

**ZONING AND PLATTING COMMISSION SITE PLAN
COMPATIBILITY WAIVER REVIEW SHEET**

CASE NUMBER: SP-2022-0364C **ZAP DATE:** March 5, 2024

PROJECT NAME: Rich Industrial Park

ADDRESS: 130 Ralph Ablanedo Drive
COUNCIL DISTRICT: 2

APPLICANT: 130 Ralph Ablanedo, LLC
1112 West 9th Street
Austin, Texas 78703

AGENT: Austin Civil Engineering, Inc., Calvin Weiman (512) 306-0018
9501-B Menchaca Road, Suite 220
Austin, Texas 78748

CASE MANAGER: Heather Chaffin (512) 974-2140
Heather.chaffin@austintexas.gov

PROPOSED DEVELOPMENT:

The property is zoned LI-CO and is currently developed with administrative office, limited warehousing & distribution, and retail land uses. The site currently contains 46,380 square feet of building space; the applicant proposes adding 23,800 additional square feet of building for the same uses. The site plan includes related parking, drainage and water quality features and other related improvements are proposed.

WAIVER REQUEST:

The applicant is a waiver of compatibility standards for building setbacks adjacent to property zoned SF-5 or more restrictive. Instead of the Code required 25-foot setback, the applicant requests a 5-foot setback for buildings along the northern property line, a 22-foot setback for parking along the northern property line and a 22-foot setback for drainage and water quality structures along the eastern and northern property lines.

COMPATIBILITY:

Section 25-2-1051 states that Article 10 Compatibility Standards apply if a use in a SF-6 or less restrictive zoning district is located on a property across the street from or adjoining a property on which is zoned SF-5 or more restrictive or a use is permitted in a SF-5 or more restrictive zoning district is located. Section 25-2-1063 establishes setback requirements.

§ 25-2-1063 - HEIGHT LIMITATIONS AND SETBACKS FOR LARGE SITES

(A) This section applies to a site that has:

- (1) an area that exceeds 20,000 square feet; or
- (2) a street frontage that exceeds 100 feet.

(B) In this section, the term "structure" excludes a rain garden using no concrete that is designed in accordance with the Environmental Criteria Manual. A person may not construct a structure 25 feet or less from property:

- (1) in an urban family residence (SF-5) or more restrictive zoning district; or
- (2) on which a use permitted in an SF-5 or more restrictive zoning district is located.

SUMMARY STAFF RECOMMENDATION:

Staff recommends approval of the compatibility setback waiver request. The site complies with all other compatibility standard requirements, such as lighting, screening, etc.

PROJECT INFORMATION

SITE AREA: 7.716 acres

EXISTING ZONING: LI-CO

ALLOWED F.A.R.: 1:1

MAX. BLDG. COVERAGE: 75%

MAX. IMPERVIOUS COVER: 80%

PROPOSED F.A.R.: 0.8:1

PROPOSED BLDG. COVER: 20.9%

PROPOSED IMPERVIOUS COVER: 62.2%

SURROUNDING CONDITIONS:**Zoning/ Land Use**

North: MF-4-CO, Multifamily

East: LI-CO, Limited warehousing & distribution, Administrative offices

South: GR-MU, Single family residential

West: SF-4-CO, Single family residential

NEIGHBORHOOD ORGNIZATIONS:

Austin Independent School District

Austin Lost and Found Pets

Austin Neighborhoods Council

Friends of Austin Neighborhoods

Homeless Neighborhood Association

Neighborhood Empowerment Foundation

Onion Creek Homeowners Association

Parkridge Gardens HOA

Peaceful Hill Preservation Association Preservation Austin SELTexas

Sierra Club, Austin Regional Group

South Austin Neighborhood Alliance (SANA)

South Boggy Creek Neighborhood Association



February 27, 2024

Attn: Heather Chaffin
City of Austin
Development Services Dept – Land Use Review
P.O. Box 1088
Austin, TX 78767

RE: Case Number SP-2022-0364C; Rich Industrial Park – Compatibility Waiver Request

Heather,

Please accept this request for a waiver for the project known as Rich Industrial Park from the requirements of LDC 25-2-60, specifically the requirement for a minimum 25 foot rear yard setback.

We are requesting this waiver due to the limited site space to create a feasible project that can appropriately site the required infrastructure.

The following setbacks have been provided:

- Buildings are setback at 5' from the northern property line.
- Parking is setback 22' from the northern property line.
- The detention/WQ facility is setback 22' and 24' feet from the eastern and northern property line.

Also, the adjacent property is buffered with an additional 55 feet that consists of a setback, parking stalls and a driveway. Therefore, we believe the intent of the minimum rear yard setback is being met as intended by Section 25-2-60.

Let us know if additional information or materials are required to approve this waiver. Thank you kindly for your review and assistance. Please contact us with any questions.

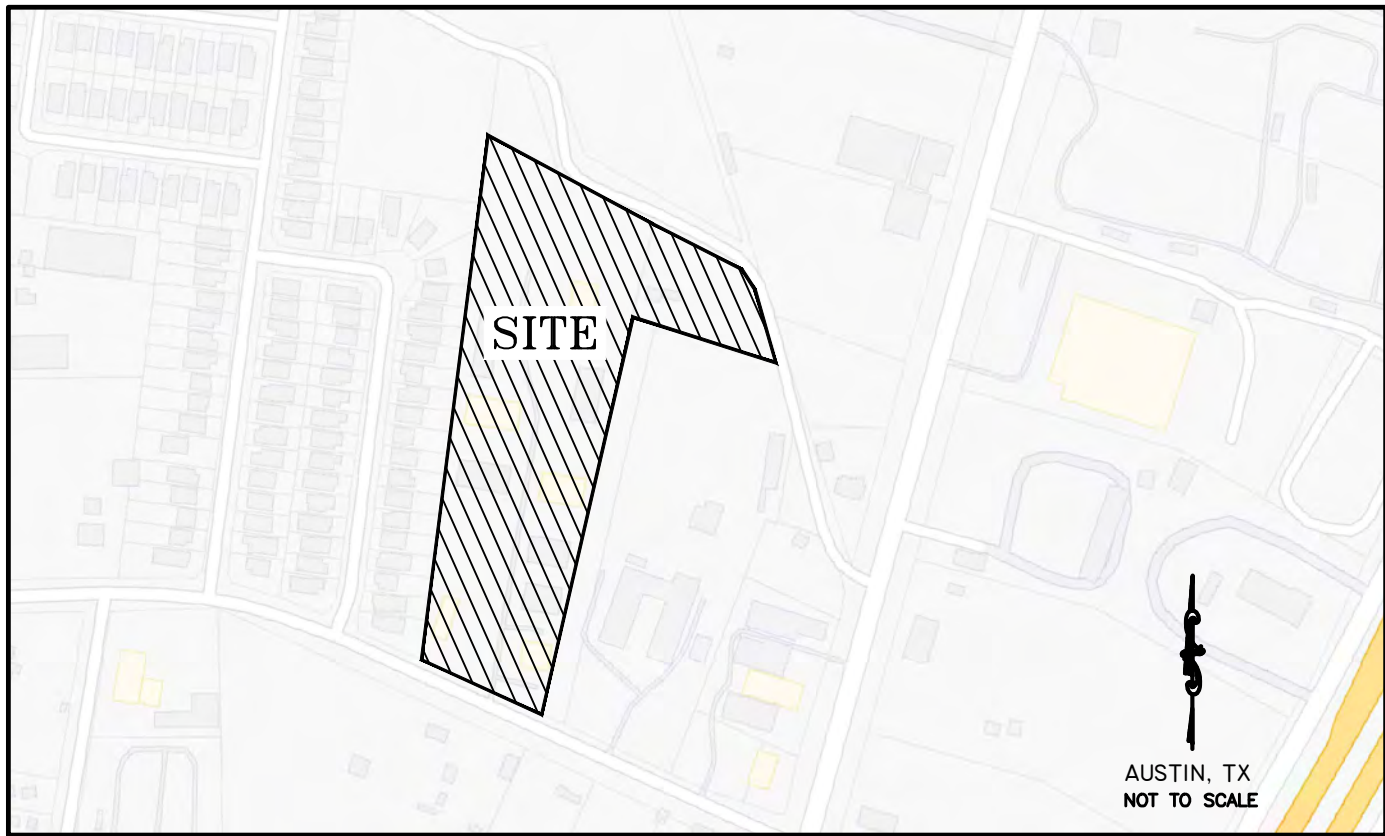
Sincerely,



Calvin Weiman, P.E.
Project Manager
Austin Civil Engineering, Inc.
cw@austincivil.com



VICINITY MAP



CITY OF AUSTIN GRID #: G14 , MAPSCO PG #: 674 J, 674 N

OWNER

130 RALPH ABLANEDO LLC
1112 W 9TH STREET
AUSTIN, TX 78703
PHONE: (512) 496-5839

CONSULTANTS

CIVIL ENGINEER

AUSTIN CIVIL ENGINEERING, INC.
9501-B MENCHACA ROAD, SUITE 220
AUSTIN, TEXAS 78748
PHONE: (512) 306-0018

ARCHITECT

GKZ INC
FRANK GOMILLION
215 WEST SAN ANTONIO STREET
SAN MARCOS, TX 78666
PHONE: (512) 353-3339

LANDSCAPE

BLAIR LANDSCAPE ARCHITECTURE, LLC
WILL BLAIR
100 CONGRESS AVE, SUITE 2000
AUSTIN, TX 78701
PHONE: (512) 522-8979 x 101

SURVEYOR

HOLT CARSON INC
HOLT CARSON
1904 FORTVIEW ROAD,
AUSTIN, TX 78704
PHONE: (512) 442-0990

SITE PLAN FOR
RICH INDUSTRIAL PARK
130 RALPH ABLANEDO DR
AUSTIN, TEXAS 78748

CASE NUMBER: SP-2022-0364C
SUBMITTAL DATE: JULY 12, 2022

SHEET INDEX

- COVER SHEET
- GENERAL NOTES
- EXISTING TOPOGRAPHIC AND TREE SURVEY
- PRE-DEV DRAINAGE AREA MAP
- DEVELOPED DRAINAGE AREA MAP
- OVERALL SITE PLAN
- DEMOLITION AND E & S CONTROL PLAN
- SITE PLAN
- GRADING AND STORM PLAN
- WATER DISTRIBUTION PLAN
- WATER PLAN & PROFILE
- WASTEWATER COLLECTION PLAN
- WATER QUALITY AND DETENTION POND PLAN
- WATER QUALITY AND DETENTION POND DETAILS
- EROSION AND SEDIMENTATION CONTROL PLAN
- AUSTIN WATER GENERAL INFORMATION AND CONSTRUCTION NOTES
- DETAILS: SITE
- DETAILS: EROSION AND SEDIMENTATION CONTROL
- DETAILS: UTILITY (1 of 2)
- DETAILS: UTILITY (2 of 2)
- DRAINAGE BASIN PLAN (for reference only RICH INDUSTRIAL PARK (PHASE II) SP-04-0180C
- INLET BASIN PLAN (for reference only RICH INDUSTRIAL PARK (PHASE II) SP-04-0180C
- PONDS #2 PLAN (for reference only RICH INDUSTRIAL PARK (PHASE II) SP-04-0180C
- OUTLET STRUCTURE AND SPLITTER BOX DETAILS (for reference only RICH INDUSTRIAL PARK (PHASE II) SP-04-0180C
- LANDSCAPE PLAN
- LANDSCAPE & IRRIGATION SPECIFICATIONS
- LAND STATUS DETERMINATION LETTERS
- ELEVATION AND SITE CROSS SECTION EXHIBIT
- ELEVATION AND SITE CROSS SECTION EXHIBIT 2
- ADDRESSING PLAN
- SITE - ELECTRICAL

STATE OF TEXAS

COUNTY OF TRAVIS
I DO HEREBY CERTIFY THAT THE ENGINEERING WORK BEING SUBMITTED HEREIN COMPLIES WITH ALL PROVISIONS OF TEXAS ENGINEERING PRACTICES ACT, INCLUDING SECTION 131.152(e). I HEREBY ACKNOWLEDGE THAT ANY MISREPRESENTATION REGARDING THIS CERTIFICATION CONSTITUTES A VIOLATION OF THE ACT AND MAY RESULT IN CRIMINAL, CIVIL AND/OR ADMINISTRATIVE PENALTIES AGAINST ME, AS AUTHORIZED BY ACT.

HUNTER SHADBURNE P.E.

1/12/2024
DATE



PROJECT DATA

PREVIOUS CASE NO: SP-99-213C , SP-2004-0180C , SP-2009-0133C
ACREAGE: 6.74 - ACRES, AND 0.976 ACRES
LEGAL DESCRIPTION: 6.74 ACRES OF LAND OUT OF THE WILLIAM CANNON LEAGUE, ABSTRACT NO. 6 IN TRAVIS COUNTY, TEXAS, BEING AL THAT CERTAIN (6.74 ACRE) TRACT OF LAND AS CONVEYED TO 130 RALPH ABLANEDO, LLC, BY GENERAL WARRANTY DEED RECORDED IN DOC NO: 2020115774 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS, SAME BEING A PORTION OF THAT CERTAIN (7.7256 ACRE TRACT OF LAND AS CONVEYED TO MICKEY RICH PLUMBING AND HEATING, INC. BY WARRANTY DEED RECORDED IN VOL. 8855 PG. 975 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS.
0.976 ACRE OF LAND OUT OF THE WILLIAM CANNON LEAGUE, ABSTRACT NO. 6 IN TRAVIS COUNTY, TEXAS, BEING ALL OF THAT CERTAIN (0.976 ACRE) TRACT OF LAND CONVEYED TO JEFFERY WAYNE RICH BY SPECIAL WARRANTY DEED RECORDED IN DOC NO: 2007166060 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS, AND HAVING BEEN PREVIOUSLY DESCRIBED IN WARRANTY DEED RECORDED IN VOL. 530 PG. 630 OF THE DEED RECORDS OF TRAVIS COUNTY, TEXAS.
LAND STATUS DETERMINATION: C81-2008-0130
PROJECT ADDRESS: 130 RALPH ABLANEDO DR AUSTIN, TEXAS 78748
ZONING: LI - CO
LAND USE SUMMARY: WAREHOUSING, SINGLE FAMILY
SUBMITTAL DATE: JULY 12, 2022

