHNICAL REPORT.
2. EMBANKMENT SHALL BE INSTALLED IN LIFTS AND COMPACTED PER GEOTECHNICAL REPORT.
3. ALL WORK SHALL BE PERFORMED WITHIN SITE LIMITS OF CONSTRUCTION.
4. CONTRACTOR TO PROOF ROLL BOTTOM AND SIDES OF POND TO ENSURE FIRM BOTTOM. IF BOTTOM APPEARS FRACTURED CONTRACTOR TO NOTIFY ENGINEER PRIOR TO PLACEMENT OF SAND BED ON TOPSOIL.
5. THE CONTRACTOR WILL BE REQUIRED TO PERFORM TESTING REQUIREMENTS TO SATISFY TRAVIS COUNTY INSPECTIONS. THIS SHALL INCLUDE BUT NOT LIMITED TO PROVIDING NECESSARY WATER AS REQUESTED BY INSPECTOR.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR POSITIVE DRAINAGE IN DETENTION BASIN AREA.
7. CONTRACTOR SHALL PROVIDE STRUCTURAL DESIGN FOR ALL RETAINING WALLS GREATER THAN 4 FEET HIGH AS A SUBMITTAL TO THE ENGINEER PRIOR TO CONSTRUCTION.
8. A PROFESSIONAL ENGINEER'S LETTER OF CONCURRENCE THAT THE POND WAS CONSTRUCTED IN ACCORDANCE WITH THE DESIGN WILL BE REQUIRED. STABILIZATION OF POND OR OTHER DISTURBED SLOPES 3:1 OR STEEPER WITH SOIL RETENTION BLANKETS, OR EQUIVALENT BMP, IS REQUIRED.
9. ALL POND AREAS TO BE STABILIZED WITH SOD IMMEDIATELY AFTER ESTABLISHING FINAL GRADES UNLESS OTHERWISE NOTED.
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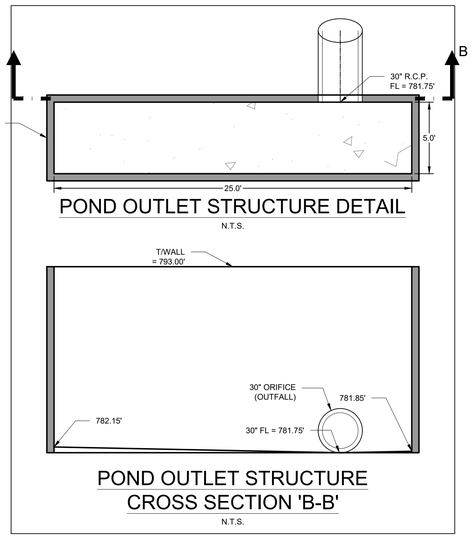
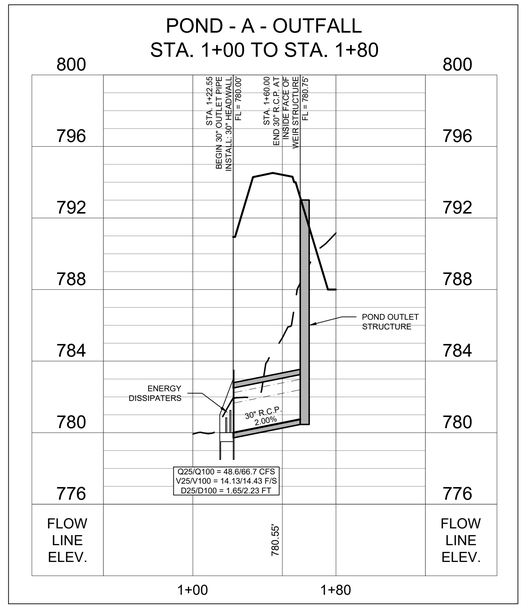
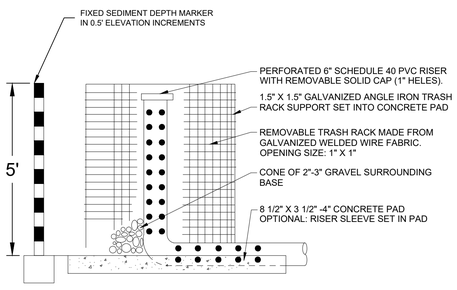
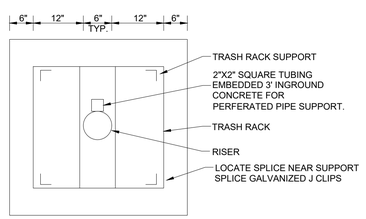


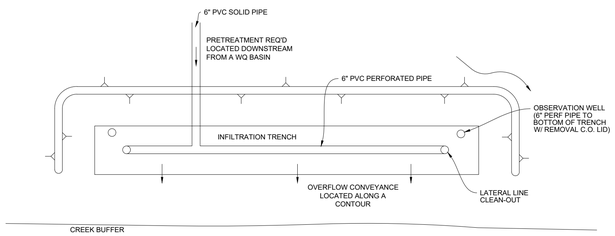


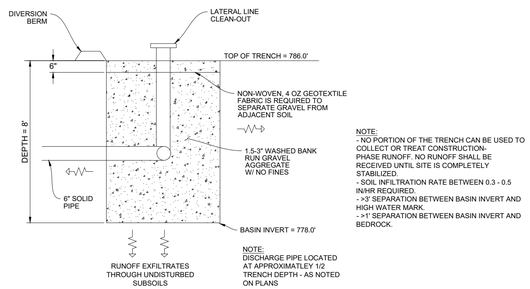


SIDE VIEW OF RISER



TOP VIEW OF RISER (SQUARE DESIGN)





NOTE:
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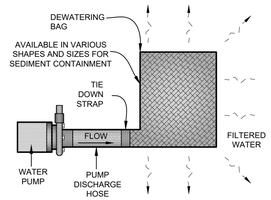
- SOIL INFILTRATION RATE BETWEEN 0.3 - 0.5 IN/HR REQUIRED.
- >3' SEPARATION BETWEEN BASIN INVERT AND HIGH WATER MARK.
- >1' SEPARATION BETWEEN BASIN INVERT AND BEDROCK.

NOTE:
DISCHARGE PIPE LOCATED AT APPROXIMATELY 1/2 TRENCH DEPTH - AS NOTED ON PLANS

INFILTRATION TRENCH SCHEMATIC



SEDIMENT BAG (DEWATERING) DETAIL
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APPROPRIATE APPLICATIONS:
EFFECTIVE FOR THE REMOVAL OF SEDIMENTS (GRAVEL, SAND, AND SILT). SOME METALS ARE REMOVED WITH THE SEDIMENT.

IMPLEMENTATION:
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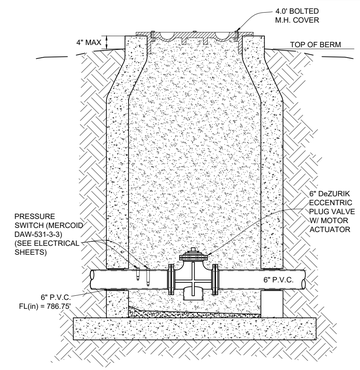
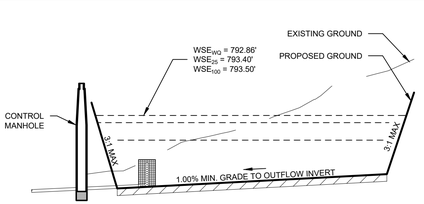
A SECONDARY BARRIER, SUCH AS A ROCK FILTER BED OR STRAW/HAY BALE BARRIER IS PLACED BENEATH AND BEYOND THE EDGES OF THE BAG TO CAPTURE SEDIMENTS THAT ESCAPE THE BAG.

MAINTENANCE:
INSPECTION OF THE FLOW CONDITIONS, BAG CONDITION, BAG CAPACITY, AND THE SECONDARY BARRIER IS REQUIRED.
REPLACE THE BAG WHEN IT NO LONGER FILTERS SEDIMENT OR PASSES WATER AT A REASONABLE RATE. THE BAG IS DISPOSED OF OFFSITE.



CONTROL MANHOLE DETAIL
N.T.S.



POND SECTION A-A
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811 Know what's **below.** **Call** before you dig.

BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE, WATER & WASTEWATER IMPROVEMENTS
WATER QUALITY POND A

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: A43-WQ Ponds.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-437

SHEET NO. **17**

OF *103* SHEETS

I:\A111\A437- Block A Lot 43\CAD\A43-WQ Ponds.dwg
User: lmeltmore
Last Modified: Sep. 03, 25 - 09:22
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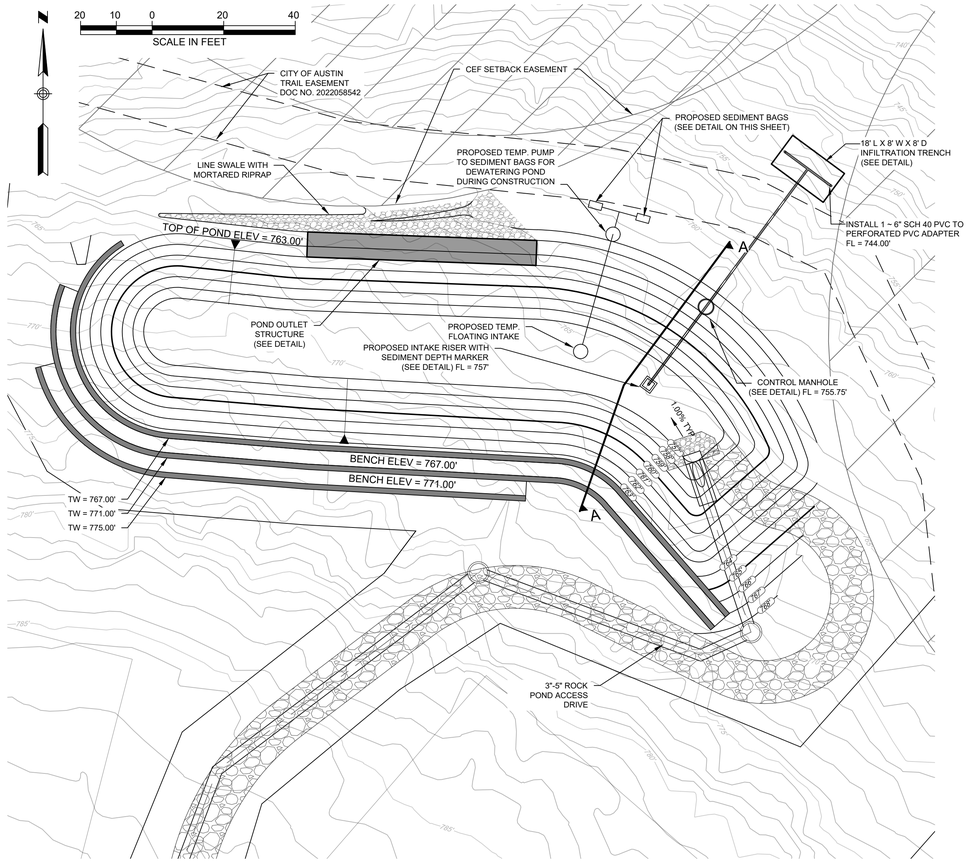

POND B
Stage - Storage - Discharge

Stage Elevation (ft)	Contour Area (sf)	Incremental Volume (cf)	Cumulative Volume (cf)	Cumulative Volume (ac-ft)	Pipe Discharge (cfs)	Weir Discharge (cfs)	Total Discharge (cfs)
757.00	**2965**	0	0	0.00	0.0	0.0	**0.0**
758.00	**4094**	3530	3530	0.08	1.2	0.0	**1.2**
759.00	**5295**	4695	8224	0.19	1.8	0.0	**1.8**
760.00	**6569**	5932	14156	0.32	2.2	0.0	**2.2**
761.00	**7915**	7242	21398	0.49	2.6	0.0	**2.6**
762.00	**9332**	8624	30022	0.69	3.0	0.0	**3.0**
763.00	**10771**	10052	40073	0.92	3.2	192.0	**195.2**

Infiltration Trench (Secondary BMP)

Soil Type		
Permeability	0.31	in/hr
Porosity (n)	0.35	
VR%	0.3	
WQV_{req}	29754	cf
IT Volume Req. ($V_{IT,req}$)	479	cf
Trench Vol. Req. ($V_{T,req}$)	1,369	cf
Trench Depth	8	ft
Trench Width	10	ft
Trench Length	18	ft
$V_{T,provided}$	1440 cf	OK
$V_{IT,provided}$	504 cf	OK
Infiltration Area (Ai)	628 sf	
$V_{provided}$ / Ai < 1	0.80	OK

$$V_{IT,req} = 0.023\ WQV_{req}\ (1 - VR\%)$$

$$V_{T,req} = \frac{V_{IT,req}}{n}$$

$$V_{IT,provided} = V_{T,provided} * n$$

CONTROLS NARRATIVE:

BATCH DETENTION POND IS EQUIPPED WITH A RAIN SENSOR MOUNTED AT THE CONTROL PANEL AND A LEVEL SWITCH AT THE CONTROL MANHOLE. THE VALVE IS TO REMAIN NORMALLY CLOSED. WHEN CONTACT IS MADE BY LEVEL SWITCH, 12 HOUR DELAY TIMER SHALL BEGIN. AT THE END OF THE 12 HOURS, THE VALVE WILL OPEN. ONCE VALVE OPENS, IT WILL REMAIN OPEN UNTIL 2 HOURS AFTER THE LEVEL SENSOR DETECTS THE POND IS EMPTY TO ALLOW REMAINING SHALLOW WATER TO BE DISCHARGED. SUBSEQUENT RAINFALL EVENTS THAT OCCUR PRIOR TO THE POND DRAINING SHALL CAUSE THE VALVE TO REMAIN OPEN UNTIL ALL ADDITIONAL STORMWATER PASSES THROUGH THE POND. THE DRAWDOWN TIME OF THE BASIN SHOULD NOT EXCEED 48 HOURS FOR A SINGLE STORM EVENT AFTER THE 12 HOUR REQUIRED DETENTION TIME. WITH THE PROPOSED 6" OUTLET PIPE, THE ENTIRE WATER QUALITY VOLUME OF THE POND WILL HAVE A DRAWDOWN TIME OF APPROXIMATELY 9 HOURS.

NOTES:

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4. CONTRACTOR TO PROOF ROLL BOTTOM AND SIDES OF POND TO ENSURE FIRM BOTTOM. IF BOTTOM APPEARS FRACTURED CONTRACTOR TO NOTIFY ENGINEER PRIOR TO PLACEMENT OF SAND BED ON TOPSOIL.
5. THE CONTRACTOR WILL BE REQUIRED TO PERFORM TESTING REQUIREMENTS TO SATISFY TRAVIS COUNTY INSPECTIONS. THIS SHALL INCLUDE BUT NOT LIMITED TO PROVIDING NECESSARY WATER AS REQUESTED BY INSPECTOR.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR POSITIVE DRAINAGE IN DETENTION BASIN AREA.
7. CONTRACTOR SHALL PROVIDE STRUCTURAL DESIGN FOR ALL RETAINING WALLS GREATER THAN 4 FEET HIGH AS A SUBMITTAL TO THE ENGINEER PRIOR TO CONSTRUCTION.
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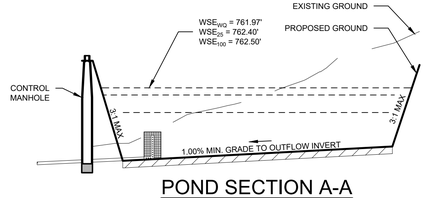
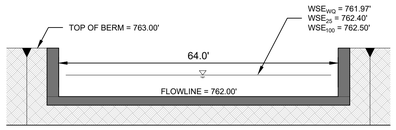
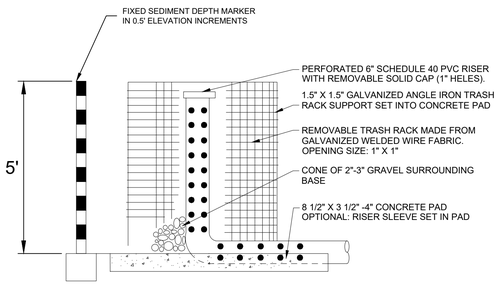


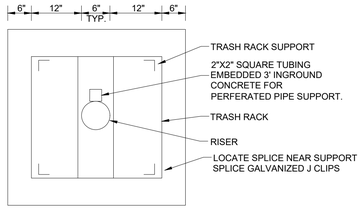
POND SECTION A-A
N.T.S.



POND OUTLET STRUCTURE
N.T.S.



SIDE VIEW OF RISER



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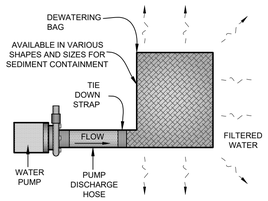

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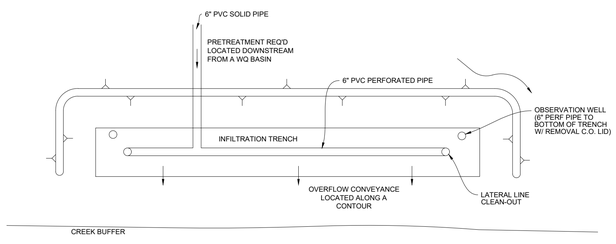

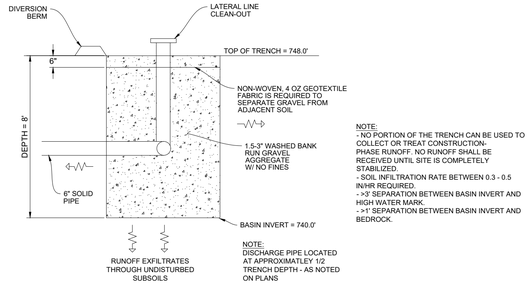

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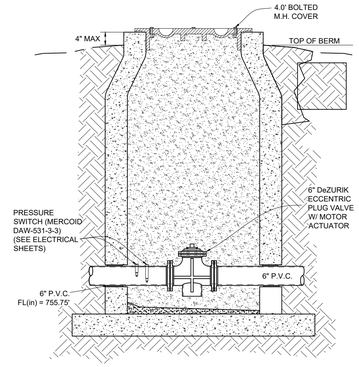
INFILTRATION TRENCH SCHEMATIC



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BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE, WATER & WASTEWATER IMPROVEMENTS
WATER QUALITY POND B

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: A43-WQ Ponds.dwg

LAUREN CRONE — STATE OF TEXAS — 126018 — LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-437

SHEET NO. **18** OF 103 SHEETS

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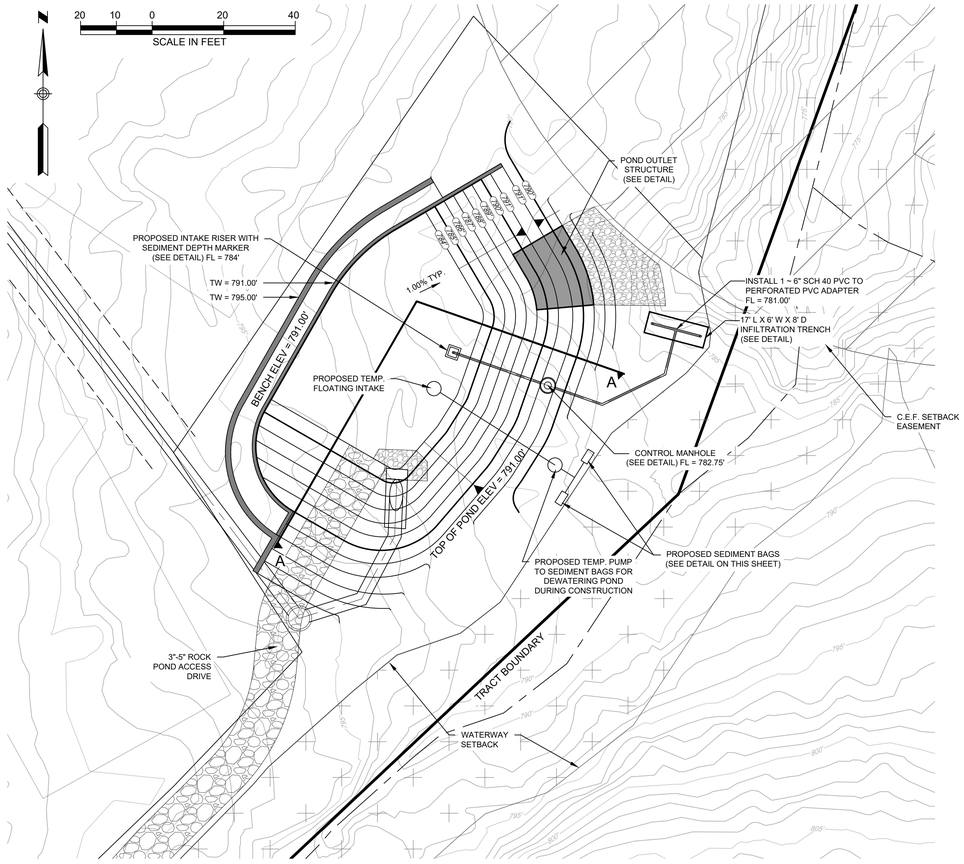
User: rreamore
Last Modified: Sep. 03, 25 - 09:23
Plot Date/Time: Oct. 01, 25 - 17:28:09



POND C
Stage - Storage - Discharge

Stage Elevation (ft)	Contour Area (sf)	Incremental Volume (cf)	Cumulative Volume (cf)	Cumulative Volume (ac-ft)	Pipe Discharge (cfs)	Weir Discharge (cfs)	Total Discharge (cfs)
784.00	**2457**	0	0	0.00	0.0	0.0	**0.0**
785.00	**2884**	2671	2671	0.06	1.2	0.0	**1.2**
786.00	**3339**	3112	5782	0.13	1.8	0.0	**1.8**
787.00	**3818**	3579	9361	0.21	2.2	0.0	**2.2**
788.00	**4317**	4068	13428	0.31	2.6	0.0	**2.6**
789.00	**4833**	4575	18003	0.41	3.0	0.0	**3.0**
790.00	**5352**	5093	23096	0.53	3.2	51.0	**54.2**
791.00	**5866**	5609	28705	0.66	3.5	144.2	**147.8**

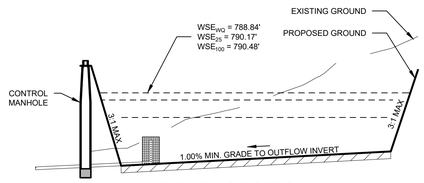
Infiltration Trench (Secondary BMP)

Soil Type	**Brackett (BiD)**	
Permeability	**0.31**	in/hr
Porosity (n)	**0.35**	
VR%	**0.3**	
WQV_{req}	**17267**	cf
IT Volume Req. ($V_{IT,req}$)	278	cf
Trench Vol. Req. ($V_{T,req}$)	794	cf
Trench Depth	**8**	ft
Trench Width	**6**	ft
Trench Length	**17**	ft
	1	
$V_{T,provided}$	816	cf OK
$V_{IT,provided}$	285.6	cf OK
Infiltration Area (Ai)	470	sf
$V_{provided}$ / Ai < 1	0.61	OK

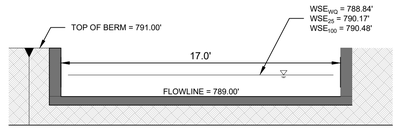
$$V_{IT,req} = 0.023\ WQV_{req}\ (1 - VR\%)$$

$$V_{T,req} = \frac{V_{IT,req}}{n}$$

$$V_{IT,provided} = V_{T,provided} * n$$



POND SECTION A-A
N.T.S.



POND OUTLET STRUCTURE
N.T.S.

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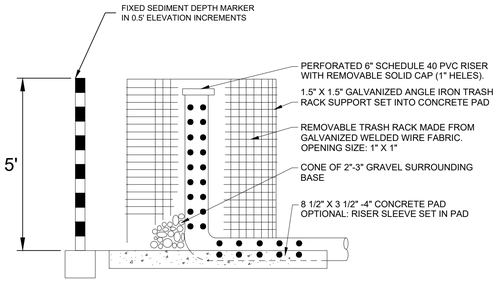
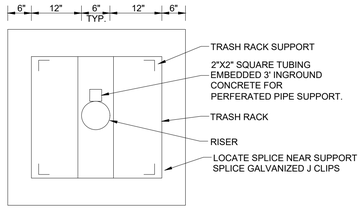
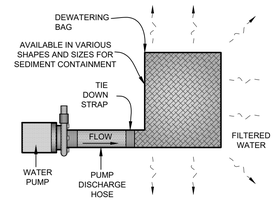
5. THE CONTRACTOR WILL BE REQUIRED TO PERFORM TESTING REQUIREMENTS TO SATISFY TRAVIS COUNTY INSPECTIONS. THIS SHALL INCLUDE BUT NOT LIMITED TO PROVIDING NECESSARY WATER AS REQUESTED BY INSPECTOR.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR POSITIVE DRAINAGE IN DETENTION BASIN AREA.
7. CONTRACTOR SHALL PROVIDE STRUCTURAL DESIGN FOR ALL RETAINING WALLS GREATER THAN 4 FEET HIGH AS A SUBMITTAL TO THE ENGINEER PRIOR TO CONSTRUCTION.
8. A PROFESSIONAL ENGINEER'S LETTER OF CONCURRENCE THAT THE POND WAS CONSTRUCTED IN ACCORDANCE WITH THE DESIGN WILL BE REQUIRED. STABILIZATION OF POND OR OTHER DISTURBED SLOPES 3:1 OR STEEPER WITH SOIL RETENTION BLANKETS, OR EQUIVALENT BMP, IS REQUIRED.
9. ALL POND AREAS TO BE STABILIZED WITH SOD IMMEDIATELY AFTER ESTABLISHING FINAL GRADES UNLESS OTHERWISE NOTED.
10. ALL CONCRETE LINING SHALL BE A MINIMUM OF FIVE (5) INCHES THICK AND REINFORCED WITH NO. 4 ROUND BARS @ 18 INCHES ON CENTER EACH WAY. ALL CONCRETE LINING SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN THREE THOUSAND (3,000) POUNDS PER SQUARE INCH (PSI) IN TWENTY EIGHT (28) DAYS. THE DEPTH OF ALL TOE-DOWNS SHALL BE 36 INCHES UPSTREAM, 24 INCHES DOWNSTREAM, AND 18 INCHES FOR SIDE SLOPES.
11. TOPSOIL MUST BE PLACED ON THE BASIN FLOOR AFTER EXCAVATED BOTTOM IS SCARIFIED TO A DEPTH OF 2 TO 3 INCHES. THE TOPSOIL MUST BE 6 TO 8 INCHED DEEP AND A SOIL MIXTURE OF 30-40% SAND OR GRANITE SAND, 60-70% TOPSOIL, AND SUGGEST 5-10% COMPOST OR PEAT. SOIL, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN 1 INCH MUST BE MULCHED.
12. DISCHARGE COEFFICIENTS FOR OUTLETS TO CONTROL DISCHARGE TIME ARE 0.6.
13. ALL ROCK RIP-RAP SHALL BE MORTARED.
14. TRM (TURF REINFORCEMENTS MATS) SHALL BE INSTALLED IN ALL DIVERSION DITCHES AND DOWNSTREAM OF RIP-RAP INSTALLATIONS.



SIDE VIEW OF RISER



TOP VIEW OF RISER (SQUARE DESIGN)



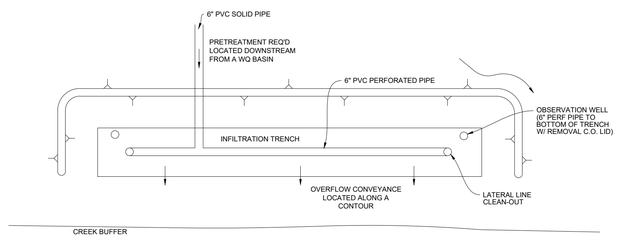
SEDIMENT BAG (DEWATERING) DETAIL
N.T.S.

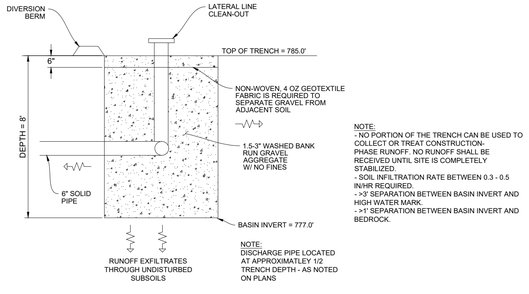
DESCRIPTION:
A GRAVITY BAG FILTER, ALSO REFERRED TO AS A DEWATERING BAG, IS A SQUARE OR RECTANGULAR BAG MADE OF NON-WOVEN GEOTEXTILE FABRIC THAT COLLECTS SAND, SILT, AND FINES.

APPROPRIATE APPLICATIONS:
EFFECTIVE FOR THE REMOVAL OF SEDIMENTS (GRAVEL, SAND, AND SILT). SOME METALS ARE REMOVED WITH THE SEDIMENT.

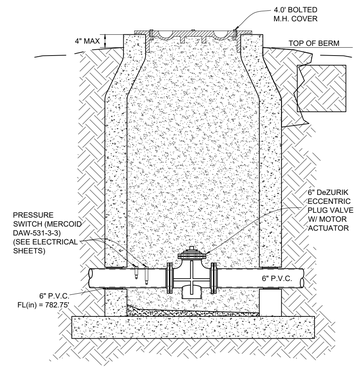
IMPLEMENTATION:
WATER IS PUMPED INTO ONE SIDE OF THE BAG AND SEEPS THROUGH THE BOTTOM AND SIDES OF THE BAG.
A SECONDARY BARRIER, SUCH AS A ROCK FILTER BED OR STRAW/HAY BALE BARRIER IS PLACED BENEATH AND BEYOND THE EDGES OF THE BAG TO CAPTURE SEDIMENTS THAT ESCAPE THE BAG.

MAINTENANCE:
INSPECTION OF THE FLOW CONDITIONS, BAG CONDITION, BAG CAPACITY, AND THE SECONDARY BARRIER IS REQUIRED.
REPLACE THE BAG WHEN IT NO LONGER FILTERS SEDIMENT OR PASSES WATER AT A REASONABLE RATE. THE BAG IS DISPOSED OF OFFSITE.





INFILTRATION TRENCH SCHEMATIC



CONTROL MANHOLE DETAIL
N.T.S.

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

811 Know what's **below.** **Call** before you dig.

BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE, WATER & WASTEWATER IMPROVEMENTS
WATER QUALITY POND C

NO.	DESCRIPTION	BY	DATE

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: A43-WQ Ponds.dwg

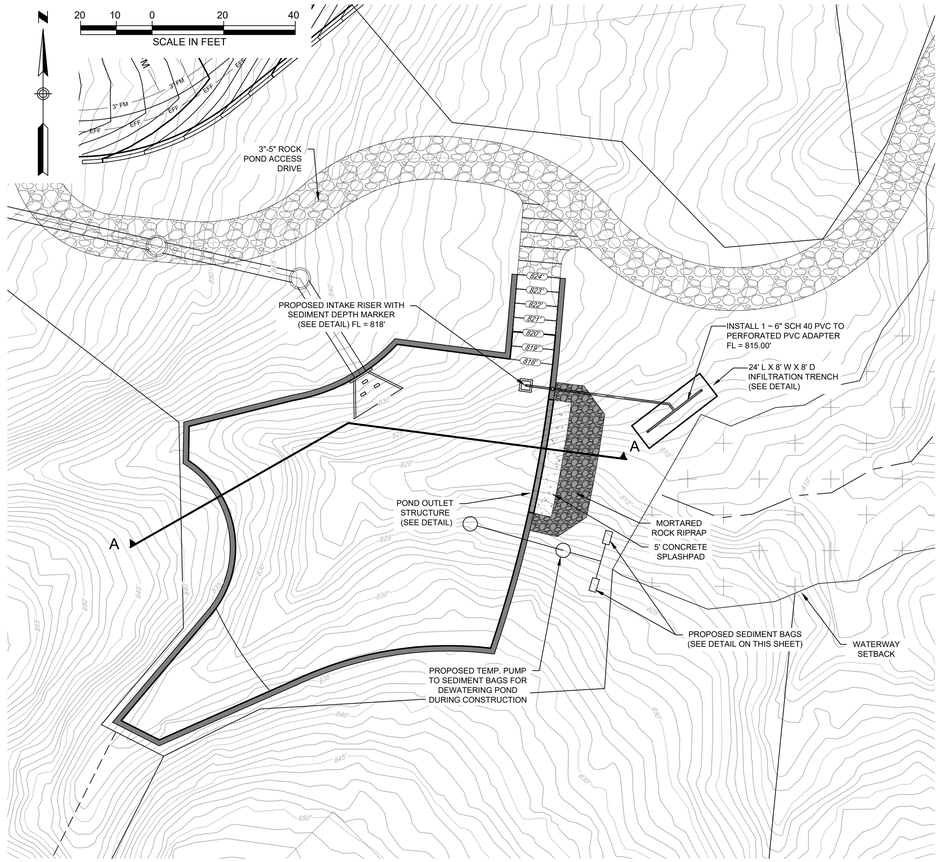
Lauren Crone — STATE OF TEXAS — LAUREN CRONE — 126018 — LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-437

SHEET NO. **19** OF *103* SHEETS

I:\A111\A437- Block A Lot 4\SCAD\A43-WQ Ponds.dwg
User: rreamore
Last Modified: Sep. 03, 25 - 09:22
Plot Date/Time: Sep. 03, 25 - 11:45:21



POND D

Stage - Storage - Discharge

Stage Elevation (ft)	Contour Area (sf)	Incremental Volume (cf)	Cumulative Volume (cf)	Cumulative Volume (ac-ft)	Pipe Discharge (cfs)	Weir Discharge (cfs)	Total Discharge (cfs)
818.00	**6791**	0	0	0.00	0.0	0.0	**0.0**
819.00	**7500**	7146	7146	0.16	1.2	0.0	**1.2**
820.00	**7500**	7500	14646	0.34	1.8	0.0	**1.8**
821.00	**7500**	7500	22146	0.51	2.2	0.0	**2.2**
822.00	**7500**	7500	29646	0.68	2.6	0.0	**2.6**
822.50	**7500**	3750	33396	0.77	2.8	0.0	**2.8**
823.00	**7500**	3750	37146	0.85	3.0	31.8	**34.8**
824.00	**7500**	7500	44646	1.02	3.2	165.3	**168.6**

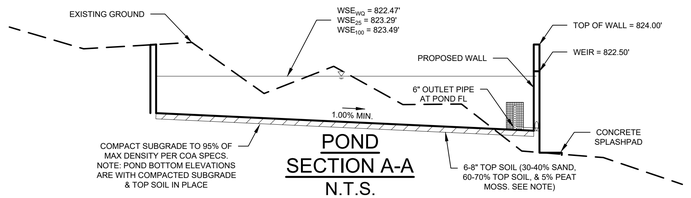
Infiltration Trench (Secondary BMP)

Soil Type	**Brackett (BiD)**	
Permeability	**0.31**	in/hr
Porosity (n)	**0.35**	
VR%	**0.3**	
WQV_{req}	**33190**	cf
IT Volume Req. ($V_{IT,req}$)	534	cf
Trench Vol. Req. ($V_{T,req}$)	1,526	cf
Trench Depth	**8**	ft
Trench Width	**8**	ft
Trench Length	**24**	ft
$V_{T,provided}$	1536 cf	OK
$V_{IT,provided}$	537.6 cf	OK
Infiltration Area (Ai)	704 sf	
$V_{provided}$ / Ai < 1	0.76	OK

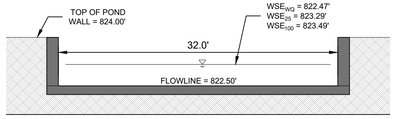
$$V_{IT,req} = 0.023\ WQV_{req}\ (1 - VR\%)$$

$$V_{T,req} = \frac{V_{IT,req}}{n}$$

$$V_{IT,provided} = V_{T,provided} * n$$



POND
SECTION A-A
N.T.S.



POND OUTLET STRUCTURE
N.T.S.

CONTROLS NARRATIVE:

BATCH DETENTION POND IS EQUIPPED WITH A RAIN SENSOR MOUNTED AT THE CONTROL PANEL AND A LEVEL SWITCH AT THE CONTROL MANHOLE. THE VALVE IS TO REMAIN NORMALLY CLOSED. WHEN CONTACT IS MADE BY LEVEL SWITCH, 12 HOUR DELAY TIMER SHALL BEGIN. AT THE END OF THE 12 HOURS, THE VALVE WILL OPEN. ONCE VALVE OPENS, IT WILL REMAIN OPEN UNTIL 2 HOURS AFTER THE LEVEL SENSOR DETECTS THE POND IS EMPTY TO ALLOW REMAINING SHALLOW WATER TO BE DISCHARGED. SUBSEQUENT RAINFALL EVENTS THAT OCCUR PRIOR TO THE POND DRAINING SHALL CAUSE THE VALVE TO REMAIN OPEN UNTIL ALL ADDITIONAL STORMWATER PASSES THROUGH THE POND. THE DRAWDOWN TIME OF THE BASIN SHOULD NOT EXCEED 48 HOURS FOR A SINGLE STORM EVENT AFTER THE 12 HOUR REQUIRED DETENTION TIME. WITH THE PROPOSED 6" OUTLET PIPE, THE ENTIRE WATER QUALITY VOLUME OF THE POND WILL HAVE A DRAWDOWN TIME OF APPROXIMATELY 9 HOURS.

NOTES:

1. FOR THE POND AND BERMS, EARTHWORK SHALL BE IN CONFORMANCE WITH TRAVIS COUNTY STANDARD SPECIFICATIONS AND EARTHWORK SECTION OF THE GEOTECHNICAL REPORT.
2. EMBANKMENT SHALL BE INSTALLED IN LIFTS AND COMPACTED PER GEOTECHNICAL REPORT.
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4. CONTRACTOR TO PROOF ROLL BOTTOM AND SIDES OF POND TO ENSURE FIRM BOTTOM. IF BOTTOM APPEARS FRACTURED CONTRACTOR TO NOTIFY ENGINEER PRIOR TO PLACEMENT OF SAND BED ON TOPSOIL.
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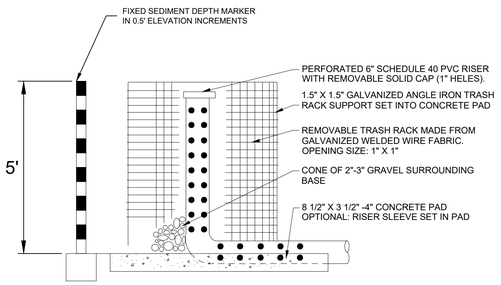
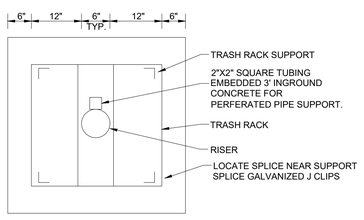
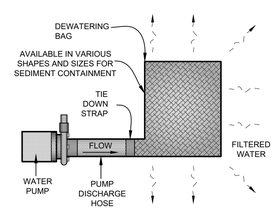


SIDE VIEW OF RISER



TOP VIEW OF RISER (SQUARE DESIGN)



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N.T.S.

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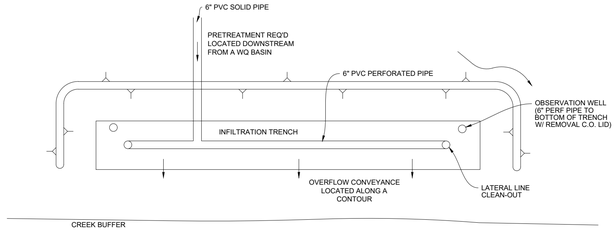
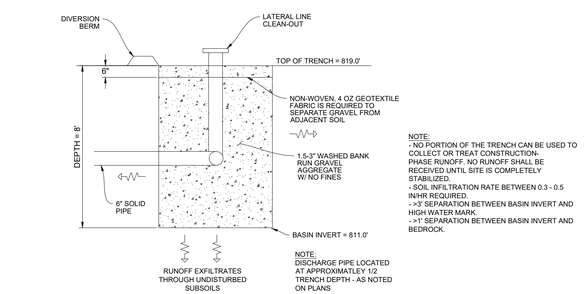




NOTE:
- NO PORTION OF THE TRENCH CAN BE USED TO COLLECT OR TREAT CONSTRUCTION-PHASE RUNOFF. NO RUNOFF SHALL BE RECEIVED UNTIL SITE IS COMPLETELY STABILIZED.
- SOIL INFILTRATION RATE BETWEEN 0.3 - 0.5 IN/HR REQUIRED.
- >3' SEPARATION BETWEEN BASIN INVERT AND HIGH WATER MARK.
- >1' SEPARATION BETWEEN BASIN INVERT AND BEDROCK.

INFILTRATION TRENCH SCHEMATIC

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

811 Know what's **below.** **Call** before you dig.

BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE, WATER & WASTEWATER IMPROVEMENTS
WATER QUALITY POND D

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: A43-WQ Ponds.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
126018
LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-437

SHEET NO. **20**

OF 103 SHEETS

I:\A111\A437- Block A Lot 4\5\CAD\A43-WQ Ponds.dwg
User: lreekmans
Last Modified: Sep. 03, 25 - 09:22
Xref Modified: Aug. 01, 25 - 1:06:32

APPENDIX A

SAMPLE INSPECTION AND MAINTENANCE REPORT FORM

TPDES Construction Inspection and Maintenance Report Form

Project Name: Barton Creek Holden Hills Block B Lot 1

Permit Number:

Facility Operators:

Inspector's Name:
(attach qualifications summary for each inspector)

Date of Last Rainfall:
Amount of Last Rainfall:
Date of Inspection:

Inspection Notes

Condition Code*	Area Inspected	Changes Required (if any)
☐	Stabilized Construction Entrance(s)	
☐	Silt fencing and rock berms downstream of improvements	
☐	Severe service rock berm and silt fencing downstream of detention pond	
☐	Severe service rock berm and silt fencing inside Vega Avenue right-of-way	
☐	Sediment Trap (Water Quality Pond)	
☐	Silt fencing downstream of Temporary Spoils/ Construction Staging Areas	
☐	Areas temporarily and/or finally stabilized (inspect at least once every month)	
☐		

*Condition Codes
01 - In compliance with the storm water pollution prevention plan and perm
02 - To be repaired or replaced within 24 hours
03 - To be repaired or replaced within 48 hours
04 - To be repaired or replaced within 7 days

Please note major construction activities taking place. Include dates when major grading activities and/or disturbances occur, dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated. Major observations should include: The locations of discharges of sediment or other pollutants from the site; locations of controls that need to be maintained; locations of controls that failed to operate as designed or proved inadequate for a particular location; and locations where additional controls are needed. (Attach additional pages as required and/or attach daily construction reports.)