GENERAL NOTES

- THIS SITE IS NOT LOCATED WITHIN THE EDWARD'S AQUIFER ZONE.
- THIS PROJECT IS LOCATED IN THE SOUTH BOGGY CREEK WATERSHED, AND ONION CREEK WATERSHED, WHICH IS CLASSIFIED AS SUBURBAN WATERSHEDS.
- THIS TRACT IS WITHIN THE ZONE "X" (AREAS OUTSIDE THE 100 YEAR FLOODPLAIN) AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S (FEMA) FLOOD INSURANCE RATE MAP PANEL NO. 48453C0595 K REVISED DATE JANUARY 22, 2020 FOR TRAVIS COUNTY, TEXAS. THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR / CIVIL ENGINEER.
- ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN ACCEPTING THESE PLANS, THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
- WATER SERVICE WILL BE PROVIDED BY THE CITY OF AUSTIN.
- WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF AUSTIN.
- * CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION *.
- THIS SITE IS COMPLIANT WITH SUBCHAPTER E, DESIGN STANDARDS.
- THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR MAINTAINING CLEARANCES REQUIRED BY THE NATIONAL ELECTRIC SAFETY CODE, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS, CITY OF AUSTIN RULES AND REGULATIONS AND TEXAS STATE LAWS PERTAINING TO CLEARANCES WHEN WORKING IN CLOSE PROXIMITY TO OVERHEAD POWER LINES AND EQUIPMENT. 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.
- 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 OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.
- THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION ONLY AND MAY NOT MATCH LOCATIONS AS CONSTRUCTED (THE SURVEYOR/ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES, ONLY THE VISIBLE ABOVE GROUND UTILITY STRUCTURES,) THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 811, OR THE OWNER OF EACH INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF UTILITY CROSSING PRIOR TO BEGINNING CONSTRUCTION.
- THE SIZE AND LOCATION OF UTILITY STRUCTURES, (IF SHOWN), MAY BE EXAGGERATED FOR GRAPHICAL CLARITY.
- ALL TREES ARE TO BE PROTECTED DURING CONSTRUCTION.
- APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN INDICATES COMPLIANCE WITH THE APPLICABLE CITY REGULATIONS ONLY. APPROVAL BY OTHER GOVERNMENTAL ENTITIES MAY BE REQUIRED PRIOR TO THE START OF CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR DETERMINING WHAT ADDITIONAL APPROVALS MAY BE NECESSARY.
- ANY RELOCATION OF ELECTRIC FACILITIES SHALL BE AT LANDOWNER'S / DEVELOPER'S EXPENSE.
- IF AT ANY TIME DURING CONSTRUCTION OF THIS PROJECT AN UNDERGROUND STORAGE TANK (UST) IS FOUND, CONSTRUCTION IN THAT AREA MUST STOP UNTIL A CITY OF AUSTIN UST CONSTRUCTION PERMIT IS APPLIED FOR AND APPROVED. ANY UST REMOVAL WORK MUST BE CONDUCTED BY A UST CONTRACTOR THAT IS REGISTERED WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). CONTACT ELIZABETH SIMMONS AT ELIZABETH.SIMMONS@AUSTINTEXAS.GOV IF YOU HAVE ANY QUESTIONS. [COA TITLE 6].
- COMPLIANCE WITH THE UNIVERSAL RECYCLING ORDINANCE IS MANDATORY FOR MULTI-FAMILY COMPLEXES, BUSINESSES AND OFFICE BUILDINGS.
- THE SITE IS COMPOSED OF 2 LOTS/TRACTS. IT HAS BEEN APPROVED AS ONE COHESIVE DEVELOPMENT. IF PORTIONS OF THE LOTS/TRACTS ARE SOLD, APPLICATION FOR SUBDIVISION AND SITE PLAN APPROVAL MAY BE REQUIRED. UDA # _____.
- DEVELOPMENT OF STRUCTURES THAT REQUIRE A BUILDING PERMIT WITHIN THIS SITE PLAN, OR REVISIONS THEREOF, ARE REQUIRED TO COMPLY WITH THE CITY OF AUSTIN STREET IMPACT FEE ORDINANCES, AS APPLICABLE, AND MUST BE PAID UPON COMPLETION OF THE BUILDING PERMIT PLAN REVIEW FOR EACH BUILDING.
- AN ADMINISTRATIVE ENVIRONMENTAL VARIANCE HAS BEEN GRANTED TO ALLOW CUT UP TO 8 FEET 25-8-341.
- AN ADMINISTRATIVE ENVIRONMENTAL VARIANCE HAS BEEN GRANTED TO ALLOW FILL UP TO 8 FEET 25-8-342

TRAFFIC CONTROL PLAN NOTE:

THIS NOTE IS BEING PLACED ON THE PLAN SET IN THE ABSENCE OF A TEMPORARY TRAFFIC CONTROL PLAN (TCP) WITH THE FULL UNDERSTANDING THAT AN ENGINEERED TCP SHALL BE REVIEWED AND APPROVED BY THE RIGHT OF WAY MANAGEMENT DIVISION. FURTHERMORE, A TCP SHALL BE SUBMITTED TO TCPREVIEW@AUSTINTEXAS.GOV FOR REVIEW A MINIMUM OF 6 WEEKS PRIOR TO THE START OF CONSTRUCTION. THE APPLICANT/PROJECT REPRESENTATIVE FURTHER RECOGNIZES THAT A TCP REVIEW FEE IS REQUIRED FOR THE INITIAL REVIEW AND ALL RE-REVIEWS, AS PRESCRIBED BY THE MOST CURRENT VERSION OF THE CITY'S FEE ORDINANCE.

ACCEPTED FOR CONSTRUCTION:

REVIEWED BY:

FOR DIRECTOR,
DEVELOPMENT SERVICES DEPARTMENT

DATE

AUSTIN WATER

DATE

AUSTIN FIRE DEPARTMENT

DATE

INDUSTRIAL WASTE

DATE

SP-2022-0364C

SITE PLAN APPROVAL SHEET 1 OF 30
FILE NUMBER: SP-2022-0364C APPLICATION DATE: 07/12/2022
APPROVED BY COMMISSION ON: N/A UNDER SECTION 112 OF CHAPTER 255 OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81, LDC) _____
CASE MANAGER: HEATHER CHAFFIN
PROJECT EXPIRATION DATE (ORD.970905-A): _____ DWPZ DDZ 100%.

Director, Development Services Department
RELEASE FOR GENERAL COMPLIANCE: ZONING: LLCO

Rev. 1 _____ Correction 1: _____
Rev. 2 _____ Correction 2: _____
Rev. 3 _____ Correction 3: _____

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

AUSTIN CIVIL
ENGINEERING, INC.
TEPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018



RICH INDUSTRIAL PARK
130 RALPH ABLANEDO DR
AUSTIN, TEXAS 78748

| REV. | DATE | DESCRIPTION | APPROVED BY |
|------|------|-------------|-------------|
| | | | |
| | | | |
| | | | |
| | | | |

JOB: 21-036 DATE: 1/22/24
CAD: DA/MM CHK'D BY: CW
ENGINEER: HS CHK'D BY: _____
SCALE: _____

COVER
SHEET

SITE CIVIL PLAN
1
of 31

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



SITE PLAN RELEASE NOTES

- ORDINANCE REQUIREMENTS
1. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE RELEASED SITE PLAN. ANY ADDITIONAL IMPROVEMENTS WILL REQUIRE SITE PLAN AMENDMENT AND APPROVAL OF DEVELOPMENT SERVICES DEPARTMENT.
 2. ALL SIGNS MUST COMPLY WITH THE REQUIREMENTS OF THE SIGN AND LAND DEVELOPMENT CODE.
 3. A DRIVEWAY PERMIT IS REQUIRED PRIOR TO CONSTRUCTION OF ALL APPROACHES.
 4. THE OWNER IS RESPONSIBLE FOR ALL COST OF RELOCATION OR DAMAGE TO UTILITIES.
 5. ADDITIONAL ELECTRIC EASEMENTS MAY BE REQUIRED AT A LATER DATE.
 6. PARKING DIMENSIONAL AND DESIGN REGULATIONS:
- | PARKING WILL CONFORM TO THE FOLLOWING MINIMUM DIMENSIONAL STANDARDS IN DESIGNING PARKING AREAS: | | | |
|-------------------------------------------------------------------------------------------------|------------------------|------------------------|----------------|
| IF ANGLE OF PARKING IS | WIDTH OF PARKING SPACE | DEPTH OF PARKING SPACE | WIDTH OF AISLE |
| STANDARD 61° TO 90° | 9.0' (VARIES) | 17.5' | 25.0' |
7. ALL BEARINGS, DISTANCES AND EASEMENTS SHALL MATCH THOSE ON THE SUBDIVISION PLAT.
 8. APPROVAL OF THIS SITE PLAN DOES NOT INCLUDE BUILDING AND FIRE CODE APPROVAL NOR BUILDING PERMIT APPROVAL.
 9. WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF AUSTIN.
 10. FOR CONSTRUCTION WITHIN THE RIGHT-OF-WAY, A CONCRETE PERMIT IS REQUIRED.
 11. ALL EXISTING STRUCTURES TO BE REMOVED WILL REQUIRE A DEMOLITION PERMIT FROM THE CITY OF AUSTIN DEVELOPMENT SERVICES DEPARTMENT.
 12. A DEVELOPMENT PERMIT MUST BE ISSUED PRIOR TO AN APPLICATION FOR BUILDING PERMIT FOR NON-CONSOLIDATED OR PLANNING COMMISSION APPROVED SITE PLANS.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION," CITY OF AUSTIN.
2. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED, REVEGETATED, AND GRADED TO DRAIN.
3. ALL DEBRIS AND EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE IN A MANNER NOT TO DAMAGE THE SITE PRIOR TO ACCEPTANCE OF THE PROJECT.
4. ALL FILL MATERIAL PROVIDED SHALL BE APPROVED BY THE ENGINEER OR OWNER PRIOR TO PLACING AND COMPACTING. THE PLASTICITY INDEX MUST BE LESS THAN 15.
5. ALL CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
6. ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 40.
7. LAP ALL BAR SPLICES 24 BAR DIAMETERS OR 48 INCHES.
8. ALL CONCRETE SURFACES SHALL RECEIVE A HEAVY BROOM FINISH.
9. CONCRETE RIP RAP TO BE A MINIMUM 4 1/2" THICK CONCRETE WITH #3S @ 12" O.C.E.W. OR FIBER MESH CONCRETE.
10. PROVIDE CONCRETE EXPANSION JOINTS AT 40 FEET O.C. ON ALL RIP RAP.
11. PROVIDE A MINIMUM CLEARANCE OF 2' BETWEEN OUTSIDE OF STEEL AND FACE OF CONCRETE.
12. ALL CONCRETE WORK SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF AC 301-72.
13. ALL EXPOSED CORNERS FOR CONCRETE WORK SHALL BE HAND TOOLED.
14. THE INFORMATION CONTAINED ON THESE DRAWINGS IN REGARDS TO EXISTING UTILITIES, TOPOGRAPHY, CONTOURS, HYDROGRAPHY, OR SUBSURFACE CONDITIONS IS FURNISHED SOLELY AS THE BEST INFORMATION AVAILABLE AT THIS TIME. ITS ACCURACY IS NOT GUARANTEED AND ITS USE IN NO WAY RELIEVES THE CONTRACTOR OR ANY RESPONSIBILITY FOR LOSSES DUE TO ANY INACCURACIES.
15. ALL REQUIRED RELOCATIONS OR ALTERATIONS OF TELEPHONE POLES, UNDERGROUND CONDUIT, POWER POLES, AND ANY OTHER FACILITIES SHALL BE DONE BY THE CONTRACTOR. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE HIS WORK WITH THAT OF OTHER CONTRACTORS AND UTILITY COMPANIES SO AS NOT TO DELAY THE PROJECT.
16. THE CONTRACTOR SHALL NOTIFY THE CITY BUILDING INSPECTOR BEFORE BEGINNING ANY UTILITY CONSTRUCTION IN PUBLIC R.O.W. OR PUBLIC EASEMENT. NO PIPE SHALL BE LAID UNTIL THE ASSIGNED INSPECTOR HAS MET WITH THE CONTRACTOR OR HIS REPRESENTATIVE AT THE PROJECT SITE.
17. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES FOR EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
18. ALL TRASH COLLECTION FOR THIS SITE WILL BE PERFORMED BY PRIVATE CONTRACTOR HIRED BY THE CONTRACTOR.
19. THE GEO/TECHNICAL REPORT FOR THE SITE SHALL GOVERN ALL CONSTRUCTION MATERIALS AND METHODS RELATED TO: PAVEMENT, BASE, FILL AND EXCAVATION, AND COMPACTION AND TREATMENT OF ON SITE SOILS.
20. 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 A RAIN EVENT. ALL RESURFACING AND REPAIRS SHALL BE COMPLETED WITHIN 24 HOURS. IMMEDIATELY CONTACT A CITY OF AUSTIN ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION.
21. PURSUANT TO 15-12-131 OF THE CITY CODE, THE CONTRACTOR MAY NOT BLOCK, DIRECT, IMPEDE OR REDUCUTE PEDIESTRIAN TRAFFIC NOR PLACE A BARRICADE OR OTHER TRAFFIC CONTROL DEVICE IN A RIGHT-OF-WAY, WITHOUT FIRST OBTAINING A TEMPORARY USE OF RIGHT-OF-WAY PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.

TREE AND NATURAL AREA PROTECTION STANDARD NOTES

- BEFORE CONSTRUCTION**
- ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL BE PROTECTED PER ECM 3.6.1.
- TREE PROTECTION SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE WORK, INCLUDING DEMOLITION OR SITE PREPARATION. REFER TO ECM 3.6.1.A.
- UNFENCED SECTIONS OF THE CRITICAL ROOT ZONE SHALL BE COVERED WITH MULCH AT A MINIMUM DEPTH OF 8 INCHES AND A MAXIMUM DEPTH OF 12 INCHES PER ECM 3.6.1.C.
- WHERE FENCING IS LOCATED 5 FEET OR LESS FROM THE TRUNK OF A PRESERVED TREE, TRUNK WRAPPING SHALL BE INSTALLED PER ECM 3.6.1.D.
- EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AND MAINTAINED SO AS NOT TO CAUSE IMPACTS THAT EXCEED PRESERVATION CRITERIA LISTED IN ECM 3.5.3.D.
- DURING CONSTRUCTION**
- TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER THAT DOES NOT EXCEED PRESERVATION CRITERIA FOR THE TREES TO REMAIN. REFER TO ECM 3.5.2.A.
- FENCING MAY NOT BE TEMPORARILY MOVED OR REMOVED DURING DEVELOPMENT WITHOUT PRIOR AUTHORIZATION. THE FENCED CRITICAL ROOT ZONE SHALL NOT BE USED FOR TOOL OR MATERIAL STORAGE OF ANY KIND AND SHALL BE KEPT FREE OF LITTER. REFER TO ECM 3.6.1.B.3.
- PRUNING SHALL BE IN COMPLIANCE WITH THE CURRENT ANSI A300 STANDARD FOR TREE CARE.
- AFTER CONSTRUCTION**
- TREE PROTECTION SHALL BE REMOVED AT THE END OF THE PROJECT AFTER ALL CONSTRUCTION AND FINAL GRADING IS COMPLETE, BUT BEFORE FINAL INSPECTION. REFER TO ECM 3.6.1.A.
- LANDSCAPE INSTALLATION WITHIN THE CRZ OF PRESERVED TREES, INCLUDING IRIGATION, SOIL AND PLANTINGS, SHALL NOT EXCEED PRESERVATION CRITERIA LISTED IN ECM 3.5.2.
- DOCUMENTATION OF TREE WORK PERFORMED MUST BE PROVIDED TO INSPECTOR PER ECM APPENDIX P-6.

SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D)

- IN CONJUNCTION WITH REMEDIAL CARE, MITIGATION FOR TREES REMOVED MAY INCLUDE SPECIAL CONSTRUCTION TECHNIQUES NOT NORMALLY REQUIRED IN STANDARD SPECIFICATIONS. SOME OF THESE TECHNIQUES INCLUDE THE FOLLOWING:
1. PRIOR TO EXCAVATION WITHIN TREE DRILPHONES 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.
 2. IN CRITICAL ROOT ZONE AREAS THAT CANNOT BE PROTECTED DURING CONSTRUCTION WITH FENCING AND WHERE HEAVY VIBRATION FROM CONSTRUCTION ACTIVITIES IS ANTICIPATED, COVER THE ROOT ZONES WITH LAYERS 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. ADDITIONAL GEOTEXTILE 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.
 3. PERFORM ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE.
 4. 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.
 5. 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.

FILL PLACEMENT & COMPACTION

THE BORROW SOILS INCORPORATED INTO THE EMBANKMENT SHOULD BE PLACED IN LIFTS SUCH THAT ALL LIFTS ARE BONDED TOGETHER. THE SPECIFIC DENSITIES ARE MET THROUGHOUT EACH LIFT, THE MOISTURE CONTENT IS UNIFORM THROUGHOUT THE FILL, AND CLOSURE ARE BROKEN DOWN AND BONDED INTO THE REST OF THE LIFT THICKNESS SHOULD WITHOUT NESTING AND VOIDS. THE MAXIMUM LOOSE LIFT THICKNESS SHOULD BE ABOUT 8 INCHES AND COMPACTED TO 95% OF TDOT TEST METHOD TEX-113.5 MOISTURE CONTENTS SHOULD BE MAINTAINED WITH THE RANGE OF 1% TO +3% OF OPTIMUM MOISTURE CONTENT. BORROW SOILS MORE THAN ABOUT 3% DRY OF OPTIMUM SHOULD BE PRE PREPARED IN THE BORROW AREA, AND SHOULD NOT BE PLACED ON THE FILL UNTIL THEIR MOISTURE CONTENTS HAVE EQUILIBRATED. THE EXISTING SLOPES SHOULD BE BENCHMARKED TO ALLOW THE EMBANKMENT MATERIAL TO BE PLACED IN HORIZONTAL LIFTS, RATHER THAN PLATING THE EXISTING SLOPES.

GENERAL CONSTRUCTION NOTES

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF AUSTIN MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
 2. CONTRACTOR SHALL CALL TEXAS 811 (811 OR 1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.
 3. CONTRACTOR SHALL NOTIFY THE CITY OF AUSTIN – SITE & SUBDIVISION DIVISION TO SUBMIT REQUIRED DOCUMENTATION, PAY CONSTRUCTION INSPECTION FEES, AND TO SCHEDULE THE REQUIRED PRE-CONSTRUCTION MEETING. THIS MEETING MUST BE HELD PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE R.O.W. OR PUBLIC EASEMENTS. PLEASE VISIT [HTTP://AUSTINTEXAS.GOV/PAGE/COMMERCIAL-SITE-AND-SUBDIVISION-INSPECTIONS](http://austintexas.gov/page/commercial-site-and-subdivision-inspections) FOR A LIST OF SUBMITTAL REQUIREMENTS, INFORMATION CONCERNING FEES, AND CONTACT INFORMATION.
 4. FOR SLOPES OR TRENCHES GREATER THAN FIVE FEET IN DEPTH, A NOTE MUST BE ADDED STATING: 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 STREET, AUSTIN TEXAS.)
 5. ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.
 6. UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS AND PRIOR TO THE FOLLOWING, THE ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DRAINAGE, FILTRATION AND DETENTION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS.
- RELEASE OF THE CERTIFICATE OF OCCUPANCY BY THE DEVELOPMENT SERVICES DEPARTMENT (INSIDE THE CITY LIMITS), OR
- INSTALLATION OF AN ELECTRIC OR WATER METER (IN THE FIVE-MILE ETJ)

DEVELOPER INFORMATION

| | |
|--------------------------------------------------------------------------|---------|
| OWNER | PHONE # |
| OWNER ADDRESS | |
| OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS | PHONE # |
| PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE | PHONE # |
| PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE | PHONE # |

FIRE PREVENTION

1. THE AUSTIN FIRE DEPARTMENT REQUIRES ASPHALT OR CONCRETE PAVEMENT PRIOR TO CONSTRUCTION AS AN "ALL-WEATHER DRIVE SURFACE."
2. HYDRANTS MUST BE INSTALLED WITH THE CENTER OF THE 4-INCH OPENING AT LEAST EIGHTEEN (18) INCHES ABOVE FINISHED GRADE. THE 4-INCH OPENING MUST FACE THE DRIVEWAY OR STREET WITH A 3-4 FOOT SETBACK FROM CURBLINES. NO OBSTRUCTION IS ALLOWED WITHIN THREE (3) FEET OF ANY HYDRANT.
3. THE 4-INCH OPENING MUST BE TOTALLY UNOBSTRUCTED FROM THE STREET.
4. ALL PERVIOUS/DECORATIVE PAVING SHALL BE ENGINEERED AND INSTALLED FOR 80,000 LB. LIVE VEHICLE LOADS. ANY PERVIOUS/DECORATIVE PAVING WITHIN 100' OF ANY BUILDING MUST BE APPROVED BY THE FIRE DEPARTMENT.
5. COMMERCIAL DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS OR GREATER SHALL NOT BE STORED OR PLACED WITHIN TEN (10) FEET OF OPENINGS, COMBUSTIBLE WALLS, OR COMBUSTIBLE EAVE LINES.
5. TIMING OF INSTALLATION: WHEN FIRE PROTECTION FACILITIES ARE INSTALLED BY THE DEVELOPER, SUCH FACILITIES SHALL INCLUDE ALL SURFACE ACCESS ROADS WHICH SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION, WHERE ALTERNATIVE METHODS OF PROTECTIONS, AS APPROVED BY THE FIRE CHIEF, ARE PROVIDED. THE ABOVE MUST BE MODIFIED OR WAIVED.
6. FIRE LANES DESIGNATED ON THE SITE PLAN SHALL BE REGISTERED WITH CITY OF AUSTIN FIRE MARSHAL'S OFFICE AND INSPECTED FOR FINAL APPROVAL.
7. VERTICAL CLEARANCE REQUIRED FOR FIRE APPARATUS IS 14 FEET, FOR FULL WIDTH OF ACCESS DRIVE.

TRENCH SAFETY NOTES

1. IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ALL TRENCHES OVER 5 FEET IN DEPTH IN EITHER HARD OR COMPACT OR SOFT AND UNSTABLE SOIL SHALL BE SLOPED, SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED. FURTHERMORE, ALL TRENCHES LESS THAN 5 FEET IN DEPTH SHALL ALSO BE EFFECTIVELY PROTECTED WHEN HAZARDOUS GROUND MOVEMENT MAY BE EXPECTED. TRENCH SAFETY SYSTEMS TO BE UTILIZED FOR THIS PROJECT SHALL BE SUPPLIED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE TRENCH SAFETY PLAN REVIEWED, SIGNED, AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS.
2. IN ACCORDANCE WITH THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, WHEN EMPLOYEES ARE REQUIRED TO BE IN TRENCHES 4 FEET DEEP OR MORE, ADEQUATE MEANS OF EXIT, SUCH AS A LADDER OR STEPS, MUST BE PROVIDED AND LOCATED SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL.
3. IF TRENCH SAFETY SYSTEM DETAILS WERE NOT PROVIDED TO THE ENGINEER FOR REVIEW BECAUSE TRENCHES WERE ANTICIPATED TO BE LESS THAN 5 FEET IN DEPTH AND DURING CONSTRUCTION IT IS FOUND THAT TRENCHES ARE IN FACT 5 FEET OR MORE IN DEPTH OR TRENCHES LESS THAN 5 FEET IN DEPTH ARE IN AN AREA WHERE HAZARDOUS GROUND MOVEMENT IS EXPECTED, ALL CONSTRUCTION SHALL CEASE. THE TRENCHED AREA SHALL BE BARRICADED AND THE ENGINEER NOTIFIED IMMEDIATELY. CONSTRUCTION SHALL NOT RESUME UNTIL APPROPRIATE TRENCH SAFETY SYSTEM DETAILS, AS DESIGNED BY A PROFESSIONAL ENGINEER, ARE SUBMITTED TO AND ACCEPTED BY THE CITY OF AUSTIN.

EROSION & SEDIMENTATION CONTROL

1. EROSION CONTROL MEASURES, SITE WORK AND RESTORATION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN EROSION AND SEDIMENTATION CONTROL ORDINANCE.
2. ALL SLOPES SHALL BE SLOPED OR SEEDED WITH APPROVED GRASS, GRASS MIXTURE OR GROUND COVER SUITABLE TO THE AREA AND SEEDING IN WHICH THEY ARE APPLIED.
3. SILT FENCES, ROCK BERM, SEDIMENTATION BASINS AND SIMILARLY RECOGNIZED TECHNIQUES AND MATERIALS SHALL BE EMPLOYED DURING CONSTRUCTION TO PREVENT POINT SOURCE SEDIMENTATION LOADING OF DOWNSTREAM FACILITIES. SUCH INSTALLATION SHALL BE REGULARLY INSPECTED BY THE CITY OF AUSTIN FOR EFFECTIVENESS. ADDITIONAL MEASURES MAY BE REQUIRED IF, IN THE OPINION OF THE CITY ENGINEER, THEY ARE WARRANTED.
4. ALL TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL FINAL INSPECTION AND APPROVAL OF THE PROJECT BY THE ENGINEER AND THE CITY ENVIRONMENTAL INSPECTOR. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PREVENT ALL TEMPORARY EROSION CONTROL STRUCTURES AND TO REMOVE EACH STRUCTURE AS APPROVED BY THE ENGINEER.

APPENDIX P-1 - EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING 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 ECA PLAN SHALL BE CONSULTED AND USED AS THE BASIS FOR A TYPES REQUIRED SWPPP. IF A SWPPP IS REQUIRED, THE OWNER IS RESPONSIBLE FOR THE CITY OF AUSTIN REVIEW OF THE SWPPP. THE SWPPP SHALL BE DURING CONSTRUCTION, INCLUDING AT THE PRE-CONSTRUCTION MEETING. THE CHECKLIST BELOW CONTAINS THE BASIC ELEMENTS THAT SHALL BE REVIEWED FOR PERMIT APPROVAL BY COA ECA PLAN REVIEWERS AS WELL AS COA ECA 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 EBS 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 AND NOTIFICATION 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 SEASONAL WATER FLOWING ON AND THROUGH THE PROJECT
 - 3.3 STABILIZE SOILS
 - 3.4 PROTECT SLOPES
 - 3.5 PROTECT STORM DRAIN OUTLETS
 - 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, PERIMETER INSPECTOR AND ENVIRONMENTAL INSPECTOR IN ADVANCE OF CONSTRUCTION. THE EROSION/SEDIMENTATION CONTROL AND TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE OWNER OR OWNER'S REPRESENTATIVE SHALL NOTIFY THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT, 974-2278, AT LEAST THREE (3) DAYS PRIOR TO THE MEETING DATE. COA APPROVED ESC PLAN AND TYPES SWPPP (IF REQUIRED) SHOULD BE REVIEWED BY COA ECA INSPECTOR AT THIS TIME.
5. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE PLAN SHALL BE REVIEWED AND APPROVED BY THE ENGINEER. 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. PLAN REVISIONS MUST BE REQUESTED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION. CORRECT CONTROL INADEQUACIES.
6. THE CONTRACTOR IS REQUIRED TO PROVIDE A CERTIFIED INSPECTOR WITH EITHER A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), CERTIFIED EROSION, SEDIMENT AND STORMWATER- INSPECTOR (CESD), OR A CERTIFIED INSPECTOR OF SEDIMENTATION AND EROSION CONTROLS (CSECO) CERTIFICATION TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT 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.
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 ROADWAY AND THE ROADWAY MUST BE REPAIRED 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. 6015.3(A)). DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES.
 - B. TOPSOIL REMOVED FROM THE EXISTING SITE IS ENCOURAGED FOR USE, BUT IT SHOULD MEET THE STANDARDS SET FORTH IN 6015.
- AN OWNER/ENGINEER MAY PROPOSE USE OF ON-SITE SALVAGED TOPSOIL WHICH DOES NOT MEET THE CRITERIA A STANDARD SPECIFICATION 6015 BY PROVIDING A SOIL ANALYSIS AND A WRITTEN STATEMENT FROM A QUALIFIED PROFESSIONAL IN SOILS, LANDSCAPE ARCHITECTURE, OR AGRONOMY IDENTIFYING THE ON-SITE TOPSOIL WILL PROVIDE AN EQUIVALENT GROWTH MEDIA AND SPECIFYING WHAT, IF ANY, SOIL AMENDMENTS ARE REQUIRED.
- SOIL AMENDMENTS SHALL BE WORKED INTO THE EXISTING ON-SITE TOPSOIL WITH A DISC OR TILLER TO CREATE A WELL-BLENDED MATERIAL.