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

Signature: _____ Date: _____

APPENDIX B

NAMES AND QUALIFICATIONS OF PERSONNEL MAKING INSPECTIONS

APPENDIX C

CERTIFIED NOTICES OF INTENT AND ACKNOWLEDGEMENT CERTIFICATES

TCEQ Office Use Only
Permit No:
CN:
RN:

Notice of Intent (NOI) for an Authorization for Stormwater Discharges Associated with Construction Activity under TPDES General Permit TXR150000

IMPORTANT INFORMATION

Please read and use the General Information and Instructions prior to filling out each question in the NOI form.

Use the NOI Checklist to ensure all required information is completed correctly. **Incomplete applications delay approval or result in automatic denial.**

Once processed your permit authorization can be viewed by entering the following link into your internet browser: http://www2.tceq.texas.gov/wq_dpa/index.cfm or you can contact TCEQ Stormwater Processing Center at 512-239-3700.

ePERMITS

Effective September 1, 2018, this paper form must be submitted to TCEQ with a completed electronic reporting waiver form (TCEQ-20754).

To submit an NOI electronically, enter the following web address into your internet browser and follow the instructions: https://www3.tceq.texas.gov/steers/index.cfm

APPLICATION FEE AND PAYMENT

The application fee for submitting a paper NOI is $325. The application fee for electronic submittal of a NOI through the TCEQ ePermits system (STEERS) is $225.

Payment of the application fee can be submitted by mail or through the TCEQ ePay system. The payment and the NOI must be mailed to separate addresses. To access the TCEQ ePay system enter the following web address into your internet browser: http://www.tceq.texas.gov/epay.

Provide your payment information for verification of payment:

- If payment was mailed to TCEQ, provide the following:
  - Check/Money Order Number: Click here to enter text
  - Name printed on Check: Click here to enter text
- If payment was made via ePay, provide the following:
  - Voucher Number: Click here to enter text
  - A copy of the payment voucher is attached to this paper NOI form.

RENEWAL (This portion of the NOI is not applicable after June 3, 2018)

Is this NOI for a renewal of an existing authorization? ☐ Yes ☒ No

If Yes, provide the authorization number here: TXR15 Click here to enter text.

NOTE: If an authorization number is not provided, a new number will be assigned.

SECTION 1. OPERATOR (APPLICANT)

a) If the applicant is currently a customer with TCEQ, what is the Customer Number (CN) issued to this entity? CN 606123644

(Refer to Section 1.a) of the Instructions)

b) What is the Legal Name of the entity (applicant) applying for this permit? (The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.)

Holden Hills L.P.

c) What is the contact information for the Operator (Responsible Authority)?

Prefix (Mr. Ms. Miss): Ms.

First and Last Name: Erin D. Pickens Suffix: Click here to enter text.

Title: Senior Vice President Credentials: Click here to enter text.

Phone Number: 512-478-5788 Fax Number: Click here to enter text.

E-mail: epickens@stratusproperties.com

Mailing Address: 212 Lavaca Street, Suite 300

City, State, and Zip Code: Austin, TX 78701

Mailing Information if outside USA:

Territory: Click here to enter text.

Country Code: Click here to enter text. Postal Code: Click here to enter text.

d) Indicate the type of customer:

☐ Individual	☐ Federal Government
☒ Limited Partnership	☐ County Government
☐ General Partnership	☐ State Government
☐ Trust	☐ City Government
☐ Sole Proprietorship (D.B.A.)	☐ Other Government
☐ Corporation	☐ Other: Click here to enter text.
☐ Estate	

e) Is the applicant an independent operator? ☒ Yes ☐ No

(If a governmental entity, a subsidiary, or part of a larger corporation, check No.)

f) Number of Employees. Select the range applicable to your company.

☒ 0-20 ☐ 251-500

☐ 21-100 ☐ 501 or higher

☐ 101-250

g) Customer Business Tax and Filing Numbers: (**Required** for Corporations and Limited Partnerships. **Not Required** for Individuals, Government, or Sole Proprietors.)

State Franchise Tax ID Number: 32086275834

Federal Tax ID: Click here to enter text.

Texas Secretary of State Charter (filing) Number: 0804723318

DUNS Number (if known): Click here to enter text.

SECTION 2. APPLICATION CONTACT

Is the application contact the same as the applicant identified above?

☐ Yes, go to Section 3

☒ No, complete this section

Prefix (Mr. Ms. Miss): Mrs.

First and Last Name: Lauren Crone Suffix: Click here to enter text.

Title: Senior Director Credential: P.E.

Organization Name: LJA Engineering, Inc.

Phone Number: 512-439-4700 Fax Number: Click here to enter text.

E-mail: lcrone@lja.com

Mailing Address: 7500 Rialto Blvd, Bldg II, Suite 100

Internal Routing (Mail Code, Etc.): Click here to enter text.

City, State, and Zip Code: Austin, TX 78735

Mailing information if outside USA:

Territory: Click here to enter text.

Country Code: Click here to enter text. Postal Code: Click here to enter text.

SECTION 3. REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE

a) If this is an existing permitted site, what is the Regulated Entity Number (RN) issued to this site? RN Click here to enter text.

(Refer to Section 3.a) of the Instructions)

b) Name of project or site (the name known by the community where it's located): Barton Creek Holden Hills Block B Lot 1

c) In your own words, briefly describe the type of construction occurring at the regulated site (residential, industrial, commercial, or other): Construction of roads and associated utilities

d) County or Counties (if located in more than one): Travis County

e) Latitude: 30.269085 Longitude: -97.854679

f) Site Address/Location

If the site has a physical address such as 12100 Park 35 Circle, Austin, TX 78753, complete *Section A*.

If the site does not have a physical address, provide a location description in *Section B*. Example: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

Section A:

Street Number and Name: 6900-7325 Bellissimo Lane

City, State, and Zip Code: Austin, TX 78746

Section B:

Location Description: Click here to enter text

City (or city nearest to) where the site is located: Click here to enter text

Zip Code where the site is located: Click here to enter text

SECTION 4. GENERAL CHARACTERISTICS

a) Is the project or site located on Indian Country Lands?

☐ Yes, do not submit this form. You must obtain authorization through EPA Region 6.

☒ No

b) Is your construction activity associated with a facility that, when completed, would be associated with the exploration, development, or production of oil or gas or geothermal resources?

☐ Yes. Note: The construction stormwater runoff may be under jurisdiction of the Railroad Commission of Texas and may need to obtain authorization through EPA Region 6.

☒ No

c) What is the Primary Standard Industrial Classification (SIC) Code that best describes the construction activity being conducted at the site? **1611**

d) What is the Secondary SIC Code(s), if applicable? 1623

e) What is the total number of acres to be disturbed? 24.69

f) Is the project part of a larger common plan of development or sale?

☒ Yes

☐ No. The total number of acres disturbed, provided in e) above, must be 5 or more. If the total number of acres disturbed is less than 5, do not submit this form. See the requirements in the general permit for small construction sites.

g) What is the estimated start date of the project? 2025

h) What is the estimated end date of the project? 2026

i) Will concrete truck washout be performed at the site? ☒ Yes ☐ No

j) What is the name of the first water body(ies) to receive the stormwater runoff or potential runoff from the site? Barton Creek

k) What is the segment number(s) of the classified water body(ies) that the discharge will eventually reach? 1428

l) Is the discharge into a Municipal Separate Storm Sewer System (MS4)?

☐ Yes ☒ No

If Yes, provide the name of the MS4 operator: Click here to enter text

Note: The general permit requires you to send a copy of this NOI form to the MS4 operator.

m) Is the discharge or potential discharge from the site within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, as defined in 30 TAC Chapter 213?

☒ Yes, complete the certification below.

☐ No, go to Section 5

I certify that the copy of the TCEQ-approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) that is included or referenced in the Stormwater Pollution Prevention Plan will be implemented. ☒ Yes

SECTION 5. NOI CERTIFICATION

a) I certify that I have obtained a copy and understand the terms and conditions of the Construction General Permit (TXR150000). ☒ Yes

b) I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas. ☒ Yes

c) I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed. ☒ Yes

d) I certify that a Stormwater Pollution Prevention Plan has been developed, will be implemented prior to construction and to the best of my knowledge and belief is compliant with any applicable local sediment and erosion control plans, as required in the Construction General Permit (TXR150000). ☒ Yes

Note: For multiple operators who prepare a shared SWP3, the confirmation of an operator may be limited to its obligations under the SWP3, provided all obligations are confirmed by at least one operator.

SECTION 6. APPLICANT CERTIFICATION SIGNATURE

Operator Signatory Name: Click here to enter text.

Operator Signatory Title: Click here to enter text.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signature (use blue ink): _____Date: _____

APPENDIX D

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY SMALL-BUSINESS HANDBOOK FOR SPILL RESPONSE (RG-285)

APPENDIX D – SPILL NOTIFICATION PROCEDURE

To report an environmental emergency, discharge, spill or air release, contact:

STATE

- State of Texas Spill-Reporting Hotline and the SERC: 1-800-832-8224 (24 hours)
- TCEQ Regional Office – Austin Region 512-339-2929 (M-F 8:00 am – 5:00 pm)

FEDERAL

- National Response Center: 1-800-424-8802 (notifying NRC does not constitute notice to the state).

When making a report of a spill or pollution complain, please have the following information at hand:

- The date and time of the spill or release.
- The identity of chemical name of any material released or spilled, as well as whether the substance is extremely hazardous.
- The estimate of the quantity of material released or spilled and the time or duration of the event.
- The exact location of the spill, including the name of receiving waters. Receiving waters for this project include Barton Creek.
- The extent of actual and potential water pollution.
- The source of the release or spill.
- The name, address, and phone number of the party in charge of, or responsible for, the facility, vessel, or activity associated with the release or spill.
- The name and phone number of the party at the site who is in charge of operations.
- The steps being taken or proposed to contain and clean up the released or spilled material and any precautions taken to minimize impacts, including evacuation.
- The extent of any injuries.
- Any known or anticipated health risks associated with the incident and where appropriate, advice regarding medical attention necessary for persons exposed.
- Possible hazards to the environment (air, soil, water, wildlife, etc.) This assessment may include references to accepted chemical databases, material safety data sheets, and health advisories. The TCEQ may request estimated or measured concentrations of contaminant for the state's hazard assessment.
- The identities of any government or private sector representative responding at the scene.

IMPORTANT WEBSITES:

Emergency Response Home (https://www.tceq.texas.gov/response/index.html)
Spills, Discharges, and Releases (https://www.tceq.texas.gov/response/spills/spills.html)

APPENDIX E

TPDES GENERAL PERMIT NO. TXR150000 FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

Texas Commission on Environmental Quality

P.O. Box 13087, Austin, Texas 78711-3087

GENERAL PERMIT TO DISCHARGE UNDER THE

TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

This permit supersedes and replaces
TPDES General Permit No. TXR150000,
effective March 5, 2018, and amended January 28, 2022

Construction sites that discharge stormwater associated with construction activity located in the state of Texas may discharge to surface water in the state only according to monitoring requirements and other conditions set forth in this general permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ or Commission), the laws of the State of Texas, and other orders of the Commission of the TCEQ. The issuance of this general permit does not grant to the permittee the right to use private or public property for conveyance of stormwater and certain non-stormwater discharges along the discharge route. This includes property belonging to but not limited to any individual, partnership, corporation or other entity. Neither does this general permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This general permit and the authorization contained herein shall expire at midnight, on March 5, 2028.

EFFECTIVE DATE: March 5, 2023

ISSUED DATE: February 27, 2023

For the Commission

Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I Erin D. Pickens,
Print Name

Senior Vice President,
Title - Owner/President/Other

of Holden Hills GP, L.L.C., General Partner of Holden Hills, L.P., a Texas Limited Partnership,
Corporation/Partnership/Entity Name

have authorized Lauren Crone, P.E.
Print Name of Agent/Engineer

of LJA Engineering, Inc.
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Holden Hills, L.P., a Texas limited partnership
By: Holden Hills GP, L.L.C., a Texas limited liability company,
General Partner
By: Erin D Pickens

Applicant's Signature
Erin D. Pickens, Senior Vice President

10/07/2025
Date

THE STATE OF TEXAS §

County of TRAVIS §

BEFORE ME, the undersigned authority, on this day personally appeared Erin D. Pickens, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 7th day of October, 2025.

NOTARY PUBLIC

LETICIA L. SILVA
Notary Public, State of Texas
Notary ID# 1975321
My Commission Expires
FEBRUARY 23, 2027

Leticia L. Silva
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 02/23/2027

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission *(If other is checked please describe in space provided.)*

☒ New Permit, Registration or Authorization *(Core Data Form should be submitted with the program application.)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN 606123644		RN

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☒ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* — *If new Customer, enter previous Customer below:*

Holden Hills., L.P.

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
0804723318	32086275834		

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☒ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☒ Yes ☐ No

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☒ Owner ☐ Operator ☐ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:

212 Lavaca Street, Suite 300							
City	Austin	**State**	TX	**ZIP**	78701	**ZIP + 4**	

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
	epickens@stratusproperties.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512) 478-5788		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☒ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

Barton Creek Holden Hills Block B Lot 1

23. Street Address of the Regulated Entity: *(No PO Boxes)*	6900-7325 Bellissimo Lane							
	City	Austin	**State**	TX	**ZIP**	78746	**ZIP + 4**	
24. County	Travis							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:	Located approximately 1.2 miles northeast of the intersection of Tecoma Cir and Southwest Pkway.				
26. Nearest City			**State**	**Nearest ZIP Code**	
Austin			TX	78746	

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	30.265576		**28. Longitude (W) In Decimal:**	-97.850064	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	15	56	-97	51	0

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
1611	1623	23411	23491

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Construction of roads and utilities

34. Mailing Address:	212 Lavaca Street, Suite 300							
	City	Austin	**State**	TX	**ZIP**	78701	**ZIP + 4**	
35. E-Mail Address:	epickens@stratusproperties.com							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(512) 478-5788		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Lauren Crone, P.E.	41. Title:	Senior Director
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 439-4700		( ) -	lcrone@lja.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Holden Hills, L.P., a Texas limited partnership By: Holden Hills GP, L.L.C., General Partner	Job Title:	Senior Vice President
Name *(In Print)*:	By: Erin D. Pickens	Phone:	(512) 478- 5788
Signature:	Erin D Pickens	Date:	10/07/2025

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Barton Creek Holden Hills Block B Lot 1
Regulated Entity Location: 6900 - 7325 Bellissimo Lane, Austin, Texas 78746
Name of Customer: Holden Hills, L.P.
Contact Person: Erin D. Pickens Phone: 512-478-5788
Customer Reference Number (if issued):CN 606123644
Regulated Entity Reference Number (if issued):RN _____

Austin Regional Office (3373)

☐ Hays ☒ Travis ☐ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment**. This payment is being submitted to:

☒ Austin Regional Office
☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ San Antonio Regional Office
☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☐ Recharge Zone ☒ Contributing Zone ☐ Transition Zone

Type of Plan	*Size*	*Fee Due*
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	51.33 Acres	$ 8,000
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: Lauren Crone Date: 10/8/25

Application Fee Schedule

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Project	*Project Area in Acres*	*Fee*
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $10,000

Organized Sewage Collection Systems and Modifications

Project	*Cost per Linear Foot*	*Minimum Fee-Maximum Fee*
Sewage Collection Systems	$0.50	$650 - $6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	*Cost per Tank or Piping System*	*Minimum Fee-Maximum Fee*
Underground and Aboveground Storage Tank Facility	$650	$650 - $6,500

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

CONSTRUCTION PLANS

BARTON CREEK HOLDEN HILLS, LOT 1, BLOCK B
PAVING, DRAINAGE, & WATER
AND WASTEWATER IMPROVEMENTS

BARTON CREEK HOLDEN HILLS
LOT 1, BLOCK B
PAVING, DRAINAGE, & WATER
AND WASTEWATER IMPROVEMENTS

SUBMITTED FOR APPROVAL BY:
LJA ENGINEERING, INC.

Lauren Crone — 10/2/25
REGISTERED PROFESSIONAL ENGINEER — DATE

REVIEWED BY:

TRAVIS COUNTY TRANSPORTATION & NATURAL RESOURCES — DATE

TRAVIS COUNTY DEVELOPMENT PERMIT NUMBER

RECOMMENDED FOR APPROVAL BY:

TRAVIS COUNTY MUD NO. 4 ENGINEER — DATE

TRAVIS COUNTY MUD NO. 7 & 9 ENGINEER — DATE

STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER

NOTES:

1. THIS SUBDIVISION IS LOCATED IN THE BARTON CREEK WATERSHED.

2. THIS SUBDIVISION IS NOT LOCATED OVER THE EDWARDS AQUIFER RECHARGE ZONE, BUT IS LOCATED OVER THE EDWARDS AQUIFER CONTRIBUTING ZONE.

3. WATER AND WASTEWATER WILL BE PROVIDED BY TRAVIS COUNTY M.U.D. NO.'S 4, 7 & 9.

4. AT ANY TIME DURING CONSTRUCTION OF THIS PROJECT AN UNDERGROUND STORAGE TANK (UST) IS FOUND, CONSTRUCTION IN THAT AREA MUST STOP, ANY UST REMOVAL WORK MUST BE CONDUCTED BY A UST CONTRACTOR THAT IS REGISTERED WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).

5. THIS PROJECT IS SUBJECT TO THE VOID AND WATER FLOW MITIGATION RULE (COA ECM 1.12.0 AND COA ITEM NO. 658S OF THE SSM) PROVISION THAT ALL TRENCHING GREATER THAN 5 FEET DEEP MUST BE INSPECTED BY A GEOLOGIST (TEXAS P.G.) OR A GEOLOGIST'S REPRESENTATIVE.

6. NO EQUIPMENT, MATERIALS, AND/OR SPOILS SHALL BE STORED OVERNIGHT WITHIN THE FEMA 100-YR FLOODPLAIN, THE CREEK, AND THE CWQZ.

7. ROADSIDE REQUIREMENTS - TRAVIS COUNTY CHAPTER 482 REQUIRES COMPLIANCE WITH THE AASHTO ROADSIDE DESIGN GUIDE CLEAR ZONE. TRAVIS COUNTY MAY PERMIT THE USE OF MUNICIPAL PROCEDURES WITHIN THE ETJ WHEN THEY MEET OR EXCEED AASHTO STANDARD GUIDANCE "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS. NO ABOVE GRADE APPURTENANCES ARE ALLOWED WITHIN 18 INCHES OF THE FACE OF THE CURB. THE ONLY ITEMS ALLOWED INSIDE THE CLEAR ZONE ARE THOSE WITH CRASH-WORTHY MOUNTS OR CRASH-WORTHY WOOD UTILITY POLES. ALL OTHER ITEMS ARE TO BE COMPLETED OUTSIDE OF THE CLEAR ZONE. PROVIDE A NOTE AT EACH LOCATION OF VERTICAL APPURTENANCE THAT INDICATES WHETHER IT IS TO HAVE A BREAKAWAY FLANGE, BE A FRANGIBLE WOOD UTILITY POLE, OR BE LOCATED OUTSIDE OF THE CLEAR ZONE.

8. THE ENGINEER WHO PREPARED THESE PLANS IS RESPONSIBLE FOR THEIR ADEQUACY. IN REVIEWING THESE PLANS, TRAVIS COUNTY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

9. PLEASE SEE SHEET 11, SHEET 20 AND 21 OF THE PLAT FOR THE MASTER DECLARATION OF COVENANTS, PHASING AGREEMENT, AND NOTICE OF APPLICABILITY REFERENCES.

10. CONTACT ENGINEER AND UTILITY MANAGER 48 HOURS PRIOR TO CONNECTION TO WATER OR WASTEWATER SYSTEM.

WATERSHED STATUS:
THIS SITE IS LOCATED IN THE BARTON CREEK WATERSHED. THIS SITE IS LOCATED OVER THE EDWARDS AQUIFER CONTRIBUTING ZONE.

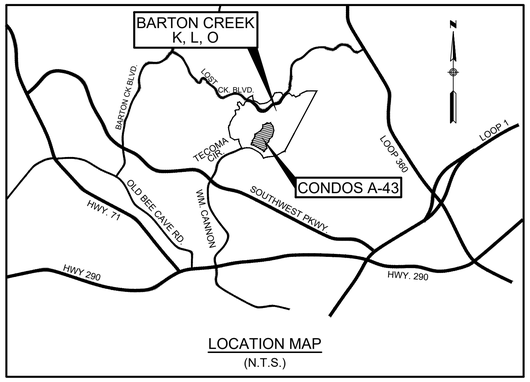
FLOODPLAIN NOTE:
THE FEMA CALCULATED 500-YR. FLOODPLAIN, FEMA 100-YR. FLOODPLAIN, AND THE ATLAS 14 100-YR. FLOODPLAIN ARE CONTAINED WITHIN THE DRAINAGE EASEMENTS SHOWN HEREON. A PORTION OF THIS TRACT IS WITHIN THE 100-YR. FLOODPLAIN AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FOOD INSURANCE RATE MAP (FIRM) MAP # 48453C0440J, TRAVIS COUNTY, TEXAS DATES JANUARY 22, 2020, COMMUNITY # 481026.

LEGAL DESCRIPTION:
NO. 72, TRAVIS COUNTY TEXAS, BEING A PORTION OF THOSE CERTAIN TRACTS OF LAND CONVEYED TO STRATUS PROPERTIES OPERATING CO. BY DEED RECORDED IN VOLUME 13237, PAGE 79 OF THE REAL PROPERTY RECORDS OF SAID COUNTY.

BEING 263.71 ACRES OF LAND SITUATED IN THE JOHN D. MCALLISTER SURVEY NO. 71, AND THE JOHN L. BRADY SURVEY

SUBMITTAL DATE: October 2, 2025

Number	Description	Revise (R) Add (A) Void (V) Sheet No.'s	Total # Sheets in Plan Set	Net Change Imp. Cover (sq.ft.)	Total Site Imp. Cover (sq.ft.)%	Date Imaged	Travis County Approval Date



LOCATION MAP
(N.T.S.)

LOCATION MAP
(N.T.S.)
CITY OF AUSTIN GRID NUMBERS D22, C22, and D21
MAPSCO PAGES 582U, 582T, 582X, 582Y

LEGAL DESCRIPTION
BARTON CREEK SEC K, L & O PHS 1 BLK A LOT 43 (1-D-1W)
SUBDIVISION DOCUMENT #202200093, TRAVIS COUNTY, TEXAS OFFICIAL PUBLIC RECORDS.

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORKAND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

811 Know what's below. Call before you dig.

OWNER: HOLDEN HILLS, L.P.
212 LAVACA ST., SUITE 300
AUSTIN, TEXAS 78701
PHONE # (512) 478-5788
FAX # (512) 478-6356

ENGINEER: LJA ENGINEERING, INC.
7500 RIALTO BLVD. BLDG. 11, SUITE 100
AUSTIN, TEXAS 78735
CONTACT PERSON: LAUREN CRONE, P.E.
PHONE # (512) 439-4700
FAX # (512) 439-4716

SURVEYOR: LJA SURVEYING, INC.
7500 RIALTO BLVD. BLDG. 11, SUITE 100
AUSTIN, TEXAS 78735
PHONE # (512) 439-4700
FAX # (512) 439-4716

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE PAGE
2	FINAL PLAT
3	FINAL PLAT
4	FINAL PLAT
5	FINAL PLAT
6	FINAL PLAT
7	FINAL PLAT
8	GENERAL NOTES (SHEET 1)
9	GENERAL NOTES (SHEET 2)
10	GENERAL NOTES (SHEET 3)
11	PROJECT OVERALL
12	EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN (OVERALL
13	EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN (SHEET 1)
14	EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN (SHEET 2)
15	EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN (DETAIL SHEET)
16	WATER QUALITY PLAN
17	WATER QUALITY CALCULATIONS
18	WATER QUALITY POND 'A'
19	WATER QUALITY POND 'B'
20	WATER QUALITY POND 'C'
21	WATER QUALITY POND 'D'
22	DRAINAGE AREA MAP
23	DRAINAGE AREA CALCULATIONS
24	ROAD 'A' (PRIVATE) PLAN & PROFILE
25	ROAD 'B' (PRIVATE) PLAN & PROFILE (SHEET 1)
26	ROAD 'B' (PRIVATE) PLAN & PROFILE (SHEET 2)
27	ROAD 'C' (PRIVATE) PLAN & PROFILE (SHEET 1)
28	ROAD 'C' (PRIVATE) PLAN & PROFILE (SHEET 2)
29	ROAD 'C' (PRIVATE) PLAN & PROFILE (SHEET 3)
30	ROAD 'D' (PRIVATE) PLAN & PROFILE
31	ROAD 'E' (PRIVATE) PLAN & PROFILE
32	ROAD 'F' (PRIVATE) PLAN & PROFILE
33	ROAD 'G' (PRIVATE) PLAN & PROFILE
34	ROAD 'H' (PRIVATE) PLAN & PROFILE
35	ROAD 'I' (PRIVATE) PLAN & PROFILE
36	ROAD 'A' (PRIVATE) ENTRANCE DETAIL
37	ROAD 'C' (PRIVATE) ENTRANCE DETAIL
38	ROAD 'I' (PRIVATE) ENTRANCE DETAIL
39	CROSS SECTIONS (SHEET 1)
40	CROSS SECTIONS (SHEET 2)
41	CROSS SECTIONS (SHEET 3)
42	TYPICAL ROADWAY SECTIONS (SHEET 1)
43	TYPICAL ROADWAY SECTIONS (SHEET 2)
44	TYPICAL ROADWAY SECTIONS (SHEET 3)
45	DRIVE 'B' - DITCHES PLAN & PROFILE (SHEET 1)
46	DRIVE 'B' - (SHEET 2) SIDE SLOPES & ROAD 'H' - SIDE SLOPES
47	DRIVE 'C' - DITCHES PLAN & PROFILE (SHEET 1)
48	DRIVE 'C' - DITCHES PLAN & PROFILE (SHEET 2)
49	DRIVE 'C' - DITCHES PLAN & PROFILE (SHEET 3)
50	DRIVE 'D' - DITCHES PLAN & PROFILE
51	DRIVE 'E' - SIDE SLOPES PLAN & PROFILE
52	DRIVES 'F', 'G', & 'I' SIDE SLOPES
53	STORM SEWER LINES 'A-1' & 'A-2' PLAN & PROFILES
54	STORM SEWER LINES 'A-4' & 'A-5' PLAN & PROFILES
55	STORM SEWER LINE 'B-1' PLAN & PROFILE
56	STORM SEWER LINES 'C-1' & 'C-2' PLAN & PROFILES
57	STORM SEWER LINES 'D-1' & 'D-2' PLAN & PROFILES
58	STORM SEWER LINE 'D-4' PLAN & PROFILE
59	STORM SEWER LINE 'D-5' PLAN & PROFILE
60	STORM SEWER LINE 'D-6' & 'D-7' PLAN & PROFILE
61	STORM SEWER LINES 'X-1' PLAN & PROFILE
62	UTILITY OVERALL (SHEET 1)
63	UTILITY OVERALL (SHEET 2)
64	WATER LINE 'A' STA. 1+00.00 TO STA. 10+00.00 PLAN & PROFILE
65	WATER LINE 'A' STA. 10+00.00 TO STA. 19+00.00 PLAN & PROFILE
66	WATER LINE 'A' STA. 19+00.00 TO STA. 28+00.00 PLAN & PROFILE
67	WATER LINE 'A' STA. 28+00.00 TO END
68	WATER LINE 'B' STA. 1+00.00 TO END PLAN & PROFILE
69	WATER LINE 'C' STA. 1+00.00 TO STA. 7+50.00 PLAN & PROFILE
70	WATER LINE 'C' STA. 7+50.00 TO STA. 13+50.00 PLAN & PROFILE
71	WATER LINE 'C' STA. 13+50.00 TO END PLAN & PROFILE
72	WATER LINE 'D' STA. 1+00.00 TO END
73	WATER LINE 'E' STA. 1+00.00 TO END
74	WATER LINE 'F' STA. 1+00.00 TO END
75	WATER LINE 'G' STA. 1+00.00 TO END
76	EFFLUENT LINE 'A' STA. 1+00.00 TO STA. 9+00.00 PLAN & PROFILE
77	EFFLUENT LINE 'A' STA. 9+00.00 TO STA. 17+00.00 PLAN & PROFILE
78	EFFLUENT LINE 'A' STA. 17+00.00 TO STA. 24+00.00 PLAN & PROFILE
79	EFFLUENT LINE 'A' STA. 24+00.00 TO END PLAN & PROFILE
80	EFFLUENT LINE 'B' STA. 1+00.00 TO END PLAN & PROFILE
81	EFFLUENT LINE 'C' STA. 1+00.00 TO END PLAN & PROFILE
82	EFFLUENT LINE 'D' STA. 1+00.00 TO STA. 7+00.00 PLAN & PROFILE
83	EFFLUENT LINE 'D' STA. 7+00.00 TO STA. 14+00.00 PLAN & PROFILE
84	EFFLUENT LINE 'D' STA. 14+00.00 TO END PLAN & PROFILE
85	EFFLUENT LINE 'E' STA. 1+00.00 TO END PLAN & PROFILE
86	EFFLUENT LINE 'F' STA. 1+00.00 TO END PLAN & PROFILE
87	EFFLUENT LINE 'G' STA. 1+00.00 TO END PLAN & PROFILE
88	EFFLUENT LINE 'H' STA. 1+00.00 TO END PLAN & PROFILE
89	FORCE MAIN 'A' STA. 1+00.00 TO STA. 9+50.00 PLAN & PROFILE
90	FORCE MAIN 'A' STA. 9+50.00 TO STA. 18+00.00 PLAN & PROFILE
91	FORCE MAIN 'A' STA. 8+00.00 TO END PLAN & PROFILE
92	FORCE MAIN 'B' STA. 1+00.00 TO END PLAN & PROFILE
93	FORCE MAIN 'C' STA. 1+00.00 TO STA. 9+50.00 PLAN & PROFILE
94	FORCE MAIN 'C' STA. 9+50.00 TO END PLAN & PROFILE
95	FORCE MAIN 'D' STA. 1+00.00 TO END PLAN & PROFILE
96	FORCE MAIN 'E' STA. 1+00.00 TO END PLAN & PROFILE
97	DETAIL SHEET 1
98	DETAIL SHEET 2
99	DETAIL SHEET 3
100	DETAIL SHEET 4
101	DETAIL SHEET 5
102	DETAIL SHEET 6
103	TxDOT AREA INLET DETAIL
104	STRIPING & SIGNAGE PLAN (SHEET 1)
105	STRIPING & SIGNAGE PLAN (SHEET 2)
106	TRAFFIC CONTROL PLAN
107	TRAFFIC CONTROL DETAILS

STRATUS
Stratus Properties Operating Co., L.P.
98 SAN JACINTO BLVD., SUITE 220
AUSTIN, TX 78701
PH: (512) 478-5788
FAX: (512) 478-6340

LJA Engineering
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

I:\A11\1\ADT - Block A Lot 43\CAD\A43-SUPPORT.dwg
User Name: Lauren Crone
Last Modified: Oct. 02, 25 - 17:15
Plot Date/Time: Oct. 02, 25 - 17:16:03
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EROSION CONTROL NOTES

APPENDIX P-1 - EROSION CONTROL NOTES

1. The contractor shall install erosion/sedimentation controls, tree/natural area protective fencing, and conduct "Pre-Construction" tree fertilization (if applicable) prior to any site preparation work (clearing, grubbing or excavation).
2. The placement of erosion/sedimentation controls shall be in accordance with the Environmental Criteria Manual and the approved Erosion and Sedimentation Control Plan. The COA ESC Plan shall be consulted and used as the basis for a TPDES required SWPPP. If a SWPPP is required, it shall be available for review by the City of Austin Environmental Inspector at all times during construction, including at the Pre-Construction meeting. The checklist below contains the basic elements that shall be reviewed for permit approval by COA EV Plan Reviewers as well as COA EV Inspectors.

— Plan sheets submitted to the City of Austin MUST show the following:

✓ Direction of flow during grading operations.

✓ Location, description, and calculations for off-site flow diversion structures.

✓ Areas that will not be disturbed; natural features to be preserved.

✓ Delineation of contributing drainage area to each proposed BMP (e.g., silt fence, sediment basin, etc.).

✓ Location and type of E&S BMPs for each phase of disturbance.

✓ Calculations for BMPs as required.

✓ Location and description of temporary stabilization measures.

✓ Location of on-site spoils, description of handling and disposal of borrow materials, and description of on-site permanent spoils disposal areas, including size, depth of fill and revegetation procedures.

✓ Describe sequence of construction as it pertains to ESC including the following elements:

1. Installation sequence of controls (e.g. perimeter controls, then sediment basins, then temporary stabilization, then permanent, etc.)
2. Project phasing if required (LOC greater than 25 acres)
3. Sequence of grading operations and notation of temporary stabilization measures to be used
4. Schedule for converting temporary basins to permanent WQ controls
5. Schedule for removal of temporary controls
6. Anticipated maintenance schedule for temporary controls

— Categorize each BMP under one of the following areas of BMP activity as described below:

3.1 Minimize disturbed area and protect natural features and soil

3.2 Control Stormwater flowing onto and through the project

3.3 Stabilize Soils

3.4 Protect Slopes

3.5 Protect Storm Drain Inlets

3.6 Establish Perimeter Controls and Sediment Barriers

3.7 Retain Sediment On-Site and Control Dewatering Practices

3.8 Establish Stabilized Construction Exits

3.9 Any Additional BMPs

— Note the location of each BMP on your site map(s).

— For any structural BMPs, you should provide design specifications and details and refer to them.

— For more information, see City of Austin Environmental Criteria Manual 1.4.

3. The Placement of tree/natural area protective fencing shall be in accordance with the City of Austin standard Notes for Tree and Natural Area Protection and the approved Grading/Tree and Natural Area Plan.
4. A pre-construction conference shall be held on-site with the contractor, design Engineer/permit applicant and Environmental Inspector after installation of the erosion/sedimentation controls, tree/natural area protection measures and "Pre-Construction" tree fertilization (if applicable) prior to beginning any site preparation work. The owner or owner's representative shall notify the Development Services Department, 512-974-2278 or by email at environmentalinspections@austintexas.gov, at least three days prior to the meeting date. COA approved ESC Plan and TPDES SWPPP (if required) should be reviewed by COA EV Inspector at this time.
5. Any major variation in materials or locations of controls or fences from those shown on the approved plans will require a revision and must be approved by the reviewing Engineer, Environmental Specialist or City Arborist as appropriate. Major revisions must be approved by authorized COA staff. Minor changes to be made as field revisions to the Erosion and Sedimentation Control Plan may be required by the Environmental Inspector during the course of construction to correct control inadequacies.
6. The contractor is required to provide a certified inspector that is either a licensed engineer (or person directly supervised by the licensed engineer) or Certified Professional in Erosion and Sediment Control (CPESC or CPESC - IT), Certified Erosion, Sediment and Stormwater - Inspector (CESSWI or CESSWI - IT) or Certified Inspector of Sedimentation and Erosion Controls (CISEC or CISEC - IT) certification to inspect the controls and fences at weekly or bi-weekly intervals and after one-half (½) inch or greater rainfall events to insure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches or one-third (⅓) of the installed height of the control whichever is less.
7. Prior to final acceptance by the City, haul roads and waterway crossings constructed for temporary contractor access must be removed, accumulated sediment removed from the waterway and the area restored to the original grade and revegetated. All land clearing debris shall be disposed of in approved spoil disposal sites.
8. All work must stop if a void in the rock substrate is discovered which is; one square foot in total area; blows air from within the substrate and/or consistently receives water during any rain event. At this time it is the responsibility of the Project Manager to immediately contact a City of Austin Environmental Inspector for further investigation.
9. Temporary and Permanent Erosion Control: All disturbed areas shall be restored as noted below:

A. All disturbed areas to be revegetated are required to place a minimum of six (6) inches of topsoil [see Standard Specification Item No. 601S.3(A)]. Do not add topsoil within the critical root zone of existing trees.

- Topsoil salvaged from the existing site is encouraged for use, but it should meet the standards set forth in 601S.

An owner/engineer may propose use of onsite salvaged topsoil which does not meet the criteria of Standard Specification 601S by providing a soil analysis and a written statement from a qualified professional in soils, landscape architecture, or agronomy indicating the onsite topsoil will provide an equivalent growth media and specifying what, if any, soil amendments are required.

- Soil amendments shall be worked into the existing onsite topsoil with a disc or tiller to create a well-blended material.

The vegetative stabilization of areas disturbed by construction shall be as follows:

TEMPORARY VEGETATIVE STABILIZATION:

1. From September 15 to March 1, seeding shall be with or include a cool season cover crop: (Western Wheatgrass (*Pascopyrum smithii*) at 5.6 pounds per acre, Oats (*Avena sativa*) at 4.0 pounds per acre, Cereal Rye Grain (*Secale cereale*) at 45 pounds per acre. Contractor must ensure that any seed application requiring a cool season cover crop does not utilize annual ryegrass (*Lolium multiflorum*) or perennial ryegrass (*Lolium perenne*). Cool season cover crops are not permanent erosion control.
2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 45 pounds per acre or a native plant seed mix conforming to Item 604S or 609S.
   A. Fertilizer shall be applied only if warranted by a soil test and shall conform to Item No. 606S, Fertilizer. Fertilization should not occur when rainfall is expected or during slow plant growth or dormancy. Chemical fertilizer may not be applied in the Critical Water Quality Zone.
   B. Hydromulch shall comply with Table 1, below.
   C. Temporary erosion control shall be acceptable when the grass has grown at least 1½ inches high with a minimum of 95% total coverage so that all areas of a site that rely on vegetation for temporary stabilization are uniformly vegetated, and provided there are no bare spots larger than 10 square feet.
   D. When required, native plant seeding shall comply with requirements of the City of Austin Environmental Criteria Manual, and Standard Specification 604S or 609S.

Table 1: Hydromulching for Temporary Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Application Rates
100% or any blend of wood, cellulose, straw, and/or cotton plant material (except no mulch shall exceed 30% paper)	70% or greater Wood/Straw 30% or less Paper or Natural Fibers	0—3 months	Moderate slopes; from flat to 3:1	1,500 to 2,000 lbs per acre

PERMANENT VEGETATIVE STABILIZATION:

1. From September 15 to March 1, seeding is considered to be temporary stabilization only. If cool season cover crops exist where permanent vegetative stabilization is desired, the grasses shall be mowed to a height of less than one-half (½) inch and the area shall be re-seeded in accordance with Table 2 below. Alternatively, the cool season cover crop can be mixed with Bermudagrass or native seed and installed together, understanding that germination of warm-season seed typically requires soil temperatures of 60 to 70 degrees.
2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 45 pounds per acre with a purity of 95% and a minimum pure live seed (PLS) of 0.83. Bermuda grass is a warm season grass and is considered permanent erosion control. Permanent vegetative stabilization can also be accomplished with a native plant seed mix conforming to Item 604S or 609S.
   A. Fertilizer use shall follow the recommendation of a soil test. See Item 606S, Fertilizer. Applications of fertilizer (and pesticide) on City-owned and managed property requires the yearly submittal of a Pesticide and Fertilizer Application Record, along with a current copy of the applicator's license. For current copy of the record template contact the City of Austin's IPM Coordinator.
   B. Hydromulch shall comply with Table 2, below.
   C. Water the seeded areas immediately after installation to achieve germination and a healthy stand of plants that can ultimately survive without supplemental water. Apply the water uniformly to the planted areas without causing displacement or erosion of the materials or soil. Maintain the seedbed in a moist condition favorable for plant growth. All watering shall comply with City Code Chapter 6-4 (Water Conservation), at rates and frequencies determined by a licensed irrigator or other qualified professional, and as allowed by the Austin Water Utility and current water restrictions and water conservation initiatives.
   D. Permanent erosion control shall be acceptable when the grass has grown at least 1½ inches high with a minimum of 95 percent for the non-native mix, and 95 percent coverage for the native mix so that all areas of a site that rely on vegetation for stability must be uniformly vegetated, and provided there are no bare spots larger than 10 square feet.
   E. When required, native plant seeding shall comply with requirements of the City of Austin Environmental Criteria Manual, Items 604S and 609S.

Table 2: Hydromulching for Permanent Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Application Rates
Bonded Fiber Matrix (BFM)	80% Organic defibrated fibers			
10% Tackifier	6 months	On slopes up to 2:1 and erosive soil conditions	2,500 to 4,000 lbs per acre (see manufacturers recommendations)	
Fiber Reinforced	65% Organic defibrated fibers	Up to 12 months	On slopes up to 1:1 and erosive soil conditions	3,000 to 4,500 lbs per acre (see manufacturers
Fiber Reinforced Matrix (FRM)	65% Organic defibrated fibers 25% Reinforcing Fibers or less 10% Tackifier	Up to 12 months	On slopes up to 1:1 and erosive soil conditions	3,000 to 4,500 lbs per acre (see manufacturers recommendations)

9. OWNERS & REPRESENTATIVES:

LAND OWNER: STRATUS PROPERTIES OPERATING CO., L.P.
212 LAVACA ST., SUITE 300
AUSTIN, TEXAS 78701
PHONE # (512) 478-5788
FAX # (512) 478-6356

OWNER: WATER AND WASTEWATER FACILITIES OWNER
TRAVIS COUNTY M.U.D. NO. 4
c/o ARMBRUST & BROWN, LLP
100 CONGRESS AVE., SUITE 1300
AUSTIN, TEXAS 78701
FAX # (512) 435-2300

OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
LJA ENGINEERING, INC.
7500 RIALTO BOULEVARD. BUILDING II, SUITE 100
AUSTIN, TEXAS 78735
PH: (512) 439-4700
FAX: (512) 439-4716

Person or firm responsible for erosion/sedimentation control maintenance:
Contractor _____ Phone #_____

Person or firm responsible for tree/natural area protection Maintenance:
_____ Phone #_____

11. The contractor shall not dispose of surplus excavated material from the site without notifying the DEVELOPMENT REVIEW AND INSPECTION DEPARTMENT at 512-974-2278 at least 48 hours prior with the location and a copy of the permit issued to receive the material.

Source: Rule No. R161-15.13.1-4-2016; Rule No. R161-17.03, 3-2-2017.

SPECIAL CONSTRUCTION TECHNIQUES

Add the following note to the general notes sheet:

"Special Construction Techniques ECM 3.5.4(D)
Prior to excavation within tree driplines or the removal of trees adjacent to other trees that are to remain, make a clean cut between the disturbed and undisturbed root zones with a rock saw or similar equipment to minimize root damage.

In critical root zone areas that cannot be protected during construction with fencing and where heavy vehicular traffic is anticipated, cover those areas with a minimum of 12 inches of organic mulch to minimize soil compaction. In areas with high soil plasticity Geotextile fabric, per standard specification 620S, should be placed under the mulch to prevent excessive mixing of the soil and mulch. Additionally, material such as plywood and metal sheets, could be required by the City Arborist to minimize root impacts from heavy equipment. Once the project is completed, all materials should be removed, and the mulch should be reduced to a depth of 3 inches.

Perform all grading within critical root zone areas by hand or with small equipment to minimize root damage.

Water all trees most heavily impacted by construction activities deeply once a week during periods of hot, dry weather. Spray tree crowns with water periodically to reduce dust accumulation on the leaves.

When installing concrete adjacent to the root zone of a tree, use a plastic vapor barrier behind the concrete to prohibit leaching of lime into the soil."

GENERAL CONSTRUCTION NOTES

1. All construction shall be in accordance with the City of Austin Standard Specifications.

2. Design Procedures are in complete compliance with the City of Austin Drainage Criteria Manual.

3. Benchmarks for the project are as follows:
TBM 12155 - Top of Southwest bolt at base of metal power pole. ELEV.=854.36'

239-12 - 80d Nail set in 9" Live Oak, 12" West of the West R.O.W. of Mirador Dr., 36" North of the north edge of aspalt of Southwest Parkway in Lot 21, Blk. B, Barton Creek Section M, FB 57, PG. 12

981-01 - Square cut at base of Northwest corner of light pole on the Northwest corner of future William Cannon Drive. ELEV.=1018.74

4. Prior to beginning construction, the owner or his authorized representative shall convene a Pre-Construction Conference between the City of Austin, consulting engineer, contractor, County Engineer (if appropriate), and any other affected parties. Notify DPWT, Construction Inspection division, 974-0170 x 7161, and Water and Wastewater Department, 477-5761, at least 48 hours prior to the time of the conference and 48 hours prior to the beginning of construction.

5. The contractor shall give the City a minimum of 48 hours notice before beginning each phase of construction, call Construction Inspection Division, 974-0170 x 7161.

6. Barricades, built to City of Austin Standard Specifications, shall be constructed on all dead-end streets and as necessary during construction to maintain job safety.

7. If blasting is planned by the contractor, a blasting permit must be secured prior to commencement of any blasting.

8. The location of any water and/or wastewater lines shown on the plans must be verified by the Water and Wastewater Department.

9. Use One Call Utility System: Dial 472-2822, 48 hours BEFORE you dig.

10. All storm sewer pipes shall be Class III RCP unless otherwise noted.

11. Contractor shall coordinate inspection of utility and storm sewer lines with the appropriate authorities and/or utility company prior to backfilling trenches.

12. Any fittings, valves, or other appurtenances necessary for testing of utility lines shall be provided by the contractor at no additional cost to the owner.

13. Alignment of utility and storm sewer lines shown on plans shall be achieved by deflection in pipe and pipe joints not to exceed manufacturer's recommended maximum deflection, except where specific bends and/or fittings are called for on plans.

14. The location and type of utilities and underground facilities shown on these plans are not guaranteed to be accurate or all inclusive. The contractor shall verify all depths and locations of existing utilities prior to any construction. It is the contractor's responsibility to locate and protect all existing utilities. In addition to normal precautions when excavating, use extra caution when excavating within 25 feet or any utilities shown on the plans.

15. It shall be the responsibility of the contractor to repair, at his expense, all utilities, pavement, curb, fences, and any other items damaged during construction regardless of whether these items are shown on the plans.

16. Whenever existing utilities, indicated or not on plans, present obstructions to grade or alignment of proposed pipe, contractor is to immediately notify engineer who will determine if existing improvements are to be relocated or if the grade and alignment of proposed pipe is to be changed.

17. Disposal of spoil material will be the responsibilty of the contractor. Spoil shall be temporarily disposed of at the designated onsite temporary disposal area, and permanently removed to a permitted spoil disposal area. The contractor shall be responsible for obtaining necessary permits in conjunction with this work.

18. Dust prevention in accordance with the technical specifications, or as otherwise directed by the owner or his representative, shall be provided by the contractor at his expense. This will include spraying water on all disturbed areas, spoil piles, or haul materials associated with the project.

19. Cleanup - upon completion and before making application for acceptance of the work, the contractor shall clean all streets and all ground occupied by him in connection with the work of all rubbish, excess materials, excess excavated materials, temporary structures, and equipment. All parts of the work shall be left in a neat and presentable condition satisfactory to the owner and governmental bodies having jurisdiction prior to submittal of the final payment. Final cleanup payment is considered as incendental to unit prices on the bid

20. Dewatering, if necessary, shall be considered incidental to the work and shall not constitute a basis for additional payment.

21. The contractor shall confine his work to within the limits of construction which are generally defined by the limits of right-of-way and/or easements, except for the detour route. The limits of construction for the detour are as indicated on the plans. No clearing is allowed for the installation of silt fences or rock berms which are located outside of the right-of-way unless authorized by the owner or his designated representative.

22. All concrete shall be class 'A' with a minimum 28 day compressive strength of 3,000 p.s.i., unless otherwise noted.

23. All reinforced steel shall be ASTM A615m, grade 60, unless otherwise noted.

24. Contractor shall notify the Construction Inspection Division of the City's One Stop Shop (OSS) at 974-6360 or 974-7034 at least 24 hours prior to the installation of any drainage facility within a drainage easement or right of way. The method of placement and compaction or backfill in the City's R.O.W. must be approved prior to the start of backfill operations.

25. For slopes or trenches greater than five feet in depth, all construction operations shall be accomplished in accordance with applicable regulations of the U.S. Occupational Safety and Health Administration. (OSHA Standards may be purchased from the government printing office; information and related reference materials may be purchased from OSHA, 611 East 6th St., Austin, TX.

26. Upon completion of proposed site improvements and prior to the release of the certificate of occupancy or final inspection release by the city, the design engineer shall certify in writing that the proposed drainage and detention facilities were constructed in conformance with the approved plans.

27. Whenever soil investigation of excavation shows more than 2 feet of expansive subgrade, with p.i. greater than 25, one of the following measures must be adopted.
1. Replace 1.5 feet of subgrade with a material with P.I. less than 15.
2. Lime stabilize 8 inches of subgrade.
3. Increase the base thickness by 50%.

GEOTECH:

Pavement Section Thicknesses

The table below provides the recommended pavement thicknesses for the Barton Creek K, L, &O section pavements as per the MFPS-1 program and subsequent checks with the WESLEA program.

Layer	Asphaltic Concrete Design Thickness (inches)	
	Residential Collector	Local Street
Asphaltic Concrete (HMAC)	2.0	2.0
Crushed Limestone Base	10.0	8.0
Moisture Conditioned Subgrade [1]	6.0	6.0

1. Moisture conditioning is not required in intact Stratum 4 limestone subgrade areas.

Pavement Materials

Presented below are our recommended material requirements for the various pavement sections.

Item	Value
Hot Mix Asphaltic Concrete (HMAC) [1]	Plant mixed, hot laid Type D (Fine-Grade Surface Course) meeting the specifications in COA Item 340.

Item	Value
Crushed Limestone Base [2]	COA Item 210 compacted as outlined in **Earthwork**.
Moisture Conditioned Subgrade [3]	As outlined in **Earthwork**.

1. For acceptance and payment evaluation purposes, we recommend the use of the provisions in COA Item 340.
2. Each lift of base should be thoroughly proof-rolled just prior to placement of subsequent lifts and/or asphalt. Particular attention should be paid to areas along curbs, above utility trenches, and adjacent to landscape islands, manholes, and storm drain inlets. Preparation of the base material should extend at least 18 inches behind curbs.
3. Subgrade should not dry out or become saturated prior to pavement construction. The pavement subgrade should be thoroughly proof-rolled as outlined in **Earthwork**. Particular attention should be paid to areas along curbs, above utility trenches, and adjacent to landscape islands, manholes, and storm drain inlets. Preparation of the moisture conditioned subgrade should extend at least 18 inches behind curbs.

Texas Commission on Environmental Quality
Contributing Zone Plan
General Construction Notes

Edwards Aquifer Protection Program Construction Notes – Legal Disclaimer

The following/listed "construction notes" are intended to be advisory in nature only and do not constitute an approval or conditional approval by the Executive Director (ED), nor do they constitute a comprehensive listing of rules or conditions to be followed during construction. Further actions may be required to achieve compliance with TCEQ regulations found in Title 30, Texas Administrative Code (TAC), Chapters 213 and 217, as well as local ordinances and regulations providing for the protection of water quality. Additionally, nothing contained in the following/listed "construction notes" restricts the powers of the ED, the commission or any other governmental entity to prevent, correct, or curtail activities that result or may result in pollution of the Edwards Aquifer or hydrologically connected surface waters. The holder of any Edwards Aquifer Protection Plan containing "construction notes" is still responsible for compliance with Title 30, TAC. Chapters 213 or any other applicable TCEQ regulation, as well as all conditions of an Edwards Aquifer Protection Plan through all phases of plan implementation. Failure to comply with any condition of the ED's approval, whether or not in contradiction of any "construction notes," is a violation of TCEQ regulations and any violation is subject to administrative rules, orders, and penalties as provided under Title 30, TAC § 213.10 (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. The following/listed "construction notes" in no way represent an approved exception by the ED to any part of Title 30 TAC, Chapters 213 and 217, or any other TCEQ applicable regulation

1. A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any ground disturbance or construction activities. This notice must include:
   - the name of the approved project;
   - the activity start date; and
   - the contact information of the prime contractor.
2. All contractors conducting regulated activities associated with this project should be provided with complete copies of the approved Contributing Zone Plan (CZP) and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractor(s) should keep copies of the approved plan and approval letter on-site.
3. No hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive feature.
4. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the manufacturers specifications. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. These controls must remain in place until the disturbed areas have been permanently stabilized.
5. Any sediment that escapes the construction site must be collected and properly disposed of before the next rain event to ensure it is not washed into surface streams, sensitive features, etc.
6. Sediment must be removed from the sediment traps or sedimentation basins when it occupies 50% of the basin's design capacity.
7. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.
8. All excavated material that will be stored on-site must have proper E&S controls.
9. If portions of the site will have a cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14th day of inactivity. If activity will resume prior to the 21st day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14th day, stabilization measures shall be initiated as soon as possible.
10. The following records should be maintained and made available to the TCEQ upon request:
    - the dates when major grading activities occur;
    - the dates when construction activities temporarily or permanently cease on a portion of the site; and
    - the dates when stabilization measures are initiated.
11. The holder of any approved CZP must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:
    A. any physical or operational modification of any best management practices (BMPs) or structure(s), including but not limited to temporary or permanent ponds, dams, berms, silt fences, and diversionary structures;
    B. any change in the nature or character of the regulated activity from that which was originally approved;
    C. any change that would significantly impact the ability to prevent pollution of the Edwards Aquifer; or
    D. any development of land previously identified as undeveloped in the approved contributing zone plan.

Austin Regional Office 12100 Park 35 Circle, Building A Austin, Texas 78753-1808 Phone (512) 339-2929 Fax (512) 339-3795	San Antonio Regional Office 14250 Judson Road San Antonio, Texas 78233-4480 Phone (210) 490-3096 Fax (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

TCEQ NOTES:

TCEQ 217.53(d) Separation Distances

(d) Separation distances between public water supply pipes and wastewater collection pipes or manholes.

(1) Collection system pipes must be installed in trenches separate from public water supply trenches.

(2) Collection system pipes must be no closer than nine feet in any direction to a public water supply line.

(3) If a nine-foot separation distance cannot be achieved, the following guidelines will apply.

(A) If a collection system parallels a public water supply pipe the following requirements apply.

(i) A collection system pipe must be constructed of cast iron, ductile iron, or PVC meeting ASTM specifications with at least 150 pounds per square inch (psi) pressure rating for both the pipe and joints.

(ii) A vertical separation must be at least two feet between the outside diameters of the pipes

(iii) A horizontal separation must be at least four feet between outside diameters of the pipes

(iv) A collection system pipe must be below a public water supply pipe.

(B) If a collection system pipe crosses a public water supply pipe, the following requirements apply:

(i) If a collection system is constructed of cast iron, ductile iron, or PVC with a minimum pressure rating of 150 psi, the following requirements apply:

(I) A minimum separation distance is six inches between outside diameters of pipes.

(II) A collection system pipe must be below a public water supply pipe.

(III) Collection system pipe joints must be located as far as possible from an intersection with a public water supply line.

(ii) If a collection system pipe crosses under a public water supply pipe and the collection system pipe is constructed of acrylonitrile butadiene styrene (ABS) truss pipe, similar semi-rigid plastic composite pipe, clay pipe, or concrete pipe with gasketed joints, the following requirements apply:

(I) A minimum separation distance is two feet.

(II) If a collection system pipe is within nine feet of a public water supply pipe, the initial backfill around the collection system pipe must be:

(-a-) sand stabilized with two or more 80 pound bags of cement per cubic yard of sand for any section of collection system pipe within nine feet of a public water supply pipe.

(-b-) installed from one quarter of the diameter of the collection system pipe below the centerline of the collection system pipe to one pipe diameter (but not less than 12 inches) above the top of the collection system pipe.

(iii) If a collection system crosses over a public water supply pipe, one of the following procedures must be followed:

(I) Each portion of a collection system pipe within nine feet of a public water supply must me constructed of cast iron, ductile iron, or PVC pipe with at least a 150 psi pressure rating using appropriate adapters.

(II) A collection system pipe must be encased in a joint of at least 150 psi pressure class pipe that is:

(-a-) centered on the crossing;

(-b-) sealed at both ends with cement grout or manufactured seal;

(-c-) at least 18 feet long;

(-d-) at least two nominal sizes larger than the wastewater collection pipe; and

(-e-) supported by spacers between the collection system pipe and the encasing pipe at a maximum of five-foot intervals.

(4) Public water supply pipe and collection system manhole separation.

(A) Unless collection system manholes and the connection collection system pipe are watertight, as supported by leakage tests showing no leakage, they must be installed a minimum of nine feet of horizontal clearance from an existing or proposed public water supply pipe.

(B) If a nine-foot separation distance cannot be achieved, the requirements in paragraph (3) of this subsection apply.

TCEQ NOTES:

1. All newly installed pipes and related products must conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 and must be certified by an organization accredited by ANSI.
2. All plastic pipe for use in public water systems must also bear the National Sanitation Foundation seal of approval (NSF-PW) and have an ASTM design pressure rating of at least 150 psi or a standard dimension ratio of 26 or less.
3. No pipe which has been used for any purpose other than the conveyance of drinking water shall be accepted or relocated for use in any public drinking water supply.
4. Water transmission and distribution lines must be installed in accordance with the manufacturer's instructions. However, the top of the water line must be located below the frost line and in no case shall the top of the water line be less than 24 inches below ground surface.
5. The hydrostatic leakage rate shall not exceed the amount allowed or recommended BY AWWA FORMULAS.
6. All water lines shall be hydrostatic leak tested in conformance with AWWA C600-93 for ductile iron pipe and AWWA C605-94 for PVC pipe.
7. All water lines shall be disinfected in conformance with AWWA C651-92.

SITE PLAN RELEASE

FILE NUMBER: _____ EXPIRATION DATE: _____
CASE MANAGER: _____ APPLICATION DATE: _____
APPROVED ADMINISTRATIVELY ON: _____
APPROVED BY PLANNING COMMISSION ON: _____
APPROVED BY CITY COUNCIL ON: _____
under Section 112 of Chapter 25-5 of the Austin City Code.

_____
Development Services Department
DATE OF RELEASE: _____ Zoning: _____
Rev. No. 1 _____ Correction No.1 _____
Rev. No. 2 _____ Correction No.2 _____
Rev. No. 3 _____

RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OF NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.

BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE, WATER & WASTEWATER IMPROVEMENTS
GENERAL NOTES (SHEET 1)

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A4S-SUPPORT.dwg

LAUREN CRONE — STATE OF TEXAS — 128018 — LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 8 OF 106 SHEETS

TRAVIS COUNTY CONSTRUCTION NOTES

EXHIBIT 482.301C TRAVIS COUNTY STANDARD CONSTRUCTION NOTES FOR SUBDIVISION DEVELOPMENT STREETS, DRAINAGE, WATER AND WASTEWATER

Plan sheets for subdivision developments must include the following construction notes:

1. Each driveway must be constructed in accordance with Travis County Code Section 482.302(g), and each drainage structure or system must be constructed in accordance with the City of Austin Drainage Criteria Manual, unless other design criteria are approved by Travis County.

   Before beginning any construction, the owner must obtain a Travis County development permit and post the development permit, the TCEQ Site Notice, and any other required permits at the job site.

3 Construction may not take place within Travis County right-of-way until after the owner has submitted a traffic control plan to Travis County and obtained written approval of the traffic control plan from Travis County.

4 The contractor and primary operator shall follow the sequence of construction and the SWP3 in these approved plans. The contractor and primary operator shall request Travis County inspection at specific milestones in the sequence of the construction of the site development corresponding to the priority inspections specified in Construction Sequencing notes in these approved plans. Development outside the limits of construction specified in the approved permit and construction plans is prohibited.

5 Before beginning any construction, all Storm Water Pollution Prevention Plan (SWP3) requirements shall be met, and the first phase of the temporary erosion control (ESC) plan installed with a SWP3 Inspection Report uploaded to mypermitnow.org. All SWP3 and ESC Plan measures and primary operator SWP3 inspections must be performed by the primary operator in accordance with the approved plans and SWP3 and ESC Plan Notes throughout the construction process.

6 Before starting construction, the owner or contractor or their designated representatives shall submit a request via the mypermitnow.org customer portal for Travis County to request and schedule a mandatory Preconstruction Conference and ESC Inspection. If further assistance is needed, the TNR Planning and Engineering Division staff or TNR Storm Water Management Program staff can be contacted by telephone at 512-854-9383.

7 The contractor shall keep Travis County TNR assigned inspection staff current on the status of site development and utility construction. The contractor shall notify Travis County and request priority inspections through the mypermitnow.org customer portal for Travis County in accordance with the specific milestones in the Construction Sequencing notes in these approved plans.

8 Contour data source: LJA SURVEYING, INC., TBPLS FIRM #10194382

9 Fill material must be managed and disposed of in accordance with all requirements specified in the approved plans, SWP3, and the Travis County Code. The contractor shall stockpile fill and construction materials only in the areas designated on the approved plans and not within the 100-year flood plain, waterway setback, Critical Environmental Feature setback, or outside the limits of construction. Disposal of solid waste materials, as defined by State law (e.g., litter, tires, decomposable wastes, etc.) is prohibited in permanent fill sites.

10. Before disposing any excess fill material off-site, the contractor or primary operator must provide the County Inspector documentation that demonstrates that all required permits for the proposed disposal site location, including Travis County, TCEQ Notice, and other applicable development permits, have been obtained. The owner or primary operator must revise the SWP3 and ESC Plan if handling or placement of excess fill on the construction site is revised from the existing SWP3. If the fill disposal location is outside Travis County or does not require a development permit, the contractor or primary operator must provide the County Inspector the site address, contact information for the property owner of the fill

11. The design engineer is responsible for the adequacy of the construction plans. In reviewing the construction plans, Travis County will rely upon the adequacy of the work of the design engineer.

12. In the event of any conflicts between the content in the SWP3 Site Notebook and the content in the construction plans approved by Travis County, the construction plans shall take precedence.

13. A minimum of two survey benchmarks shall be set, including description, location, and elevation; the benchmarks should be tied to a Travis County control benchmark when possible.

14. Any existing pavement, curbs, sidewalks, or drainage structures within County right-of-way which are damaged, removed, or silted, will be repaired by the contractor at owner or contractor's expense before approval and acceptance of the construction by Travis County.

15. Call the Texas Excavation Safety System at 8-1-1 at least 2 business days before beginning excavation activities.

16. All storm sewer pipes shall be Class III RCP, unless otherwise noted.

17. Contractor is required to obtain a utility installation permit in accordance with Travis County Code Section 482.901(a)(3) before any construction of utilities within any Travis County right-of-way.

18. This project is located on Flood Insurance Rate Maps # 48453C0440J

19. Temporary stabilization must be performed in all disturbed areas that have ceased construction activities for 14 days or longer, in accordance with the standards described in the SWP3 and ESC Plan Sheet Notes.

20. Permanent site stabilization/re-vegetation must be performed immediately in all site areas which are at final plan grade and in all site areas specified in the approved plans for phased re-vegetation, in accordance with the standards described in the SWP3 and ESC Plan Sheet Notes.

21. All trees within the right-of-way and drainage easements shall be saved or removed in accordance with the approved construction plans. Travis County tree preservation standards in Travis County Code Section 482.973, including
    installation and maintenance of all specified tree protection measures, must be followed during construction.

22. An Engineer's Concurrence Letter in accordance with Travis County Code Section 482.953 must be submitted via the mypermitnow.org customer portal for Travis County when construction is substantially complete. The Engineer's Concurrence Letter must be submitted before the contractor or primary operator requests a final inspection by Travis County.

23. Site improvements must be constructed in conformance with the engineer's construction plans approved by Travis County. Non-conformance with the approved plans will delay final inspection approval by the County until plan conformance is achieved or any required plan revisions are approved.

24. Final Site Stabilization. All areas disturbed by the construction must be permanently revegetated and all temporary sediment controls and accumulated sedimentation must be removed before the County will issue a Certificate of Compliance for final site stabilization as part of final inspection and project completion. A Developers Contract, as described in the SWP3 and ESC Notes Sheet may be executed with Travis County for conditional acceptance of a project for which has ESC Fiscal Security posted and for which all items are complete

25. All subdivision lots and areas outside the right-of-way which are disturbed during the construction process must be included in the final stabilization/revegetation plan of the subdivision for final inspection approval, except for subdivision lots that are subject to separate Travis County development permit(s), SWP3 Notice(s), and ESC Plan(s).

26. Soil data sources: -

27. The owner, utility contractor, or a designated representative shall submit a notice of construction via the mypermitnow.org customer portal for Travis County at least two working days prior to construction. If further assistance is needed, the TNR Planning and Engineering Division staff can be contacted by telephone at 512-854-9383

28. The work will not be accepted and the one-year warranty performance period will not begin until after the contractor has obtained TNR approval of the construction.

29. The contractor shall install all traffic markings, barricades, and signage in accordance with the latest edition of TxDOT's Manual on Uniform Traffic Control Devices prior to TNR approval of the roadway construction.

482.1003 [Exhibit 482.301(D) Special Construction Notes]

SPECIAL NOTES, AS APPLICABLE, FOR SITE DEVELOPMENT OR STREETS AND DRAINAGE

1. The subgrade material in (name of subdivision) was tested by (name of professional soil lab) in (day, month, and year) and the street section designed according to approved design criteria. The street sections are to be constructed as follows:

   [Give street names, width of right-of-way, or other methods to identify proposed design of different pavement thicknesses. In writing or graphically, describe the street section(s) to be constructed.]

2. Manhole frames, covers, and water valve covers will be raised to finished pavement grade at the owner's expense by a qualified contractor with County inspection. All utility adjustments shall be completed prior to final paving construction.

3. All collector and arterial streets shall have automatic screed control on asphaltic concrete pavement construction, placed as per ITEM 350-6 OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS.

4. At intersections which have valley drainage, the crowns of the intersecting streets will culminate in a distance of 40' from the intersecting curb line unless otherwise noted. Inlets on the intersecting street shall not be constructed within 40' of the valley gutter.

5. At the intersection of two 44' streets or larger, the crowns of the intersecting streets will culminate in a distance of 40' from intersecting curb line unless otherwise noted.

6. Prior to final acceptance of a street, street name signs conforming to County standards shall be installed by developer.

7. When using lime stabilization of subgrade, it shall be placed in slurry form.

8. If applicable, a license agreement for landscaping maintenance and irrigation in street right-of-way shall be executed by the developer with Travis County prior to final acceptance of the roadway system for maintenance.

482.1003 [Exhibit 482.301E Sequence of Construction and Priority Inspections – Subdivision Development][4]

EXHIBIT 482.301E

SEQUENCE OF CONSTRUCTION AND PRIORITY INSPECTIONS – SUBDIVISION DEVELOPMENT

The owner and primary operator must follow this basic sequence of construction for each subdivision development. Within the following sequence of construction are listed Priority Inspections that the owner and primary operator must request from a representative of Travis County's Storm Water Management Program inspection team. Each Priority Inspection must be requested on-line through the mypermitnow.org customer portal for Travis County. The Priority Inspections in this exhibit are consistent with the priority inspections found in the customer portal for the project. For assurance purposes, a second request to Travis County is strongly encouraged by additionally sending an e-mail to the following address: env-inspect@traviscountytx.gov.

The sequence for items 1-4 and items 17-22 must not be altered, but the sequence for items 5-16 may be modified with the written approval of the County.

1. ESC Installation. Install all temporary erosion and sediment controls (ESC) and tree protection measures in accordance with the approved ESC Plan sheets and the SWP3.
   a. Have a qualified inspector (as specified in Section 482.934(c)(3) of the Travis County Code) inspect the temporary erosion and sediment controls and prepare a certified SWP3 Inspection Report regarding whether the temporary erosion and sediment controls were installed in conformance with the approved plans;
   b. Upload the qualified inspector's certified SWP3 Inspection Report to the mypermitnow.org customer portal for Travis County; and
   c. Request a mandatory pre-construction meeting with Travis County through the mypermitnow.org customer portal for Travis County giving at least 3 business days notification.
2. Pre-construction Meeting and ESC Inspection. Hold a mandatory pre-construction meeting that addresses the items in EXHIBIT 482.950 and the ESC Pre-construction Inspection by the County and obtain County's approval to start construction. (PRIORITY INSPECTION)
3. Inspect for Compliance with SWP3 and ESC Plan. Maintain and inspect the SWP3 controls and prepare and upload a weekly certified SWP3 Inspection Report that includes the contents listed in EXHIBIT 482.951 to the mypermitnow.org customer portal for Travis County.
4. Construct Sediment Basin(s). Construct any storm water pond(s) first, whenever applicable, to be functional as construction sediment basin(s) before grading and excavating the entire site, as follows:
   a. Clear, grub, and excavate only the site areas and cut and fill quantities necessary to construct the pond(s) in accordance with these approved plans and the minimum standards described in the SWP3 and ESC Plan Sheet Notes for the temporary sediment basin embankments, walls, inflows, outfalls, drainage conveyance measures, sediment controls, and stabilization.
   b. Request County inspection and obtain County's written approval of the temporary sediment basin(s) before proceeding further in the sequence of construction. (PRIORITY INSPECTION)
5. Construct Subdivision Improvements. Begin the primary subdivision clearing, excavation, and construction activities and continue the SWP3 and ESC Plan implementation and maintenance per the approved plans.
6. Rough grade streets.
7. Install utilities to be located under the proposed pavement.
8. Begin installation of storm sewer lines.
9. Regrade streets to subgrade.
10. Perform temporary stabilization in all disturbed areas that have ceased construction activities for 14 days or longer.
11. Perform permanent site stabilization/re-vegetation immediately in all site areas at final plan grade and in all site areas specified for phased re-vegetation.
12. Complete underground utility crossings on all streets.
13. Install curb and gutter.
14. Lay final base course material.
15. Install all traffic control signing, striping, and pavement markers.
16. Complete all underground installations within the right-of-way.
17. Complete Permanent Water Quality Controls. Begin completion of permanent water quality control(s) and install the underdrain per approved plans, when applicable.
    a. Remove construction sediment, re-establish the basin subgrade, and install underdrain piping.
    b. Request County inspection and obtain County's written approval of the underdrain piping installation and associated construction materials (aggregate, filter media, etc.) before covering the underdrain and proceeding with construction of the control. (PRIORITY INSPECTION)
18. Complete final site stabilization including stabilization of all disturbed subdivision lots still under the SWP3 and ESC Plan of the primary operator for the subdivision street and drainage construction.
19. Provide Engineer's Concurrence Letter through the mypermitnow.org customer portal for Travis County when construction is substantially complete and request a final inspection by Travis County.
20. Perform a final inspection with the County and prepare a punch list with remaining items that need to be completed for project acceptance. (PRIORITY INSPECTION)
21. Obtain a Certificate of Compliance for final stabilization from the County when all final inspection punch list items are finished and final site stabilization and removal of temporary sediment controls is complete. (PRIORITY INSPECTION)
    a. Provide separate permit documentation for any subdivision lots not stabilized as part of the final subdivision stabilization plan, if necessary – including separate County development permit(s), SWP3 Notice(s), ESC Plan(s).
    b. Provide a Developers Contract, if necessary, if all items are complete except re-vegetation coverage and conditional acceptance is requested. Request re-inspection when re-vegetation coverage is complete.
22. Receive a Conditional Acceptance from Travis County to begin the Construction Warranty Period when all punch list items are complete. (PRIORITY INSPECTION).

AUSTIN ENERGY NOTES:

1. DO NOT DIG OR GRADE WITHIN 15 FEET OF THE TRANSMISSION STRUCTURES. Grading near electric transmission facilities must be coordinated with Austin Energy prior to commencement of grading. Call Doug Weise at 512-505-7023 to schedule a meeting.
2. A pre-construction safety meeting is required with Austin Energy 48 hours before commencement of construction. Call Doug Weise at 512-505-7023 to schedule a tailgate safety meeting. Include Chuck Hendry (ph 505-7151) in the meeting, if cranes are being used during construction. OSHA requires a 20' clearance from energized transmission lines during construction
3. Barricades must be erected 10 feet from electric transmission structures during construction.
   Any relocation of electric transmission facilities or outages caused by this project will be charged to the property owner and contractor.
4. Warning signs must be placed under the overhead electric transmission facilities as notification of the electrical hazard.
5. For safety reasons, aerial equipment, dumpsters, staging or spoils areas are not permitted within 20 feet of the transmission wire and/or structures and must be located outside the easement.
6. 24-hour access to electric facilities shall be maintained.
7. Any temporary or permanent fence preventing access to the transmission facilities and/or easement shall be coordinated with Austin Energy staff. AE staff will install a lock on the gate for access.
8. Property owner and contractor are responsible for dust controls to minimize contamination of wire and insulators caused by dust from this project. Any subsequent cleaning or electrical outages caused by dust from this project will be charged to the property owner and contractor.
9. Property owner is responsible for any damages to curbing, landscaping, walls, paving placed around the electric transmission structures/poles/lines caused by Austin Energy during maintenance and repairs.
10. Roads/driveways within the easement should be built to handle the weight of the Condor (80,000 lbs) to ensure safety.
11. Fire hydrants must be located out of the transmission easement and a minimum of 20 feet from any transmission structure.
12. Sprinklers are prohibited within 15 feet of transmission poles.
13. Owner may not place, erect, construct or maintain within the electric transmission easement:
    - any permanent structures, including, but not limited to habitable structures such as homes, mobile homes, garages, or offices,

BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE,
WATER & WASTEWATER IMPROVEMENTS
GENERAL NOTES
(SHEET 2)

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: JAC
DRAWING NAME: A43-SUPPORT.dwg

LAUREN CRONE
STATE OF TEXAS
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 9
OF 106 SHEETS

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User: Pops
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Plot Date/Time: Sep. 02, 25 - 16:30:56

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LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

LAUREN CRONE
91015
REGISTERED
PROFESSIONAL
ENGINEER
10/1/2025

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NOTES:

1. ALL TREES THAT ARE LOCATED OUTSIDE THE SILT FENCE OR LIMITS OF CONSTRUCTION FENCING WILL NOT REQUIRE TREE FENCING UNLESS OTHERWISE INDICATED ON THE PLANS OR NOTES.

2. TREES TO REMAIN THAT ARE LOCATED INSIDE THE SILT FENCE OR LIMITS OF CONSTRUCTION FENCING SHALL HAVE TREE PROTECTION FENCING.

3. TEMPORARY SPOILS DISPOSAL SITE /CONSTRUCTION STAGING AREAS SHALL BE USED DURING TIME OF CONSTRUCTION BUT SHALL BE RESTORED AND REVEGETATED PER EROSION/SEDIMENTATION CONTROL NOTE 10 AFTER CONSTRUCTION. CONTRACTOR SHALL PROTECT ALL TREES 8" DIA. AND LARGER WITH TREE PROTECTION FENCING.

4. IT IS THE OWNER'S INTENT TO MINIMIZE CLEARING OF TREES AND BRUSH ALONG THE DRIVEWAYS, WHILE MAINTAINING A SAFE DRIVEWAY AND APPROPRIATE SIGHT DISTANCES. DRIVE CLEARING SHALL NOT EXTEND ANY FARTHER THAN NECESSARY TO ALLOW ADEQUATE ROOM FOR CONSTRUCTION, BUT SHALL BE A MINIMUM OF 7' FROM FINISHED PAVEMENT.

5. THE CRITICAL ROOT ZONE OF ALL TREES IDENTIFIED TO REMAIN SHALL BE HAND CLEARED.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT LIMBS AND ROOT SYSTEMS OF ALL TREES OUTSIDE OF CLEARING LIMITS BY NOT PARKING UNDER TREES, NOT DRIVING EQUIPMENT OVER ROOT ZONES AND NOT STORING MATERIALS UNDER TREES. PROTECTION OF VEGETATION TO REMAIN SHALL INCLUDE NOT ONLY HARDWOODS, BUT CEDARS AND UNDERBRUSH.

7. LOCATIONS OF THE LIMITS OF CONSTRUCTION INDICATED ON THE PLANS ARE SCHEMATIC REPRESENTATIONS ONLY. THE SPECIFIC LOCATIONS ARE GENERALLY DEFINED BY THE LIMITS OF RIGHT-OF-WAY AND/OR EASEMENTS. ALL LIMITS OF CONSTRUCTION SHALL BE DELINEATED IN THE FIELD WITH SILT FENCE, TREE PROTECTION FENCING, OR ORANGE PLASTIC MESH FENCE, EXCEPT WHERE LIMITS OF CONSTRUCTION IS IN CONFLICT WITH DRIVEWAY TRAFFIC, AND/OR WHERE LIMITS OF CONSTRUCTION HAS BEEN EXPANDED FOR INSTALLATION OF FLOW SPREADERS AND SILT FENCE OUTSIDE OF RIGHT-OF-WAY.

8. THE LOCATIONS OF SILT FENCES OUTSIDE OF THE LIMITS OR RIGHT-OF-WAY AND/OR EASEMENTS ARE APPROXIMATE AND SHALL BE FIELD-VERIFIED BY THE ENGINEER PRIOR TO AND DURING INSTALLATION. NO CLEARING IS ALLOWED FOR THE INSTALLATION OF SILT FENCES WHICH ARE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AND/OR EASEMENTS UNLESS AUTHORIZED BY THE OWNER OR HIS DESIGNATED REPRESENTATIVE. MINOR TRIMMING OF TREE LIMBS IS ALLOWED.

9. CONTRACTOR SHALL MAINTAIN THE DEWATERING SYSTEM TO ENSURE PERFORMANCE. IF THE DEWATERING SYSTEM IS NOT PERFORMING THE CONTRACTOR MUST FOLLOW THE ENVIRONMENTAL INSPECTOR'S DIRECTION TO ENSURE ADEQUATE SYSTEM PERFORMANCE. SEE SHEET 15 FOR TYPICAL DEWATERING DETAIL. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT A DEWATERING PLAN PRIOR TO CONSTRUCTION IF HE PROPOSES AN ALTERNATIVE PLAN.

10. SEEDING / SODDING FOR PERMANENT EROSION CONTROLS.

A. FOR PUBLIC AND/OR PRIVATE STREET RIGHT-OF-WAY, EXCLUDING AREAS BEHIND ROCK RETAINING WALL, BUT INCLUDING DRIVESIDE DITCHES IMMEDIATELY ADLCENT TO RIGHT-OF-WAY: 419 TIFF BERMUDA SOD FOR ALL MONTHS OF THE YEAR.

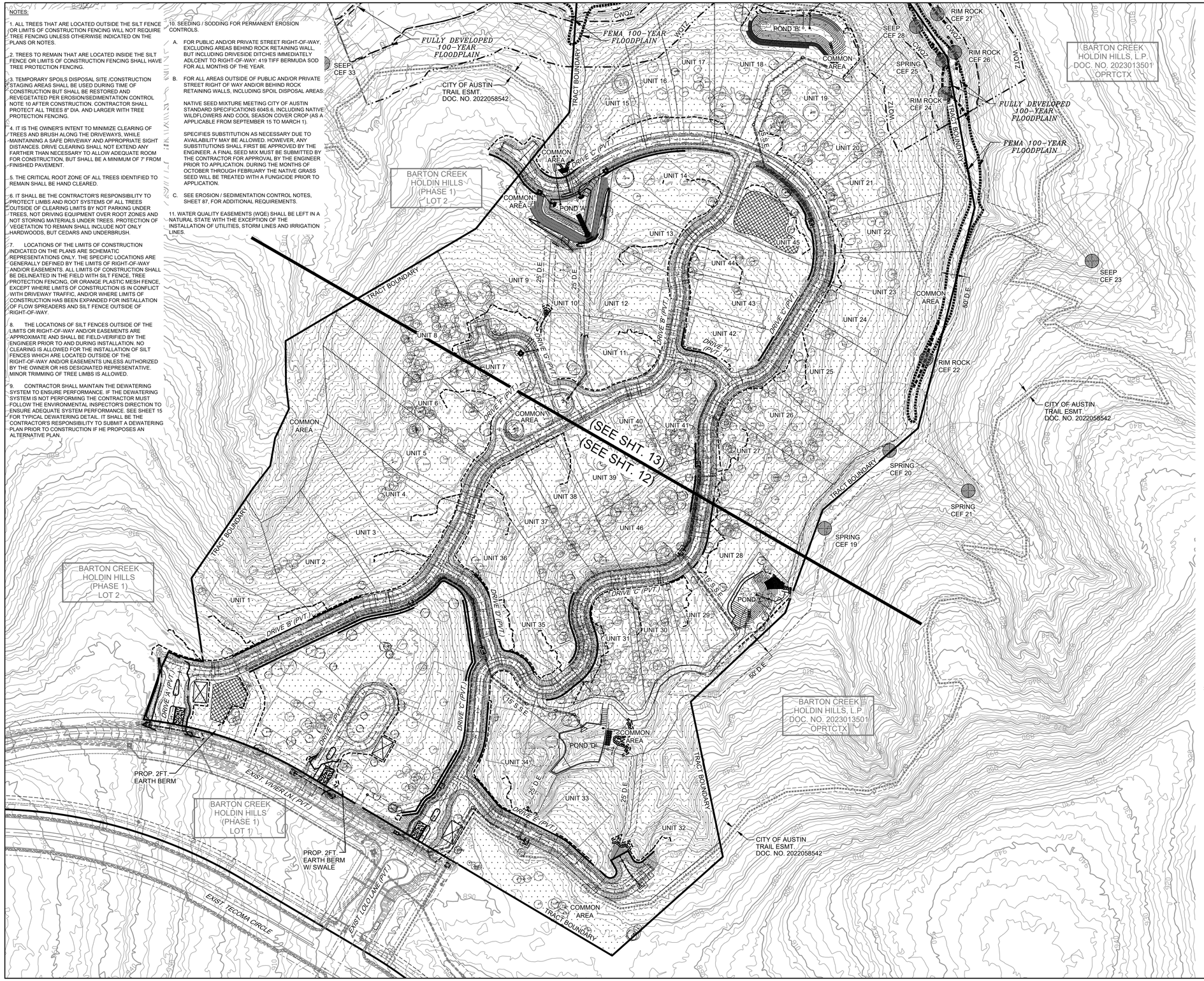
B. FOR ALL AREAS OUTSIDE OF PUBLIC AND/OR PRIVATE STREET RIGHT OF WAY AND/OR BEHIND ROCK RETAINING WALLS, INCLUDING SPOIL DISPOSAL AREAS:

NATIVE SEED MIXTURE MEETING CITY OF AUSTIN STANDARD SPECIFICATIONS 604S.6, INCLUDING NATIVE WILDFLOWERS AND COOL SEASON COVER CROP (AS A APPLICABLE FROM SEPTEMBER 15 TO MARCH 1).

SPECIFIES SUBSTITUTION AS NECESSARY DUE TO AVAILABILITY MAY BE ALLOWED. HOWEVER, ANY SUBSTITUTIONS SHALL FIRST BE APPROVED BY THE ENGINEER. A FINAL SEED MIX MUST BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER PRIOR TO APPLICATION. DURING THE MONTHS OF OCTOBER THROUGH FEBRUARY THE NATIVE GRASS SEED WILL BE TREATED WITH A FUNGICIDE PRIOR TO APPLICATION.

C. SEE EROSION / SEDIMENTATION CONTROL NOTES, SHEET 87, FOR ADDITIONAL REQUIREMENTS.

11. WATER QUALITY EASEMENTS (WQE) SHALL BE LEFT IN A NATURAL STATE WITH THE EXCEPTION OF THE INSTALLATION OF UTILITIES, STORM LINES AND IRRIGATION LINES.



TREE LEGEND

- 1200 — TREES TO REMAIN (TREE TAG & DESC.)
- 2811 — TREES TO BE REMOVED (TREE TAG & DESC.)
- TREE PROTECTION FENCING

LEGEND:

- FULLY DEVELOPED 100-YR. FLOODPLAIN
- EXIST. FEMA 100-YR. FLOODPLAIN
- DIVERSION
- LIMITS OF CONSTRUCTION (ORANGE FENCING OR SILT FENCE)
- SILT FENCE
- ROCK BERM
- TEMPORARY SPOILS & CONTRACTOR STAGING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CONTRACTOR WASHOUT AREA
- CONDO BOUNDARY
- WATER QUALITY IRRIGATION AREA
- PROP. WATER LINE
- PROP. WASTEWATER LINE
- PROP. WASTEWATER LINE
- PROP. EFFLUENT FORCE MAIN
- PROP. STORM LINE
- EXIST. WATER LINE
- EXIST. WASTEWATER LINE
- EXIST. EFFLUENT FORCE MAIN
- EXIST. STORM LINE
- DITCH CURLEX MATTING

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN (OVERALL)

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-ES.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 11 OF 106 SHEETS

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User: Pcpa
Last Modified: Aug. 05, 25 - 13:53
Plot Date/Time: Sep. 02, 25 - 16:28:52
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..\A43-Base.dwg
..\A43S.dwg

NOTES:

1. ALL TREES THAT ARE LOCATED OUTSIDE THE SILT FENCE OR LIMITS OF CONSTRUCTION FENCING WILL NOT REQUIRE TREE FENCING UNLESS OTHERWISE INDICATED ON THE PLANS OR NOTES.