THE VEGETATED STABILIZATION OF AREAS DISTURBED BY CONSTRUCTION SHALL BE AS FOLLOWS:

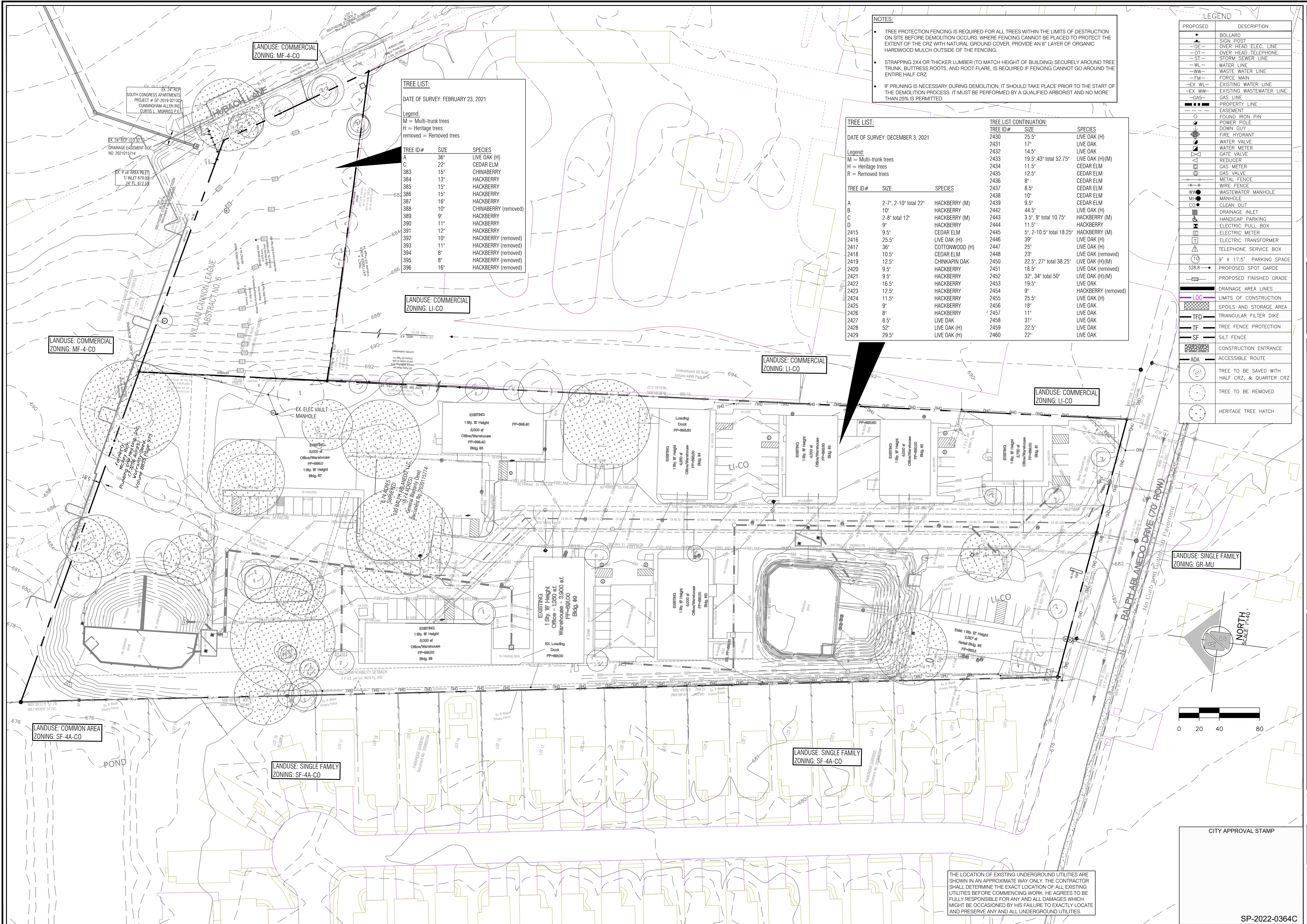
TEMPORARY VEGETATIVE STABILIZATION:

1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH OR INCLUDE A COOL SEASON COVER ONLY (WESTERN WHEATGRASS (PACIFIC) OR CRYSTAL BERMUDA AT 5.0 POUNDS PER ACRE) AND A WARM SEASON COVER (PER ACRE, CEREAL RYE GRASS (SECALE CEREALE) AT 4.5 POUNDS PER ACRE). THE CONTRACTOR MUST ENSURE THAT ANY SEED APPLICATION REQUIRING A COOL SEASON COVER 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 ITEMS 6045 OR 6095.
- A. FERTILIZER SHALL BE APPLIED BY A SOIL TEST AND A FERTILIZER APPLICATION RATE OF 1.0 POUNDS PER ACRE. 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 EROSION OR APPROPRIATE CREDITS. THIS FORM SHALL BE DIRECTLY SUBMITTED TO AUSTIN WATER TAPS OFFICE FOR REVIEW AND PROCESSING.
- D. NO CONNECTION MAY BE MADE BETWEEN THE PRIVATE PLUMBING AND AUSTIN WATER INFRASTRUCTURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER APPLICATION OF THE WATER TAPS OFFICE FOR REVIEW AND PROCESSING.
2. METER BOXES AND CLEAN OUTS SHALL NOT BE LOCATED WITHIN PAVED AREAS SUCH AS DRIVEWAYS AND SIDEWALKS.

| 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 REQUIRED, THE GRASSES SHALL BE MOWED TO A HEIGHT OF LESS THAN ONE-HALF (½) INCH AND THE AREA SHALL BE RE-SEEDING 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 ITEMS 6045 OR 6095.
- A. FERTILIZER USE SHALL FOLLOW THE RECOMMENDATION OF A SOIL TEST. SEE ITEM 6065, FERTILIZER. APPLICATIONS OF FERTILIZER (AND PESTICIDE) ON CITY-OWNED AND MANAGED PROPERTY REQUIRES THE YEARLY SUBMITTAL OF A PESTICIDE AND FERTILIZER APPLICATION RECORD TO THE CITY OF AUSTIN. 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. PERMANENT VEGETATIVE STABILIZATION 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. PERMANENT VEGETATIVE STABILIZATION 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. 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NOTES:

- TREE PROTECTION FENCING IS REQUIRED FOR ALL TREES WITHIN THE LIMITS OF DESTRUCTION ON SITE BEFORE DEMOLITION OCCURS. WHERE FENCING CANNOT BE PLACED TO PROTECT THE EXTENT OF THE CRZ WITH NATURAL GROUND COVER, PROVIDE AN 8" LAYER OF ORGANIC HARDWOOD MULCH OUTSIDE OF THE FENCING.
- STRAPPING 2X4 OR THICKER LUMBER (TO MATCH HEIGHT OF BUILDING) SECURELY AROUND TREE TRUNK, BUTTRESS ROOTS, AND ROOT FLARE, IS REQUIRED IF FENCING CANNOT GO AROUND THE ENTIRE HALF CRZ.
- IF PRUNING IS NECESSARY DURING DEMOLITION, IT SHOULD TAKE PLACE PRIOR TO THE START OF THE DEMOLITION PROCESS. IT MUST BE PERFORMED BY A QUALIFIED ARBORIST AND NO MORE THAN 25% IS PERMITTED.

| TREE LIST: | | | TREE LIST CONTINUATION: | | |
|----------------------------------|-----------------------|----------------|-------------------------|--------------------------|---------------------|
| DATE OF SURVEY: DECEMBER 3, 2021 | | | TREE ID# | SIZE | SPECIES |
| Legend: | | | 2430 | 25.5" | LIVE OAK (H) |
| M = Multi-trunk trees | | | 2431 | 17" | LIVE OAK |
| H = Heritage trees | | | 2432 | 14.5" | LIVE OAK |
| R = Removed trees | | | 2433 | 19.5" 43" total 52.75" | LIVE OAK (H)(M) |
| TREE ID# | SIZE | SPECIES | 2434 | 11.5" | CEDAR ELM |
| A | 2-7", 2-10" total 22" | HACKBERRY (M) | 2435 | 12.5" | CEDAR ELM |
| B | 10" | HACKBERRY | 2436 | 8" | CEDAR ELM |
| C | 2-8" total 12" | HACKBERRY (M) | 2437 | 8.5" | CEDAR ELM |
| D | 9" | HACKBERRY | 2438 | 10" | CEDAR ELM |
| 2415 | 9.5" | CEDAR ELM | 2439 | 9.5" | CEDAR ELM |
| 2416 | 25.5" | LIVE OAK (H) | 2442 | 44.5" | LIVE OAK (H) |
| 2417 | 36" | COTTONWOOD (H) | 2443 | 3.5", 9" total 10.75" | HACKBERRY (M) |
| 2418 | 10.5" | CEDAR ELM | 2444 | 11.5" | HACKBERRY |
| 2419 | 12.5" | CHINKAPIN OAK | 2445 | 5", 2-10.5" total 18.25" | HACKBERRY (M) |
| 2420 | 9.5" | HACKBERRY | 2446 | 39" | LIVE OAK (H) |
| 2421 | 9.5" | HACKBERRY | 2447 | 25" | LIVE OAK (H) |
| 2422 | 16.5" | HACKBERRY | 2448 | 23" | LIVE OAK (removed) |
| 2423 | 12.5" | HACKBERRY | 2450 | 22.5", 27" total 38.25" | LIVE OAK (H)(M) |
| 2424 | 11.5" | HACKBERRY | 2451 | 18.5" | LIVE OAK (removed) |
| 2425 | 9" | HACKBERRY | 2452 | 32" 34" total 50" | LIVE OAK (H)(M) |
| 2426 | 8" | HACKBERRY | 2453 | 19.5" | LIVE OAK |
| 2427 | 8.5" | LIVE OAK | 2454 | 9" | HACKBERRY (removed) |
| 2428 | 52" | LIVE OAK (H) | 2455 | 25.5" | LIVE OAK (H) |
| 2429 | 29.5" | LIVE OAK (H) | 2456 | 18" | LIVE OAK |
| | | | 2457 | 11" | LIVE OAK |
| | | | 2458 | 31" | LIVE OAK |
| | | | 2459 | 22.5" | LIVE OAK |
| | | | 2460 | 22" | LIVE OAK |

| LEGEND | |
|----------|-----------------------------------------------|
| PROPOSED | DESCRIPTION |
| ● | BOLLARD |
| — | SIGN POST |
| —OE— | OVER HEAD ELEC. LINE |
| —OT— | OVER HEAD TELEPHONE |
| —ST— | STORM SEWER LINE |
| —WL— | WATER LINE |
| —WW— | WASTE WATER LINE |
| —FM— | FORCE MAIN |
| —EX WL— | EXISTING WATER LINE |
| —EX WW— | EXISTING WASTEWATER LINE |
| —GAS— | GAS LINE |
| — | PROPERTY LINE |
| — | EASEMENT |
| — | FOUND IRON PIN |
| — | POWER POLE |
| — | DOWN GUY |
| — | FIRE HYDRANT |
| — | WATER VALVE |
| — | WATER METER |
| — | GATE VALVE |
| — | REDUCER |
| — | GAS METER |
| — | GAS VALVE |
| — | METAL FENCE |
| — | WIRE FENCE |
| — | WASTEWATER MANHOLE |
| — | MANHOLE |
| — | CLEAN OUT |
| — | DRAINAGE INLET |
| — | HANDICAP PARKING |
| — | ELECTRIC PULL BOX |
| — | ELECTRIC METER |
| — | ELECTRIC TRANSFORMER |
| — | TELEPHONE SERVICE BOX |
| — | 9' x 17.5' PARKING SPACE |
| — | PROPOSED SPOT GARDE |
| — | PROPOSED FINISHED GRADE |
| — | DRAINAGE AREA LINES |
| — | LIMITS OF CONSTRUCTION |
| — | SPOILS AND STORAGE AREA |
| — | TRIANGULAR FILTER DIKE |
| — | TREE FENCE PROTECTION |
| — | SILT FENCE |
| — | CONSTRUCTION ENTRANCE |
| — | ACCESSIBLE ROUTE |
| — | TREE TO BE SAVED WITH HALF CRZ, & QUARTER CRZ |
| — | TREE TO BE REMOVED |
| — | HERITAGE TREE HATCH |

AUSTIN CIVIL ENGINEERING, INC.
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AUSTIN, TX 78748
PH: (512) 306-0018

RICH INDUSTRIAL PARK
130 RALPH ABLANEDO DR
AUSTIN, TEXAS 78748

REVISIONS

| REV | DATE | DESCRIPTION | APPROVED BY |
|-----|------|-------------|-------------|
| | | | |
| | | | |
| | | | |

JOB: 21-036
CAD: DA/ML
ENGINEER: HS

DATE: 1/22/24
CHK'D BY: CW
CHK'D BY:

SCALE:

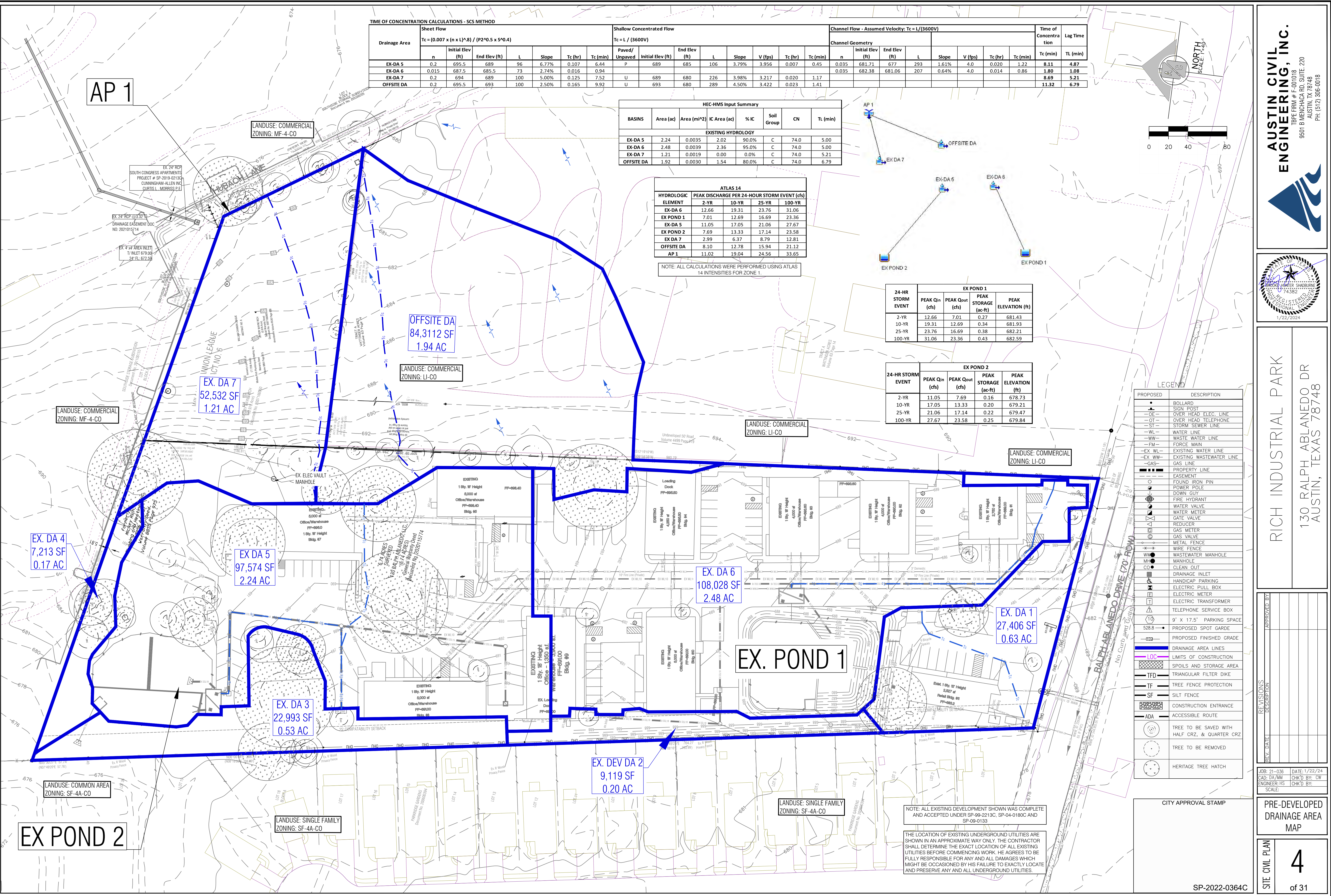
EXISTING TOPOGRAPHIC AND TREE SURVEY

SITE CIVIL PLAN

3

of 31

SP-2022-0364C



| TIME OF CONCENTRATION CALCULATIONS - SCS METHOD | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------------------|-----------------------------------------------|-------------------|---------------|-----|-------|---------|----------|---------------------------|-------------------|---------------|-----|-------|---------|---------|-------------------------------------------------|-------|-------------------|---------------|-----|-------|---------|-----------------------|----------|---------|----------|
| Drainage Area | Sheet Flow | | | | | | | Shallow Concentrated Flow | | | | | | | Channel Flow - Assumed Velocity: Tc = L/(3600V) | | | | | | | Time of Concentration | Lag Time | | |
| | Tc = (0.007 x (n x L)^.8) / (P^2*0.5 x S^0.4) | | | | | | | Tc = L / (3600V) | | | | | | | Channel Geometry | | | | | | | | | | |
| | n | Initial Elev (ft) | End Elev (ft) | L | Slope | Tc (hr) | Tc (min) | Paved/Unpaved | Initial Elev (ft) | End Elev (ft) | L | Slope | V (fps) | Tc (hr) | Tc (min) | n | Initial Elev (ft) | End Elev (ft) | L | Slope | V (fps) | | | Tc (hr) | Tc (min) |
| EX-DA 5 | 0.2 | 695.5 | 689 | 96 | 6.77% | 0.107 | 6.44 | P | 689 | 685 | 106 | 3.79% | 3.956 | 0.007 | 0.45 | 0.035 | 681.71 | 677 | 293 | 1.61% | 4.0 | 0.020 | 1.22 | 8.11 | 4.87 |
| EX-DA 6 | 0.015 | 687.5 | 685.5 | 73 | 2.74% | 0.016 | 0.94 | | | | | | | | | 0.035 | 682.38 | 681.06 | 207 | 0.64% | 4.0 | 0.014 | 0.86 | 1.80 | 1.08 |
| EX-DA 7 | 0.2 | 694 | 689 | 100 | 5.00% | 0.125 | 7.52 | U | 689 | 680 | 226 | 3.98% | 3.217 | 0.020 | 1.17 | | | | | | | | | 8.69 | 5.21 |
| OFFSITE DA | 0.2 | 695.5 | 693 | 100 | 2.50% | 0.165 | 9.92 | U | 693 | 680 | 289 | 4.50% | 3.422 | 0.023 | 1.41 | | | | | | | | | 11.32 | 6.79 |

| HEC-HMS Input Summary | | | | | | | |
|-----------------------|-----------|------------|--------------|-------|------------|------|----------|
| BASINS | Area (ac) | Area (mi²) | IC Area (ac) | % IC | Soil Group | CN | Tl (min) |
| EXISTING HYDROLOGY | | | | | | | |
| EX-DA 5 | 2.24 | 0.0035 | 2.02 | 90.0% | C | 74.0 | 5.00 |
| EX-DA 6 | 2.48 | 0.0039 | 2.36 | 95.0% | C | 74.0 | 5.00 |
| EX-DA 7 | 1.21 | 0.0019 | 0.00 | 0.0% | C | 74.0 | 5.21 |
| OFFSITE DA | 1.92 | 0.0030 | 1.54 | 80.0% | C | 74.0 | 6.79 |

| ATLAS 14 | | | | |
|----------------------------------------------|-------|-------|-------|--------|
| PEAK DISCHARGE PER 24-HOUR STORM EVENT (cfs) | | | | |
| HYDROLOGIC ELEMENT | 2-YR | 10-YR | 25-YR | 100-YR |
| EX-DA 6 | 12.66 | 19.31 | 23.76 | 31.06 |
| EX POND 1 | 7.01 | 12.69 | 16.69 | 23.36 |
| EX-DA 5 | 11.05 | 17.05 | 21.06 | 27.67 |
| EX POND 2 | 7.69 | 13.33 | 17.14 | 23.58 |
| EX DA 7 | 2.99 | 6.37 | 8.79 | 12.81 |
| OFFSITE DA | 8.10 | 12.78 | 15.94 | 21.12 |
| AP 1 | 11.02 | 19.04 | 24.56 | 33.65 |

NOTE: ALL CALCULATIONS WERE PERFORMED USING ATLAS 14 INTENSITIES FOR ZONE 1.

| 24-HR STORM EVENT | EX POND 1 | | | |
|-------------------|----------------|-----------------|----------------------|---------------------|
| | PEAK Qin (cfs) | PEAK Qout (cfs) | PEAK STORAGE (ac-ft) | PEAK ELEVATION (ft) |
| 2-YR | 12.66 | 7.01 | 0.27 | 681.43 |
| 10-YR | 19.31 | 12.69 | 0.34 | 681.93 |
| 25-YR | 23.76 | 16.69 | 0.38 | 682.21 |
| 100-YR | 31.06 | 23.36 | 0.43 | 682.59 |

| 24-HR STORM EVENT | EX POND 2 | | | |
|-------------------|----------------|-----------------|----------------------|---------------------|
| | PEAK Qin (cfs) | PEAK Qout (cfs) | PEAK STORAGE (ac-ft) | PEAK ELEVATION (ft) |
| 2-YR | 11.05 | 7.69 | 0.16 | 678.73 |
| 10-YR | 17.05 | 13.33 | 0.20 | 679.21 |
| 25-YR | 21.06 | 17.14 | 0.22 | 679.47 |
| 100-YR | 27.67 | 23.58 | 0.25 | 679.84 |

| LEGEND | |
|----------|-----------------------------------------------|
| PROPOSED | DESCRIPTION |
| • | BOLLARD |
| — | SIGN POST |
| — | OVER HEAD ELEC. LINE |
| — | OVER HEAD TELEPHONE |
| — | STORM SEWER LINE |
| — | WATER LINE |
| — | WASTE WATER LINE |
| — | FORCE MAIN |
| — | EXISTING WATER LINE |
| — | EXISTING WASTEWATER LINE |
| — | PROPERTY LINE |
| — | EASEMENT |
| — | FOUND IRON PIN |
| — | POWER POLE |
| — | DOWN GUY |
| — | FIRE HYDRANT |
| — | WATER VALVE |
| — | WATER METER |
| — | GATE VALVE |
| — | REDUCER |
| — | GAS METER |
| — | GAS VALVE |
| — | METAL FENCE |
| — | WIRE FENCE |
| — | WASTEWATER MANHOLE |
| — | MANHOLE |
| — | CLEAN OUT |
| — | DRAINAGE INLET |
| — | HANDICAP PARKING |
| — | ELECTRIC PULL BOX |
| — | ELECTRIC METER |
| — | ELECTRIC TRANSFORMER |
| — | TELEPHONE SERVICE BOX |
| — | 9' x 17.5' PARKING SPACE |
| — | PROPOSED SPOT GARDE |
| — | PROPOSED FINISHED GRADE |
| — | DRAINAGE AREA LINES |
| — | LIMITS OF CONSTRUCTION |
| — | SPOILS AND STORAGE AREA |
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| — | CONSTRUCTION ENTRANCE |
| — | ACCESSIBLE ROUTE |
| — | TREE TO BE SAVED WITH HALF CRZ, & QUARTER CRZ |
| — | TREE TO BE REMOVED |
| — | HERITAGE TREE HATCH |

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RICH INDUSTRIAL PARK
130 RALPH ABLANEDO DR
AUSTIN, TEXAS 78748

REVISIONS

| REV. | DATE | DESCRIPTION | APPROVED BY |
|------|------|-------------|-------------|
| | | | |
| | | | |
| | | | |

JOB: 21-036
DAD: DA/MM
ENGINEER: HS

DATE: 1/22/24
CHK'D BY: CW
CHK'D BY:

SCALE:

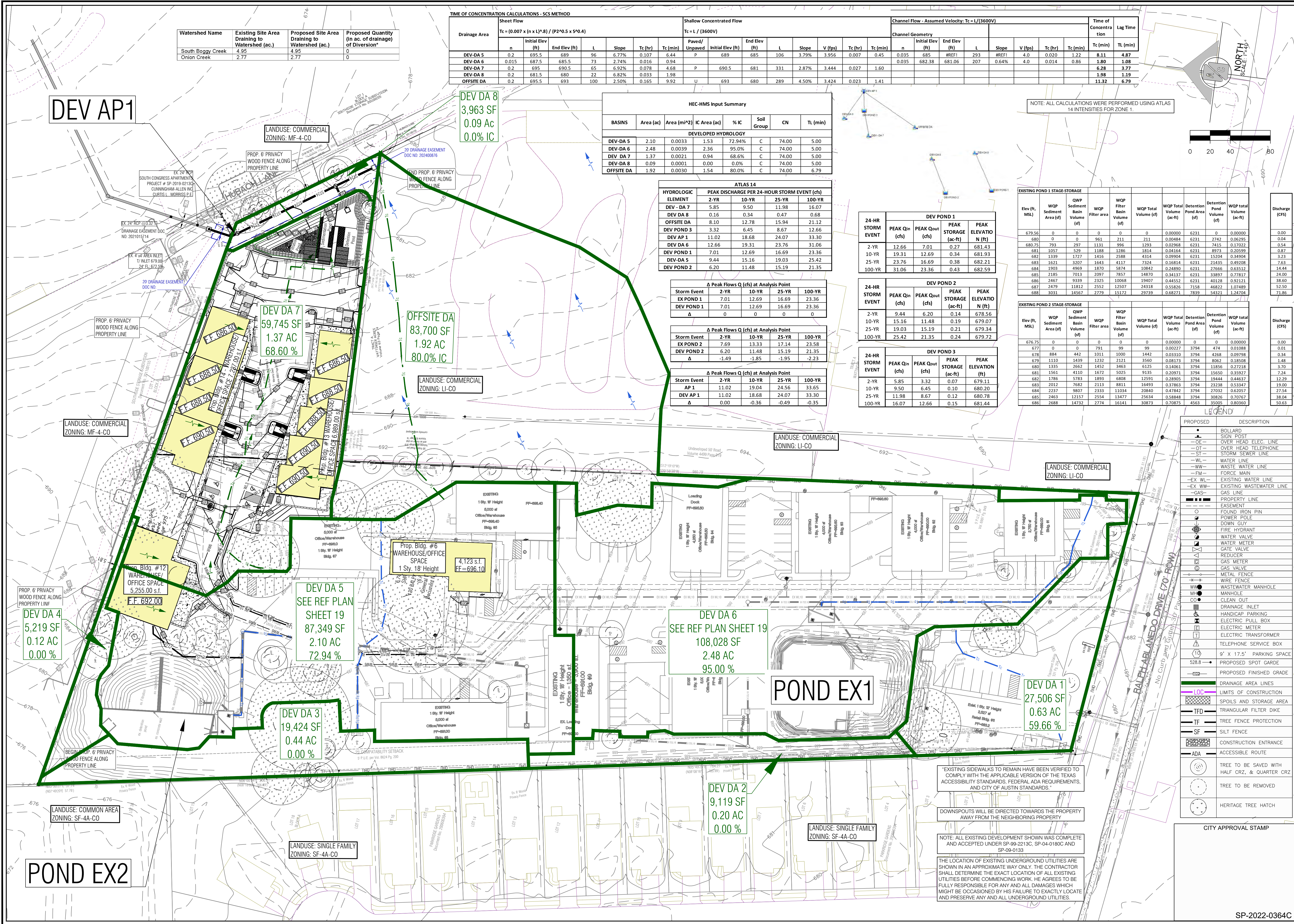
PRE-DEVELOPED DRAINAGE AREA MAP

SITE CIVIL PLAN

4

of 31

SP-2022-0364C



| Watershed Name | Existing Site Area Draining to Watershed (ac.) | Proposed Site Area Draining to Watershed (ac.) | Proposed Quantity (in ac. of drainage) of Diversion* |
|-------------------|------------------------------------------------|------------------------------------------------|------------------------------------------------------|
| South Boggy Creek | 4.95 | 4.95 | 0 |
| Onion Creek | 2.77 | 2.77 | 0 |