2. TREES TO REMAIN THAT ARE LOCATED INSIDE THE SILT FENCE OR LIMITS OF CONSTRUCTION FENCING SHALL HAVE TREE PROTECTION FENCING.

3. TEMPORARY SPOILS DISPOSAL SITE /CONSTRUCTION STAGING AREAS SHALL BE USED DURING TIME OF CONSTRUCTION BUT SHALL BE RESTORED AND REVEGETATED PER EROSION/SEDIMENTATION CONTROL NOTE 10 AFTER CONSTRUCTION. CONTRACTOR SHALL PROTECT ALL TREES 8" DIA. AND LARGER WITH TREE PROTECTION FENCING.

4. IT IS THE OWNER'S INTENT TO MINIMIZE CLEARING OF TREES AND BRUSH ALONG THE DRIVEWAYS, WHILE MAINTAINING A SAFE DRIVEWAY AND APPROPRIATE SIGHT DISTANCES. DRIVE CLEARING SHALL NOT EXTEND ANY FARTHER THAN NECESSARY TO ALLOW ADEQUATE ROOM FOR CONSTRUCTION, BUT SHALL BE A MINIMUM OF 7' FROM FINISHED PAVEMENT.

5. THE CRITICAL ROOT ZONE OF ALL TREES IDENTIFIED TO REMAIN SHALL BE HAND CLEARED.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT LIMBS AND ROOT SYSTEMS OF ALL TREES OUTSIDE OF CLEARING LIMITS BY NOT PARKING UNDER TREES, NOT DRIVING EQUIPMENT OVER ROOT ZONES AND NOT STORING MATERIALS UNDER TREES. PROTECTION OF VEGETATION TO REMAIN SHALL INCLUDE NOT ONLY HARDWOODS, BUT CEDARS AND UNDERBRUSH.

7. LOCATIONS OF THE LIMITS OF CONSTRUCTION INDICATED ON THE PLANS ARE SCHEMATIC REPRESENTATIONS ONLY. THE SPECIFIC LOCATIONS ARE GENERALLY DEFINED BY THE LIMITS OF RIGHT-OF-WAY AND/OR EASEMENTS. ALL LIMITS OF CONSTRUCTION SHALL BE DELINEATED IN THE FIELD WITH SILT FENCE, TREE PROTECTION FENCING, OR ORANGE PLASTIC MESH FENCE, EXCEPT WHERE LIMITS OF CONSTRUCTION IS IN CONFLICT WITH DRIVEWAY TRAFFIC, AND/OR WHERE LIMITS OF CONSTRUCTION HAS BEEN EXPANDED FOR INSTALLATION OF FLOW SPREADERS AND SILT FENCE OUTSIDE OF RIGHT-OF-WAY.

8. THE LOCATIONS OF SILT FENCES OUTSIDE OF THE LIMITS OR RIGHT-OF-WAY AND/OR EASEMENTS ARE APPROXIMATE AND SHALL BE FIELD-VERIFIED BY THE ENGINEER PRIOR TO AND DURING INSTALLATION. NO CLEARING IS ALLOWED FOR THE INSTALLATION OF SILT FENCES WHICH ARE LOCATED OUTSIDE OF THE RIGHT-OF-WAY AND/OR EASEMENTS UNLESS AUTHORIZED BY THE OWNER OR HIS DESIGNATED REPRESENTATIVE. MINOR TRIMMING OF TREE LIMBS IS ALLOWED.

9. CONTRACTOR SHALL MAINTAIN THE DEWATERING SYSTEM TO ENSURE PERFORMANCE. IF THE DEWATERING SYSTEM IS NOT PERFORMING THE CONTRACTOR MUST FOLLOW THE ENVIRONMENTAL INSPECTOR'S DIRECTION TO ENSURE ADEQUATE SYSTEM PERFORMANCE. SEE SHEET 15 FOR TYPICAL DEWATERING DETAIL. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT A DEWATERING PLAN PRIOR TO CONSTRUCTION IF HE PROPOSES AN ALTERNATIVE PLAN.

10. SEEDING / SODDING FOR PERMANENT EROSION CONTROLS.

A. FOR PUBLIC AND/OR PRIVATE STREET RIGHT-OF-WAY, EXCLUDING AREAS BEHIND ROCK RETAINING WALL, BUT INCLUDING DRIVESIDE DITCHES IMMEDIATELY ADLCENT TO RIGHT-OF-WAY: 419 TIFF BERMUDA SOD FOR ALL MONTHS OF THE YEAR.

B. FOR ALL AREAS OUTSIDE OF PUBLIC AND/OR PRIVATE STREET RIGHT OF WAY AND/OR BEHIND ROCK RETAINING WALLS, INCLUDING SPOIL DISPOSAL AREAS:

NATIVE SEED MIXTURE MEETING CITY OF AUSTIN STANDARD SPECIFICATIONS 604S.6, INCLUDING NATIVE WILDFLOWERS AND COOL SEASON COVER CROP (AS A APPLICABLE FROM SEPTEMBER 15 TO MARCH 1).

SPECIFIES SUBSTITUTION AS NECESSARY DUE TO AVAILABILITY MAY BE ALLOWED. HOWEVER, ANY SUBSTITUTIONS SHALL FIRST BE APPROVED BY THE ENGINEER. A FINAL SEED MIX MUST BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER PRIOR TO APPLICATION. DURING THE MONTHS OF OCTOBER THROUGH FEBRUARY THE NATIVE GRASS SEED WILL BE TREATED WITH A FUNGICIDE PRIOR TO APPLICATION.

C. SEE EROSION / SEDIMENTATION CONTROL NOTES, SHEET 87, FOR ADDITIONAL REQUIREMENTS.

11. WATER QUALITY EASEMENTS (WQE) SHALL BE LEFT IN A NATURAL STATE WITH THE EXCEPTION OF THE INSTALLATION OF UTILITIES, STORM LINES AND IRRIGATION LINES.

MATCH LINE 'A' (SEE SHT. 13)

UNIT 1, UNIT 2, UNIT 3, UNIT 4, UNIT 5, UNIT 6, UNIT 7, UNIT 8, UNIT 28, UNIT 29, UNIT 30, UNIT 31, UNIT 32, UNIT 33, UNIT 34, UNIT 35, UNIT 36, UNIT 37, UNIT 38, UNIT 39, UNIT 46

COMMON AREA

SPRING CEF 19

POND 'C'

POND 'D'

DRIVE 'A' (PVT.)

DRIVE 'B' (PVT.)

DRIVE 'C' (PVT.)

DRIVE 'D' (PVT.)

DRIVE 'E' (PVT.)

EXIST. VIVIER LN.(PVT.)

EXIST. LOLO LANE (PVT.)

15' S.S.E.

50' D.E.

25' D.E.

TRACT BOUNDARY

BARTON CREEK HOLDIN HILLS (PHASE 1) LOT 2

BARTON CREEK HOLDIN HILLS (PHASE 1) LOT 1

BARTON CREEK HOLDIN HILLS, L.P. DOC. NO. 2023013501 OPRTCTX

CITY OF AUSTIN TRAIL ESMT. DOC. NO. 2022058542

50 25 0 50 100

SCALE: 1"=50'

TREE LEGEND

1200 TREES TO REMAIN (TREE TAG & DESC.)

2811 TREES TO BE REMOVED (TREE TAG & DESC.)

TREE PROTECTION FENCING

LEGEND:

- FULLY DEVELOPED 100-YR. FLOODPLAIN
- EXIST. FEMA 100-YR. FLOODPLAIN
- DIVERSION
- LIMITS OF CONSTRUCTION (ORANGE FENCING OR SILT FENCE)
- SILT FENCE
- ROCK BERM
- TEMPORARY SPOILS & CONTRACTOR STAGING AREA
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- PROP. WATER LINE
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- PROP. WASTEWATER LINE
- PROP. EFFLUENT FORCE MAIN
- PROP. STORM LINE
- EXIST. WATER LINE
- EXIST. WASTEWATER LINE
- EXIST. EFFLUENT FORCE MAIN
- EXIST. STORM LINE
- DITCH CURLEX MATTING

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN (SHEET 1)

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-ES.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 12 OF 106 SHEETS

C:_Jobs\LJA\A JEC Condos A43\Const\A43-ES.dwg
User: Pope
Last Modified: Aug. 05, 25 - 13:33
Plot Date/Time: Sep. 02, 25 - 16:28:07

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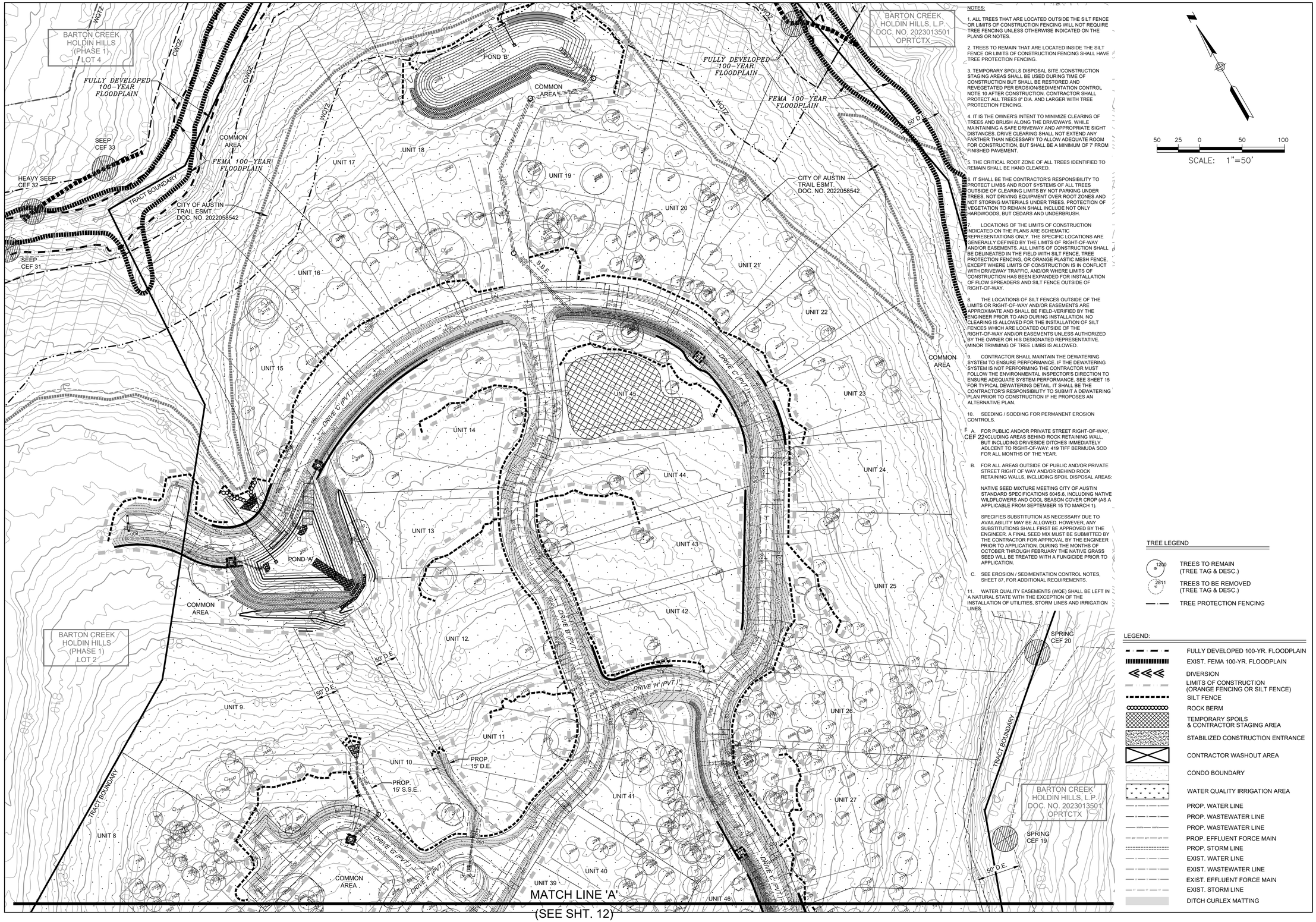
\A43-Base.dwg
\A43B.dwg



NOTES:

1. ALL TREES THAT ARE LOCATED OUTSIDE THE SILT FENCE OR LIMITS OF CONSTRUCTION FENCING WILL NOT REQUIRE TREE FENCING UNLESS OTHERWISE INDICATED ON THE PLANS OR NOTES.

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C. SEE EROSION / SEDIMENTATION CONTROL NOTES, SHEET 87, FOR ADDITIONAL REQUIREMENTS.

11. WATER QUALITY EASEMENTS (WQE) SHALL BE LEFT IN A NATURAL STATE WITH THE EXCEPTION OF THE INSTALLATION OF UTILITIES, STORM LINES AND IRRIGATION LINES.

50 25 0 50 100

SCALE: 1"=50'

TREE LEGEND

- 1200 — TREES TO REMAIN (TREE TAG & DESC.)
- 2811 — TREES TO BE REMOVED (TREE TAG & DESC.)
- TREE PROTECTION FENCING

LEGEND:

- FULLY DEVELOPED 100-YR. FLOODPLAIN
- EXIST. FEMA 100-YR. FLOODPLAIN
- DIVERSION
- LIMITS OF CONSTRUCTION (ORANGE FENCING OR SILT FENCE)
- SILT FENCE
- ROCK BERM
- TEMPORARY SPOILS & CONTRACTOR STAGING AREA
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- CONDO BOUNDARY
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- PROP. WATER LINE
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- PROP. WASTEWATER LINE
- PROP. EFFLUENT FORCE MAIN
- PROP. STORM LINE
- EXIST. WATER LINE
- EXIST. WASTEWATER LINE
- EXIST. EFFLUENT FORCE MAIN
- EXIST. STORM LINE
- DITCH CURLEX MATTING

BARTON CREEK HOLDEN HILLS PHASE 1 LOT 1, BLOCK B

PAVING, DRAINAGE, WTR, WW IMPROVEMENTS

EROSION / SEDIMENTATION CONTROL & TREE PROTECTION PLAN (SHEET 2)

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-ES.dwg

Lauren Crone — STATE OF TEXAS — LAUREN CRONE 128018 — LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 13 OF 106 SHEETS

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User: Pope
Last Modified: Aug. 05, 25 - 13:33
Plot Date/Time: Sep. 02, 25 - 16:27:59
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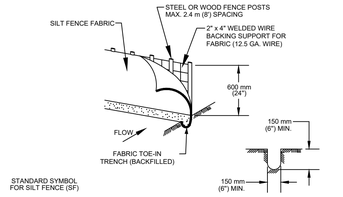


TRENCH CROSS SECTION

1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

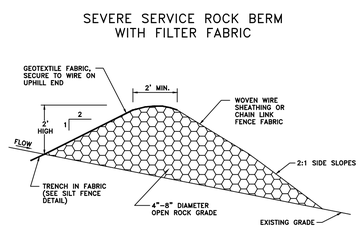
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS	*09/01/2011* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1

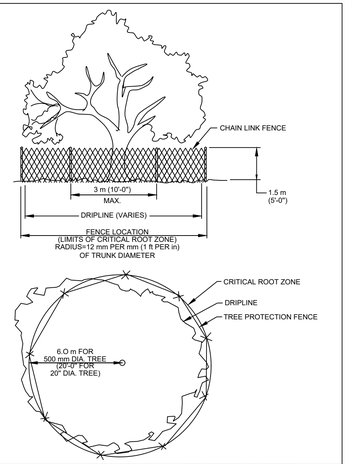
SEVERE SERVICE ROCK BERM WITH FILTER FABRIC



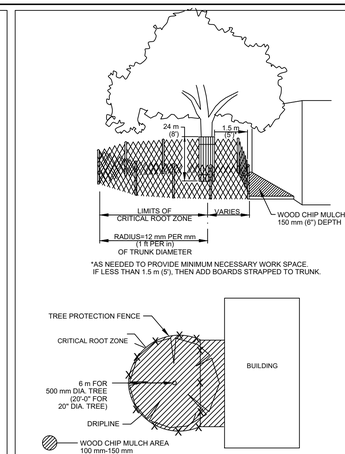
GENERAL NOTES:

1. **USE ONLY OPEN GRADED ROCK 4–8 INCHES IN DIAMETER FOR STREAMFLOW CONDITIONS**
2. **THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM 1 INCH OPENING AND MINIMUM WIRE DIAMETER OF 20 GAUGE SECURED WITH HOG RINGS. FOR SEVERE SERVICE, THE SHEATHING MUST BE SECURED OR STAKED TO THE STREAM BED.**
3. **SEVERE SERVICE BERMS SHALL BE INSPECTED DAILY, AND THE STONE AND/OR FABRIC AND WOVEN WIRE SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC. SILT SHALL BE REMOVED BEFORE ACCUMULATION REACHES 6 INCHES.**
4. **ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED SITE AND IN A MANNER AS TO NOT CREATE A SILTATION PROBLEM.**
5. **THE ENVIRONMENTAL CODE REVIEW AND INSPECTION DIVISION WILL DETERMINE WHETHER THE SEVERE SERVICE ROCK BERM WILL REMAIN ON THE SITE AFTER CONSTRUCTION/DEVELOPMENT ACTIVITY HAS ENDED.**

SOURCE: COA



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROPTECTION FENCE TYPE A - CHAIN LINK	
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-2



*AS NEEDED TO PROVIDE MINIMUM NECESSARY WORK SPACE. IF LESS THAN 1.5 m (5'), THEN ADD BOARDS STRAPPED TO TRUNK.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROTECTION FENCE MODIFIED TYPE A - CHAIN LINK	
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-4

NOTES:

1. MATERIAL - THE FABRIC MUST CORRESPOND TO THE FOLLWNG REQUIREMENTS:

PROPERTY	ASTM TEST METHOD	REQUIREMENTS
FABRIC WEIGHT	D 3776	≥3.0 OUNCES/SQUARE YPAD
ULTRAVIOLET (UV) RADIATION STABILITY	D 4355	70% STRENGTH RETAINED MIN. AFTER 500 HOURS IN XENON ARC DEVICE
MULLEN BURST STRENGTH	D 3786	≥120 POUND PER SQUARE INCH
WATER FLOW RATE	D 4491	≥.275 GALLONS/MINUTE/SQUARE FEET

2. THIS MATERIAL SHOULD HAVE A MAXIMUM EXPECTED USEFUL LIFE OF APPROXIMATELY EIGHTEEN (18) MONTHS. THE INLET PROTECTION DEVICES SHOULD BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN OUT AND DISPOSAL OF TRAPPED SEDIMENT WHILE MINIMIZING INTERFERENCE WITH CONSTRUCTION ACTIVITIES. THEY SHOULD ALSO BE CONSTRUCTED SUCH THAT ANY PONDING OF STORM WATER WILL NOT CAUSE EXCESSIVE R.O.W. FLOODING (I.E. ≤ 4 INCHES OF STANDING WATER) OR DAMAGE TO THE STRUCTURE OR ADBWFENTAREAS.

3. COVERAGE – THE FABRIC/WIRE SHOULD COMPLETELY COVER THE OPENING OF THE INLET AND DEVICES SHOULD BE INSTALLED WITHOUT PROTRUDING PARTS THAT COULD BE A TRAFFIC, WORKER, OR PEDESTRIAN HAZARD. WHERE SECTIONS OF THE FABRIC OVERLAP, THEY SHALL OVERLAP AT LEAST THREE(3) INCHES.

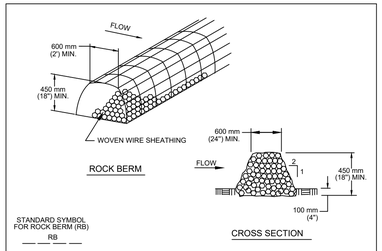
4. THE INLET FILTER SHALL BE ATTACHED IN A WAY THAT THEY CAN EASILY BE REMOVED AND ARE NOT SECURED OR ATTACHED BY THE USE OF SAND BAGS. THE INLET FILTER MUST BE REMOVED UPON COMPLETION OF WORK. IF REMOVAL DAMAGES THE CONCRETE CURB, THE CURB MUST BE REPAIRED IMMEDIATELY.

5. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN THE DEPTH REACHES 50 MM (2 INCHES) INCHES OR ONE - THIRD THE HEIGHT OF THE INLET THROAT, AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.

6. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORMWATER BEGINS TO OVERTOP THE CURB.

7. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT HAS ACHIEVED FINAL STABILIZATION CONDITIONS.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		FILTER DIKE CURB INLET PROTECTION	
RECORD COPY SIGNED BY MAPI VIGIL	10/30/09 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S-2



CROSS SECTION

NOTES:

1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.

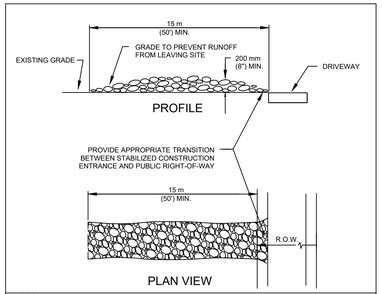
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).

3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.

5. WHEN THE SITE IS COMPLETELY STABILIZED THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

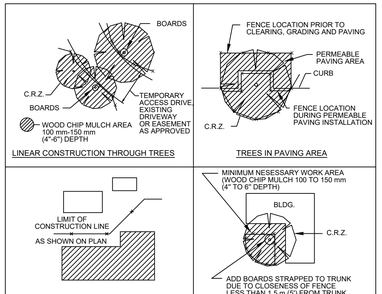
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		ROCK BERM	
RECORD COPY SIGNED BY MORGAN BYARS	8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



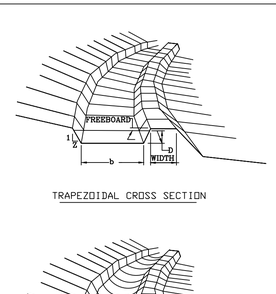
NOTES:

1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC DRIVEWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY APPROVED STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC DRIVEWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC DRIVEWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

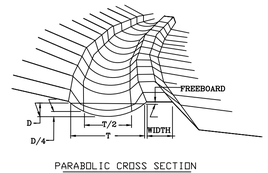
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		STABILIZED CONSTRUCTION ENTRANCE	
RECORD COPY SIGNED BY J. PATRICK MURPHY	5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		TREE PROTECTION FENCE LOCATIONS	
RECORD COPY SIGNED BY J. PATRICK MURPHY	11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-1

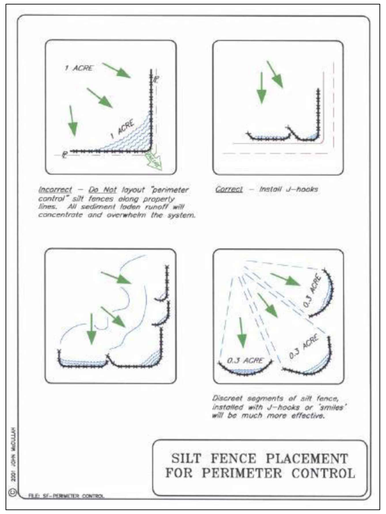


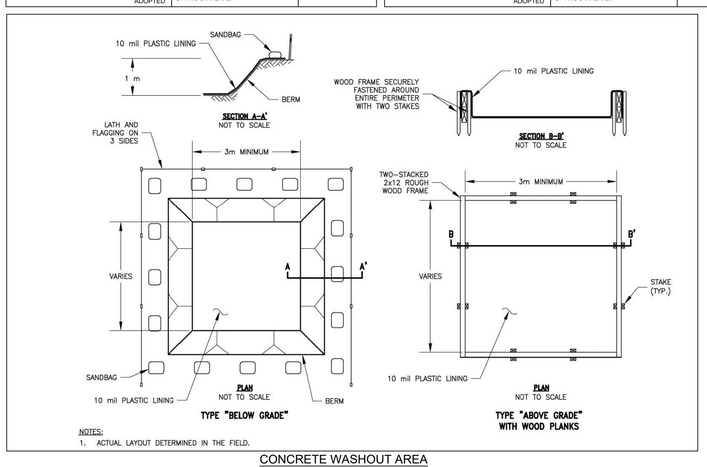
TRAPEZOIDAL CROSS SECTION



PARABOLIC CROSS SECTION

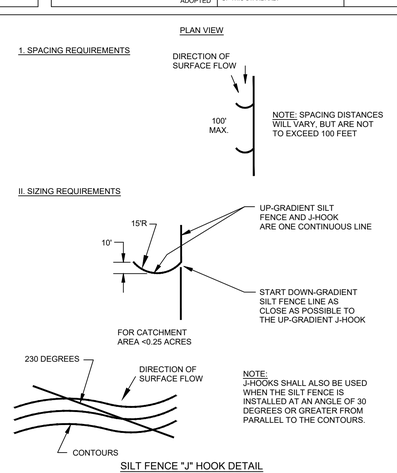
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		DIVERSION	
RECORD COPY SIGNED BY J. PATRICK MURPHY	*5/27/00* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 621S-1



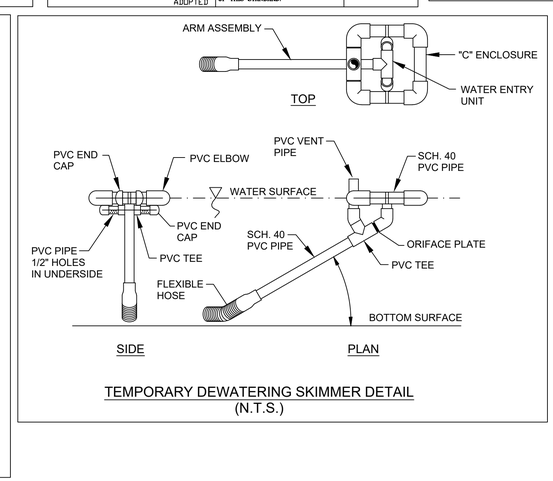


NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.

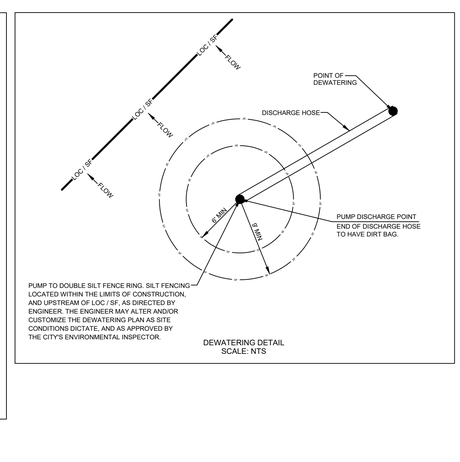
CONCRETE WASHOUT AREA
(N.T.S.)



SILT FENCE "J" HOOK DETAIL



TEMPORARY DEWATERING SKIMMER DETAIL
(N.T.S.)



PUMP TO DOUBLE SILT FENCE RING. SILT FENCING LOCATED WITHIN THE LIMITS OF CONSTRUCTION, AND UPSTREAM OF LOC / SF, AS DIRECTED BY ENGINEER. THE ENGINEER MAY ALTER AND/OR CUSTOMIZE THE DEWATERING PLAN AS SITE CONDITIONS DICTATE, AND AS APPROVED BY THE CITY'S ENVIRONMENTAL INSPECTOR.

DEWATERING DETAIL
SCALE: NTS

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
EROSION SEDIMENTATION CONTROL & TREE PROTECTION PLAN (DETAIL SHEET)

REVISIONS			
NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-ES.dwg

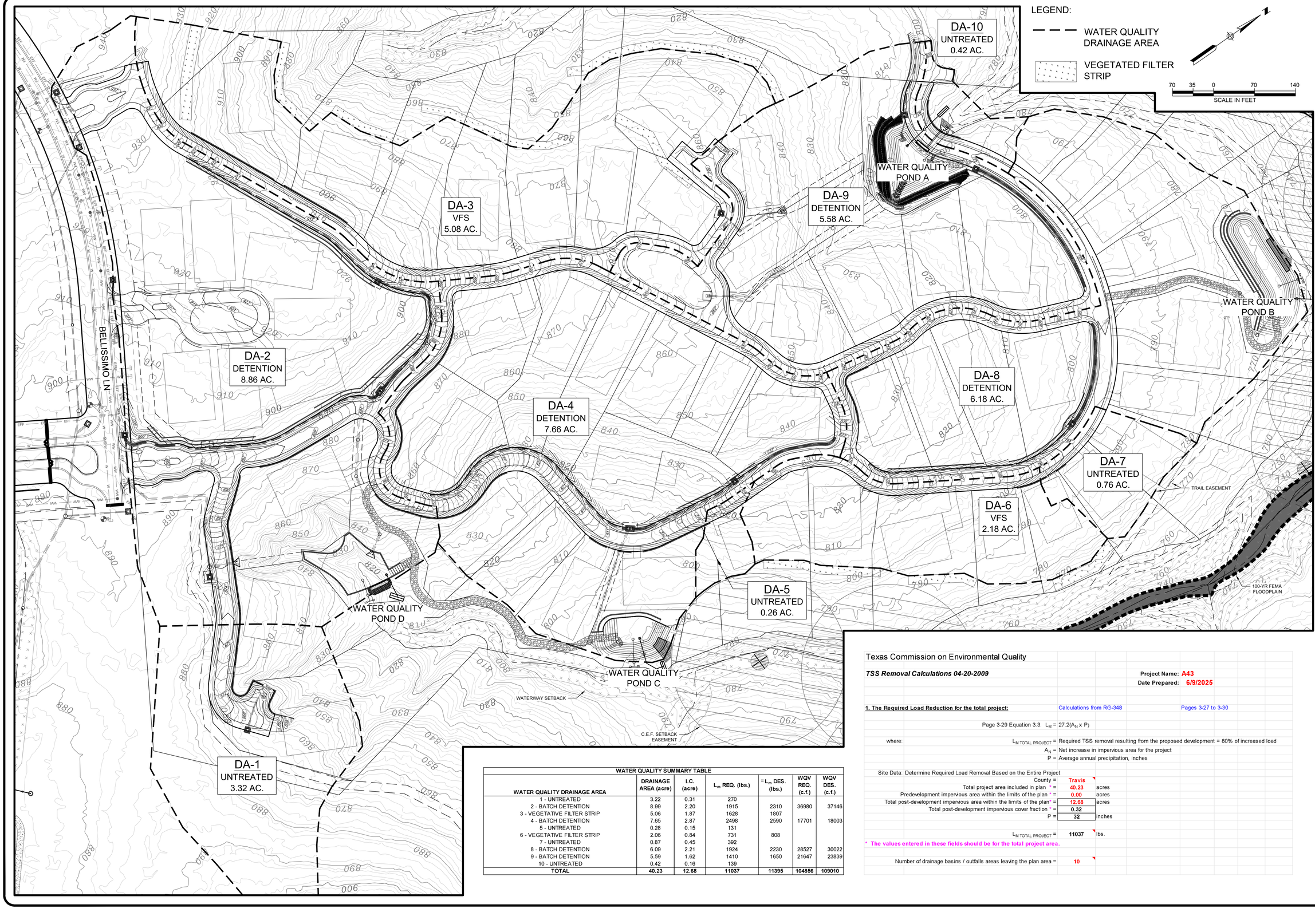
LAUREN CRONE
STATE OF TEXAS
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 14
OF 106 SHEETS

C:_Jobs\LJA\BCHolden Creek HLD PH 2\Const\Topo~2.dwg
User: Pops
Last Modified: Aug. 05, 25 - 13:33
Plot Date/Time: Sep. 02, 25 - 16:27:25



WATER QUALITY SUMMARY TABLE

WATER QUALITY DRAINAGE AREA	DRAINAGE AREA (acre)	I.C. (acre)	L_m REQ. (lbs.)	$^{*}L_m$ DES. (lbs.)	WQV REQ. (c.f.)	WQV DES. (c.f.)
1 - UNTREATED	3.22	0.31	270			
2 - BATCH DETENTION	8.99	2.20	1915	2310	36980	37146
3 - VEGETATIVE FILTER STRIP	5.06	1.87	1628	1807		
4 - BATCH DETENTION	7.65	2.87	2498	2590	17701	18003
5 - UNTREATED	0.28	0.15	131			
6 - VEGETATIVE FILTER STRIP	2.06	0.84	731	808		
7 - UNTREATED	0.87	0.45	392			
8 - BATCH DETENTION	6.09	2.21	1924	2230	28527	30022
9 - BATCH DETENTION	5.59	1.62	1410	1650	21647	23839
10 - UNTREATED	0.42	0.16	139			
TOTAL	40.23	12.68	11037	11395	104856	109010

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: A43

Date Prepared: 6/9/2025

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load

A_N = Net increase in impervious area for the project

P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis	
Total project area included in plan * =	40.23	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	12.68	acres
Total post-development impervious cover fraction * =	0.32	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	11037	lbs.

* **The values entered in these fields should be for the total project area.**

Number of drainage basins / outfalls areas leaving the plan area = 10

BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE, WATER & WASTEWATER IMPROVEMENTS
WATER QUALITY IMPROVEMENTS PLAN

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: 5/28/2025
DESIGNED BY: CC
DRAWN BY: IR
CHECKED BY: LC
DRAWING NAME: A43-WQ MAP.dwg

LAUREN CRONE
STATE OF TEXAS
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-437

SHEET NO. 15 OF 103 SHEETS

I:\A111\A437- Block A Lot 4\DA\A43-WQ MAP.dwg
User: reedmunie
Last Modified: Sep 30, 25 - 09:23
Xref Attachment: XA1-437-11-05

BATCH DETENTION

2. Drainage Basin Parameters (This information should be provided for each basin):

2

Drainage Basin/Outfall Area No. = 2

Total drainage basin/outfall area =	**8.99**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**2.20**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.24**	
$L_{M\ THIS\ BASIN}$ =	**1915**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Batch Detention**
Removal efficiency = **91** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**8.99**	acres
A_I =	**2.20**	acres
A_P =	**6.79**	acres
L_R =	**2323**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **2310** lbs.

F = **0.99**

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**3.66**	inches
Post Development Runoff Coefficient =	**0.26**	
On-site Water Quality Volume =	**30816**	cubic feet
Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**6163**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**36980**	cubic feet

2. Drainage Basin Parameters (This information should be provided for each basin):

4

Drainage Basin/Outfall Area No. = 4

Total drainage basin/outfall area =	**7.65**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**2.87**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.38**	
$L_{M\ THIS\ BASIN}$ =	**2498**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Batch Detention**
Removal efficiency = **91** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**7.65**	acres
A_I =	**2.87**	acres
A_P =	**4.78**	acres
L_R =	**2967**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **2590** lbs.

F = **0.87**

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**1.44**	inches
Post Development Runoff Coefficient =	**0.37**	
On-site Water Quality Volume =	**14751**	cubic feet
Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**2950**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**17701**	cubic feet

2. Drainage Basin Parameters (This information should be provided for each basin):

8

Drainage Basin/Outfall Area No. = 8

Total drainage basin/outfall area =	**6.09**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**2.21**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.36**	
$L_{M\ THIS\ BASIN}$ =	**1924**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Batch Detention**
Removal efficiency = **91** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**6.09**	acres
A_I =	**2.21**	acres
A_P =	**3.88**	acres
L_R =	**2288**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **2230** lbs.

F = **0.97**

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**3.00**	inches
Post Development Runoff Coefficient =	**0.36**	
On-site Water Quality Volume =	**23773**	cubic feet
Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**4755**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**28527**	cubic feet

2. Drainage Basin Parameters (This information should be provided for each basin):

9

Drainage Basin/Outfall Area No. = 9

Total drainage basin/outfall area =	**5.59**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**1.62**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.29**	
$L_{M\ THIS\ BASIN}$ =	**1410**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Batch Detention**
Removal efficiency = **91** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**5.59**	acres
A_I =	**1.62**	acres
A_P =	**3.97**	acres
L_R =	**1695**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **1650** lbs.

F = **0.97**

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**3.00**	inches
Post Development Runoff Coefficient =	**0.30**	
On-site Water Quality Volume =	**18039**	cubic feet
Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**3608**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**21647**	cubic feet

SUMMARY

WATER QUALITY SUMMARY TABLE

WATER QUALITY DRAINAGE AREA	DRAINAGE AREA (acre)	I.C. (acre)	L_m REQ. (lbs.)	= L_m DES. (lbs.)	WQV REQ. (c.f.)	WQV DES. (c.f.)
1 - UNTREATED	3.22	0.31	270			
2 - BATCH DETENTION	8.99	2.20	1915	2310	36980	37146
3 - VEGETATIVE FILTER STRIP	5.06	1.87	1628	1807		
4 - BATCH DETENTION	7.65	2.87	2498	2590	17701	18003
5 - UNTREATED	0.28	0.15	131			
6 - VEGETATIVE FILTER STRIP	2.06	0.84	731	808		
7 - UNTREATED	0.87	0.45	392			
8 - BATCH DETENTION	6.09	2.21	1924	2230	28527	30022
9 - BATCH DETENTION	5.59	1.62	1410	1650	21647	23839
10 - UNTREATED	0.42	0.16	139			
TOTAL	**40.23**	**12.68**	**11037**	**11395**	**104856**	**109010**

VEGETATED FILTER STRIPS

2. Drainage Basin Parameters (This information should be provided for each basin):

3

Drainage Basin/Outfall Area No. = 3

Total drainage basin/outfall area =	**5.06**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**1.87**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.37**	
$L_{M\ THIS\ BASIN}$ =	**1628**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Vegetated Filter Strips**
Removal efficiency = **85** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**5.06**	acres
A_I =	**1.87**	acres
A_P =	**3.19**	acres
L_R =	**1807**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **1807** lbs.

F = **1.00**

2. Drainage Basin Parameters (This information should be provided for each basin):

6

Drainage Basin/Outfall Area No. = 6

Total drainage basin/outfall area =	**2.06**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.84**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.41**	
$L_{M\ THIS\ BASIN}$ =	**731**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Vegetated Filter Strips**
Removal efficiency = **85** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**2.06**	acres
A_I =	**0.84**	acres
A_P =	**1.22**	acres
L_R =	**808**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **808** lbs.

F = **1.00**

UNTREATED

2. Drainage Basin Parameters (This information should be provided for each basin):

1

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	**3.22**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.31**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.10**	
$L_{M\ THIS\ BASIN}$ =	**270**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Untreated**
Removal efficiency = **0** percent

2. Drainage Basin Parameters (This information should be provided for each basin):

5

Drainage Basin/Outfall Area No. = 5

Total drainage basin/outfall area =	**0.28**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.15**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.54**	
$L_{M\ THIS\ BASIN}$ =	**131**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Untreated**
Removal efficiency = **0** percent

2. Drainage Basin Parameters (This information should be provided for each basin):

7

Drainage Basin/Outfall Area No. = 7

Total drainage basin/outfall area =	**0.87**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.45**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.52**	
$L_{M\ THIS\ BASIN}$ =	**392**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Untreated**
Removal efficiency = **0** percent

2. Drainage Basin Parameters (This information should be provided for each basin):

10

Drainage Basin/Outfall Area No. = 10

Total drainage basin/outfall area =	**0.42**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.16**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.38**	
$L_{M\ THIS\ BASIN}$ =	**139**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Untreated**
Removal efficiency = **0** percent

BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE,
WATER & WASTEWATER IMPROVEMENTS
WATER QUALITY CALCULATIONS

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: 5/28/2025
DESIGNED BY: CC
DRAWN BY: IR
CHECKED BY: LC
DRAWING NAME: A43-WQ MAP.dwg

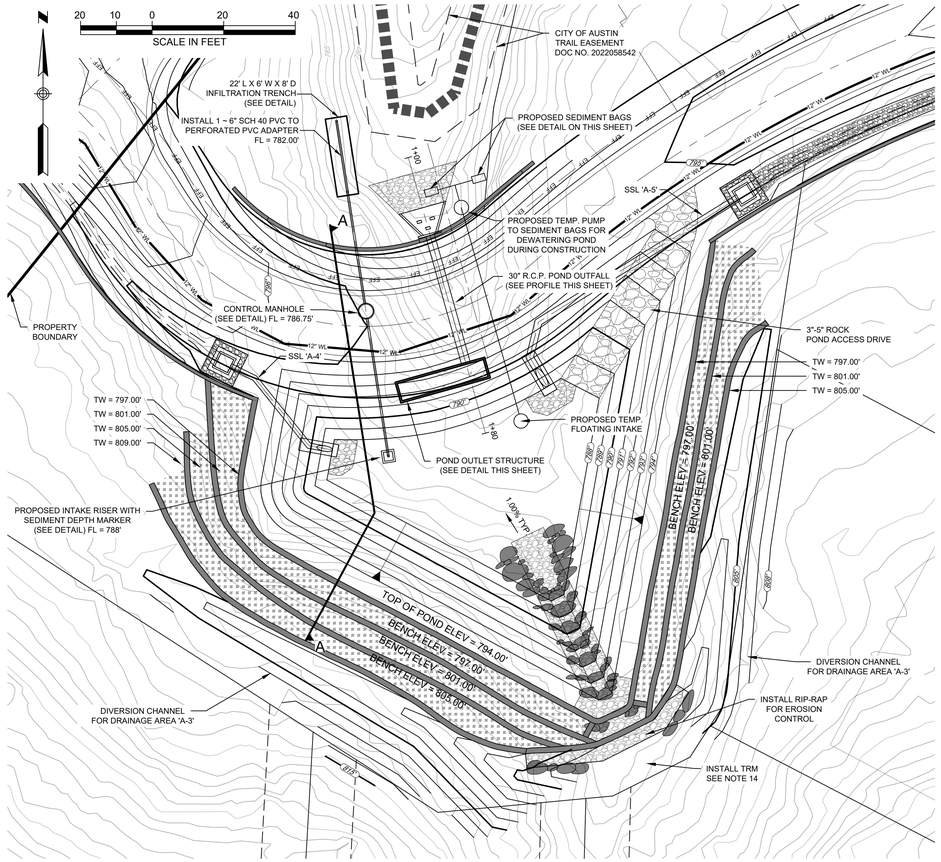
LAUREN CRONE
STATE OF TEXAS
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-437

SHEET NO. 16
OF 103 SHEETS

I:\A111\A437- Block A Lot 4\2CAD\A43-WQ MAP.dwg
User: lreekmans
Last Modified: Sep. 03, 25 - 09:23
Xref Name(s): 50-01-01-1.dwg



POND A
Stage - Storage - Discharge

Stage Elevation (ft)	Contour Area (sf)	Incremental Volume (cf)	Cumulative Volume (cf)	Cumulative Volume (ac-ft)	Pipe Discharge (cfs)	Weir Discharge (cfs)	Total Discharge (cfs)
788.00	**2537**	0	0	0.00	0.0	0.0	**0.0**
789.00	**3313**	2925	2925	0.07	1.2	0.0	**1.2**
790.00	**4190**	3752	6677	0.15	1.8	0.0	**1.8**
791.00	**5162**	4676	11353	0.26	2.2	0.0	**2.2**
792.00	**6221**	5692	17044	0.39	2.6	0.0	**2.6**
793.00	**7368**	6795	23839	0.55	3.0	0.0	**3.0**
794.00	**8604**	7986	31825	0.73	3.2	180.0	**183.2**

CONTROLS NARRATIVE:

BATCH DETENTION POND IS EQUIPPED WITH A RAIN SENSOR MOUNTED AT THE CONTROL PANEL AND A LEVEL SWITCH AT THE CONTROL MANHOLE. THE VALVE IS TO REMAIN NORMALLY CLOSED. WHEN CONTACT IS MADE BY LEVEL SWITCH, 12 HOUR DELAY TIMER SHALL BEGIN. AT THE END OF THE 12 HOURS, THE VALVE WILL OPEN. ONCE VALVE OPENS, IT WILL REMAIN OPEN UNTIL 2 HOURS AFTER THE LEVEL SENSOR DETECTS THE POND IS EMPTY TO ALLOW REMAINING SHALLOW WATER TO BE DISCHARGED. SUBSEQUENT RAINFALL EVENTS THAT OCCUR PRIOR TO THE POND DRAINING SHALL CAUSE THE VALVE TO REMAIN OPEN UNTIL ALL ADDITIONAL STORMWATER PASSES THROUGH THE POND. THE DRAWDOWN TIME OF THE BASIN SHOULD NOT EXCEED 48 HOURS FOR A SINGLE STORM EVENT AFTER THE 12 HOUR REQUIRED DETENTION TIME. WITH THE PROPOSED 6" OUTLET PIPE, THE ENTIRE WATER QUALITY VOLUME OF THE POND WILL HAVE A DRAWDOWN TIME OF APPROXIMATELY 9 HOURS.

Infiltration Trench (Secondary BMP)

Soil Type	Brackett (BiD)	
Permeability	0.31	in/hr
Porosity (n)	0.35	
VR%	0.3	
WQV_{req}	22858	cf
IT Volume Req. ($V_{IT,req}$)	368	cf
Trench Vol. Req. ($V_{T,req}$)	1,051	cf
Trench Depth	8	ft
Trench Width	6	ft
Trench Length	22	ft
$V_{T,provided}$	1056	cf OK
$V_{IT,provided}$	369.6	cf OK
Infiltration Area (Ai)	580	sf
$V_{provided}$ / Ai < 1	0.64	OK

$$V_{IT,req} = 0.023\ WQV_{req}\ (1 - VR\%)$$

$$V_{T,req} = \frac{V_{IT,req}}{n}$$

$$V_{IT,provided} = V_{T,provided} * n$$

NOTES:

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2. EMBANKMENT SHALL BE INSTALLED IN LIFTS AND COMPACTED PER GEOTECHNICAL REPORT.
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4. CONTRACTOR TO PROOF ROLL BOTTOM AND SIDES OF POND TO ENSURE FIRM BOTTOM. IF BOTTOM APPEARS FRACTURED CONTRACTOR TO NOTIFY ENGINEER PRIOR TO PLACEMENT OF SAND BED ON TOPSOIL.
5. THE CONTRACTOR WILL BE REQUIRED TO PERFORM TESTING REQUIREMENTS TO SATISFY TRAVIS COUNTY INSPECTIONS. THIS SHALL INCLUDE BUT NOT LIMITED TO PROVIDING NECESSARY WATER AS REQUESTED BY INSPECTOR.
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7. CONTRACTOR SHALL PROVIDE STRUCTURAL DESIGN FOR ALL RETAINING WALLS GREATER THAN 4 FEET HIGH AS A SUBMITTAL TO THE ENGINEER PRIOR TO CONSTRUCTION.
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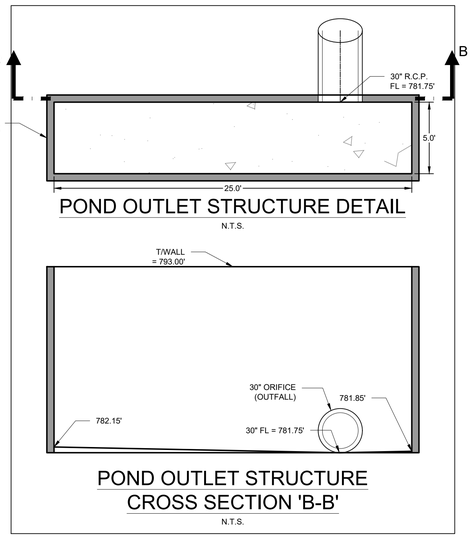
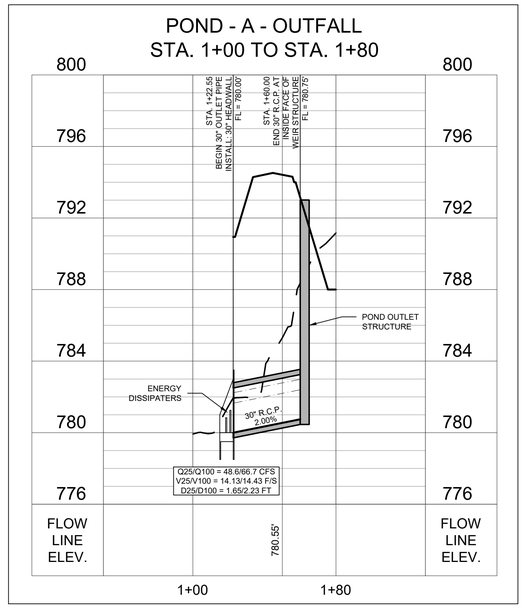
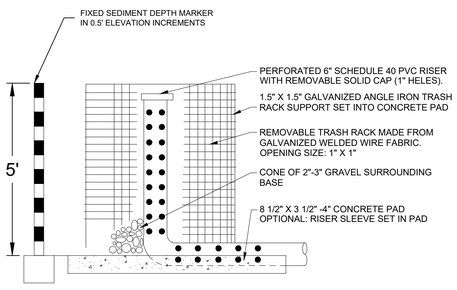
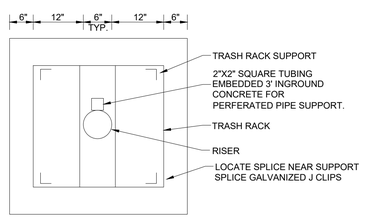
11. TOPSOIL MUST BE PLACED ON THE BASIN FLOOR AFTER EXCAVATED BOTTOM IS SCARIFIED TO A DEPTH OF 2 TO 3 INCHES. THE TOPSOIL MUST BE 6 TO 8 INCHED DEEP AND A SOIL MIXTURE OF 30-40% SAND OR GRANITE SAND, 60-70% TOPSOIL, AND SUGGEST 5-10% COMPOST OR PEAT. SOIL, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN 1 INCH MUST BE MULCHED.
12. DISCHARGE COEFFICIENTS FOR OUTLETS TO CONTROL DISCHARGE TIME ARE 0.6.
13. ALL ROCK RIP-RAP SHALL BE MORTARED.
14. TRM (TURF REINFORCEMENTS MATS) SHALL BE INSTALLED IN ALL DIVERSION DITCHES AND DOWNSTREAM OF RIP-RAP INSTALLATIONS.



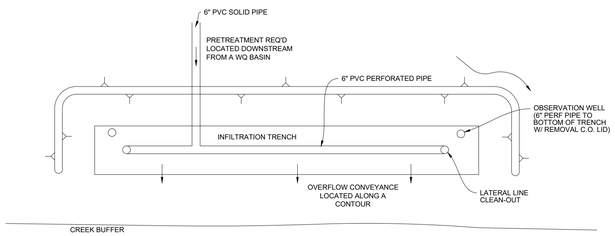


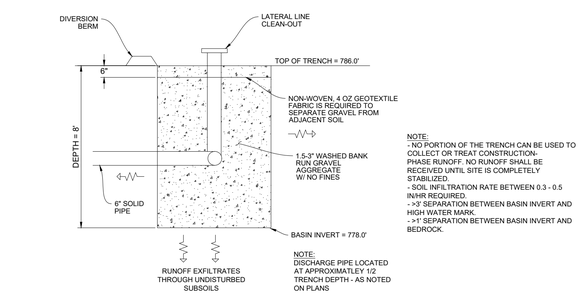


SIDE VIEW OF RISER



TOP VIEW OF RISER (SQUARE DESIGN)

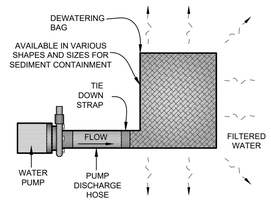




NOTE:
- NO PORTION OF THE TRENCH CAN BE USED TO COLLECT OR TREAT CONSTRUCTION-PHASE RUNOFF. NO RUNOFF SHALL BE RECEIVED UNTIL SITE IS COMPLETELY STABILIZED.
- SOIL INFILTRATION RATE BETWEEN 0.3 - 0.5 IN/HR REQUIRED.
- >3' SEPARATION BETWEEN BASIN INVERT AND HIGH WATER MARK.
- >1' SEPARATION BETWEEN BASIN INVERT AND BEDROCK.

NOTE:
DISCHARGE PIPE LOCATED AT APPROXIMATELY 1/2 TRENCH DEPTH - AS NOTED ON PLANS

INFILTRATION TRENCH SCHEMATIC



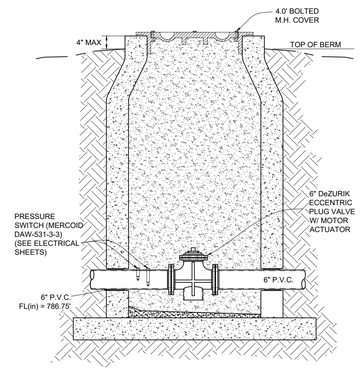
SEDIMENT BAG (DEWATERING) DETAIL
N.T.S.

DESCRIPTION:
A GRAVITY BAG FILTER, ALSO REFERRED TO AS A DEWATERING BAG, IS A SQUARE OR RECTANGULAR BAG MADE OF NON-WOVEN GEOTEXTILE FABRIC THAT COLLECTS SAND, SILT, AND FINES.

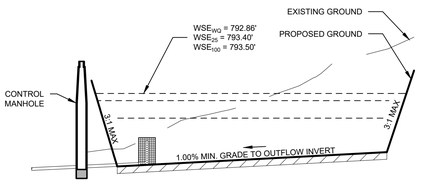
APPROPRIATE APPLICATIONS:
EFFECTIVE FOR THE REMOVAL OF SEDIMENTS (GRAVEL, SAND, AND SILT). SOME METALS ARE REMOVED WITH THE SEDIMENT.

IMPLEMENTATION:
WATER IS PUMPED INTO ONE SIDE OF THE BAG AND SEEPS THROUGH THE BOTTOM AND SIDES OF THE BAG.
A SECONDARY BARRIER, SUCH AS A ROCK FILTER BED OR STRAW/HAY BALE BARRIER IS PLACED BENEATH AND BEYOND THE EDGES OF THE BAG TO CAPTURE SEDIMENTS THAT ESCAPE THE BAG.

MAINTENANCE:
INSPECTION OF THE FLOW CONDITIONS, BAG CONDITION, BAG CAPACITY, AND THE SECONDARY BARRIER IS REQUIRED.
REPLACE THE BAG WHEN IT NO LONGER FILTERS SEDIMENT OR PASSES WATER AT A REASONABLE RATE. THE BAG IS DISPOSED OF OFFSITE.



CONTROL MANHOLE DETAIL
N.T.S.



POND SECTION A-A
N.T.S.

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

811 Know what's **below.** **Call** before you dig.

BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE, WATER & WASTEWATER IMPROVEMENTS
WATER QUALITY POND A

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: A43-WQ Ponds.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-437

SHEET NO. **17**

OF *103* SHEETS

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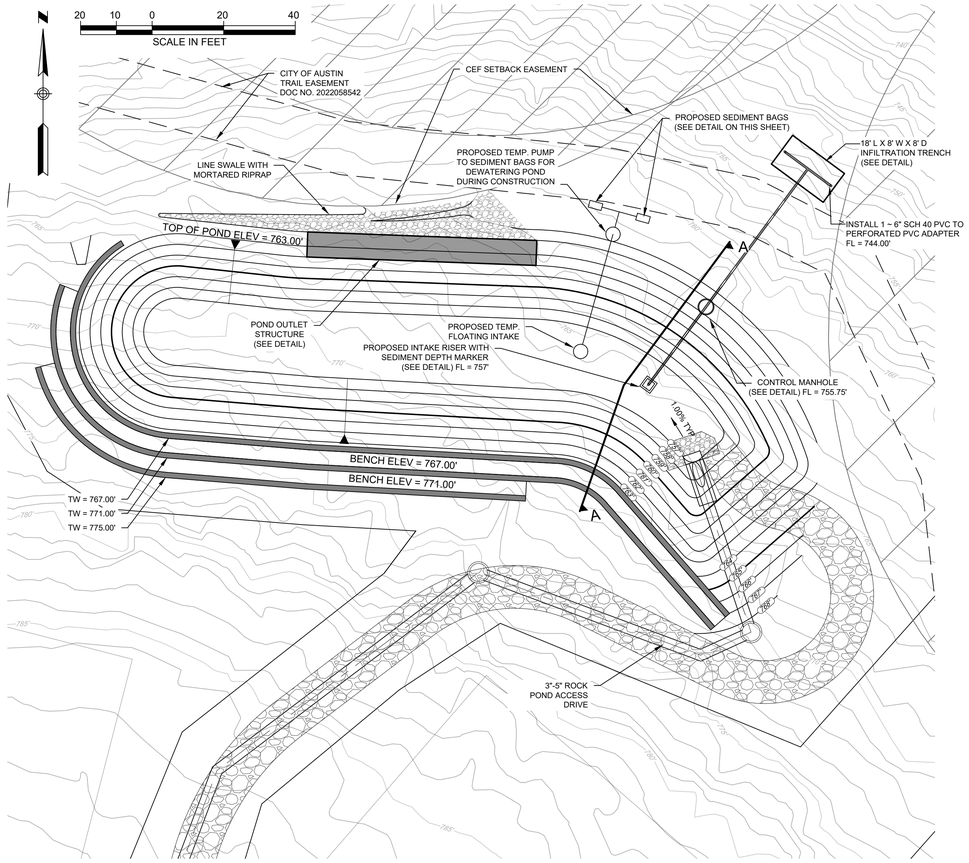

POND B
Stage - Storage - Discharge

Stage Elevation (ft)	Contour Area (sf)	Incremental Volume (cf)	Cumulative Volume (cf)	Cumulative Volume (ac-ft)	Pipe Discharge (cfs)	Weir Discharge (cfs)	Total Discharge (cfs)
757.00	**2965**	0	0	0.00	0.0	0.0	**0.0**
758.00	**4094**	3530	3530	0.08	1.2	0.0	**1.2**
759.00	**5295**	4695	8224	0.19	1.8	0.0	**1.8**
760.00	**6569**	5932	14156	0.32	2.2	0.0	**2.2**
761.00	**7915**	7242	21398	0.49	2.6	0.0	**2.6**
762.00	**9332**	8624	30022	0.69	3.0	0.0	**3.0**
763.00	**10771**	10052	40073	0.92	3.2	192.0	**195.2**

Infiltration Trench (Secondary BMP)

Soil Type		
Permeability	0.31	in/hr
Porosity (n)	0.35	
VR%	0.3	
WQV_{req}	29754	cf
IT Volume Req. ($V_{IT,req}$)	479	cf
Trench Vol. Req. ($V_{T,req}$)	1,369	cf
Trench Depth	8	ft
Trench Width	10	ft
Trench Length	18	ft
$V_{T,provided}$	1440 cf	OK
$V_{IT,provided}$	504 cf	OK
Infiltration Area (Ai)	628 sf	
$V_{provided}$ / Ai < 1	0.80	OK

$$V_{IT,req} = 0.023\ WQV_{req}\ (1 - VR\%)$$

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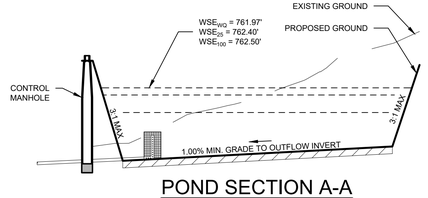
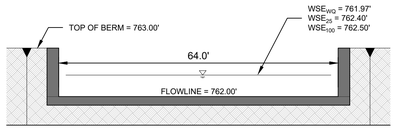
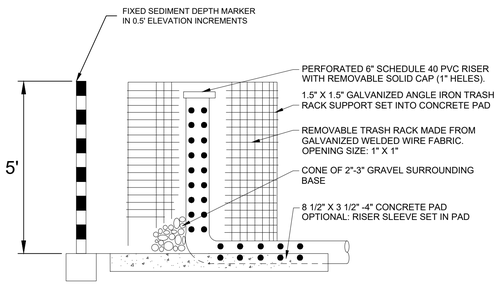


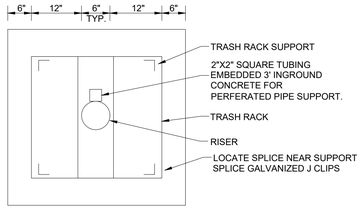
POND SECTION A-A
N.T.S.



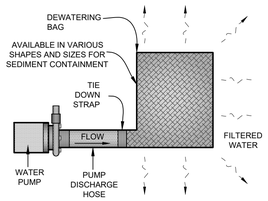
POND OUTLET STRUCTURE
N.T.S.



SIDE VIEW OF RISER



TOP VIEW OF RISER (SQUARE DESIGN)



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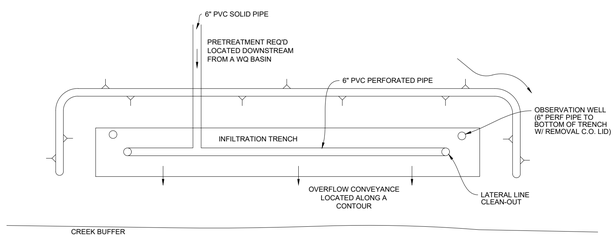
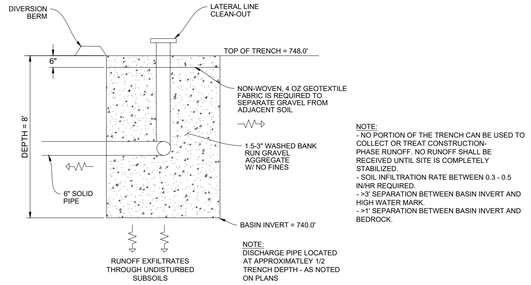
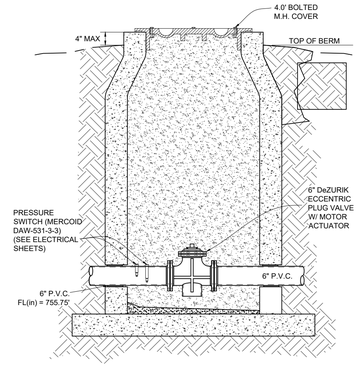




NOTE:
- NO PORTION OF THE TRENCH CAN BE USED TO COLLECT OR TREAT CONSTRUCTION-PHASE RUNOFF. NO RUNOFF SHALL BE RECEIVED UNTIL SITE IS COMPLETELY STABILIZED.
- SOIL INFILTRATION RATE BETWEEN 0.3 - 0.5 IN/HR REQUIRED.
- >3' SEPARATION BETWEEN BASIN INVERT AND HIGH WATER MARK.
- >1' SEPARATION BETWEEN BASIN INVERT AND BEDROCK.

INFILTRATION TRENCH SCHEMATIC



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BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE, WATER & WASTEWATER IMPROVEMENTS
WATER QUALITY POND B

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: A43-WQ Ponds.dwg

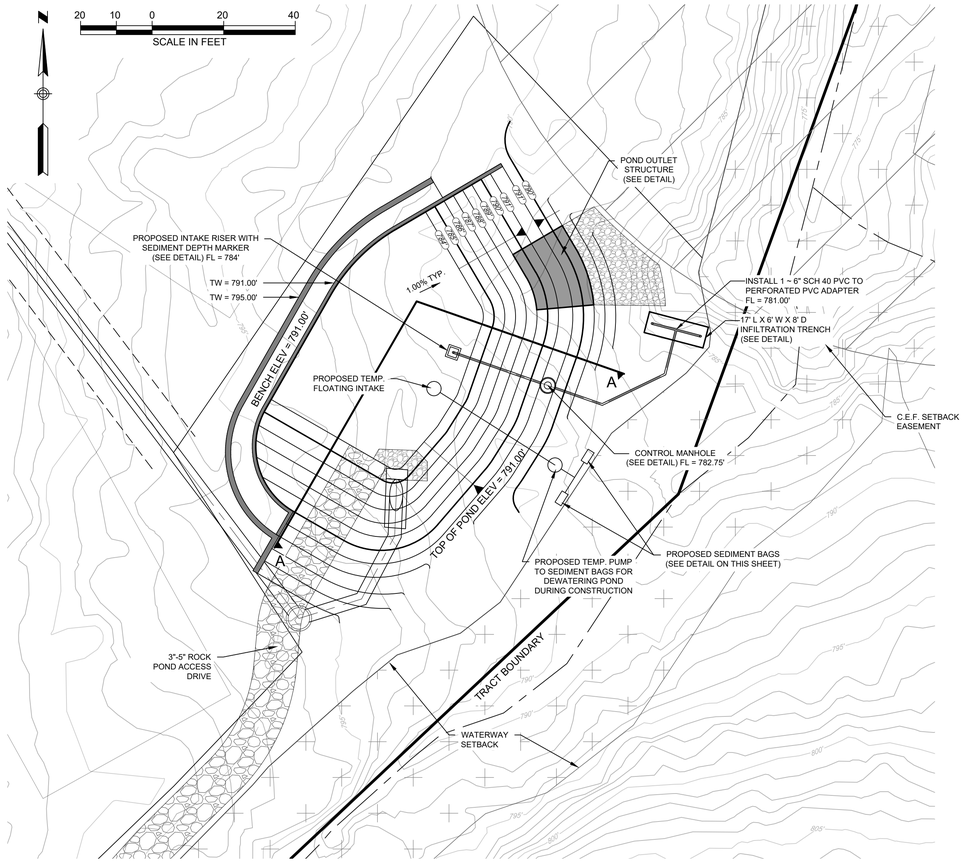
LAUREN CRONE — STATE OF TEXAS — 126018 — LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-437

SHEET NO. **18** OF 103 SHEETS

I:\A111\A437- Block A Lot 4\SCAD\A43-WQ Ponds.dwg
User: rreamore
Last Modified: Sep. 03, 25 - 09:23
Plot Date/Time: Oct. 01, 25 - 17:28:09



POND C
Stage - Storage - Discharge

Stage Elevation (ft)	Contour Area (sf)	Incremental Volume (cf)	Cumulative Volume (cf)	Cumulative Volume (ac-ft)	Pipe Discharge (cfs)	Weir Discharge (cfs)	Total Discharge (cfs)
784.00	**2457**	0	0	0.00	0.0	0.0	**0.0**
785.00	**2884**	2671	2671	0.06	1.2	0.0	**1.2**
786.00	**3339**	3112	5782	0.13	1.8	0.0	**1.8**
787.00	**3818**	3579	9361	0.21	2.2	0.0	**2.2**
788.00	**4317**	4068	13428	0.31	2.6	0.0	**2.6**
789.00	**4833**	4575	18003	0.41	3.0	0.0	**3.0**
790.00	**5352**	5093	23096	0.53	3.2	51.0	**54.2**
791.00	**5866**	5609	28705	0.66	3.5	144.2	**147.8**

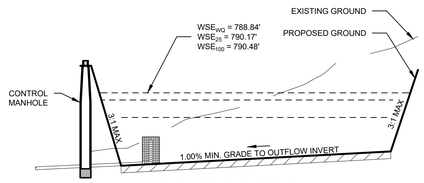
Infiltration Trench (Secondary BMP)

Soil Type	**Brackett (BiD)**	
Permeability	**0.31**	in/hr
Porosity (n)	**0.35**	
VR%	**0.3**	
WQV_{req}	**17267**	cf
IT Volume Req. ($V_{IT,req}$)	278	cf
Trench Vol. Req. ($V_{T,req}$)	794	cf
Trench Depth	**8**	ft
Trench Width	**6**	ft
Trench Length	**17**	ft
	1	
$V_{T,provided}$	816	cf OK
$V_{IT,provided}$	285.6	cf OK
Infiltration Area (Ai)	470	sf
$V_{provided}$ / Ai < 1	0.61	OK

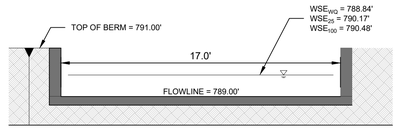
$$V_{IT,req} = 0.023\ WQV_{req}\ (1 - VR\%)$$

$$V_{T,req} = \frac{V_{IT,req}}{n}$$

$$V_{IT,provided} = V_{T,provided} * n$$



POND SECTION A-A
N.T.S.



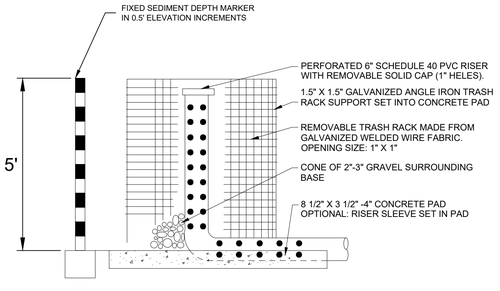
POND OUTLET STRUCTURE
N.T.S.

CONTROLS NARRATIVE:

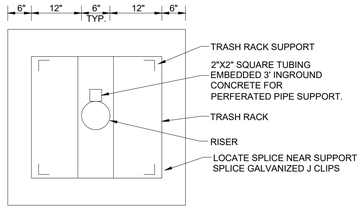
BATCH DETENTION POND IS EQUIPPED WITH A RAIN SENSOR MOUNTED AT THE CONTROL PANEL AND A LEVEL SWITCH AT THE CONTROL MANHOLE. THE VALVE IS TO REMAIN NORMALLY CLOSED. WHEN CONTACT IS MADE BY LEVEL SWITCH, 12 HOUR DELAY TIMER SHALL BEGIN. AT THE END OF THE 12 HOURS, THE VALVE WILL OPEN. ONCE VALVE OPENS, IT WILL REMAIN OPEN UNTIL 2 HOURS AFTER THE LEVEL SENSOR DETECTS THE POND IS EMPTY TO ALLOW REMAINING SHALLOW WATER TO BE DISCHARGED. SUBSEQUENT RAINFALL EVENTS THAT OCCUR PRIOR TO THE POND DRAINING SHALL CAUSE THE VALVE TO REMAIN OPEN UNTIL ALL ADDITIONAL STORMWATER PASSES THROUGH THE POND. THE DRAWDOWN TIME OF THE BASIN SHOULD NOT EXCEED 48 HOURS FOR A SINGLE STORM EVENT AFTER THE 12 HOUR REQUIRED DETENTION TIME. WITH THE PROPOSED 6" OUTLET PIPE, THE ENTIRE WATER QUALITY VOLUME OF THE POND WILL HAVE A DRAWDOWN TIME OF APPROXIMATELY 9 HOURS.

NOTES:

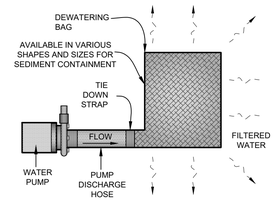
1. FOR THE POND AND BERMS, EARTHWORK SHALL BE IN CONFORMANCE WITH TRAVIS COUNTY STANDARD SPECIFICATIONS AND EARTHWORK SECTION OF THE GEOTECHNICAL REPORT.
2. EMBANKMENT SHALL BE INSTALLED IN LIFTS AND COMPACTED PER GEOTECHNICAL REPORT.
3. ALL WORK SHALL BE PERFORMED WITHIN SITE LIMITS OF CONSTRUCTION.
4. CONTRACTOR TO PROOF ROLL BOTTOM AND SIDES OF POND TO ENSURE FIRM BOTTOM. IF BOTTOM APPEARS FRACTURED CONTRACTOR TO NOTIFY ENGINEER PRIOR TO PLACEMENT OF SAND BED ON TOPSOIL.
5. THE CONTRACTOR WILL BE REQUIRED TO PERFORM TESTING REQUIREMENTS TO SATISFY TRAVIS COUNTY INSPECTIONS. THIS SHALL INCLUDE BUT NOT LIMITED TO PROVIDING NECESSARY WATER AS REQUESTED BY INSPECTOR.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR POSITIVE DRAINAGE IN DETENTION BASIN AREA.
7. CONTRACTOR SHALL PROVIDE STRUCTURAL DESIGN FOR ALL RETAINING WALLS GREATER THAN 4 FEET HIGH AS A SUBMITTAL TO THE ENGINEER PRIOR TO CONSTRUCTION.
8. A PROFESSIONAL ENGINEER'S LETTER OF CONCURRENCE THAT THE POND WAS CONSTRUCTED IN ACCORDANCE WITH THE DESIGN WILL BE REQUIRED. STABILIZATION OF POND OR OTHER DISTURBED SLOPES 3:1 OR STEEPER WITH SOIL RETENTION BLANKETS, OR EQUIVALENT BMP, IS REQUIRED.
9. ALL POND AREAS TO BE STABILIZED WITH SOD IMMEDIATELY AFTER ESTABLISHING FINAL GRADES UNLESS OTHERWISE NOTED.
10. ALL CONCRETE LINING SHALL BE A MINIMUM OF FIVE (5) INCHES THICK AND REINFORCED WITH NO. 4 ROUND BARS @ 18 INCHES ON CENTER EACH WAY. ALL CONCRETE LINING SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN THREE THOUSAND (3,000) POUNDS PER SQUARE INCH (PSI) IN TWENTY EIGHT (28) DAYS. THE DEPTH OF ALL TOE-DOWNS SHALL BE 36 INCHES UPSTREAM, 24 INCHES DOWNSTREAM, AND 18 INCHES FOR SIDE SLOPES.
11. TOPSOIL MUST BE PLACED ON THE BASIN FLOOR AFTER EXCAVATED BOTTOM IS SCARIFIED TO A DEPTH OF 2 TO 3 INCHES. THE TOPSOIL MUST BE 6 TO 8 INCHED DEEP AND A SOIL MIXTURE OF 30-40% SAND OR GRANITE SAND, 60-70% TOPSOIL, AND SUGGEST 5-10% COMPOST OR PEAT. SOIL, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN 1 INCH MUST BE MULCHED.
12. DISCHARGE COEFFICIENTS FOR OUTLETS TO CONTROL DISCHARGE TIME ARE 0.6.
13. ALL ROCK RIP-RAP SHALL BE MORTARED.
14. TRM (TURF REINFORCEMENTS MATS) SHALL BE INSTALLED IN ALL DIVERSION DITCHES AND DOWNSTREAM OF RIP-RAP INSTALLATIONS.



SIDE VIEW OF RISER



TOP VIEW OF RISER (SQUARE DESIGN)



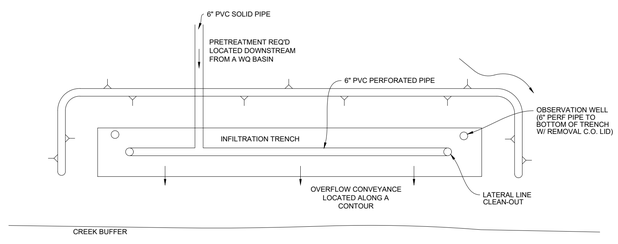
SEDIMENT BAG (DEWATERING) DETAIL
N.T.S.

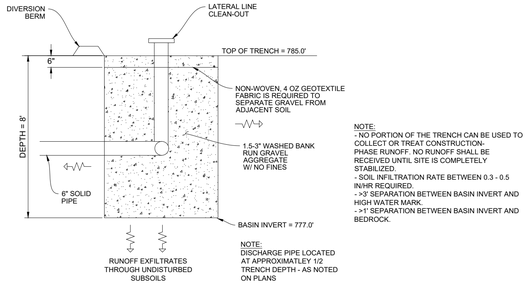
DESCRIPTION:
A GRAVITY BAG FILTER, ALSO REFERRED TO AS A DEWATERING BAG, IS A SQUARE OR RECTANGULAR BAG MADE OF NON-WOVEN GEOTEXTILE FABRIC THAT COLLECTS SAND, SILT, AND FINES.

APPROPRIATE APPLICATIONS:
EFFECTIVE FOR THE REMOVAL OF SEDIMENTS (GRAVEL, SAND, AND SILT). SOME METALS ARE REMOVED WITH THE SEDIMENT.

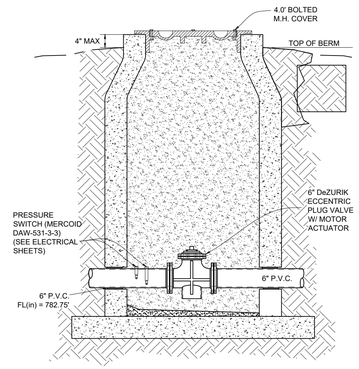
IMPLEMENTATION:
WATER IS PUMPED INTO ONE SIDE OF THE BAG AND SEEPS THROUGH THE BOTTOM AND SIDES OF THE BAG.
A SECONDARY BARRIER, SUCH AS A ROCK FILTER BED OR STRAW/HAY BALE BARRIER IS PLACED BENEATH AND BEYOND THE EDGES OF THE BAG TO CAPTURE SEDIMENTS THAT ESCAPE THE BAG.

MAINTENANCE:
INSPECTION OF THE FLOW CONDITIONS, BAG CONDITION, BAG CAPACITY, AND THE SECONDARY BARRIER IS REQUIRED.
REPLACE THE BAG WHEN IT NO LONGER FILTERS SEDIMENT OR PASSES WATER AT A REASONABLE RATE. THE BAG IS DISPOSED OF OFFSITE.





INFILTRATION TRENCH SCHEMATIC



CONTROL MANHOLE DETAIL
N.T.S.

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

811 Know what's **below.** **Call** before you dig.

BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE, WATER & WASTEWATER IMPROVEMENTS
WATER QUALITY POND C

NO.	DESCRIPTION	BY	DATE

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: A43-WQ Ponds.dwg

Lauren Crone — STATE OF TEXAS — LAUREN CRONE — 126018 — LICENSED PROFESSIONAL ENGINEER
10/1/2025

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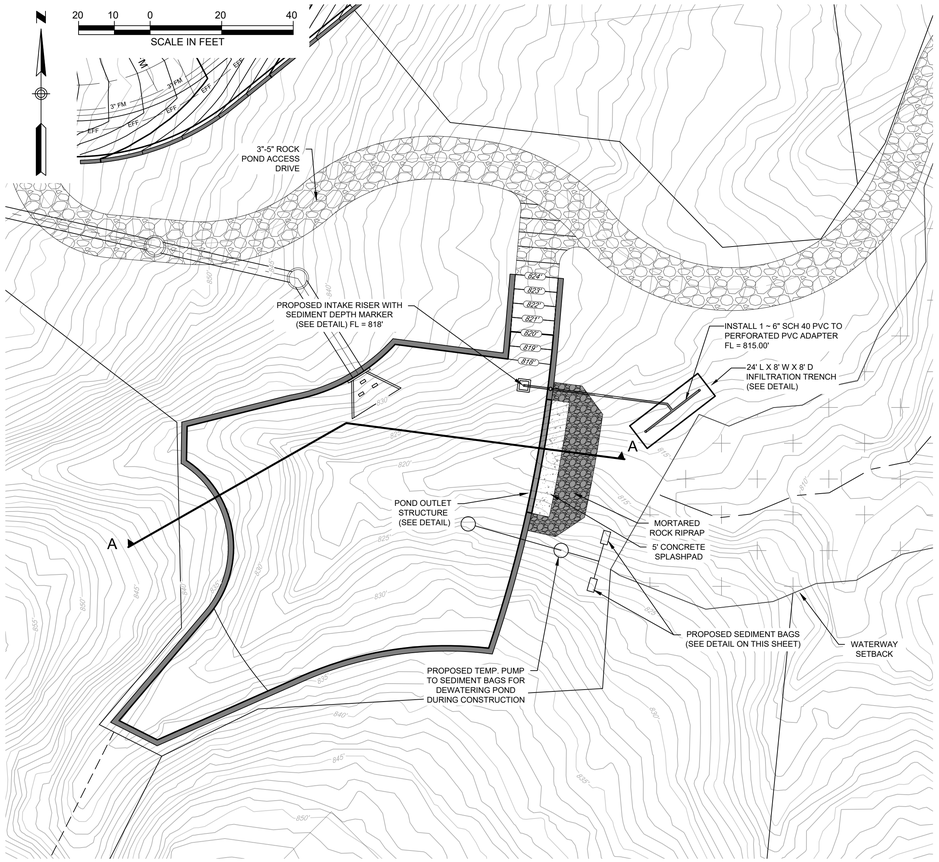
JOB NUMBER: A111-437

SHEET NO. **19** OF *103* SHEETS

I:\A111\A437- Block A Lot 4\SCAD\A43-WQ Ponds.dwg
User: rreamore
Last Modified: Sep. 03, 25 - 09:22
Plot Date/Time: Sep. 03, 25 - 11:45:21



POND D

Stage - Storage - Discharge

Stage Elevation (ft)	Contour Area (sf)	Incremental Volume (cf)	Cumulative Volume (cf)	Cumulative Volume (ac-ft)	Pipe Discharge (cfs)	Weir Discharge (cfs)	Total Discharge (cfs)
818.00	**6791**	0	0	0.00	0.0	0.0	**0.0**
819.00	**7500**	7146	7146	0.16	1.2	0.0	**1.2**
820.00	**7500**	7500	14646	0.34	1.8	0.0	**1.8**
821.00	**7500**	7500	22146	0.51	2.2	0.0	**2.2**
822.00	**7500**	7500	29646	0.68	2.6	0.0	**2.6**
822.50	**7500**	3750	33396	0.77	2.8	0.0	**2.8**
823.00	**7500**	3750	37146	0.85	3.0	31.8	**34.8**
824.00	**7500**	7500	44646	1.02	3.2	165.3	**168.6**

Infiltration Trench (Secondary BMP)

Soil Type	**Brackett (BiD)**	
Permeability	**0.31**	in/hr
Porosity (n)	**0.35**	
VR%	**0.3**	
WQV_{req}	**33190**	cf
IT Volume Req. ($V_{IT,req}$)	534	cf
Trench Vol. Req. ($V_{T,req}$)	1,526	cf
Trench Depth	**8**	ft
Trench Width	**8**	ft
Trench Length	**24**	ft
$V_{T,provided}$	1536	cf OK
$V_{IT,provided}$	537.6	cf OK
Infiltration Area (Ai)	704	sf
$V_{provided}$ / Ai < 1	0.76	OK

$$V_{IT,req} = 0.023\ WQV_{req}\ (1 - VR\%)$$

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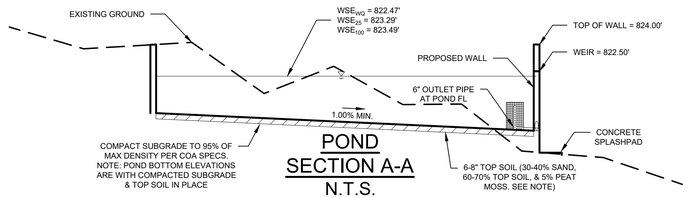

POND
SECTION A-A
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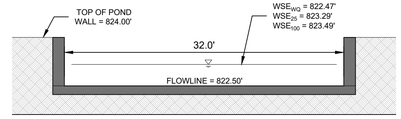
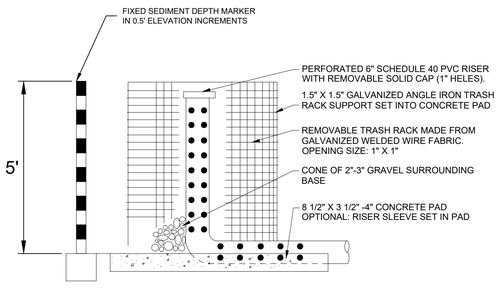
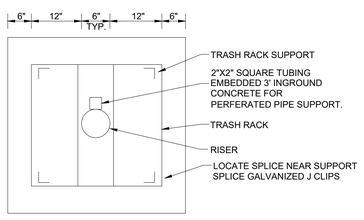


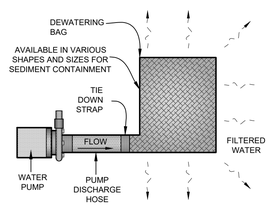
POND OUTLET STRUCTURE
N.T.S.



SIDE VIEW OF RISER



TOP VIEW OF RISER (SQUARE DESIGN)



SEDIMENT BAG (DEWATERING) DETAIL
N.T.S.

DESCRIPTION:
A GRAVITY BAG FILTER, ALSO REFERRED TO AS A DEWATERING BAG, IS A SQUARE OR RECTANGULAR BAG MADE OF NON-WOVEN GEOTEXTILE FABRIC THAT COLLECTS SAND, SILT, AND FINES.

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MAINTENANCE:
INSPECTION OF THE FLOW CONDITIONS, BAG CONDITION, BAG CAPACITY, AND THE SECONDARY BARRIER IS REQUIRED.
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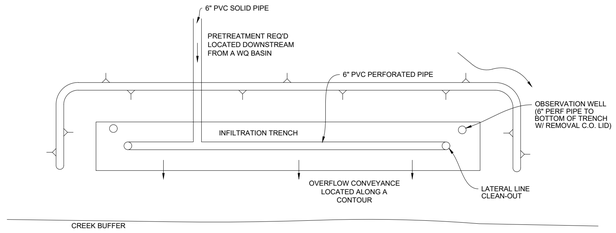

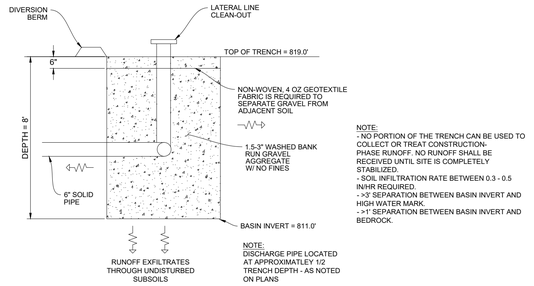

NOTE:
- NO PORTION OF THE TRENCH CAN BE USED TO COLLECT OR TREAT CONSTRUCTION-PHASE RUNOFF. NO RUNOFF SHALL BE RECEIVED UNTIL SITE IS COMPLETELY STABILIZED.
- SOIL INFILTRATION RATE BETWEEN 0.3 - 0.5 IN/HR REQUIRED.
- >3' SEPARATION BETWEEN BASIN INVERT AND HIGH WATER MARK.
- >1' SEPARATION BETWEEN BASIN INVERT AND BEDROCK.

INFILTRATION TRENCH SCHEMATIC

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

811 Know what's **below.** **Call** before you dig.

BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE, WATER & WASTEWATER IMPROVEMENTS
WATER QUALITY POND D

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: A43-WQ Ponds.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
126018
LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-437

SHEET NO. **20**

OF 103 SHEETS

I:\A111\A437- Block A Lot 4\5\CAD\A43-WQ Ponds.dwg
User: lreekmans
Last Modified: Sep. 03, 25 - 09:22
Xref Modified: Aug. 01, 25 - 1:06:32

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS

DRAINAGE AREA MAP

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-DNG.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 21 OF 106 SHEETS

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Last Modified: Aug. 05, 25 - 13:48
Plot Date/Time: Sep. 02, 25 - 16:28:24
I:\...\22\Barton Creek HLD PH 2\Cornet\Topo~2.dwg
\A43~Base.dwg
\A43D.dwg

Character of Pervious : Grass, Good Slope: >7% | 0.37 | 0.46 | 0.53

Use Grass, Good for Single Family Lots; For Undeveloped Land use appropriate choice | 2 yr | 25 yr | 100 yr

MAKE SURE YOU CHECK ZONES!!! ZONE 1 enter 1 or 2

Barton Creek Condos A-43
Rational Method Runoff

AREA NO.	AREA (AC)	Pervious AREA (AC)	Imp.Cov. AREA (AC)	tc (MIN)	C2 COMP	C25 COMP	C100 COMP	I2 (IN/HR)	I25 (IN/HR)	I100 (IN/HR)	Q2 (CFS)	Q25 (CFS)	Q100 (CFS)	REMARKS
A-1	0.30	0.21	0.09	6.3	0.48	0.58	0.66	5.91	10.98	14.41	0.9	1.9	2.8	
A-2	0.36	0.20	0.16	7.6	0.53	0.64	0.72	5.58	10.33	13.55	1.1	2.4	3.5	
A-3a	1.48	1.14	0.34	5.0	0.46	0.55	0.63	6.31	11.73	15.42	4.2	9.6	14.3	
A-3b	1.06	0.74	0.32	6.4	0.48	0.58	0.66	5.89	10.92	14.34	3.0	6.7	10.0	
A-4	1.00	0.88	0.12	9.6	0.41	0.51	0.58	5.13	9.49	12.45	2.1	4.8	7.2	
A-5	1.74	1.27	0.47	5.9	0.47	0.57	0.64	6.03	11.20	14.70	4.9	11.1	16.5	
B-1a	1.43	0.94	0.49	6.3	0.50	0.60	0.67	5.91	10.98	14.41	4.2	9.4	13.9	
B-1b	1.11	0.68	0.43	6.5	0.51	0.61	0.69	5.86	10.87	14.27	3.3	7.4	11.0	
C-1a	1.16	0.85	0.31	5.0	0.47	0.57	0.64	6.31	11.73	15.42	3.4	7.7	11.5	
C-1b	0.48	0.32	0.16	7.4	0.49	0.59	0.67	5.62	10.42	13.67	1.3	3.0	4.4	
C-1c	1.97	1.55	0.42	5.1	0.45	0.55	0.62	6.27	11.67	15.34	5.5	12.5	18.7	
C-1d	0.61	0.44	0.17	8.1	0.47	0.57	0.65	5.46	10.10	13.25	1.6	3.5	5.2	
C-2	1.28	0.83	0.45	7.0	0.50	0.60	0.68	5.73	10.62	13.93	3.7	8.2	12.1	
D-1	1.09	0.57	0.52	6.4	0.55	0.65	0.73	5.89	10.92	14.34	3.5	7.7	11.4	
D-2	0.60	0.20	0.40	6.9	0.62	0.73	0.81	5.75	10.67	14.00	2.1	4.7	6.8	
D-4	1.15	0.53	0.62	7.3	0.57	0.68	0.76	5.65	10.47	13.74	3.7	8.1	11.9	
D-5a	0.65	0.32	0.33	5.0	0.56	0.66	0.74	6.31	11.73	15.42	2.3	5.1	7.5	
D-5b	1.65	0.89	0.76	6.2	0.54	0.64	0.72	5.94	11.03	14.48	5.3	11.7	17.3	
D-6a	0.83	0.74	0.09	5.3	0.41	0.50	0.58	6.21	11.55	15.17	2.1	4.8	7.2	
D-6b	0.19	0.17	0.02	6.9	0.41	0.50	0.57	5.75	10.67	14.00	0.4	1.0	1.5	
D-7	0.69	0.59	0.10	5.0	0.42	0.52	0.59	6.31	11.73	15.42	1.8	4.2	6.3	
X-1	0.14	0.07	0.07	5.0	0.56	0.66	0.74	6.31	11.73	15.42	0.5	1.1	1.6	
X-2	0.24	0.14	0.10	5.0	0.52	0.63	0.71	6.31	11.73	15.42	0.8	1.8	2.6	
X-3	0.28	0.12	0.16	5.0	0.58	0.69	0.77	6.31	11.73	15.42	1.0	2.3	3.3	
X-4	0.19	0.09	0.10	5.0	0.56	0.67	0.75	6.31	11.73	15.42	0.7	1.5	2.2	

TABLETOP TYPE (S-4) INLET CALCULATIONS

	AREA	Q25 (cfs)	Q100 (cfs)	Inlet Depth a (ft)	Max. Headwate r (ft)	# of Inlets	Open Area (ft^2)	Q/A (cfs/ft^2)	Q/A / 0.9 (cfs/ft^2) (Safety Factor)	Actual HW (ft)	Inlet Length (ft)	Q/L	a+Yo
		Submerged								Unsubmerged			
Single	A-2	2.4	3.5	0.42	1.5	1	6.67	0.53	0.58	0.01	16	0.22	0.17
Single	A-3	16.3	24.3	0.42	1.5	1	6.67	3.65	4.05	0.71	16	1.52	0.64
Single	A-4	4.8	7.2	0.42	1.5	1	6.67	1.08	1.20	0.06	16	0.45	0.28
Single	A-5	11.1	16.5	0.42	1.5	1	6.67	2.48	2.75	0.33	16	1.03	0.49
Single	B-1	16.8	24.9	0.42	1.5	1	6.67	3.74	4.15	0.74	16	1.56	0.65
Double	C-1	26.7	39.8	0.42	1.5	2	10.00	3.98	4.42	0.84	24	1.66	0.67
Single	C-2	8.2	12.1	0.42	1.5	1	6.67	1.82	2.02	0.18	16	0.76	0.40
Single	D-1	9.5	14.0	0.42	1.5	1	6.67	2.10	2.33	0.23	16	0.88	0.44
Single	D-2	18.3	26.7	0.42	1.5	2	10.00	2.67	2.97	0.38	24	1.11	0.52
Single	D-4	8.1	11.9	0.42	1.5	1	6.67	1.79	1.98	0.17	16	0.74	0.39
Double	D-5	24.9	36.7	0.42	1.5	2	10.00	3.67	4.08	0.72	24	1.53	0.64
Single	D-6	5.8	8.7	0.42	1.5	1	6.67	1.31	1.45	0.09	16	0.54	0.32
Single	D-7	4.2	6.3	0.42	1.5	1	6.67	0.95	1.05	0.05	16	0.39	0.26
Single	X-1	1.1	1.6	0.42	1.5	1	6.67	0.24	0.27	0.00	16	0.10	0.10
Ex. Single	X-4	1.5	2.2	0.42	1.5	1	6.67	0.33	0.37	0.01	16	0.14	0.13

RATIONAL FORMULA DRAINAGE CALCULATION TABLES

TIME OF CONCENTRATION CALCULATIONS

Manning's "n" Values for Sheet and Shallow Concentrated Flow
0.015 Concrete(rough or smooth finish)
0.016 Asphalt
0.150 Short Grass Prairie
0.240 Dense Grasses
0.130 Range
0.400 Light Underbrush

SOURCE: COA DCM, TABLE 2-4

ENTER APPLICABLE MANNINGS n-VALUE 0.15

AREA NO.	SHEET FLOW DIST (FT)	SHEET FLOW SLOPE (FT/FT)	SHEET FLOW Tc (MIN)	SHALLOW CONC FLOW DIST (FT)	SHALLOW CONC FLOW SLOPE (FT/FT)	SHALLOW CONC FLOW Tc (MIN)	STREET FLOW DIST (FT)	STREET FLOW SLOPE (FT/FT)	STREET FLOW Tc (MIN)	CHAN/PIPE FLOW DIST (FT)	CHAN/PIPE FLOW SLOPE (FT/FT)	CHAN/PIPE VELOCITY (FPS)	CHAN/PIPE FLOW Tc (MIN)	TOTAL Tc (MIN)
A-1	100	0.060	6.1	38	0.053	0.2	0	0.010	0.0	0	0.000	6.0	0.0	6.3
A-2	100	0.040	7.2	96	0.052	0.4	0	0.010	0.0	0	0.050	6.0	0.0	7.6
A-3a	100	0.200	3.8	117	0.256	0.2	0	0.010	0.0	0	0.059	6.0	0.0	5.0
A-3b	100	0.070	5.7	253	0.174	0.6	0	0.010	0.0	0	0.100	6.0	0.0	6.4
A-4	100	0.030	8.0	497	0.125	1.5	0	0.010	0.0	22	0.020	6.0	0.1	9.6
A-5	100	0.140	4.3	374	0.102	1.2	0	0.010	0.0	111	0.169	6.0	0.3	5.9
B-1a	100	0.080	5.4	100	0.140	0.3	0	0.010	0.0	232	0.065	6.0	0.6	6.3
B-1b	100	0.080	5.4	200	0.120	0.6	0	0.010	0.0	177	0.009	6.0	0.5	6.5
C-1a	100	0.200	3.8	91	0.275	0.2	0	0.010	0.0	246	0.098	6.0	0.7	5.0
C-1b	100	0.060	6.1	305	0.125	0.9	0	0.010	0.0	140	0.091	6.0	0.4	7.4
C-1c	100	0.160	4.1	190	0.242	0.4	0	0.010	0.0	198	0.091	6.0	0.6	5.1
C-1d	100	0.040	7.2	342	0.170	0.9	0	0.010	0.0	41	0.050	6.0	0.1	8.1
C-2	100	0.070	5.7	300	0.100	1.0	0	0.010	0.0	112	0.050	6.0	0.3	7.0
D-1	100	0.070	5.7	161	0.068	0.6	0	0.010	0.0	0	0.000	6.0	0.0	6.4
D-2	100	0.050	6.6	100	0.100	0.3	0	0.010	0.0	0	0.000	6.0	0.0	6.9
D-4	100	0.060	6.1	187	0.120	0.6	0	0.010	0.0	242	0.020	6.0	0.7	7.3
D-5a	100	0.200	3.8	58	0.130	0.2	0	0.010	0.0	94	0.020	6.0	0.3	5.0
D-5b	100	0.075	5.6	102	0.230	0.2	0	0.010	0.0	140	0.020	6.0	0.4	6.2
D-6a	86	0.070	5.1	47	0.255	0.1	0	0.010	0.0	45	0.075	6.0	0.1	5.3
D-6b	75	0.027	6.7	31	0.194	0.1	0	0.010	0.0	40	0.075	6.0	0.1	6.9
D-7	100	0.900	2.1	31	34.000	0.2	0	0.010	0.0	109	0.064	6.0	0.3	5.0

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..\A43D.dwg

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS

DRAINAGE CALCULATIONS

REVISIONS

NO.	DESCRIPTION	BY	DATE

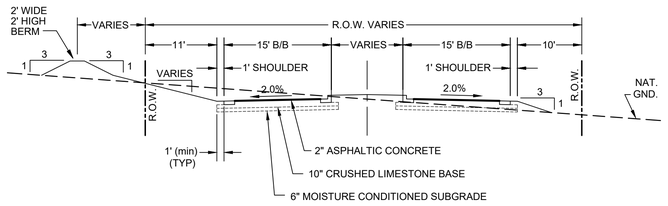
DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-DNG.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 22 OF 106 SHEETS



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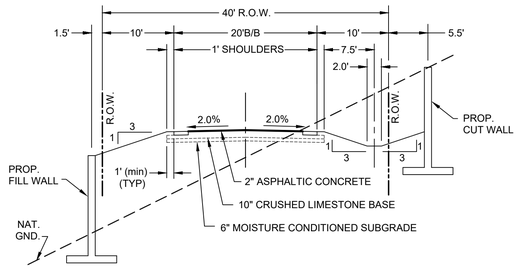

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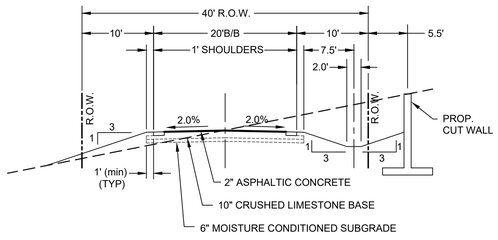
(FILL WALL LT.)
(N.T.S.)



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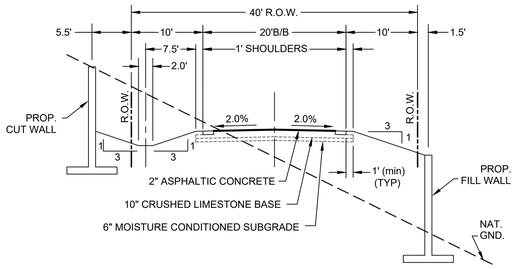

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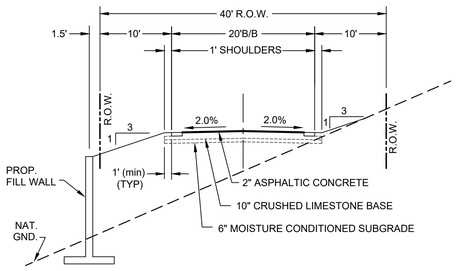
(FILL WALL RT.)
(N.T.S.)



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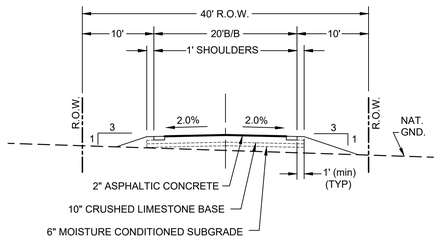
(STA. 1+62 TO STA. 2+10)
(STA. 3+15 TO STA. 5+75)
(N.T.S.)



TYPICAL SECTION
(FILL SECTION LT. & RT.)
(N.T.S.)

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS

TYPICAL DRIVEWAY SECTIONS (SHEET 1)

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-STREETS.dwg

LAUREN CRONE
STATE OF TEXAS
128018
LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 41 OF 106 SHEETS

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User: Pope
Last Modified: Aug. 05, 25 -- 13:27
Plot Date/Time: Sep. 02, 25 -- 15:51:59

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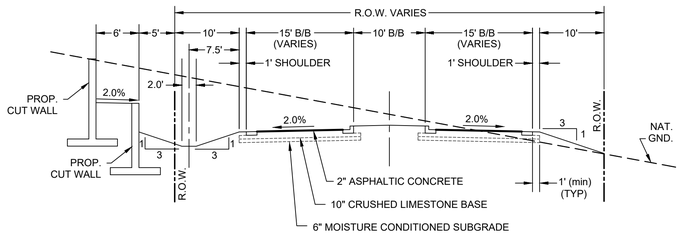

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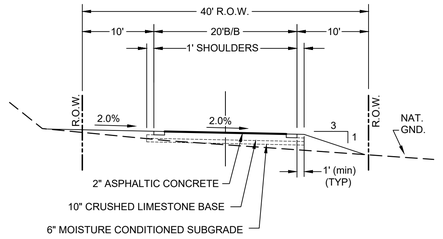
(N.T.S.)



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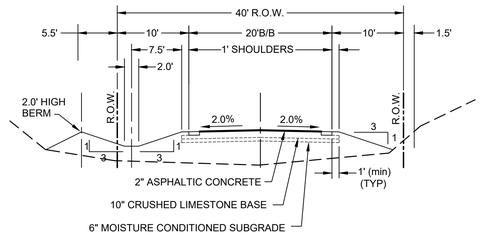

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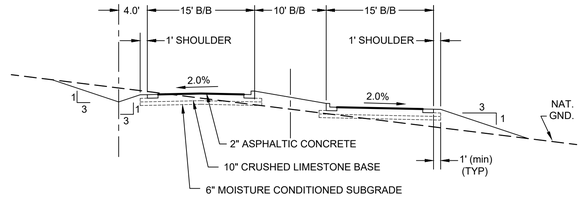

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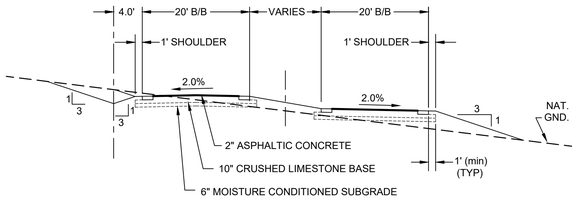

TYPICAL SECTION (DRIVE 'I')
(DTICH LT.)
(N.T.S.)

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS

TYPICAL DRIVEWAY SECTIONS (SHEET 2)

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-STREETS.dwg

LAUREN CRONE
STATE OF TEXAS
128018
LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 42 OF 106 SHEETS

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Last Modified: Aug. 05, 25 – 13:27
Plot Date/Time: Sep. 02, 25 – 15:51:30

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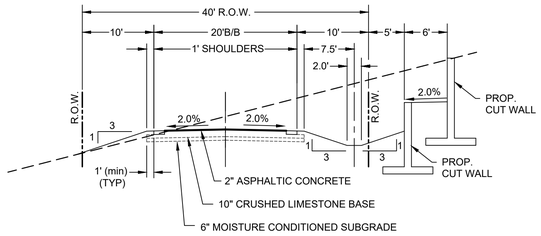

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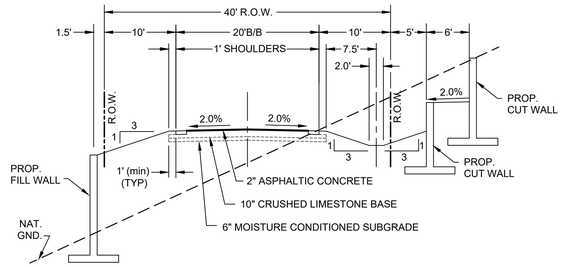
(TERRACED CUT WALLS RT. / DITCH RT.)
(N.T.S.)



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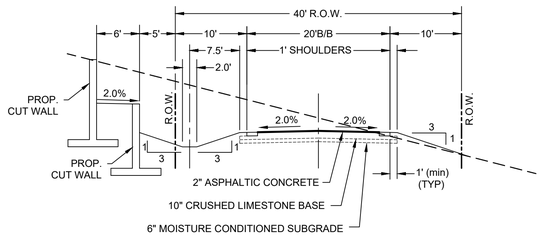
(FILL WALL LT.)
(N.T.S.)



TYPICAL SECTION
(TERRACED CUT WALLS LT. / DITCH LT.)
(N.T.S.)

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS

TYPICAL DRIVEWAY SECTIONS (SHEET 3)

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-STREETS.dwg

LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 43
OF 106 SHEETS

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Last Modified: Aug. 05, 25 - 13:27
Plot Date/Time: Sep. 02, 25 - 15:48:47

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..\A43-Base.dwg
..\A43D.dwg

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
DRIVE 'B' - DITCHES
PLAN & PROFILE (SHEET 1)

BARTON CREEK HOLDIN HILLS (PHASE 1) LOT 2

BARTON CREEK HOLDIN HILLS (PHASE 1) LOT 1

SCALE: 1"=40' HORIZ. 1"=4' VERT.

EROSION CONTROL MATTING TO BE INSTALLED AND AREAS TO BE REVEGETATED OVER ALL AREAS EXCEEDING A FINAL GRADE OF 15%

C.L. STA:3+45.10
OFF:21.00'L
BEGIN FILL WALL LT.
(W/ HAND RAIL)

C.L. STA:5+07.81
OFF:21.00'L
END FILL WALL LT.
(W/ HAND RAIL)

C.L. STA:5+27.81
OFF:21.00'L
BEGIN FILL WALL LT.
(W/ HAND RAIL)

C.L. STA:6+50.00
OFF:21.00'L
END FILL WALL LT.
(W/ HAND RAIL)

C.L. STA:7+84.43
OFF:25.00'R
END END CUT WALL RT.
BEGIN FILL WALL RT.
(W/ HAND RAIL)

MATCH LINE STA. 10+50.00

MORTARED ROCK CHANNEL THROUGHOUT RETURN

BEGIN MORTARED ROCK CHANNEL

C.L. STA:3+63.72
OFF:18.00'R
BEGIN 2FT. DITCH RT.

C.L. STA:3+62.41
OFF:25.00'R
BEGIN CUT WALL RT.
(W/ HAND RAIL)

C.L. STA:5+75.00
OFF:31.00'R
BEGIN CUT WALL RT.
(W/ HAND RAIL)

C.L. STA:7+50.07
OFF:20.89'R
INSTALL: SINGLE 4-SIDED AREA INLET 'D-4'

C.L. STA:7+50.00
OFF:31.00'R
END CUT WALL RT.
(W/ HAND RAIL)

EROSION CONTROL MATTING TO BE INSTALLED AND AREAS TO BE REVEGETATED OVER ALL AREAS EXCEEDING A FINAL GRADE OF 15%

UNIT 1 · UNIT 2 · UNIT 3 · UNIT 4 · UNIT 5 · UNIT 36 · UNIT 37

SUBDIVISION BOUNDARY

DRIVE 'A' (PVT.) N10°11'59"E

DRIVE 'B' (PVT.) N64°44'19"E · N79°22'46"E · S60°43'30"E · N29°16'30"E · N17°56'24"E

DRIVE 'D' (PVT.)

40' R.O.W. 20' B/B 10' 10'

60' R.O.W. 16' 20' B/B 10' 10'

PROP 25' D.E.

PROP S.S.E.

SEE SHEET 98 FOR TYPICAL DITCH SECTION.

LEGEND:
- EXIST. 1 FOOT CONTOUR
- EXIST. 5 FOOT CONTOUR
- PROP. 1 FOOT CONTOUR
- PROP. 5 FOOT CONTOUR
- PROP. STORM SEWER LINE

DRIVE 'B' (PRIVATE) - DITCHES

SCALE: 1"=40' HORIZ. 1"=4' VERT.

LEGEND:
- EXIST. GROUND LT. R.O.W.
- EXIST. GROUND RT. R.O.W.
- EXIST. GROUND C.L.
- P.C.L. (DRIVEWAY C.L.) (UNLESS OTHERWISE NOTED)

100.00' V.C. VPI STA. 1+80.00 VPI EL=939.75 g(in)=(+)1.44% g(out)=(-)8.37% K=10
45.00 L.F. @ (-) 8.37%
50.00' V.C. VPI STA. 3+00.00 VPI EL=929.70 g(in)=(-)8.37% g(out)=(-)10.17% K=28
85.00 L.F. @ (-) 10.17%
100.00' V.C. VPI STA. 4+60.00 VPI EL=913.43 g(in)=(-)10.17% g(out)=(-)0.97% K=11
162.00 L.F. @ (-) 0.97%
110.00' V.C. VPI STA. 7+27.00 VPI EL=910.85 g(in)=(-)0.97% g(out)=(-)11.93% K=10
133.00 L.F. @ (-) 11.93%
70.00' V.C. VPI STA. 9+50.00 VPI EL=884.25 g(in)=(-)11.93% g(out)=(-)5.59% K=11
65.00 L.F. @ (-) 5.59%

VPC STA. 1+30.00 - EL=939.03
H.P. STA. 1+44.65 - EL=939.14
BEGIN CONSTRUCTION STA. 1+79.87 - PGL=937.46
VPI STA. 1+80.00 - PGL=938.52
VPT STA. 2+30.00 - PGL=935.56
VPC STA. 2+75.00 - PGL=931.79
VPI STA. 3+00.00 - PGL=929.69
VPT STA. 3+25.00 - PGL=927.16
PCL=924.62
PCL=919.33
VPC STA. 4+10.00 - PGL=918.51
VPI STA. 4+60.00 - PGL=914.58
VPT STA. 5+10.00 - PGL=912.65
PCL=913.09
PCL=912.56
PCL=912.08
PCL=911.59
VPC STA. 7+72.00 - PGL=911.58
PCL=910.72
PCL=907.60
VPT STA. 7+92.00 - PGL=904.29
PCL=902.14
PCL=896.18
PCL=890.21
VPI STA. 9+50.00 - PGL=884.80
PCL=884.80
PCL=881.46
PCL=876.66

PCR STA. 1+79.87 - RT. BC=908.33
PTR STA. 2+27.35 - RT. BC=905.47
PCR STA. 2+37.27 - RT. BC=936.61
P.T.R.STA. 2+62.91 - RT. BC=932.61
STA. 2+17.86 - DRIVE 'B' =STA. 2+62.32 - DRIVE 'A' (SEE SHT.)
STA. 3+45.10 BEGIN FILL WALL LT.
STA. 3+62.41 BEGIN CUT WALL RT.
STA. 3+63.72 - BEGIN 2FT. DITCH RT.
(-)10.17% (2FT. WIDE EARTHEN CHANNEL RT..) (3:1 & 3:1 S/S) Q2/100=2.6/7.5 cfs d2/100=0.26/0.46 ft. V2/100=3.58/4.67 fps
STA. 5+07.81 END FILL WALL LT.
STA. 5+27.81 BEGIN FILL WALL LT.
(-)0.97% (2FT. WIDE EARTHEN CHANNEL RT..) (3:1 & 3:1 S/S) Q2/100=4.0/12.4 cfs d2/100=0.60/1.03 ft. V2/100=1.75/2.36 fps
STA. 6+50.00 END FILL WALL LT.
VPI STA. 7+27.00 - PGL=909.34
(-)11.70% (2FT. WIDE EARTHEN CHANNEL RT..) (3:1 & 3:1 S/S) Q2/100=3.7/11.9 cfs d2/100=0.30/0.56 ft. V2/100=4.18/5.82 fps
STA. 7+50.07 - GRATE=905.38 INSTALL SINGLE TXDOT AREA INLET 'D-4'
STA. 7+84.43 - END CUT WALL RT. BEGIN FILL WALL RT.
(-)11.93% (2FT. WIDE EARTHEN CHANNEL RT..) (3:1 & 3:1 S/S) Q2/100=2.2/6.2 cfs d2/100=0.23/0.40 ft. V2/100=3.60/4.89 fps
PCR STA. 8+17.53 - RT. BC=899.88
PTR STA. 8+37.65 - RT. BC=894.24
PCR STA. 8+57.03 - RT. BC=894.07
PTR STA. 8+82.03 - RT. BC=892.16
STA. 8+47.03 - DRIVE 'B' =STA. 1+80.00 - DRIVE 'D' (SEE SHT.)
MATCH LINE STA. 10+50.00 (SEE SHT. 46)

1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00

DRIVE 'B' (PRIVATE) - DITCHES

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-DRIVEs.dwg

Lauren Crone — STATE OF TEXAS — LAUREN CRONE 128018 — LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 44 OF 106 SHEETS

C:__Jobs\LJA\LJA BC Condos A43\Const\A43-DITCHES.dwg
User: Propa
Last Modified: Aug. 05, 25 – 12:45
Plot Date/Time: Sep. 02, 25 – 15:48:35
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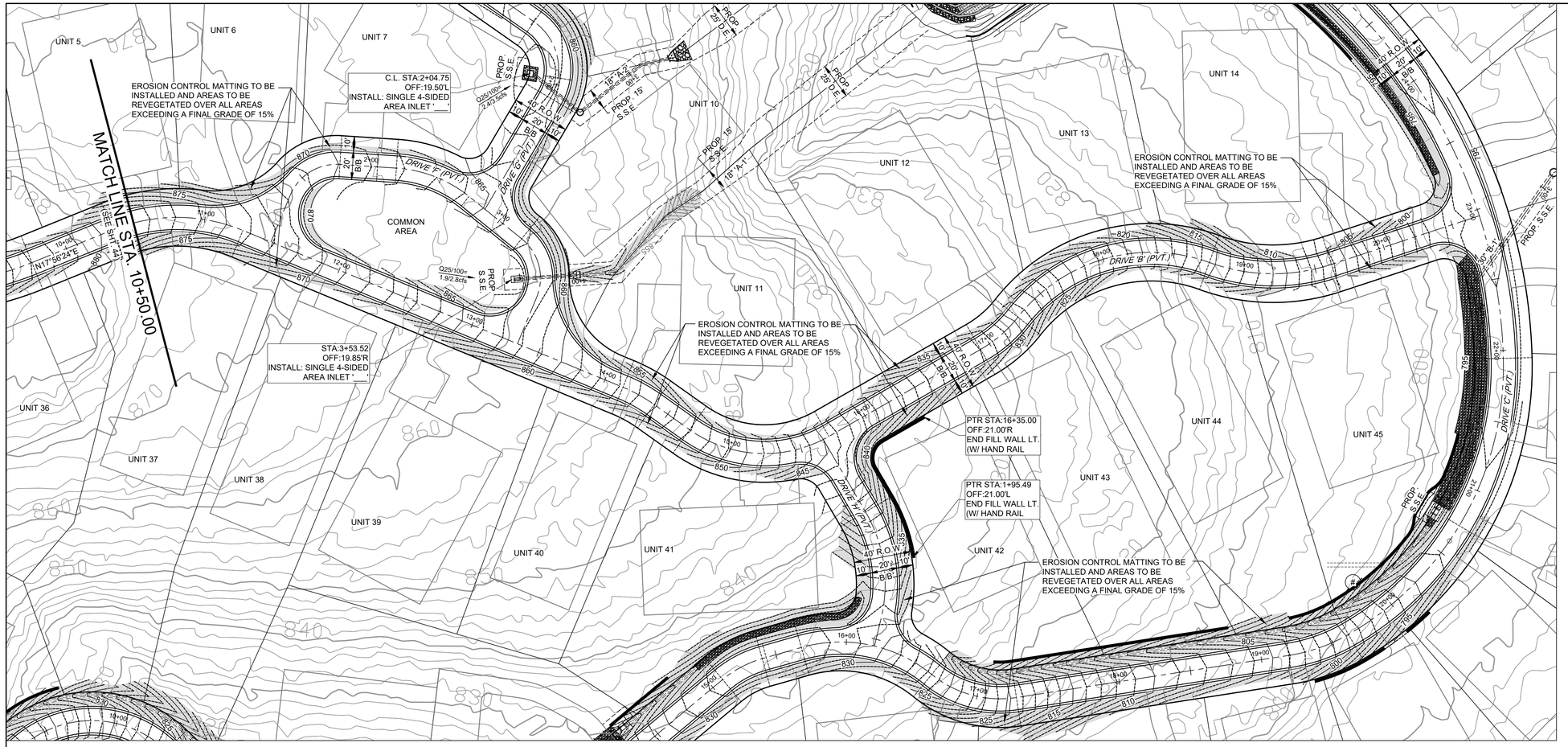
..\2A43b.dwg



DRIVES 'B' & 'H' (PRIVATE)
(SIDE SLOPES)

LEGEND:

- EXIST. 1 FOOT CONTOUR
- EXIST. 5 FOOT CONTOUR
- PROP. 1 FOOT CONTOUR
- PROP. 5 FOOT CONTOUR
- PROP. STORM SEWER LINE

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
DRIVE 'B' - (SHEET 2) SIDE SLOPES
DRIVE 'H' - SIDE SLOPES

REVISIONS		
NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-DRIVEs.dwg

LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 45
OF 106 SHEETS

C:__Jobs\LJA\A\A\BC Condos A43\Const\A43-DITCHES.dwg
User: Pope
Last Modified: Aug. 05, 25 – 17:45
Plot Date/Time: Sep. 02, 25 – 15:47:32

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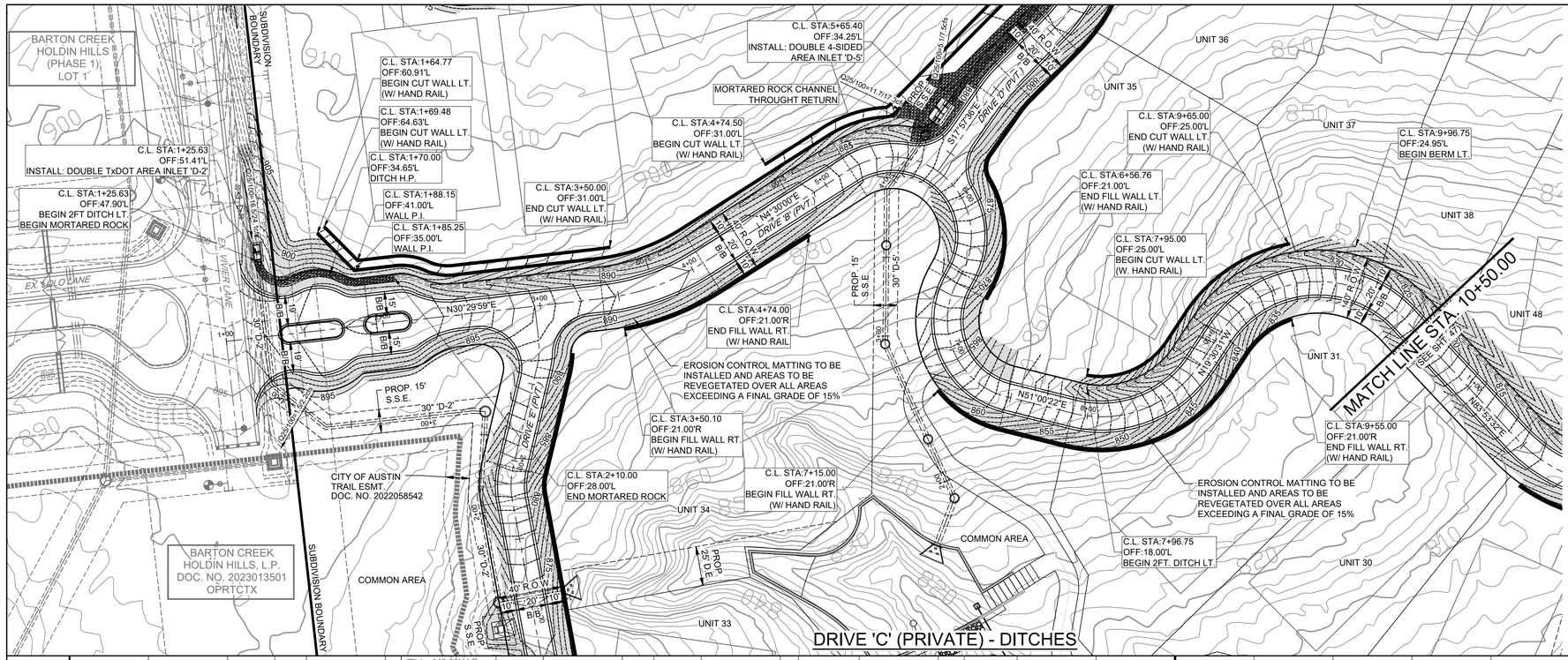
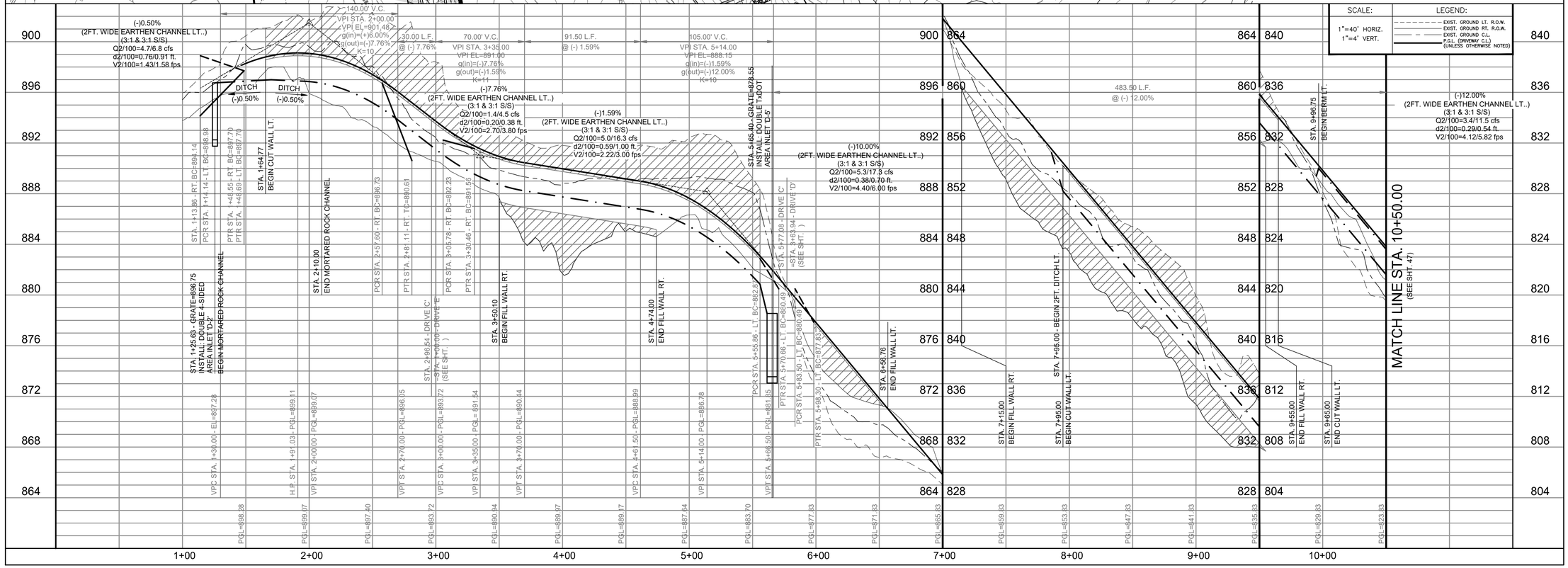
: \LM30.dwg



DRIVE 'C' (PRIVATE) - DITCHES



DRIVE 'C' (PRIVATE) - DITCHES

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
DRIVE 'C' - DITCHES
PLAN & PROFILE (SHEET 1)

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-DRIVEs.dwg

Lauren Crone — State of Texas — Lauren Crone — 128018 — Licensed Professional Engineer — 10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 46 OF 106 SHEETS

C:_Jobs\LJA\LJA\BC Condos A43\Const\A43--DITCHES.dwg
User: Pope
Last Modified: Aug. 05, 25 -- 12:45
Plot Date/Time: Sep. 02, 25 -- 15:47:02

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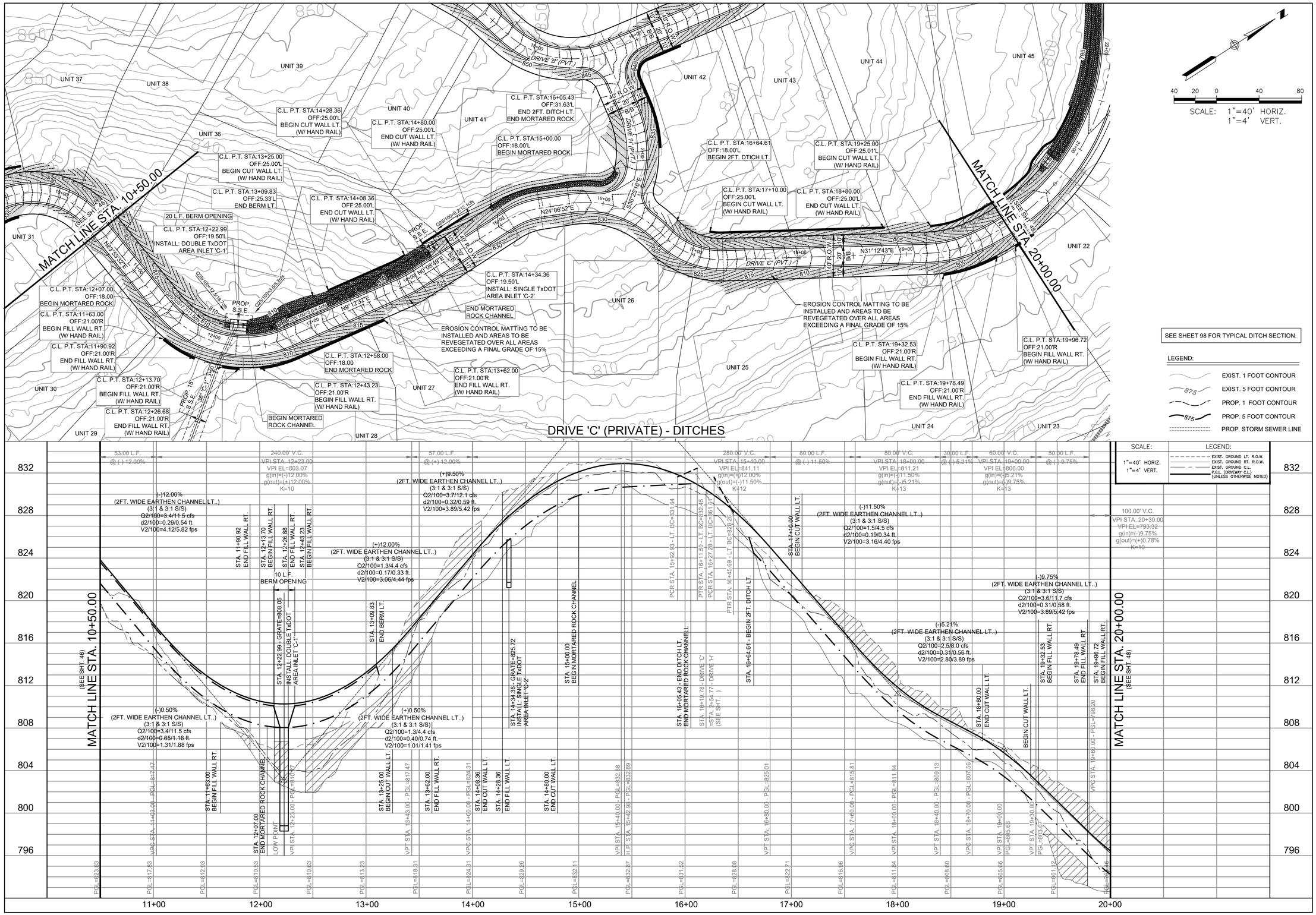
..\A43--Base.dwg
..\QA43.dwg



DRIVE 'C' (PRIVATE) - DITCHES

SCALE: 1"=40' HORIZ. 1"=4' VERT.

LEGEND:
- EXIST. GROUND LT. R.O.W.
- EXIST. GROUND RT. R.O.W.
- EXIST. GROUND C.L.
- P.G.L. (DRIVEWAY C.L.) (UNLESS OTHERWISE NOTED)

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
DRIVE 'C' - DITCHES
PLAN & PROFILE (SHEET 2)

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-DRIVEs.dwg

Lauren Crone — State of Texas — 128018 — Licensed Professional Engineer — 10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 47 OF 106 SHEETS

C:__Jobs\LJA\LJA Engineering\BC Condos A43\Const\A43-DITCHES.dwg
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Last Modified: Aug. 05, 25 – 12:45
Plot Date/Time: Sep. 02, 25 – 15:46:23

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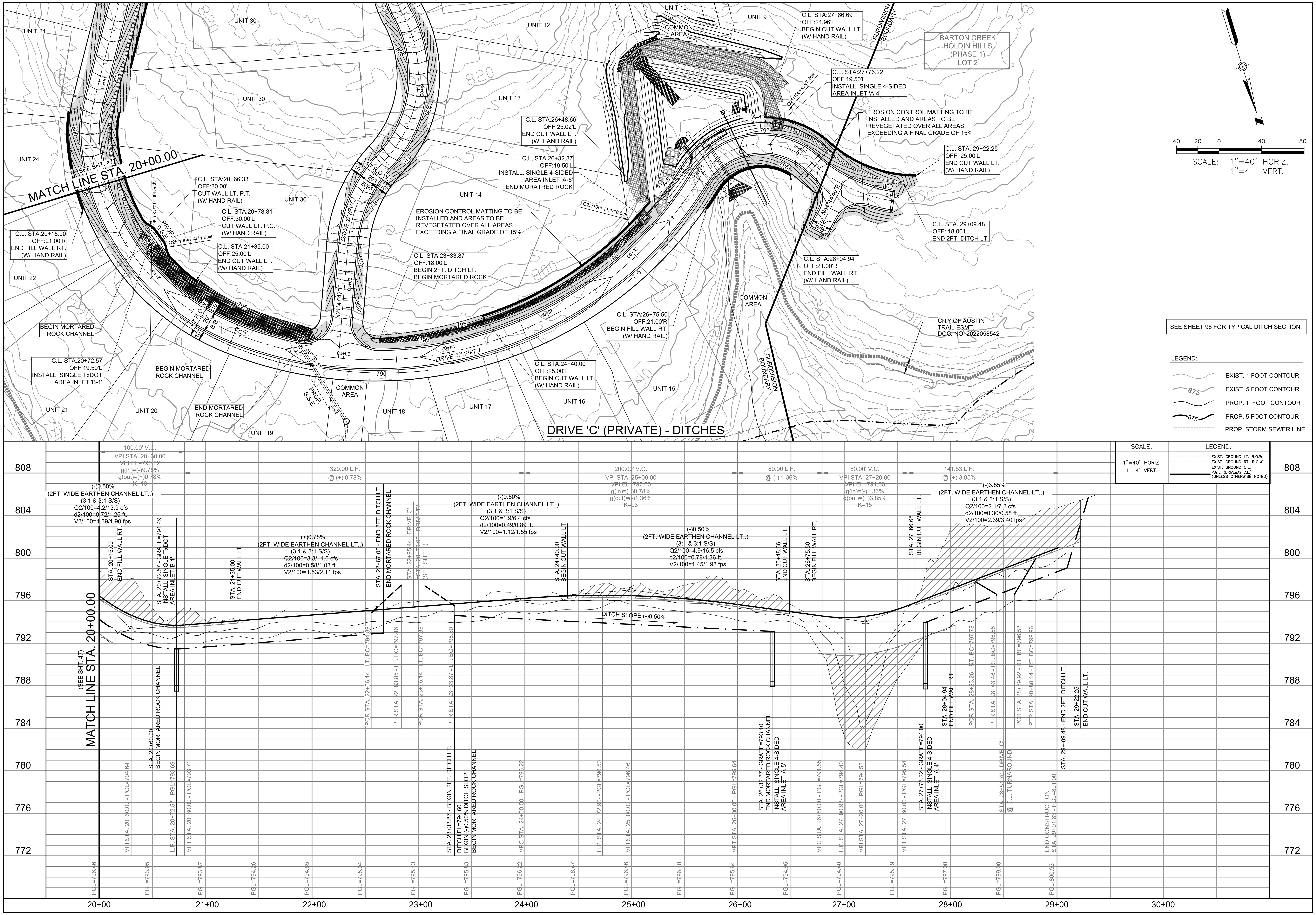

DRIVE 'C' (PRIVATE) - DITCHES

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
DRIVE 'C' - DITCHES
PLAN & PROFILE (SHEET 3)

REVISIONS			
NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-DRIVEs.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 48 OF 106 SHEETS

C:_jobs\LJA\24\BC Condos A43\Const\A43-DITCHES.dwg
User: Pops
Last Modified: Aug. 05, 25 - 12:45
Plot Date/Time: Sep. 02, 25 - 15:45:43
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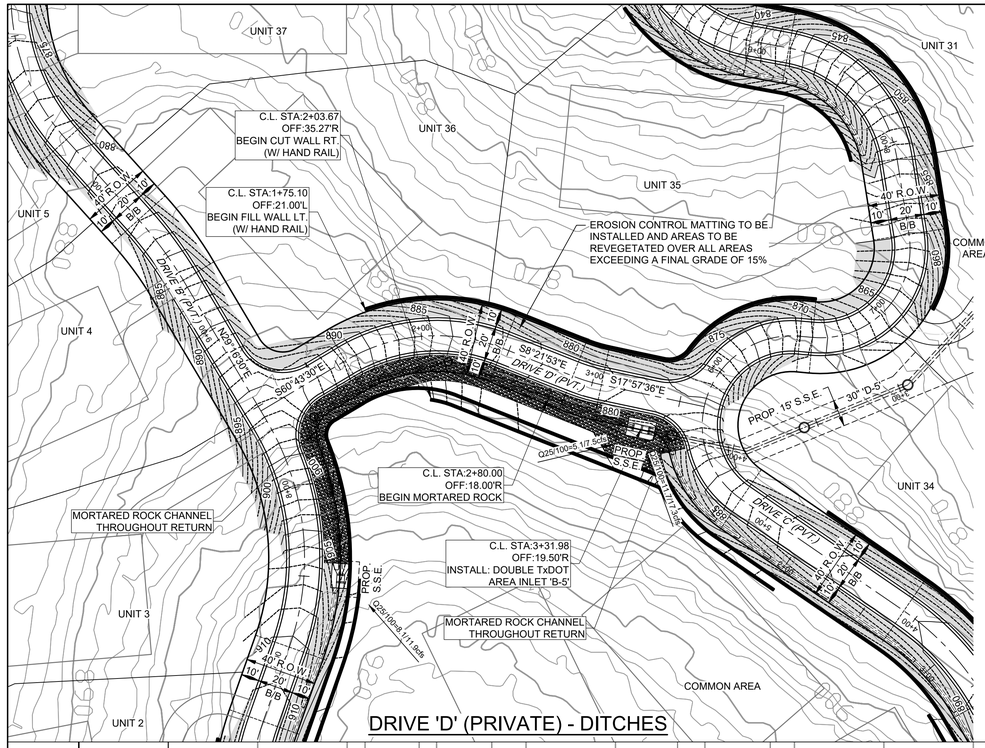
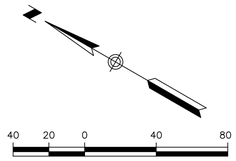
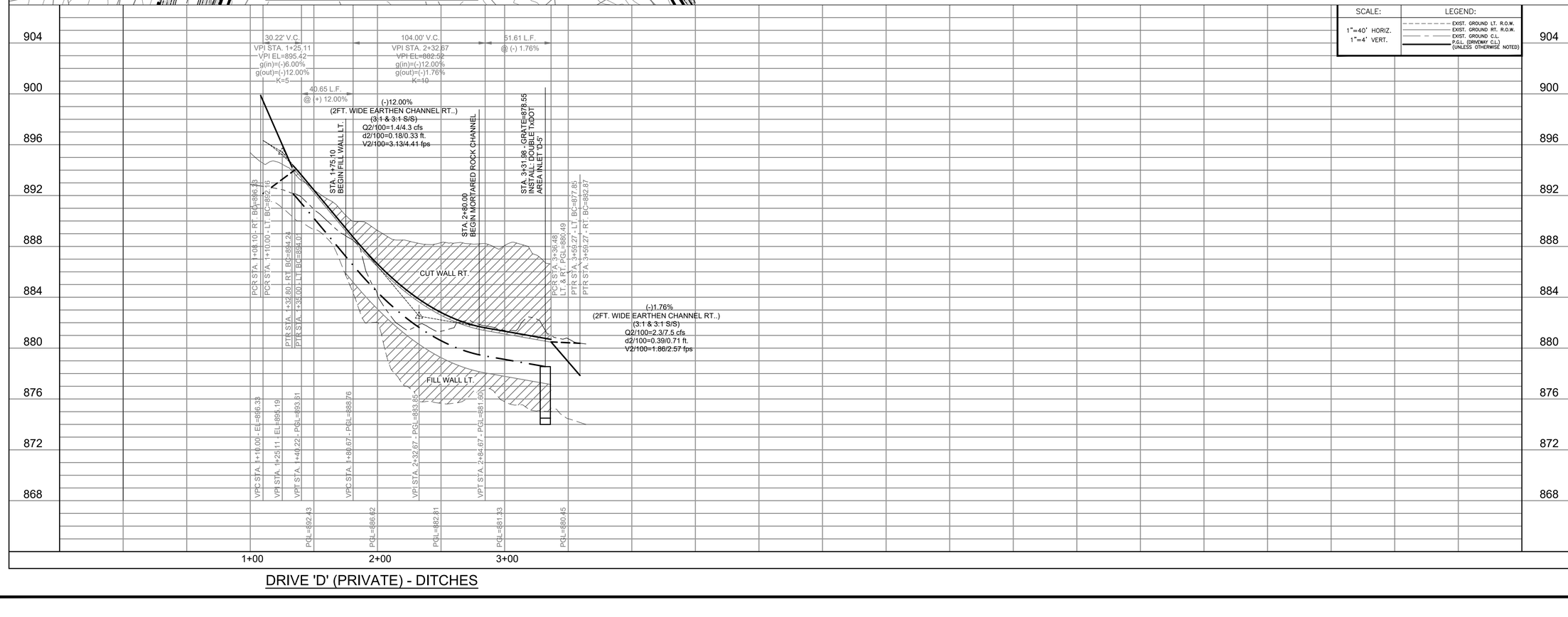




SEE SHEET 98 FOR TYPICAL DITCH SECTION.

LEGEND:

- EXIST. 1 FOOT CONTOUR
- EXIST. 5 FOOT CONTOUR
- PROP. 1 FOOT CONTOUR
- PROP. 5 FOOT CONTOUR
- PROP. STORM SEWER LINE

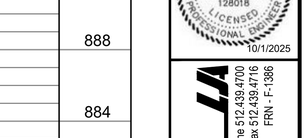


DRIVE 'D' (PRIVATE) - DITCHES

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
DRIVE 'D' - DITCHES
PLAN & PROFILE

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-DRIVEs.dwg



10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 49 OF 106 SHEETS

C:_Jobs\LJA\12A\Bf. Condos A43\Const\A43--DITCHES.dwg
User: Pope
Last Modified: Aug. 05, 25 - 12:45
Plot Date/Time: Sep. 02, 25 - 13:45:02
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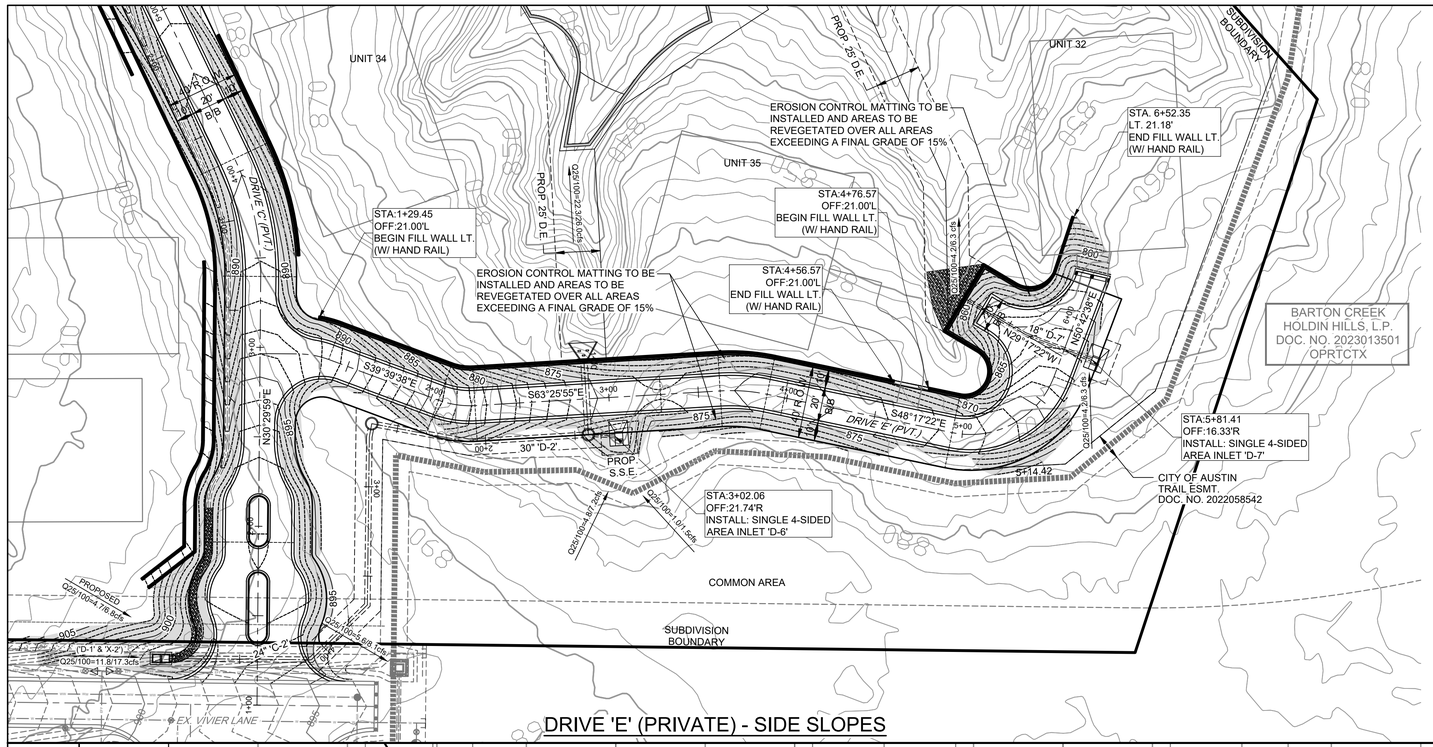
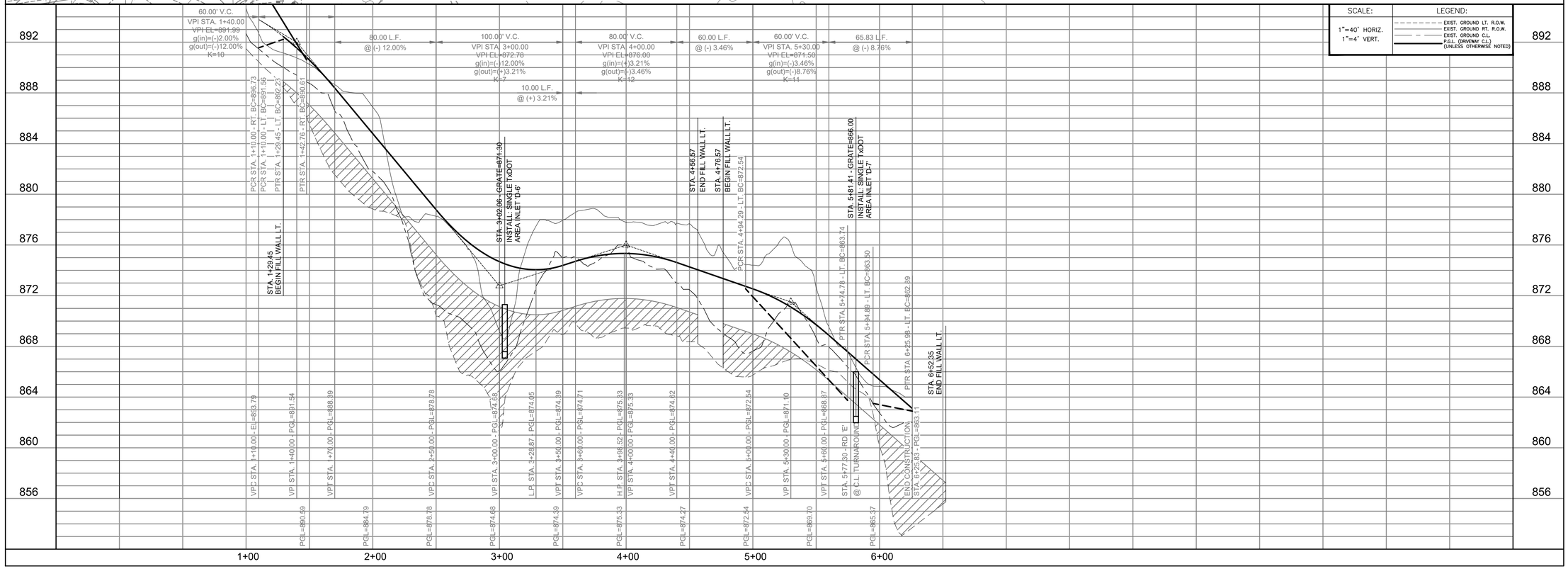
\\A43--Base.dwg
\12A43.dwg



DRIVE 'E' (PRIVATE) - SIDE SLOPES



DRIVE 'E' (PRIVATE) - SIDE SLOPES

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
DRIVE 'E' - SIDE SLOPES
PLAN & PROFILE

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-DRIVEs.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 50 OF 106 SHEETS

C:_Jobs\LJA\LJA BC Condos A43\Const\A43-DITCHES.dwg
User: Pope
Last Modified: Aug. 05, 25 – 12:45
Plot Date/Time: Sep. 02, 25 – 15:44:25

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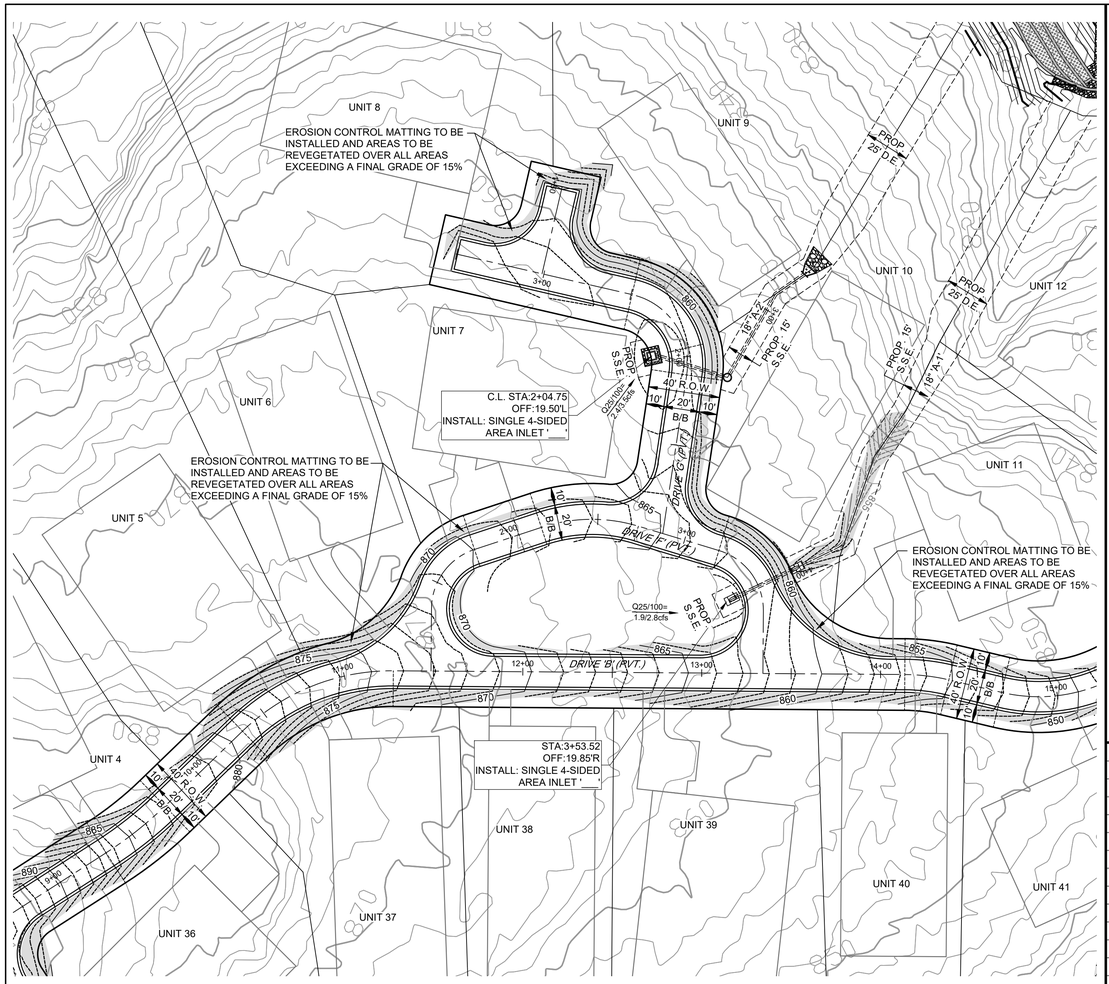
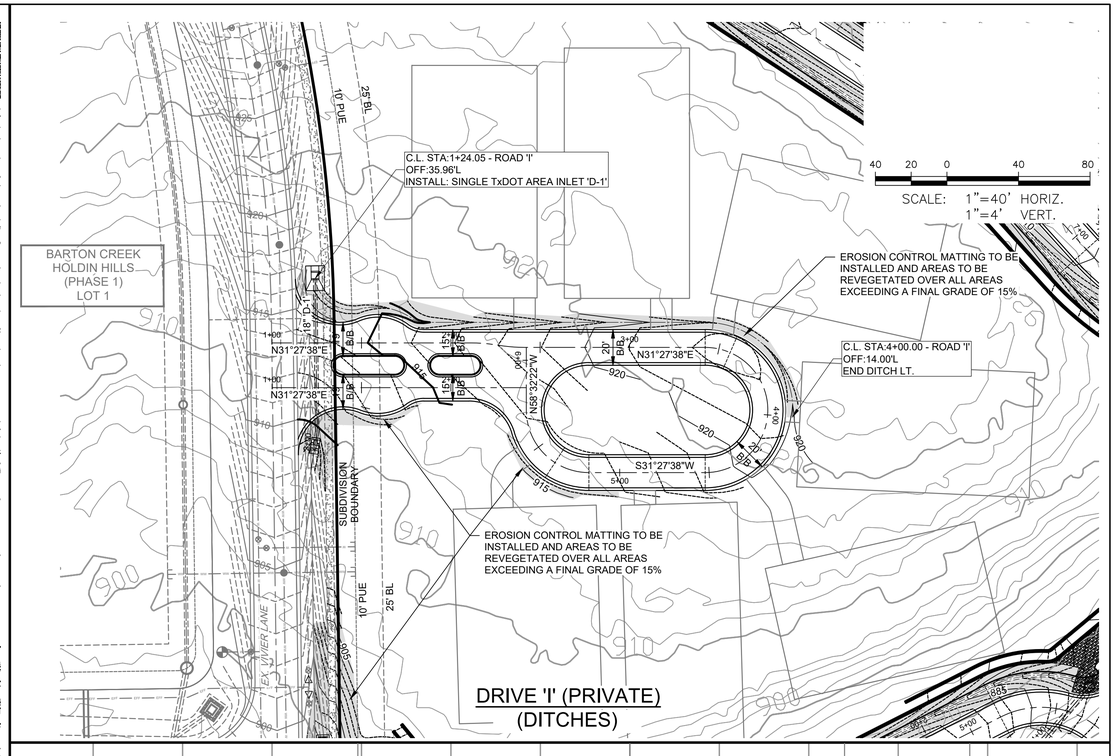
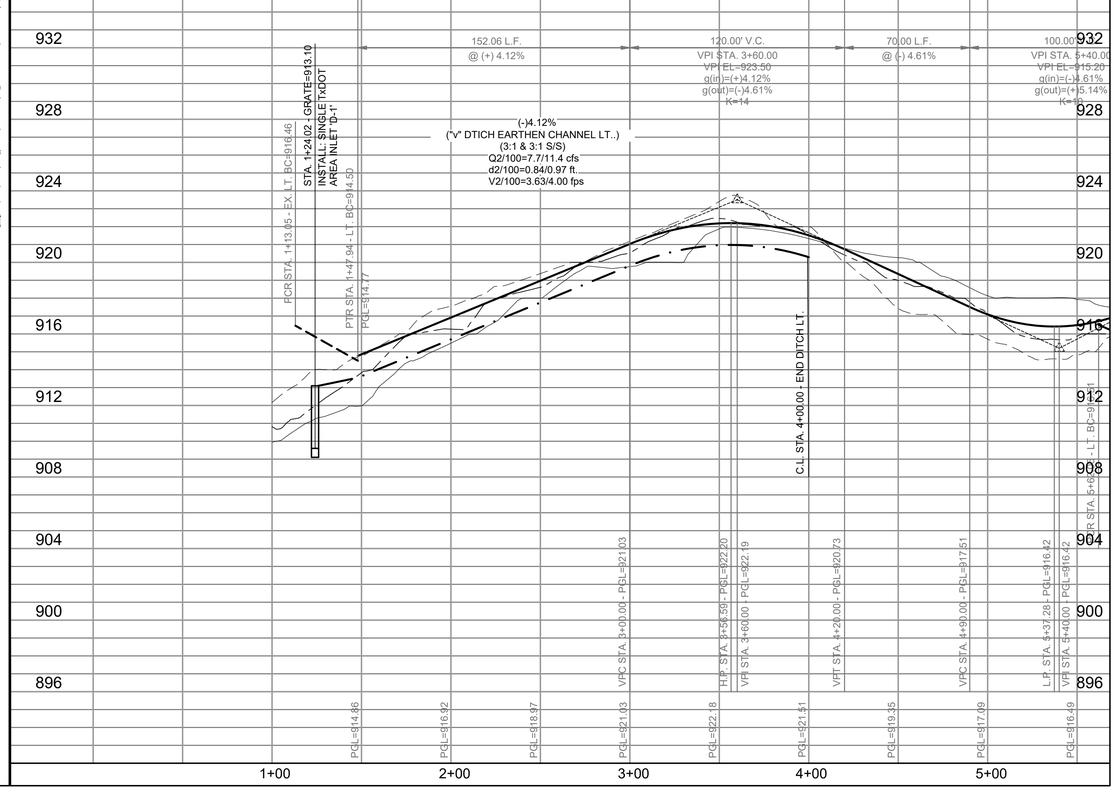
: \A43-Base.dwg
: \24X36.dwg



DRIVES 'F' & 'G' (PRIVATE)
(SIDE SLOPES)



DRIVE 'I' (PRIVATE)
(DITCHES)



LEGEND:

- EXIST. 1 FOOT CONTOUR
- EXIST. 5 FOOT CONTOUR (875)
- PROP. 1 FOOT CONTOUR
- PROP. 5 FOOT CONTOUR (875)
- PROP. STORM SEWER LINE

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
DRIVES 'F', 'G', & 'I'
DITCH & SLIDE SLOPES

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-DRIVEs.dwg

LAUREN CRONE
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN -F-1386

JOB NUMBER: A111-0437

SHEET NO. 51 OF 106 SHEETS

C:_Jobs\LJA\BC Condos A43\Const\A43-DITCHES.dwg
User: Pops
Last Modified: Aug. 05, 25 – 12:45
Plot Date/Time: Sep. 02, 25 – 15:43:41
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\A43-Base.dwg
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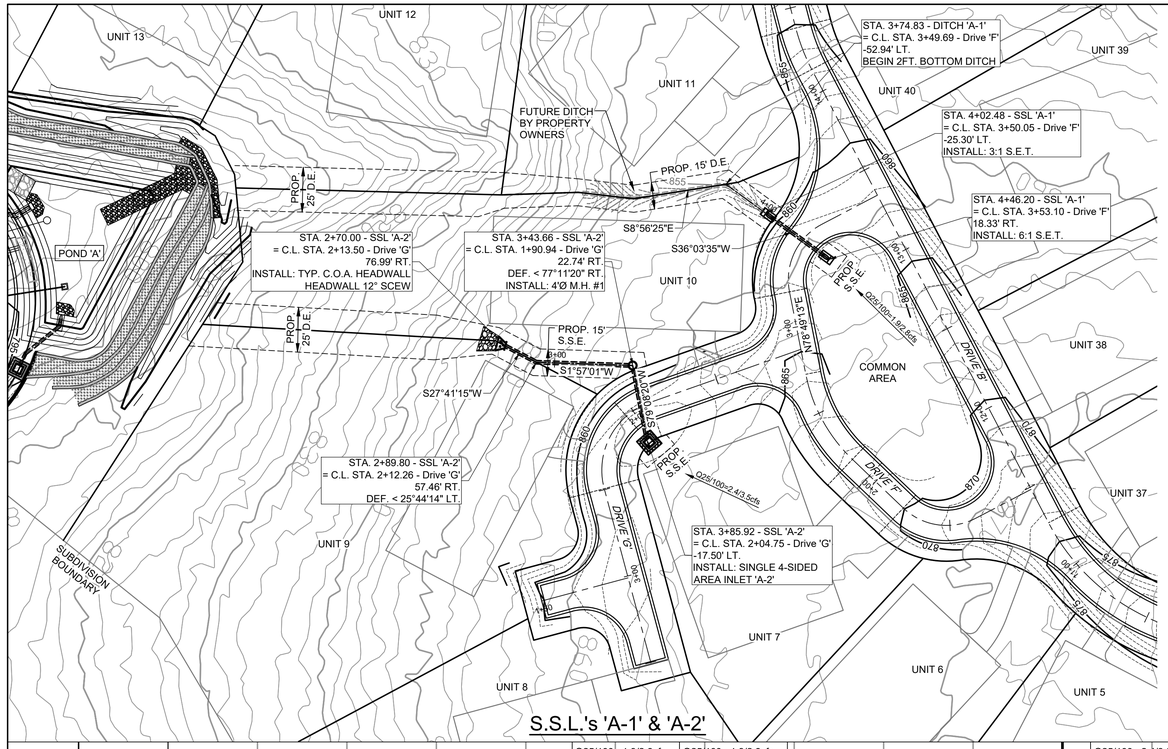
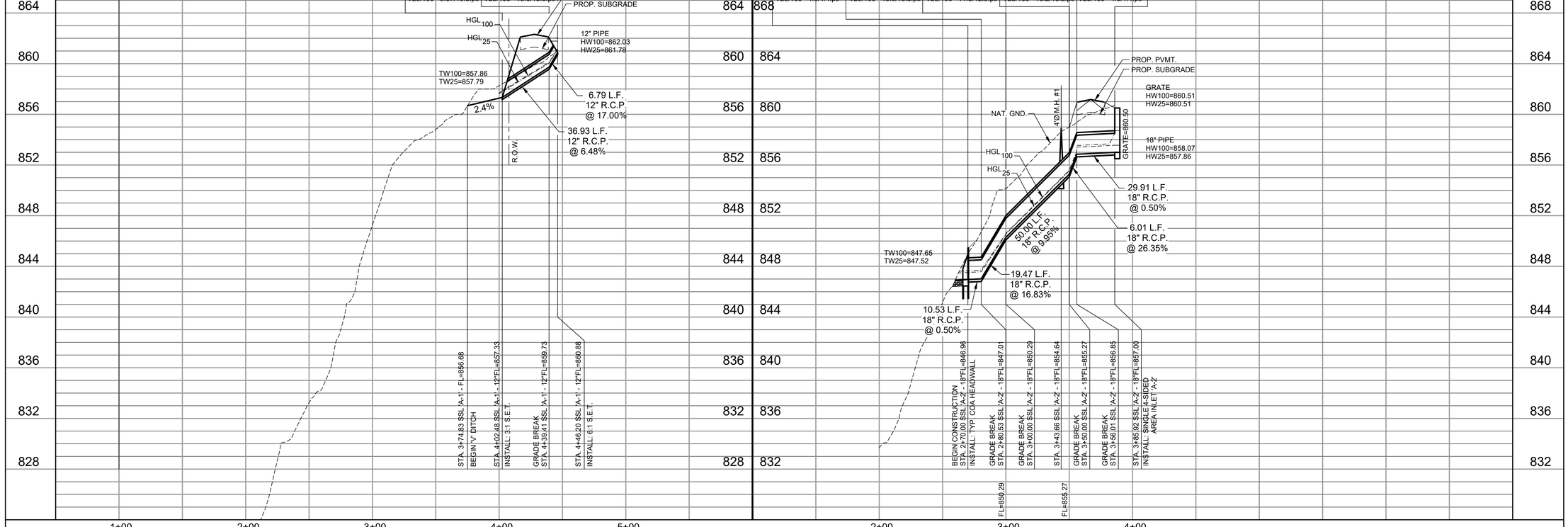




SCALE: 1"=40' HORIZ.
1"=4' VERT.

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
STORM SEWER LINES 'A-1' & 'A-2'
PLAN & PROFILE

REVISIONS			
NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-STORM.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

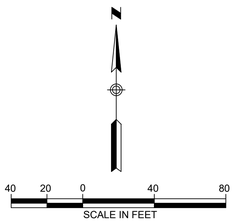
LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

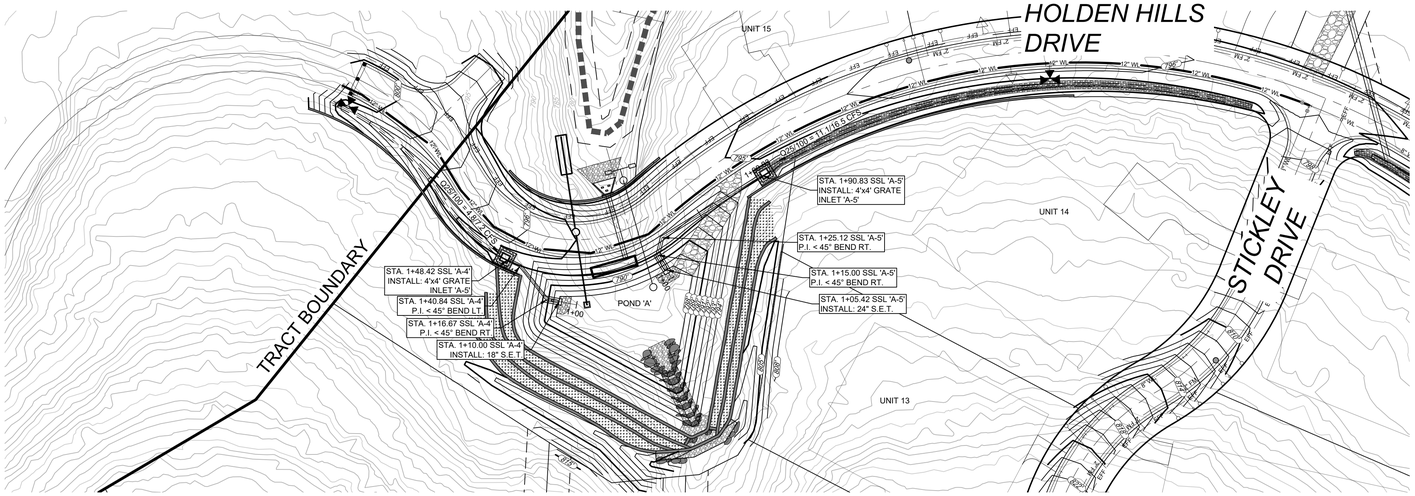
JOB NUMBER: A111-0437

SHEET NO. 52 OF 106 SHEETS

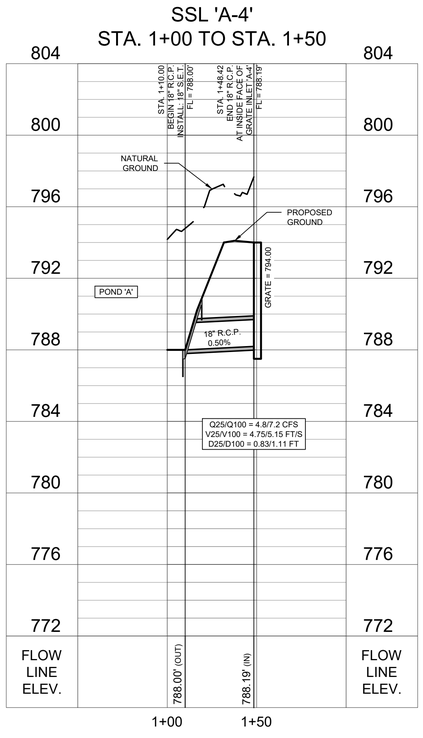
C:__Josh\LJA\A\BC Condos A43\Const\A43--STORM.dwg
User: Pope
Last Modified: Aug. 05, 25 -- 17:25
Plot Date/Time: Sep. 02, 25 -- 15:39:18

: \..\..\23\Barton Creek KLO Ph1 2\Const\Topo--2.dwg
\A43--Base.dwg
\24X36.dwg

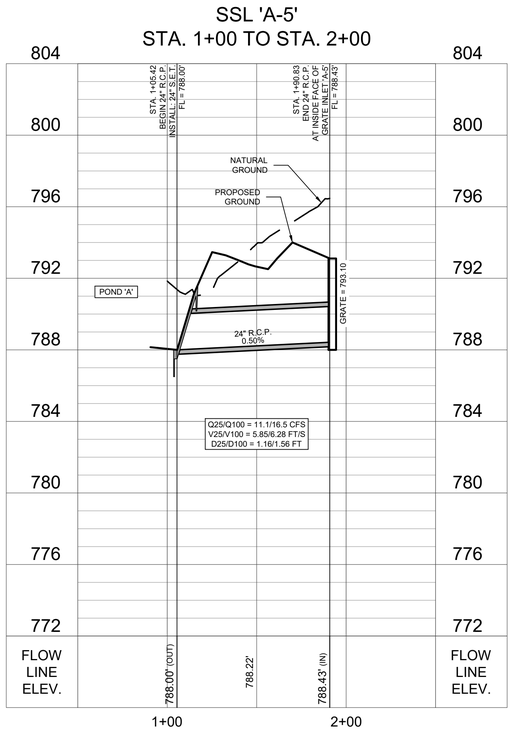




SSL 'A-4'
STA. 1+00 TO STA. 1+50



SSL 'A-5'
STA. 1+00 TO STA. 2+00



BARTON CREEK HOLDEN HILLS PHASE 1
BLOCK B LOT 1 PAVING, DRAINAGE,
WATER & WASTEWATER IMPROVEMENTS
STORM SEWER LINES 'A-4' & 'A-5'
PLAN & PROFILE

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DRAWING NAME: A43-WQ Ponds.dwg

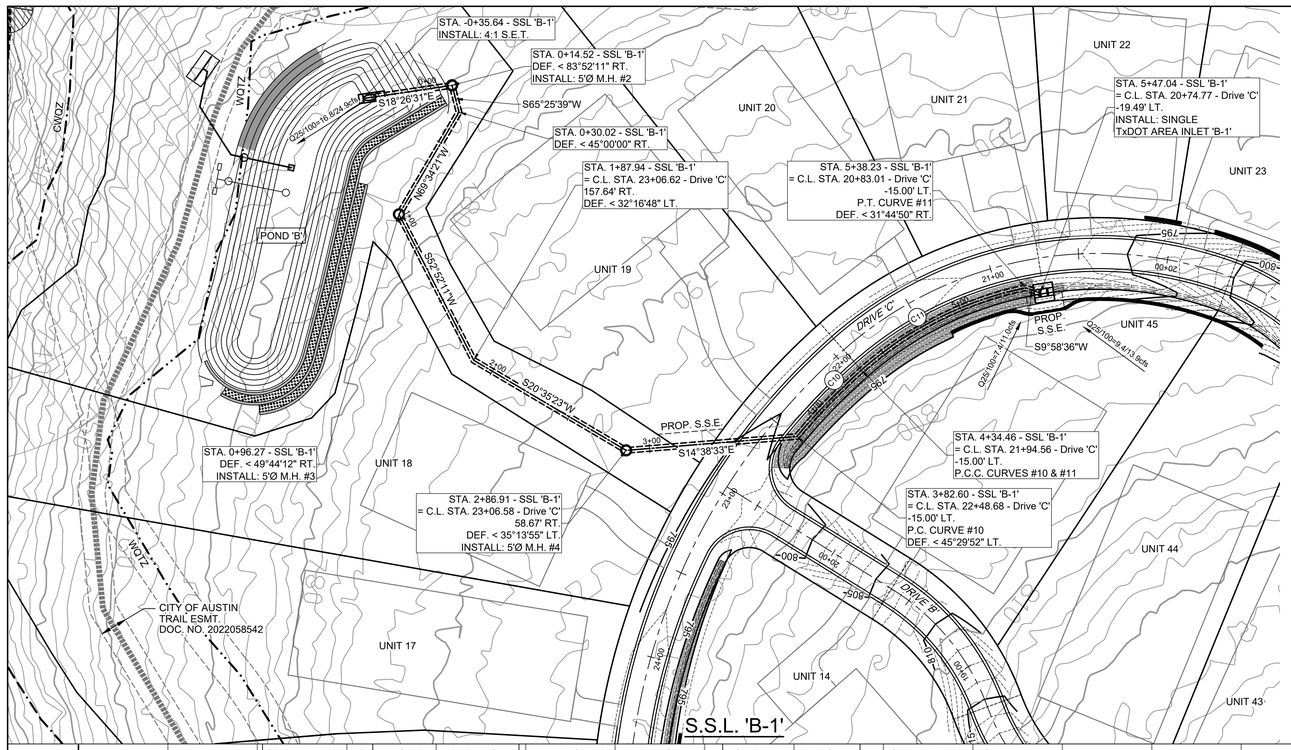
Lauren Crone
STATE OF TEXAS
LAUREN CRONE
12/2018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

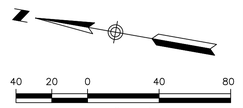
LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-437

SHEET NO. 53 OF 103 SHEETS

I:\A111\A437-Block A Lot 4\ENGDATA\S-WQ Ponds.dwg
User: reedmorris
Last Modified: Sep 30, 25 - 09:22
Plot Scaled Plot: 30 x 42 - 1:20.48





STORM SEWER CURVE TABLE						
Curve #	I	Rad	Arc	Tan	Chord	Chord Bearing
C10	8°38'31"	343.86	51.86	25.98	51.82	N55°49'09"W
C11	29°43'40"	200.00	103.77	53.08	102.61	N36°38'04"W

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
STORM SEWER LINE 'B-1'
PLAN & PROFILE

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-STORM.dwg

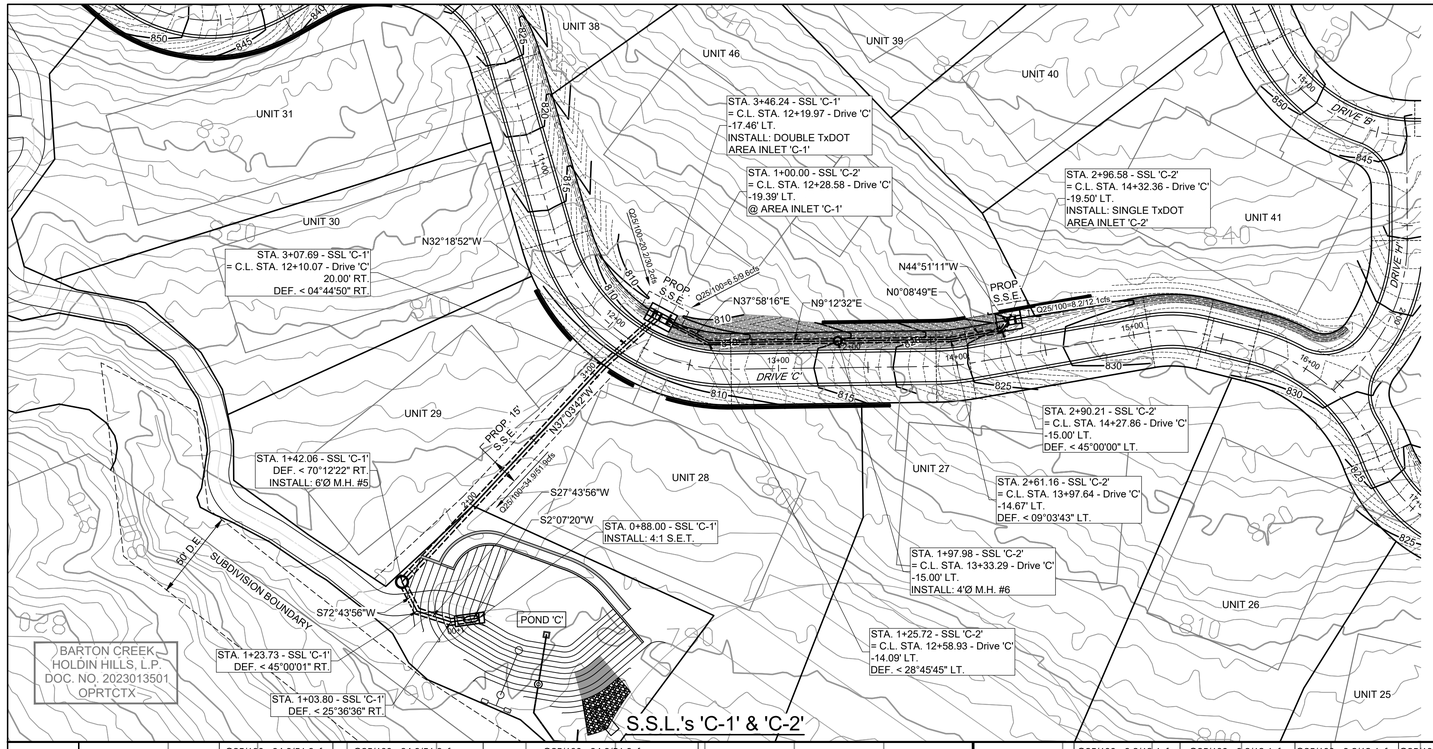
LAUREN CRONE
STATE OF TEXAS
128018
LICENSED
PROFESSIONAL ENGINEER
10/1/2025

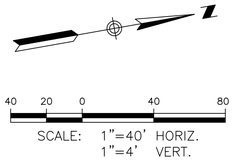
LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

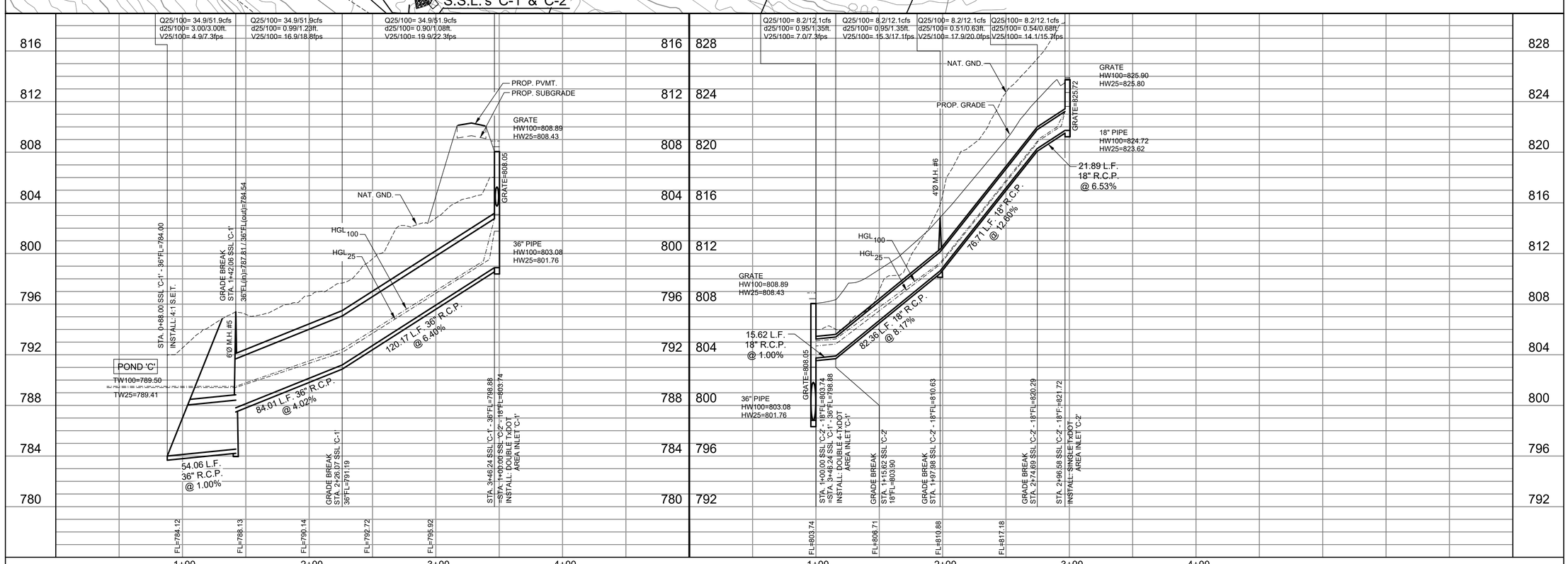
JOB NUMBER: A111-0437

SHEET NO. 54 OF 106 SHEETS

C:_John\LJA\JOB Condos A43\Cornet\A43--STORM.dwg
User: Pops
Last Modified: Aug. 05, 25 - 12:25
Plot Date/Time: Sep. 02, 25 - 15:38:24
: ..\..\A23\Barton Creek HLD PH 2\Cornet\Taylor-2.dwg
..\A43--Base.dwg
..\SAN25.dwg



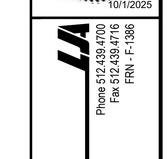




BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
STORM SEWER LINES 'C-1' & 'C-2'
PLAN & PROFILE

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-STORM.dwg



LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 55 OF 106 SHEETS

C:_Jobs\LJA\BC Condos AA3\Comet\V443--STORM.dwg
User: Pope
Last Modified: Aug. 05, 25 -- 12:25
Plot Date/Time: Sep. 02, 25 -- 15:37:35

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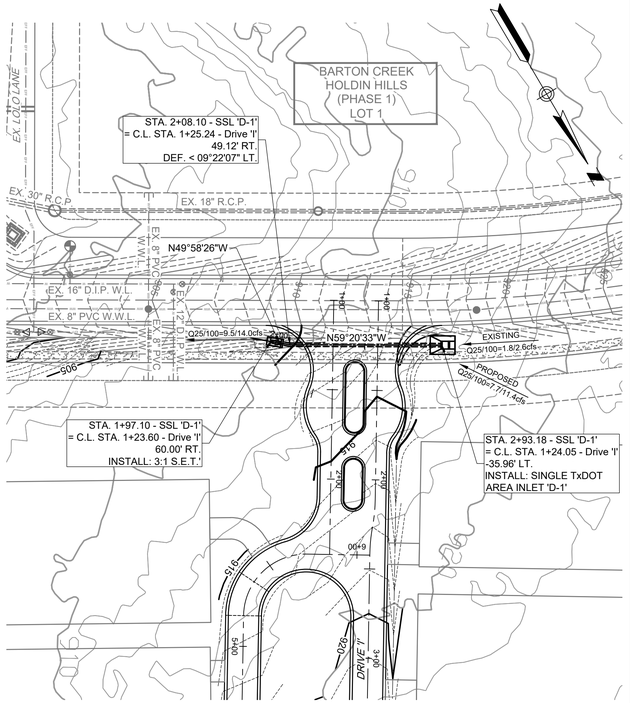
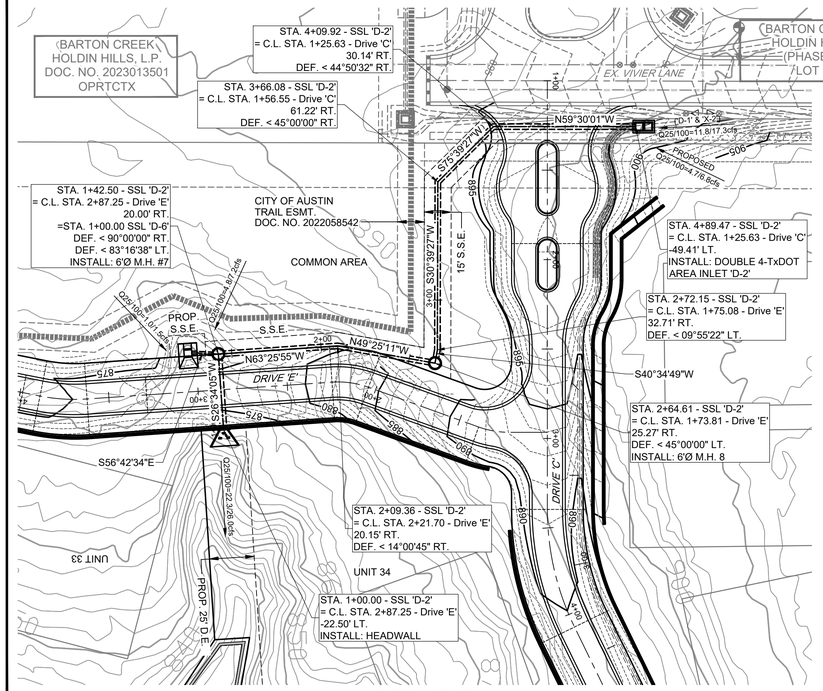
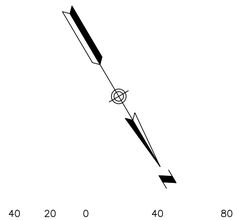
..\A43--Base.dwg
..\24x36.dwg

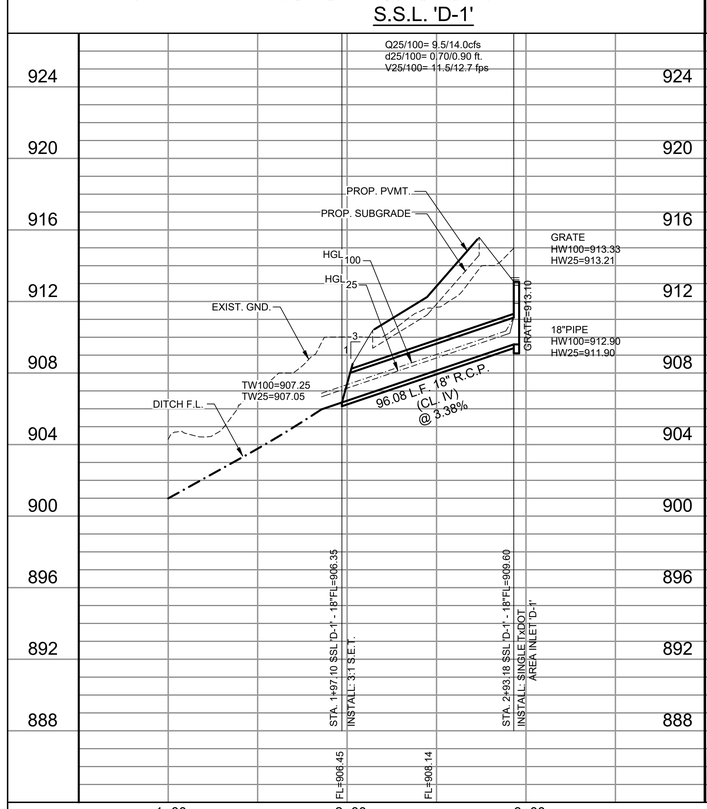


S.S.L. 'D-1'

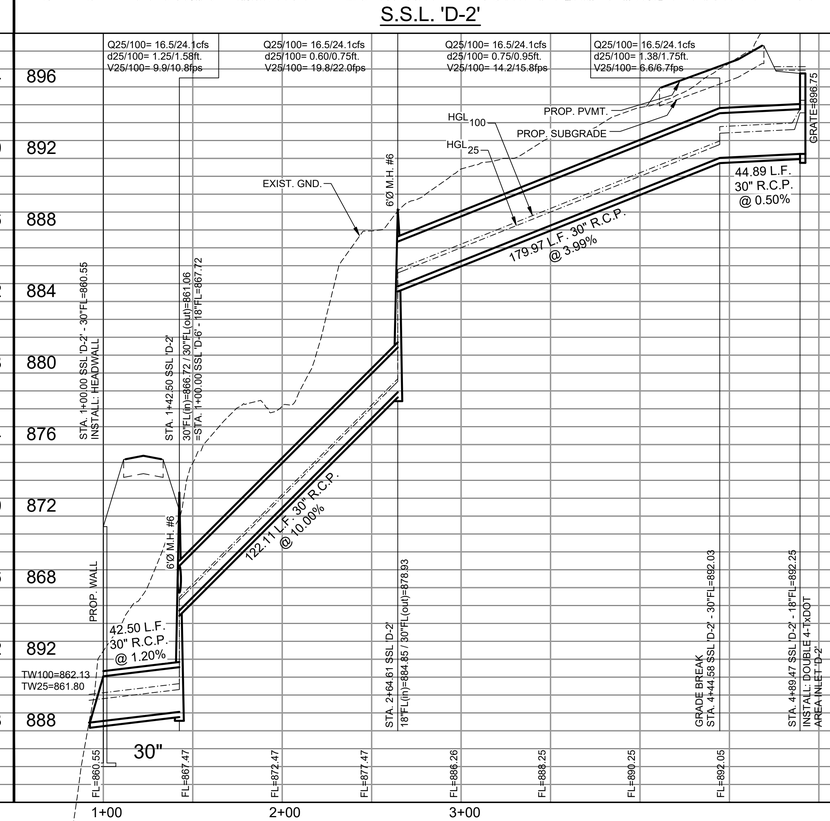


S.S.L. 'D-2'





S.S.L. 'D-1'



S.S.L. 'D-2'

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
STORM SEWER LINES 'D-1' & 'D-2'
PLAN & PROFILES

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-STORM.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735

JOB NUMBER: A111-0437

SHEET NO. 56 OF 106 SHEETS

C:_Jobs\LJA\JB\ Condos A43\Const\A43-STORM.dwg
User: Pops
Last Modified: Aug. 05, 25 – 12:25
Plot Date/Time: Sep. 02, 25 – 15:36:39
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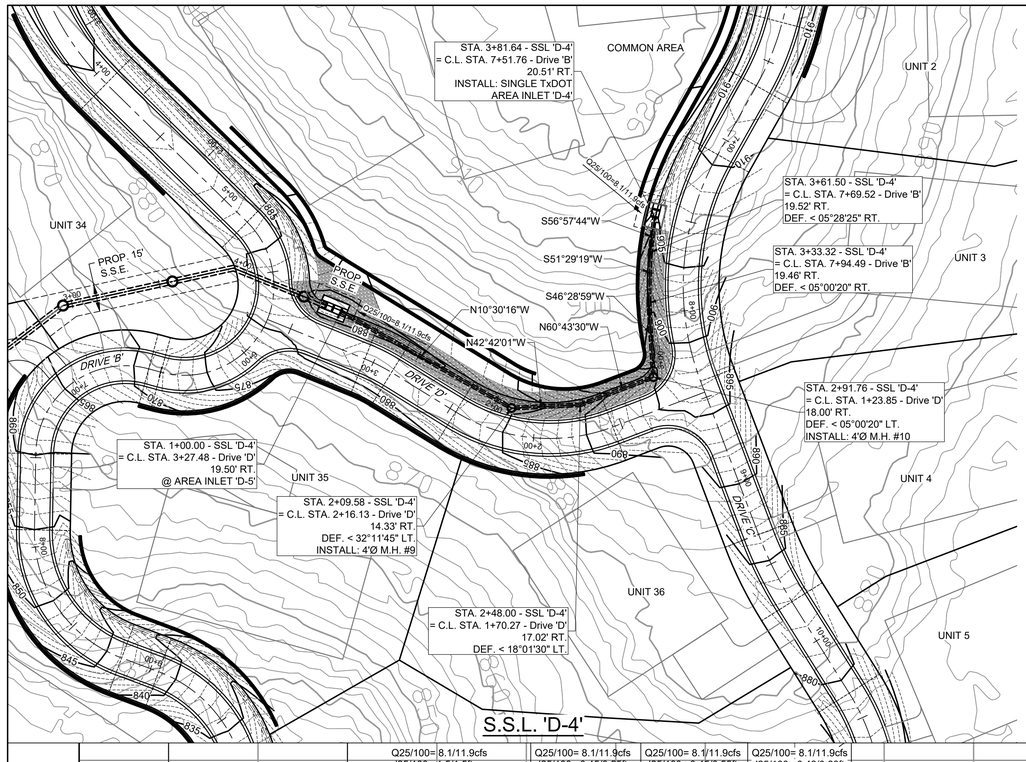
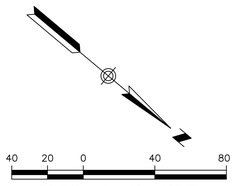
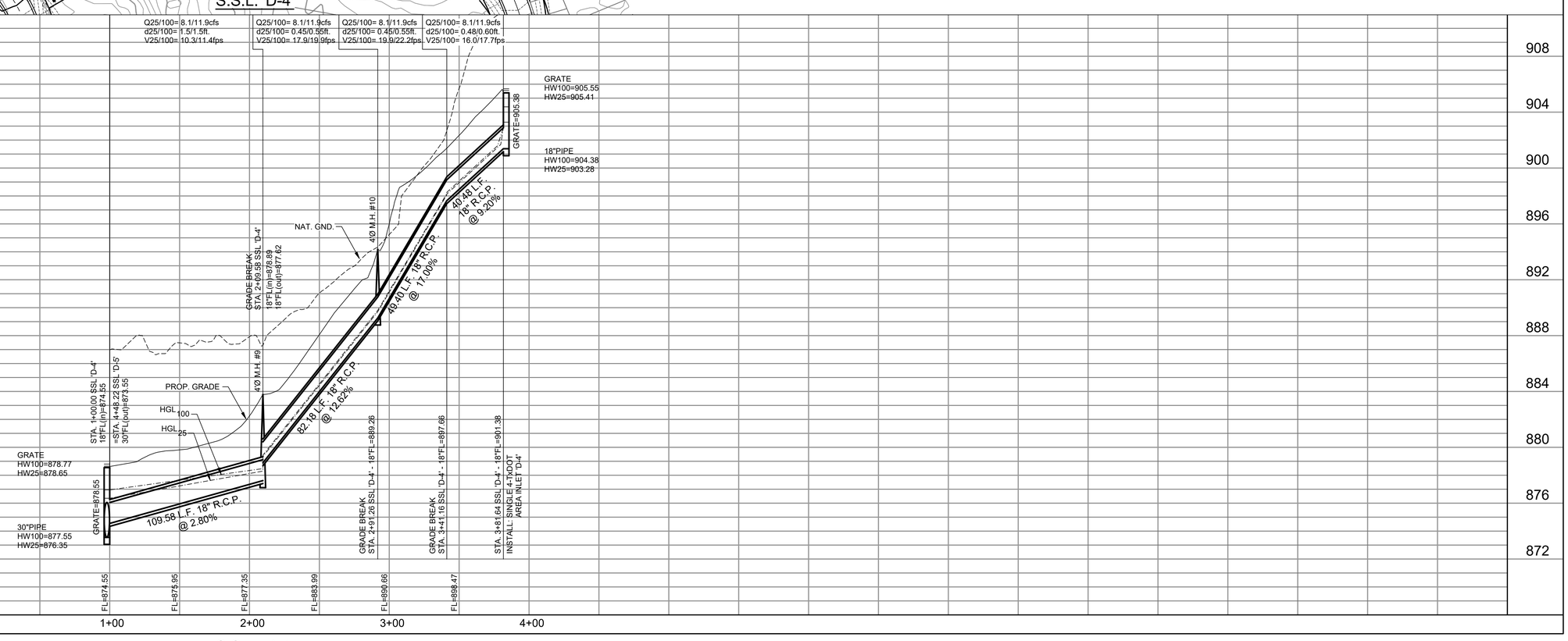
..\A43-Base.dwg
..\24X36.dwg







BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
STORM SEWER LINE 'D-4'
PLAN & PROFILE

REVISIONS			
NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-STORM.dwg

LAUREN CRONE
STATE OF TEXAS
128018
LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 57
OF 106 SHEETS

C:_Jobs\LJA\LJA BC Condos A43\Const\V43--STORM.dwg
User: Pope
Last Modified: Aug. 05, 25 - 12:25
Plot Date/Time: Sep. 02, 25 - 15:35:39
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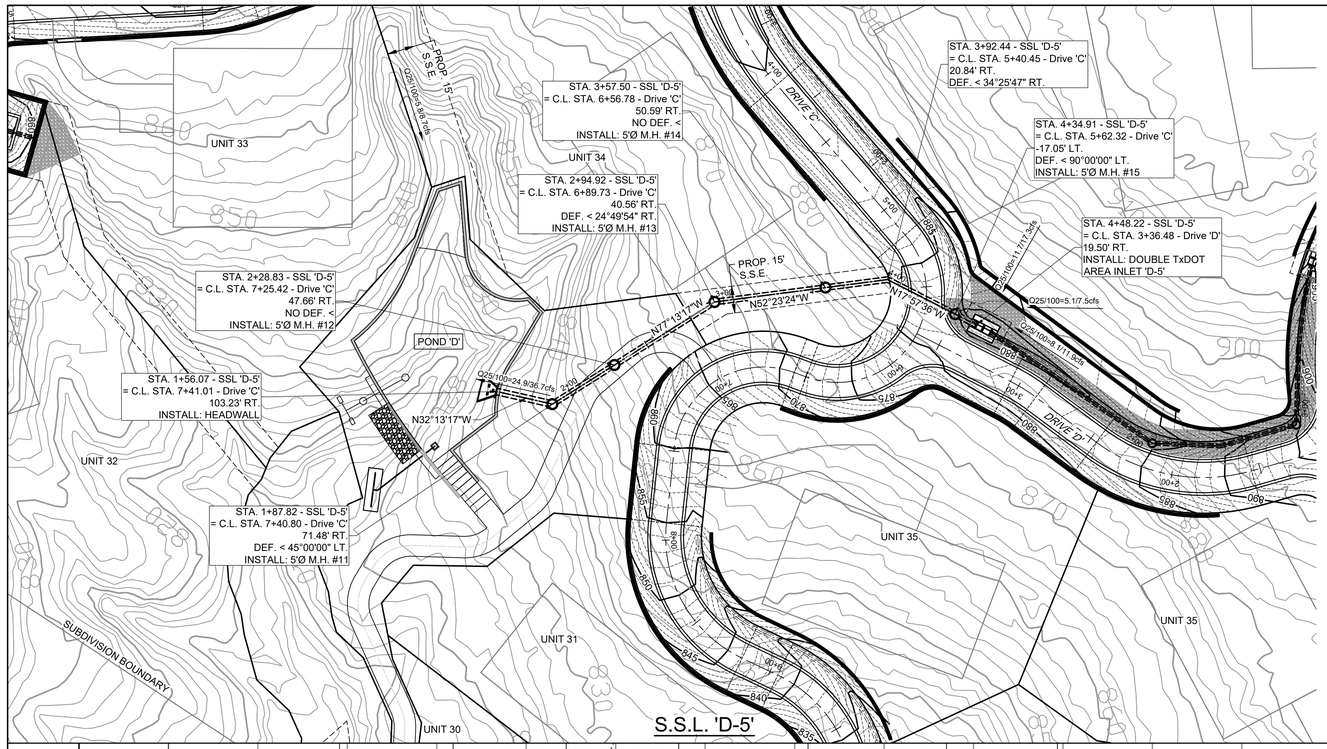
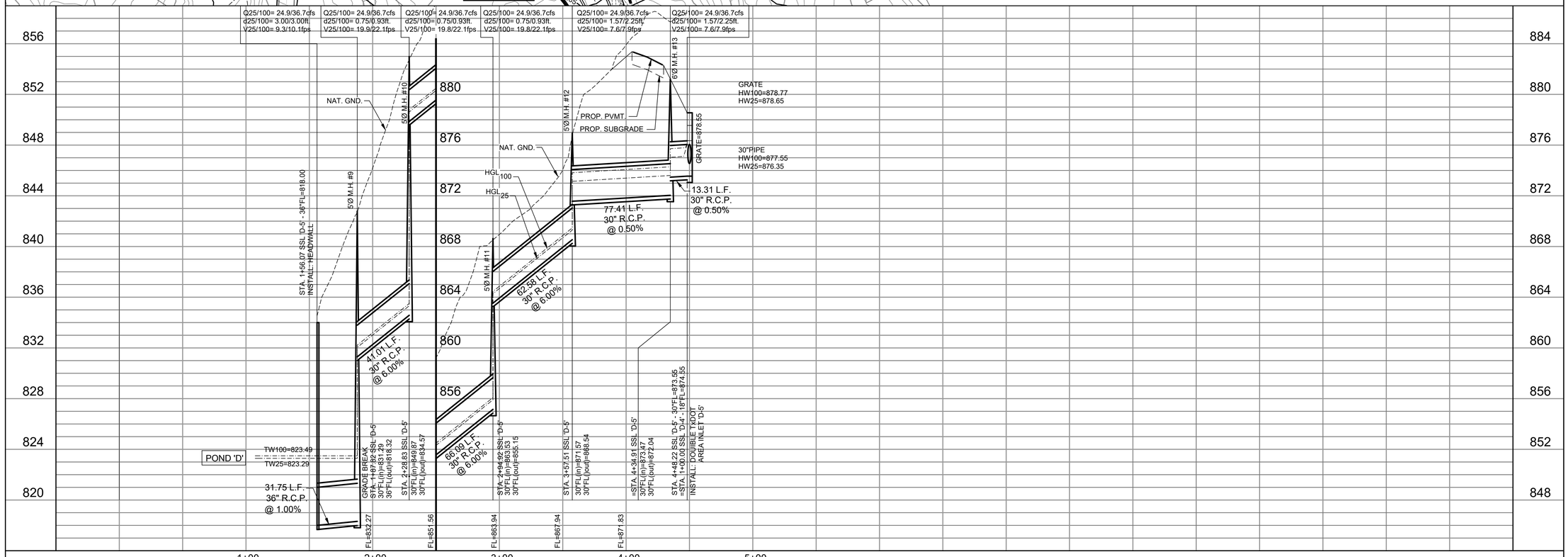
..\A430.dwg





S.S.L. 'D-5'

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
STORM SEWER 'D-5'
PLAN & PROFILE

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-STORM.dwg

LAUREN CRONE
STATE OF TEXAS
128018
LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
TRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 58 OF 106 SHEETS

C:_John\LJA\JBC Condos A43\Const\A43-STORM.dwg
User: Pops
Last Modified: Aug. 05, 25 – 10:26
Plot Date/Time: Sep. 02, 25 – 15:34:28

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..\A42-Base.dwg
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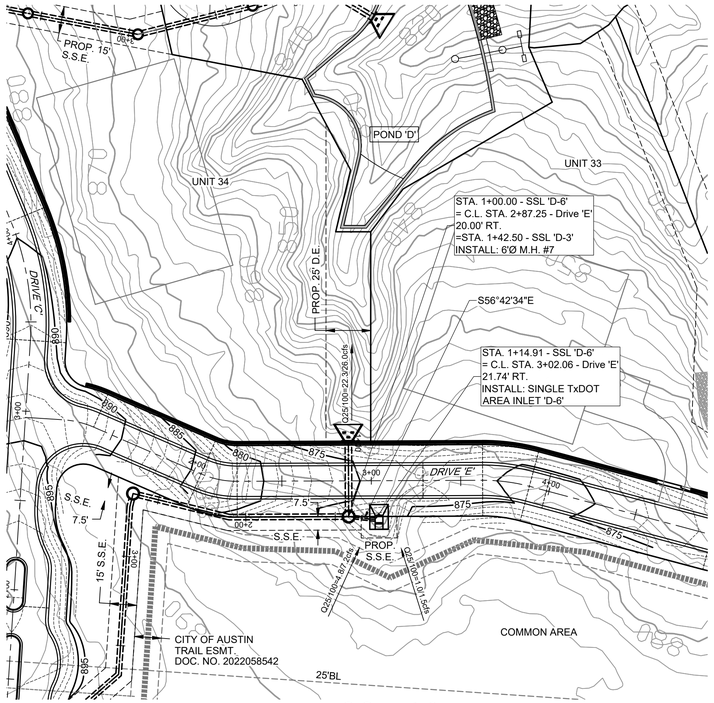
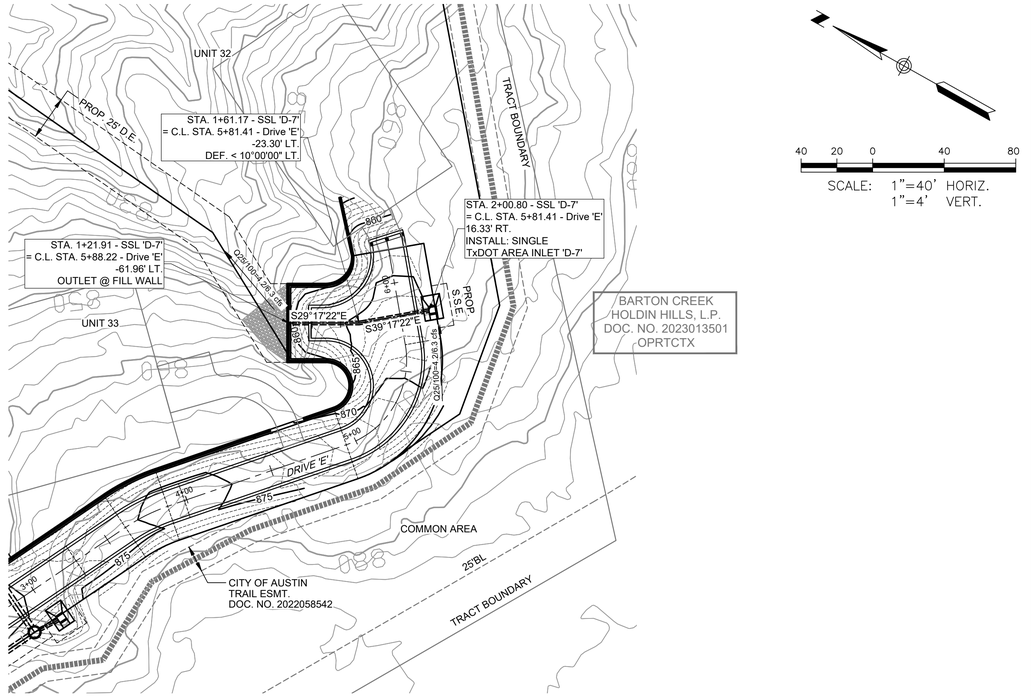
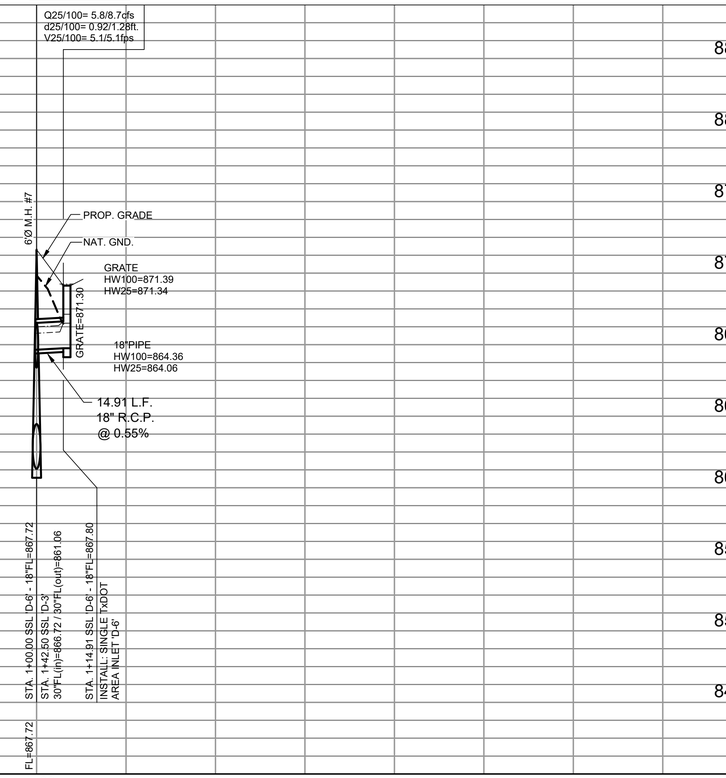


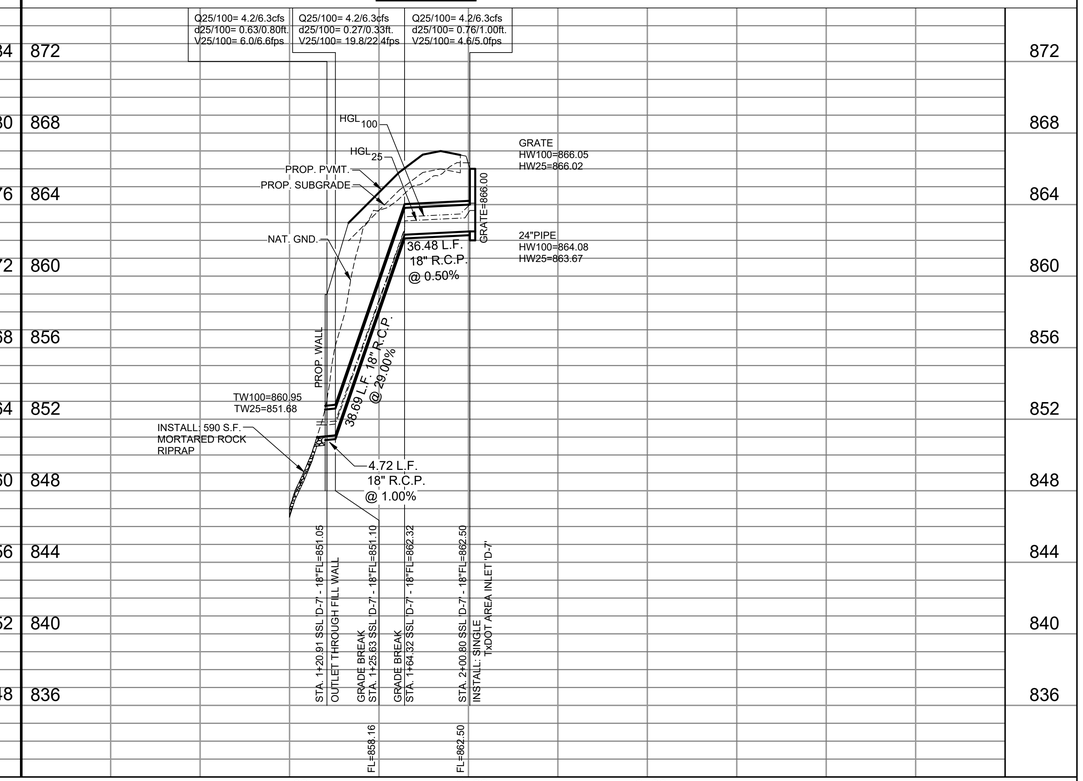
S.S.L. 'D-6'



S.S.L. 'D-7'



S.S.L. 'D-6'



S.S.L. 'D-7'

S.S.L. 'D-6'

S.S.L. 'D-7'

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
STORM SEWER LINES 'D-6' & 'D-7'
PLAN & PROFILE

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-STORM.dwg

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 59 OF 106 SHEETS

C:_Jobs\LJA\JBC Condos A43\Const\A43-STORM.dwg
User: Pops
Last Modified: Aug. 05, 25 - 12:25
Plot Date/Time: Sep. 02, 25 - 15:33:42

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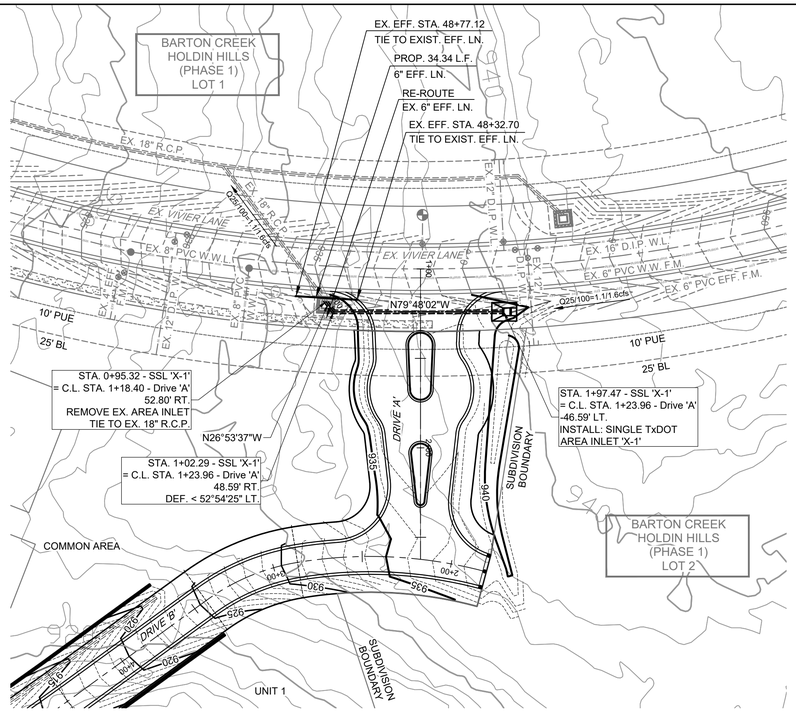
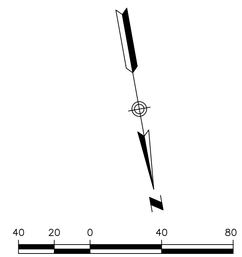
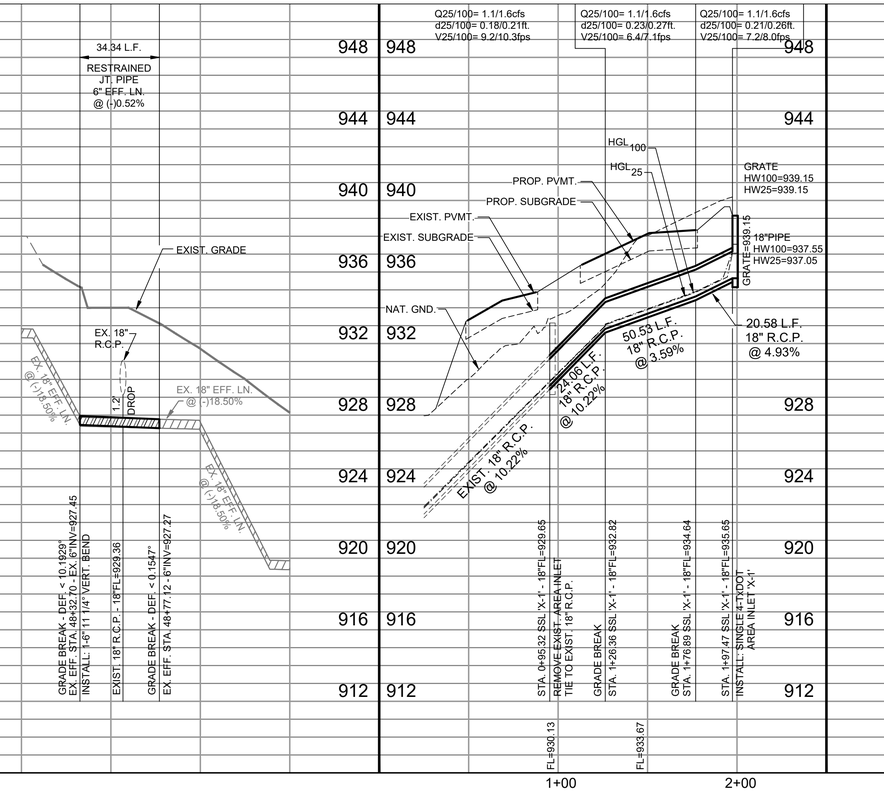
..\A43-Base.dwg
..\24X36.dwg



S.S.L. 'X-1'





6" EFFLUENT LINE

S.S.L. 'X-1'

BARTON CREEK HOLDEN HILLS PHASE 1
LOT 1, BLOCK B
PAVING, DRAINAGE, WTR, WW IMPROVEMENTS
STORM SEWER LINE 'X-1'
PLAN & PROFILE

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: JUNE 2025
DESIGNED BY: JCN
DRAWN BY: JCN
CHECKED BY: LC
DRAWING NAME: A43-STORM.dwg

Lauren Crone
STATE OF TEXAS
LAUREN CRONE
128018
LICENSED PROFESSIONAL ENGINEER
10/1/2025

LJA Engineering Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

JOB NUMBER: A111-0437

SHEET NO. 60 OF 106 SHEETS

C:_Jobs\LJA\JBC Condos A43\Const\VA43-STORM.dwg
User: Popa
Last Modified: Aug. 05, 25 - 10:26
Plot Date/Time: Sep. 02, 25 - 15:33:36
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..\VA3-Base.dwg
..\VA426.dwg