TIME OF CONCENTRATION CALCULATIONS - SCS METHOD

| Drainage Area | Sheet Flow | | | | | | Shallow Concentrated Flow | | | | | |
|---------------|------------|-------------------|---------------|-----|-------|---------|---------------------------|-------------------|---------------|-----|-------|---------|
| | n | Initial Elev (ft) | End Elev (ft) | L | Slope | Tc (hr) | Paved/ Unpaved | Initial Elev (ft) | End Elev (ft) | L | Slope | Tc (hr) |
| DEV-DA 5 | 0.2 | 695.5 | 689 | 96 | 6.77% | 0.107 | 6.44 | P | 689 | 685 | 106 | 3.79% |
| DEV-DA 6 | 0.015 | 687.5 | 685.5 | 73 | 2.74% | 0.016 | 0.94 | P | 685 | 681 | 331 | 2.87% |
| DEV-DA 7 | 0.2 | 695 | 690.5 | 65 | 6.92% | 0.078 | 4.68 | P | 690.5 | 681 | 331 | 2.87% |
| DEV-DA 8 | 0.2 | 681.5 | 680 | 22 | 6.82% | 0.033 | 1.98 | U | 693 | 680 | 289 | 4.50% |
| OFFSITE DA | 0.2 | 695.5 | 693 | 100 | 2.50% | 0.165 | 9.92 | U | 693 | 680 | 289 | 4.50% |

| HEC-HMS Input Summary | | | | | | |
|-----------------------|-----------|-------------|--------------|--------|------------|----------|
| BASINS | Area (ac) | Area (mi^2) | IC Area (ac) | % IC | Soil Group | TL (min) |
| DEV-DA 5 | 2.10 | 0.0033 | 1.53 | 72.94% | C | 74.00 |
| DEV-DA 6 | 2.48 | 0.0039 | 2.36 | 95.00% | C | 74.00 |
| DEV DA 7 | 1.37 | 0.0021 | 0.94 | 68.60% | C | 74.00 |
| DEV-DA 8 | 0.09 | 0.0001 | 0.00 | 0.00% | C | 74.00 |
| OFFSITE DA | 1.92 | 0.0030 | 1.54 | 80.00% | C | 74.00 |

| ATLAS 14 | | | | |
|--------------------|-------|-------|-------|--------|
| HYDROLOGIC ELEMENT | 2-YR | 10-YR | 25-YR | 100-YR |
| DEV-DA 5 | 5.85 | 9.50 | 11.98 | 16.07 |
| DEV-DA 6 | 0.16 | 0.34 | 0.47 | 0.68 |
| DEV-DA 7 | 8.10 | 12.78 | 15.94 | 21.12 |
| DEV-DA 8 | 3.32 | 6.45 | 8.67 | 12.66 |
| OFFSITE DA | 11.02 | 18.68 | 24.07 | 33.30 |
| DEV-DA 5 | 11.02 | 18.68 | 24.07 | 33.30 |
| DEV-DA 6 | 12.66 | 19.31 | 23.76 | 31.06 |
| DEV-DA 7 | 7.01 | 12.69 | 16.69 | 23.36 |
| DEV-DA 8 | 9.44 | 15.16 | 19.03 | 25.42 |
| DEV-DA 2 | 6.20 | 11.48 | 15.19 | 21.35 |

| Peak Flows Q (cfs) at Analysis Point | | | | |
|--------------------------------------|------|-------|-------|--------|
| Storm Event | 2-YR | 10-YR | 25-YR | 100-YR |
| EX POND 1 | 7.01 | 12.69 | 16.69 | 23.36 |
| DEV POND 1 | 7.01 | 12.69 | 16.69 | 23.36 |
| Δ | 0 | 0 | 0 | 0 |

| Peak Flows Q (cfs) at Analysis Point | | | | |
|--------------------------------------|-------|-------|-------|--------|
| Storm Event | 2-YR | 10-YR | 25-YR | 100-YR |
| EX POND 2 | 7.69 | 13.33 | 17.14 | 23.58 |
| DEV POND 2 | 6.20 | 11.48 | 15.19 | 21.35 |
| Δ | -1.49 | -1.85 | -1.95 | -2.23 |

| Peak Flows Q (cfs) at Analysis Point | | | | |
|--------------------------------------|-------|-------|-------|--------|
| Storm Event | 2-YR | 10-YR | 25-YR | 100-YR |
| AP 1 | 11.02 | 19.04 | 24.56 | 33.65 |
| DEV AP 1 | 11.02 | 18.68 | 24.07 | 33.30 |
| Δ | 0.00 | -0.36 | -0.49 | -0.35 |

| DEV POND 1 | | | | |
|-------------------|----------------|-----------------|----------------------|---------------------|
| 24-HR STORM EVENT | PEAK Qin (cfs) | PEAK Qout (cfs) | PEAK STORAGE (ac-ft) | PEAK ELEVATION (ft) |
| 2-YR | 12.66 | 7.01 | 0.27 | 681.43 |
| 10-YR | 19.31 | 12.69 | 0.34 | 681.93 |
| 25-YR | 23.76 | 16.69 | 0.38 | 682.21 |
| 100-YR | 31.06 | 23.36 | 0.43 | 682.59 |

| DEV POND 2 | | | | |
|-------------------|----------------|-----------------|----------------------|---------------------|
| 24-HR STORM EVENT | PEAK Qin (cfs) | PEAK Qout (cfs) | PEAK STORAGE (ac-ft) | PEAK ELEVATION (ft) |
| 2-YR | 9.44 | 6.20 | 0.14 | 678.56 |
| 10-YR | 15.16 | 11.48 | 0.19 | 679.07 |
| 25-YR | 19.03 | 15.19 | 0.21 | 679.34 |
| 100-YR | 25.42 | 21.35 | 0.24 | 679.72 |

| DEV POND 3 | | | | |
|-------------------|----------------|-----------------|----------------------|---------------------|
| 24-HR STORM EVENT | PEAK Qin (cfs) | PEAK Qout (cfs) | PEAK STORAGE (ac-ft) | PEAK ELEVATION (ft) |
| 2-YR | 5.85 | 3.32 | 0.07 | 679.11 |
| 10-YR | 9.50 | 6.45 | 0.10 | 680.20 |
| 25-YR | 11.98 | 8.67 | 0.12 | 680.78 |
| 100-YR | 16.07 | 12.66 | 0.15 | 681.44 |

NOTE: ALL CALCULATIONS WERE PERFORMED USING ATLAS 14 INTENSITIES FOR ZONE 1.

| EXISTING POND 1 STAGE-STORAGE | | | | | | | | | |
|-------------------------------|------------------------|--------------------------------|----------------------|------------------------------|-----------------------|--------------------------|----------------------------|--------------------------|-----------------|
| Elev (ft, MSL) | WQP Sediment Area (sf) | QWP Sediment Basin Volume (sf) | WQP Filter Area (sf) | WQP Filter Basin Volume (sf) | WQP Total Volume (sf) | Detention Pond Area (sf) | Detention Pond Volume (sf) | WQP total Volume (ac-ft) | Discharge (cfs) |
| 679.56 | 0 | 0 | 0 | 0 | 0.00000 | 6231 | 0 | 0.00000 | 0.00 |
| 680 | 0 | 0 | 961 | 211 | 0.00484 | 6231 | 2742 | 0.06295 | 0.04 |
| 680.75 | 793 | 267 | 1131 | 996 | 0.02968 | 6231 | 7415 | 0.17022 | 0.54 |
| 681 | 1057 | 529 | 1188 | 1286 | 0.04164 | 6231 | 8973 | 0.20599 | 0.87 |
| 682 | 1339 | 1727 | 1416 | 2588 | 0.09904 | 6231 | 15204 | 0.34904 | 3.23 |
| 683 | 1621 | 3207 | 1643 | 4117 | 0.16814 | 6231 | 21435 | 0.49208 | 7.63 |
| 684 | 1903 | 4909 | 1870 | 5874 | 0.24890 | 6231 | 27666 | 0.63512 | 14.44 |
| 685 | 2185 | 7013 | 2097 | 7857 | 0.34137 | 6231 | 33897 | 0.77817 | 24.00 |
| 686 | 2467 | 9339 | 2325 | 10068 | 0.44552 | 6231 | 40128 | 0.92121 | 38.60 |
| 687 | 2749 | 11812 | 2552 | 12507 | 0.55826 | 7158 | 46822 | 1.07489 | 52.50 |
| 688 | 3031 | 14567 | 2779 | 15172 | 0.68271 | 7839 | 54321 | 1.24704 | 71.86 |

| EXISTING POND 2 STAGE-STORAGE | | | | | | | | | |
|-------------------------------|------------------------|--------------------------------|----------------------|------------------------------|-----------------------|--------------------------|----------------------------|--------------------------|-----------------|
| Elev (ft, MSL) | WQP Sediment Area (sf) | QWP Sediment Basin Volume (sf) | WQP Filter Area (sf) | WQP Filter Basin Volume (sf) | WQP Total Volume (sf) | Detention Pond Area (sf) | Detention Pond Volume (sf) | WQP total Volume (ac-ft) | Discharge (cfs) |
| 676.75 | 0 | 0 | 0 | 0 | 0.00000 | 0 | 0 | 0.00000 | 0.00 |
| 677 | 0 | 0 | 791 | 99 | 0.00227 | 3794 | 474 | 0.01088 | 0.01 |
| 678 | 884 | 442 | 1011 | 1000 | 0.03310 | 3794 | 4268 | 0.09798 | 0.34 |
| 679 | 1110 | 1439 | 1232 | 2121 | 0.08173 | 3794 | 8062 | 0.18508 | 1.48 |
| 680 | 1335 | 2662 | 1452 | 3463 | 0.14061 | 3794 | 11856 | 0.27218 | 3.70 |
| 681 | 1561 | 4110 | 1672 | 5025 | 0.20971 | 3794 | 15650 | 0.35927 | 7.24 |
| 682 | 1786 | 5783 | 1893 | 6808 | 0.28905 | 3794 | 19444 | 0.44637 | 12.29 |
| 683 | 2012 | 7682 | 2113 | 8811 | 0.37863 | 3794 | 23238 | 0.53347 | 19.00 |
| 684 | 2237 | 9807 | 2333 | 11034 | 0.47842 | 3794 | 27032 | 0.62057 | 27.54 |
| 685 | 2463 | 12157 | 2554 | 13477 | 0.58848 | 3794 | 30826 | 0.70767 | 38.04 |
| 686 | 2688 | 14732 | 2774 | 16141 | 0.70875 | 4563 | 35005 | 0.80360 | 50.63 |

| PROPOSED | DESCRIPTION |
|----------|-----------------------------------------------|
| ● | BOLLARD |
| — | SIGN POST |
| — | OVER HEAD ELEC. LINE |
| — | OVER HEAD TELEPHONE |
| — | STORM SEWER LINE |
| — | WATER LINE |
| — | WASTE WATER LINE |
| — | FORCE MAIN |
| — | EXISTING WATER LINE |
| — | EXISTING WASTEWATER LINE |
| — | GAS LINE |
| --- | PROPERTY LINE |
| --- | EASEMENT |
| ○ | FOUND IRON PIN |
| ○ | POWER POLE |
| ○ | DOWN GUY |
| ○ | FIRE HYDRANT |
| ○ | WATER VALVE |
| ○ | WATER METER |
| ○ | GATE VALVE |
| ○ | REDUCER |
| ○ | GAS METER |
| ○ | GAS VALVE |
| ○ | METAL FENCE |
| ○ | WIRE FENCE |
| ○ | WASTEWATER MANHOLE |
| ○ | MANHOLE |
| ○ | CLEAN OUT |
| ○ | DRAINAGE INLET |
| ○ | HANDICAP PARKING |
| ○ | ELECTRIC PULL BOX |
| ○ | ELECTRIC METER |
| ○ | ELECTRIC TRANSFORMER |
| ○ | TELEPHONE SERVICE BOX |
| ○ | 9' x 17.5' PARKING SPACE |
| ○ | PROPOSED SPOT GARDE |
| ○ | PROPOSED FINISHED GRADE |
| --- | DRAINAGE AREA LINES |
| --- | LIMITS OF CONSTRUCTION |
| --- | SPOILS AND STORAGE AREA |
| --- | TRIANGULAR FILTER DIKE |
| --- | TREE FENCE PROTECTION |
| --- | SILT FENCE |
| --- | CONSTRUCTION ENTRANCE |
| --- | ACCESSIBLE ROUTE |
| ○ | TREE TO BE SAVED WITH HALF CRZ. & QUARTER CRZ |
| ○ | TREE TO BE REMOVED |
| ○ | HERITAGE TREE HATCH |

*EXISTING SIDEWALKS TO REMAIN HAVE BEEN VERIFIED TO COMPLY WITH THE APPLICABLE VERSION OF THE TEXAS ACCESSIBILITY STANDARDS, FEDERAL ADA REQUIREMENTS, AND CITY OF AUSTIN STANDARDS.

DOWNSPOUTS WILL BE DIRECTED TOWARDS THE PROPERTY AWAY FROM THE NEIGHBORING PROPERTY.

NOTE: ALL EXISTING DEVELOPMENT SHOWN WAS COMPLETE AND ACCEPTED UNDER SP-99-2213C, SP-04-0180C AND SP-09-0133

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

CITY APPROVAL STAMP

AUSTIN CIVIL ENGINEERING, INC.

TYPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

RICH INDUSTRIAL PARK

130 RALPH ABLANEDO DR
AUSTIN, TEXAS 78748

REVISIONS

| REV. | DATE | DESCRIPTION |
|------|------|-------------|
| | | |
| | | |
| | | |

APPROVED BY

DATE: 1/26/24

CAD: DAY/MM

ENGINEER: HS

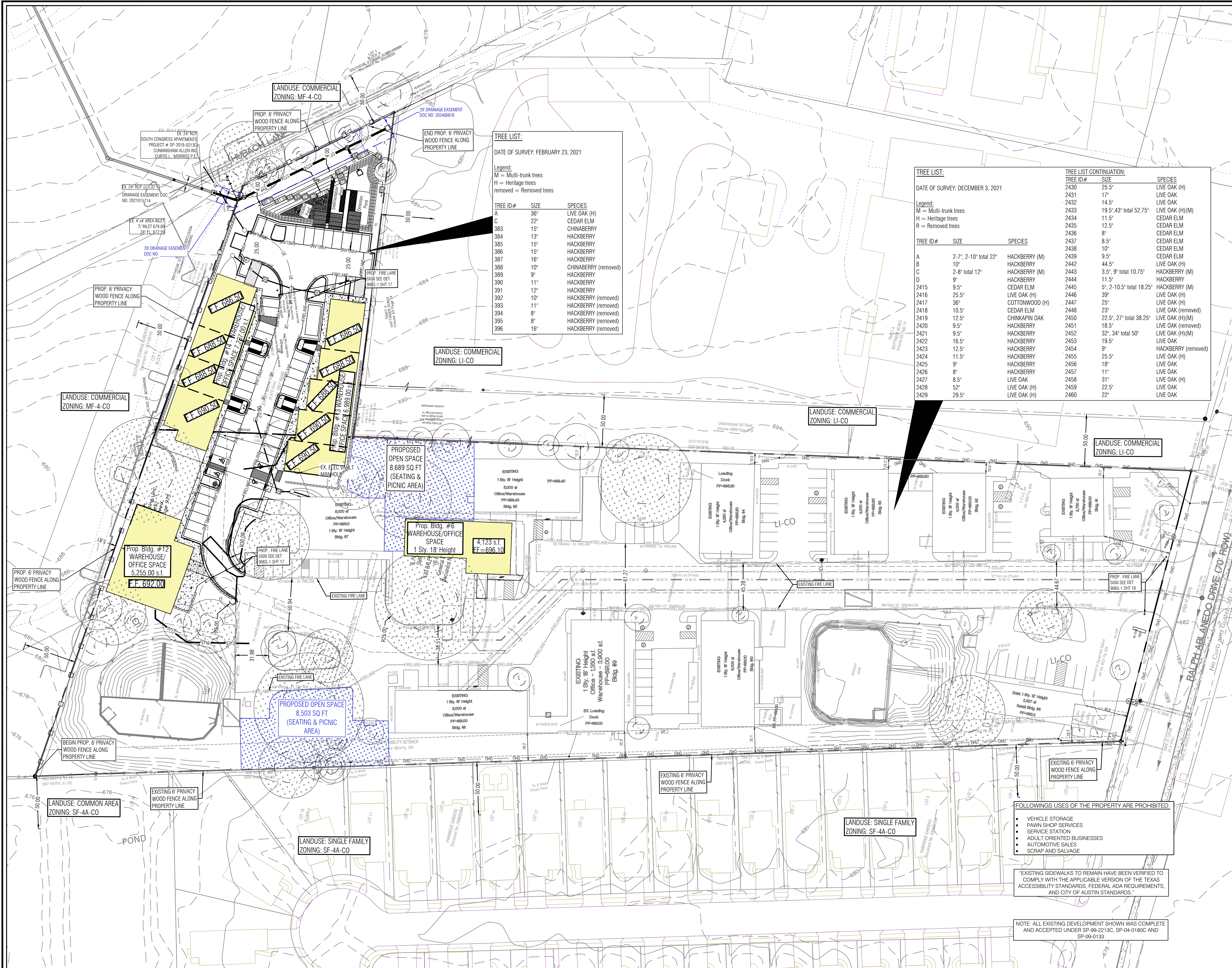
SCALE:

DEVELOPED DRAINAGE AREA MAP

SITE CIVIL PLAN

5

of 31



TREE LIST:
DATE OF SURVEY: FEBRUARY 23, 2021

Legend:
M = Multi-trunk trees
H = Heritage trees
removed = Removed trees

| TREE ID# | SIZE | SPECIES |
|----------|------|----------------------|
| A | 36" | LIVE OAK (H) |
| C | 22" | CEDAR ELM |
| 383 | 15" | CHINABERRY |
| 384 | 13" | HACKBERRY |
| 385 | 15" | HACKBERRY |
| 386 | 15" | HACKBERRY |
| 387 | 16" | HACKBERRY |
| 388 | 10" | CHINABERRY (removed) |
| 389 | 9" | HACKBERRY |
| 390 | 11" | HACKBERRY |
| 391 | 12" | HACKBERRY |
| 392 | 10" | HACKBERRY (removed) |
| 393 | 11" | HACKBERRY (removed) |
| 394 | 8" | HACKBERRY (removed) |
| 395 | 8" | HACKBERRY (removed) |
| 396 | 16" | HACKBERRY (removed) |

TREE LIST:
DATE OF SURVEY: DECEMBER 3, 2021

Legend:
M = Multi-trunk trees
H = Heritage trees
R = Removed trees

| TREE ID# | SIZE | SPECIES |
|----------|-----------------------|----------------|
| A | 2-7", 2-10" total 22" | HACKBERRY (M) |
| B | 10" | HACKBERRY |
| C | 2-8" total 12" | HACKBERRY (M) |
| D | 9" | HACKBERRY |
| 2415 | 9.5" | CEDAR ELM |
| 2416 | 25.5" | LIVE OAK (H) |
| 2417 | 36" | COTTONWOOD (H) |
| 2418 | 10.5" | CEDAR ELM |
| 2419 | 12.5" | CHINKAPIN OAK |
| 2420 | 9.5" | HACKBERRY |
| 2421 | 9.5" | HACKBERRY |
| 2422 | 16.5" | HACKBERRY |
| 2423 | 12.5" | HACKBERRY |
| 2424 | 11.5" | HACKBERRY |
| 2425 | 9" | HACKBERRY |
| 2426 | 8" | HACKBERRY |
| 2427 | 8.5" | LIVE OAK |
| 2428 | 52" | LIVE OAK (H) |
| 2429 | 29.5" | LIVE OAK (H) |

TREE LIST CONTINUATION:

| TREE ID# | SIZE | SPECIES |
|----------|--------------------------|---------------------|
| 2430 | 25.5" | LIVE OAK (H) |
| 2431 | 17" | LIVE OAK |
| 2432 | 14.5" | LIVE OAK |
| 2433 | 19.5', 43" total 52.75" | LIVE OAK (H)(M) |
| 2434 | 11.5" | CEDAR ELM |
| 2435 | 12.5" | CEDAR ELM |
| 2436 | 8" | CEDAR ELM |
| 2437 | 8.5" | CEDAR ELM |
| 2438 | 10" | CEDAR ELM |
| 2439 | 9.5" | CEDAR ELM |
| 2442 | 44.5" | LIVE OAK (H) |
| 2443 | 3.5', 9" total 10.75" | HACKBERRY (M) |
| 2444 | 11.5" | HACKBERRY |
| 2445 | 5', 2-10.5" total 18.25" | HACKBERRY (M) |
| 2446 | 39" | LIVE OAK (H) |
| 2447 | 25" | LIVE OAK (H) |
| 2448 | 23" | LIVE OAK (removed) |
| 2450 | 22.5', 27" total 38.25" | LIVE OAK (H)(M) |
| 2451 | 18.5" | LIVE OAK (removed) |
| 2452 | 32", 34" total 50" | LIVE OAK (H)(M) |
| 2453 | 19.5" | LIVE OAK |
| 2454 | 9" | HACKBERRY (removed) |
| 2455 | 25.5" | LIVE OAK |
| 2456 | 18" | LIVE OAK |
| 2457 | 11" | LIVE OAK |
| 2458 | 31" | LIVE OAK (H) |
| 2459 | 22.5" | LIVE OAK |
| 2460 | 22" | LIVE OAK |

LEGEND

| PROPOSED | DESCRIPTION |
|----------|-----------------------------------------------|
| • | BOLLARD |
| — | SIGN POST |
| — | OVER HEAD ELEC. LINE |
| — | OVER HEAD TELEPHONE |
| — | STORM SEWER LINE |
| — | WATER LINE |
| — | WASTE WATER LINE |
| — | FORCE MAIN |
| — | EXISTING WATER LINE |
| — | EXISTING WASTEWATER LINE |
| — | GAS LINE |
| — | PROPERTY LINE |
| — | EASEMENT |
| — | FOUND IRON PIN |
| — | POWER POLE |
| — | DOWN GUY |
| — | FIRE HYDRANT |
| — | WATER VALVE |
| — | GATE VALVE |
| — | REDUCER |
| — | GAS METER |
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| — | METAL FENCE |
| — | WIRE FENCE |
| — | WASTEWATER MANHOLE |
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| — | CLEAN OUT |
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| — | HANDICAP PARKING |
| — | ELECTRIC PULL BOX |
| — | ELECTRIC METER |
| — | ELECTRIC TRANSFORMER |
| — | TELEPHONE SERVICE BOX |
| — | 9' X 17.5' PARKING SPACE |
| — | PROPOSED SPOT GARDE |
| — | PROPOSED FINISHED GRADE |
| — | DRAINAGE AREA LINES |
| — | LIMITS OF CONSTRUCTION |
| — | SPOILS AND STORAGE AREA |
| — | TRIANGULAR FILTER DIKE |
| — | TREE FENCE PROTECTION |
| — | SILT FENCE |
| — | CONSTRUCTION ENTRANCE |
| — | ACCESSIBLE ROUTE |
| — | TREE TO BE SAVED WITH HALF CRZ, & QUARTER CRZ |
| — | TREE TO BE REMOVED |
| — | HERITAGE TREE HATCH |

- FOLLOWINGS USES OF THE PROPERTY ARE PROHIBITED:**
- VEHICLE STORAGE
 - PAWN SHOP SERVICES
 - SERVICE STATION
 - ADULT ORIENTED BUSINESSES
 - AUTOMOTIVE SALES
 - SCRAP AND SALVAGE

EXISTING SIDEWALKS TO REMAIN HAVE BEEN VERIFIED TO COMPLY WITH THE APPLICABLE VERSION OF THE TEXAS ACCESSIBILITY STANDARDS, FEDERAL ADA REQUIREMENTS, AND CITY OF AUSTIN STANDARDS.

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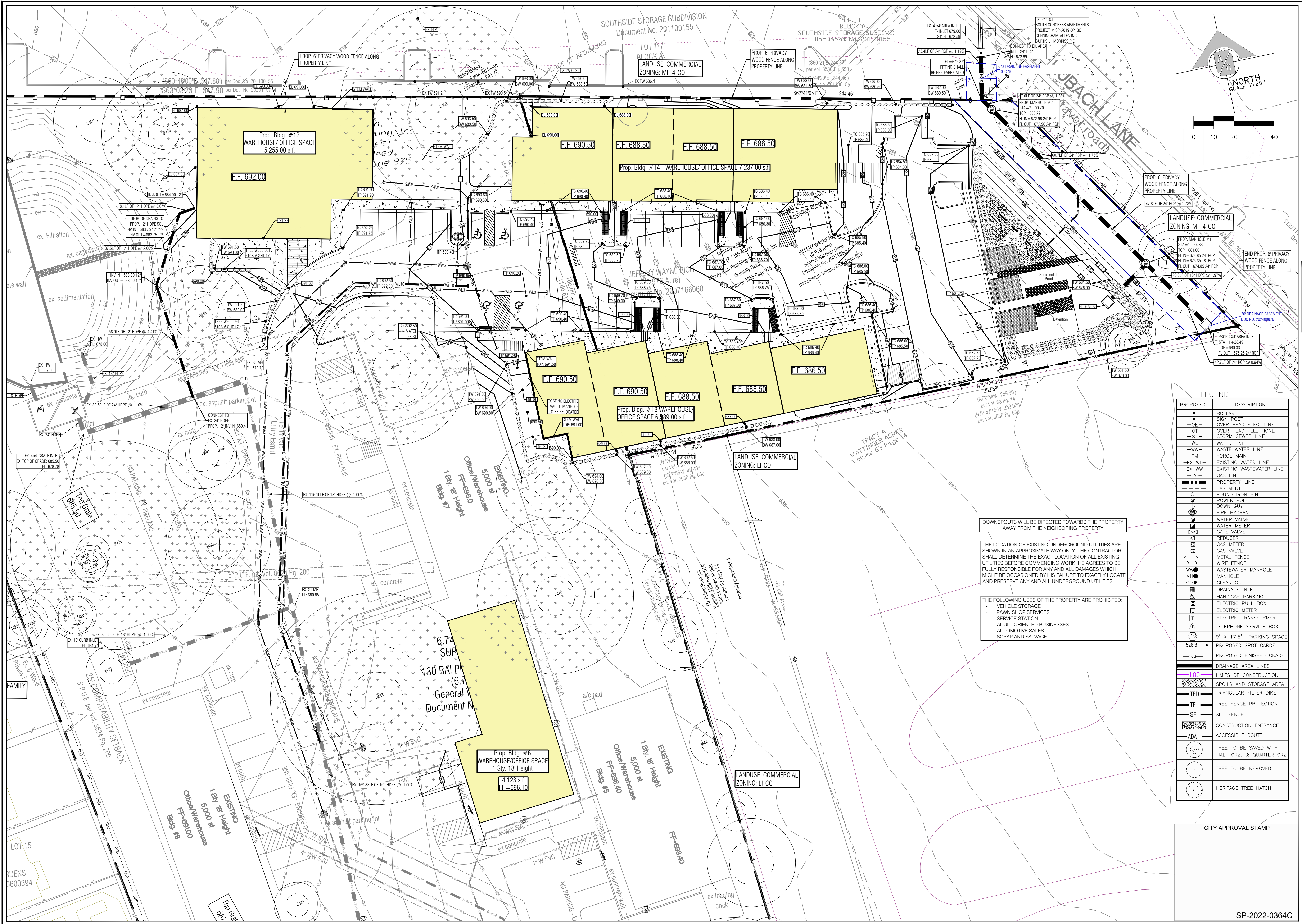
REVISIONS

| REV. | DATE | DESCRIPTION |
|------|---------|-------------------|
| 1 | 2/26/24 | ISSUED FOR PERMIT |

OVERALL SITE PLAN

SITE CIVIL PLAN

6
of 31



AUSTIN CIVIL
ENGINEERING, INC.

TEPE FIRM # E-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

REGISTERED PROFESSIONAL ENGINEER
74382
1/26/2024

RICH INDUSTRIAL PARK

130 RALPH ABLANEDO DR
AUSTIN, TEXAS 78748

REVISIONS

| REV. | DATE | DESCRIPTION | APPROVED BY |
|------|------|-------------|-------------|
| | | | |
| | | | |
| | | | |

JOB: 21-036
CADD: DA/MM
ENGINEER: HS

DATE: 1/26/24
CHK'D BY: CW
CHK'D BY:

SCALE:

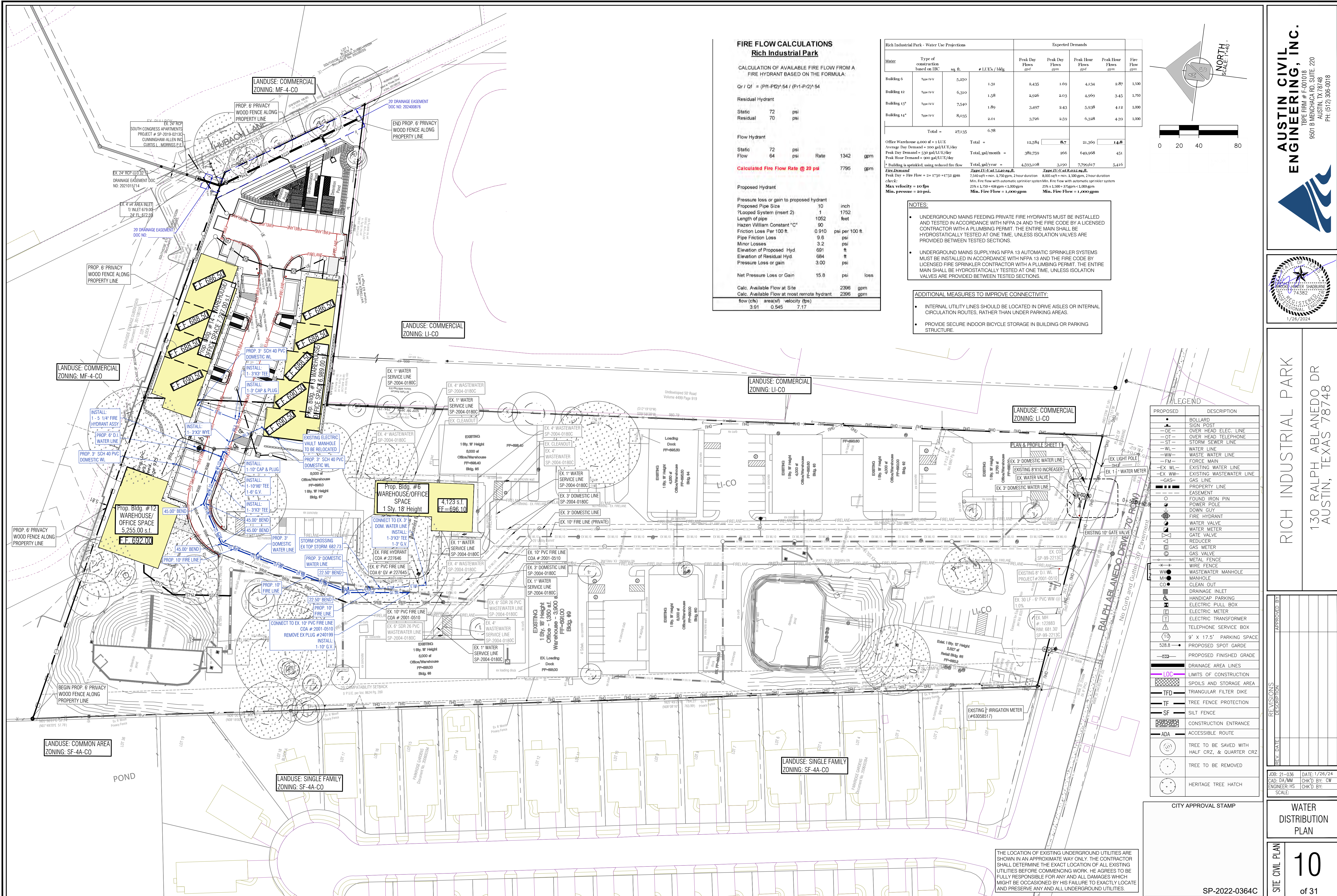
GRADING AND
STORM PLAN

SITE CIVIL PLAN

9
of 31

CITY APPROVAL STAMP

SP-2022-0364C



FIRE FLOW CALCULATIONS
Rich Industrial Park

CALCULATION OF AVAILABLE FIRE FLOW FROM A FIRE HYDRANT BASED ON THE FORMULA:

$Q_r / Q_f = (P_1 - P_2)^{0.54} / (P_1 - P_2)^{0.54}$

Residual Hydrant

| | | |
|----------|----|-----|
| Static | 72 | psi |
| Residual | 70 | psi |

Flow Hydrant

| | | |
|------------------------------------|------|-----|
| Static | 72 | psi |
| Flow | 64 | psi |
| Rate | 1342 | gpm |
| Calculated Fire Flow Rate @ 20 psi | 7795 | gpm |

Proposed Hydrant

| | | |
|---------------------------------------------|-------|-----------------|
| Pressure loss or gain to proposed hydrant | | |
| Proposed Pipe Size | 10 | inch |
| 7 Looped System (insert 2) | 1 | 1752 |
| Length of pipe | 1052 | feet |
| Hazen William Constant "C" | 90 | |
| Friction Loss Per 100 ft. | 0.910 | psi per 100 ft. |
| Pipe Friction Loss | 9.8 | psi |
| Minor Losses | 3.2 | psi |
| Elevation of Proposed Hyd. | 691 | ft |
| Elevation of Residual Hyd. | 684 | ft |
| Pressure Loss or gain | 3.00 | psi |
| Net Pressure Loss or Gain | 15.8 | psi loss |
| Calc. Available Flow at Site | 2396 | gpm |
| Calc. Available Flow at most remote hydrant | 2396 | gpm |
| flow (cfs) | 3.91 | |
| area(s) | 0.545 | |
| velocity (fps) | 7.17 | |

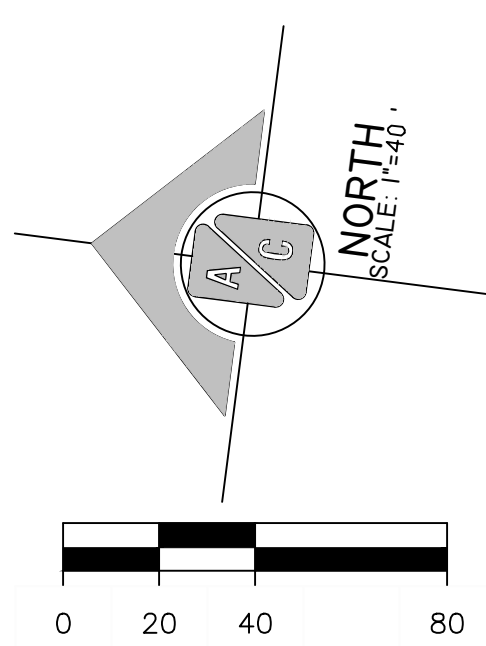
| Rich Industrial Park - Water Use Projections | | | | Expected Demands | | | |
|-----------------------------------------------------------------------------------------------|-----------------------------------|---------|----------------|--------------------|--------------------|---------------------|---------------------|
| Water | Type of construction based on IBC | sq. ft. | # LUE's / bldg | Peak Day Flows gpd | Peak Day Flows gpm | Peak Hour Flows gpd | Peak Hour Flows gpm |
| Building 6 | Type IV-V | 5,250 | 1.31 | 2,433 | 1.69 | 4,134 | 2.87 |
| Building 12 | Type IV-V | 6,310 | 1.58 | 2,926 | 2.03 | 4,959 | 3.45 |
| Building 13* | Type IV-V | 7,540 | 1.89 | 3,497 | 2.43 | 5,938 | 4.12 |
| Building 14* | Type IV-V | 8,035 | 2.01 | 3,726 | 2.59 | 6,328 | 4.39 |
| Total = | | | | 27,135 | 6.78 | | |
| Office Warehouse 4,000 sf = 1 LUE | | | | | | | |
| Average Day Demand = 200 gal/LUE/day | | | | | | | |
| Peak Day Demand = 530 gal/LUE/day | | | | | | | |
| Peak Hour Demand = 900 gal/LUE/day | | | | | | | |
| * Building is sprinkled, using reduced fire flow | | | | | | | |
| Total, gal/month = | | | | 4,593,108 | 3,490 | 7,799,617 | 5,416 |
| Type IV-V at 5,540 sq. ft. | | | | | | | |
| Type IV-V at 8,035 sq. ft. | | | | | | | |
| Peak Day + Fire Flow = 24 x 1750 = 42,000 gpm | | | | | | | |
| 7,540 gpm + min. 1,750 gpm, 2 hour duration | | | | | | | |
| 8,035 gpm + min. 1,500 gpm, 2 hour duration | | | | | | | |
| Min. Fire flow with automatic sprinkler system Min. Fire flow with automatic sprinkler system | | | | | | | |
| 25% x 1,750 = 438 gpm < 1,000 gpm < 1,000 gpm | | | | | | | |
| 25% x 1,500 = 375 gpm < 1,000 gpm | | | | | | | |
| Min. Fire Flow = 1,000 gpm | | | | | | | |
| Min. Fire Flow = 1,000 gpm | | | | | | | |

NOTES:

- UNDERGROUND MAINS FEEDING PRIVATE FIRE HYDRANTS MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA 24 AND THE FIRE CODE BY A LICENSED CONTRACTOR WITH A PLUMBING PERMIT. THE ENTIRE MAIN SHALL BE HYDROSTATICALLY TESTED AT ONE TIME, UNLESS ISOLATION VALVES ARE PROVIDED BETWEEN TESTED SECTIONS.
- UNDERGROUND MAINS SUPPLYING NFPA 13 AUTOMATIC SPRINKLER SYSTEMS MUST BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND THE FIRE CODE BY LICENSED FIRE SPRINKLER CONTRACTOR WITH A PLUMBING PERMIT. THE ENTIRE MAIN SHALL BE HYDROSTATICALLY TESTED AT ONE TIME, UNLESS ISOLATION VALVES ARE PROVIDED BETWEEN TESTED SECTIONS.

ADDITIONAL MEASURES TO IMPROVE CONNECTIVITY:

- INTERNAL UTILITY LINES SHOULD BE LOCATED IN DRIVE AISLES OR INTERNAL CIRCULATION ROUTES, RATHER THAN UNDER PARKING AREAS.
- PROVIDE SECURE INDOOR BICYCLE STORAGE IN BUILDING OR PARKING STRUCTURE.



| PROPOSED | DESCRIPTION |
|----------|-----------------------------------------------|
| • | BOLLARD |
| • | SIGN POST |
| -OE- | OVER HEAD ELEC. LINE |
| -OT- | OVER HEAD TELEPHONE |
| -ST- | STORM SEWER LINE |
| -WL- | WATER LINE |
| -WW- | WASTE WATER LINE |
| -FM- | FORCE MAIN |
| -EX WL- | EXISTING WATER LINE |
| -EX WW- | EXISTING WASTEWATER LINE |
| -GAS- | GAS LINE |
| --- | PROPERTY LINE |
| --- | EASEMENT |
| ○ | FOUND IRON PIN |
| ○ | POWER POLE |
| ○ | DOWN GUY |
| ○ | FIRE HYDRANT |
| ○ | WATER VALVE |
| ○ | GATE VALVE |
| ○ | REDUCER |
| ○ | GAS METER |
| ○ | GAS VALVE |
| ○ | METAL FENCE |
| ○ | WIRE FENCE |
| ○ | WASTEWATER MANHOLE |
| ○ | MANHOLE |
| ○ | CLEAN OUT |
| ○ | DRAINAGE INLET |
| ○ | HANDICAP PARKING |
| ○ | ELECTRIC PULL BOX |
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| ○ | TELEPHONE SERVICE BOX |
| ○ | 9' x 17.5' PARKING SPACE |
| ○ | 528.8' PROPOSED SPOT GARDE |
| --- | PROPOSED FINISHED GRADE |
| --- | DRAINAGE AREA LINES |
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| --- | SPOILS AND STORAGE AREA |
| --- | TRIANGULAR FILTER DIKE |
| --- | TREE FENCE PROTECTION |
| --- | SILT FENCE |
| --- | CONSTRUCTION ENTRANCE |
| --- | ACCESSIBLE ROUTE |
| ○ | TREE TO BE SAVED WITH HALF CRZ, & QUARTER CRZ |
| ○ | TREE TO BE REMOVED |
| ○ | HERITAGE TREE HATCH |

CITY APPROVAL STAMP

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AUSTIN CIVIL ENGINEERING, INC.
TYPE FIRM # F-001018
9501 B MENCHACA RD. SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018



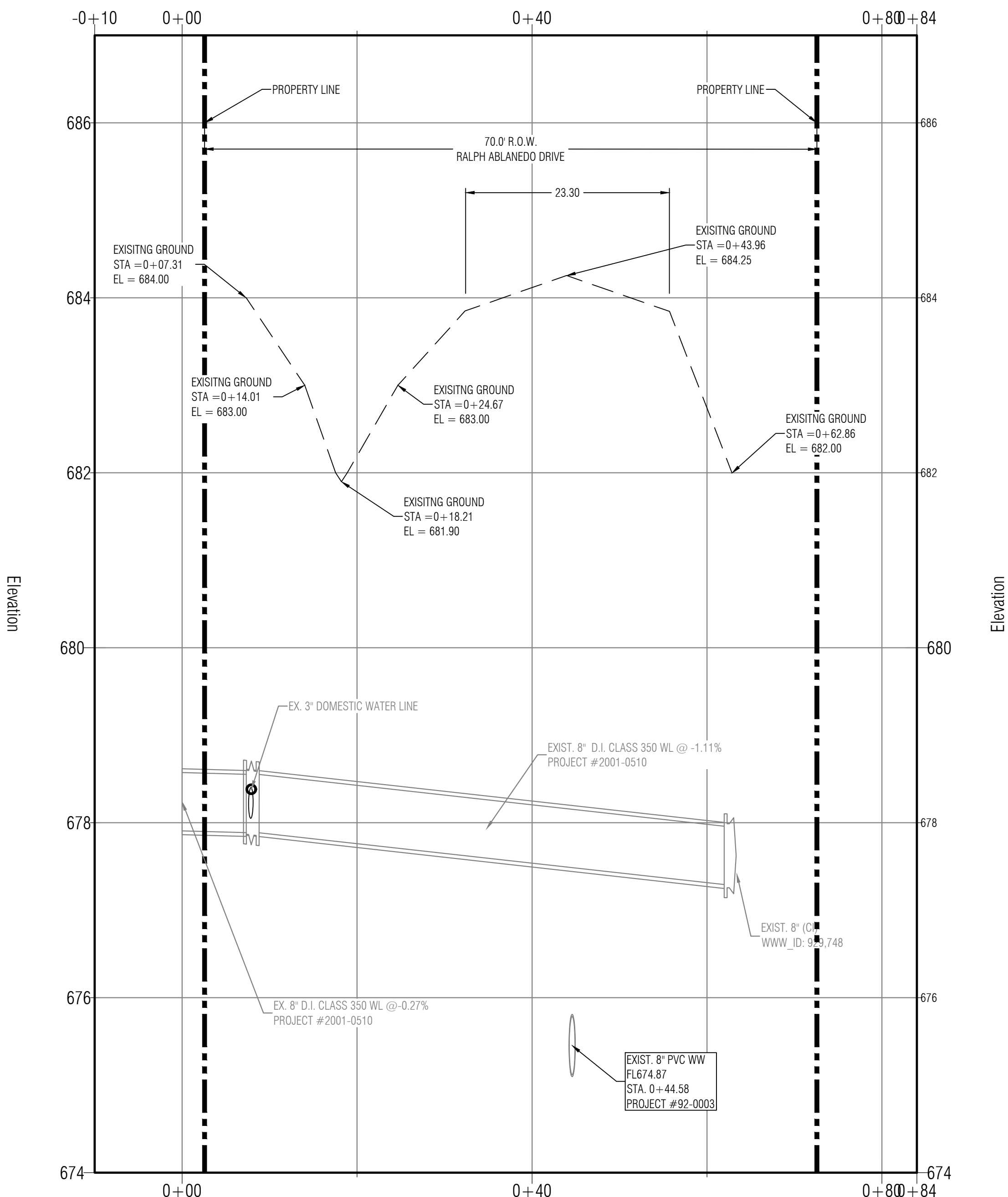
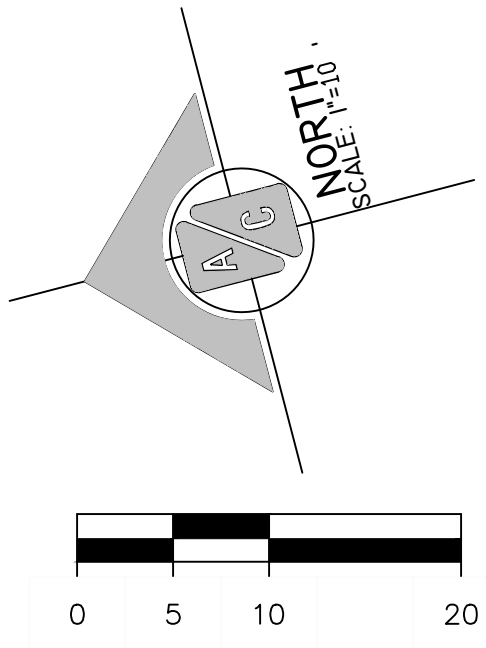
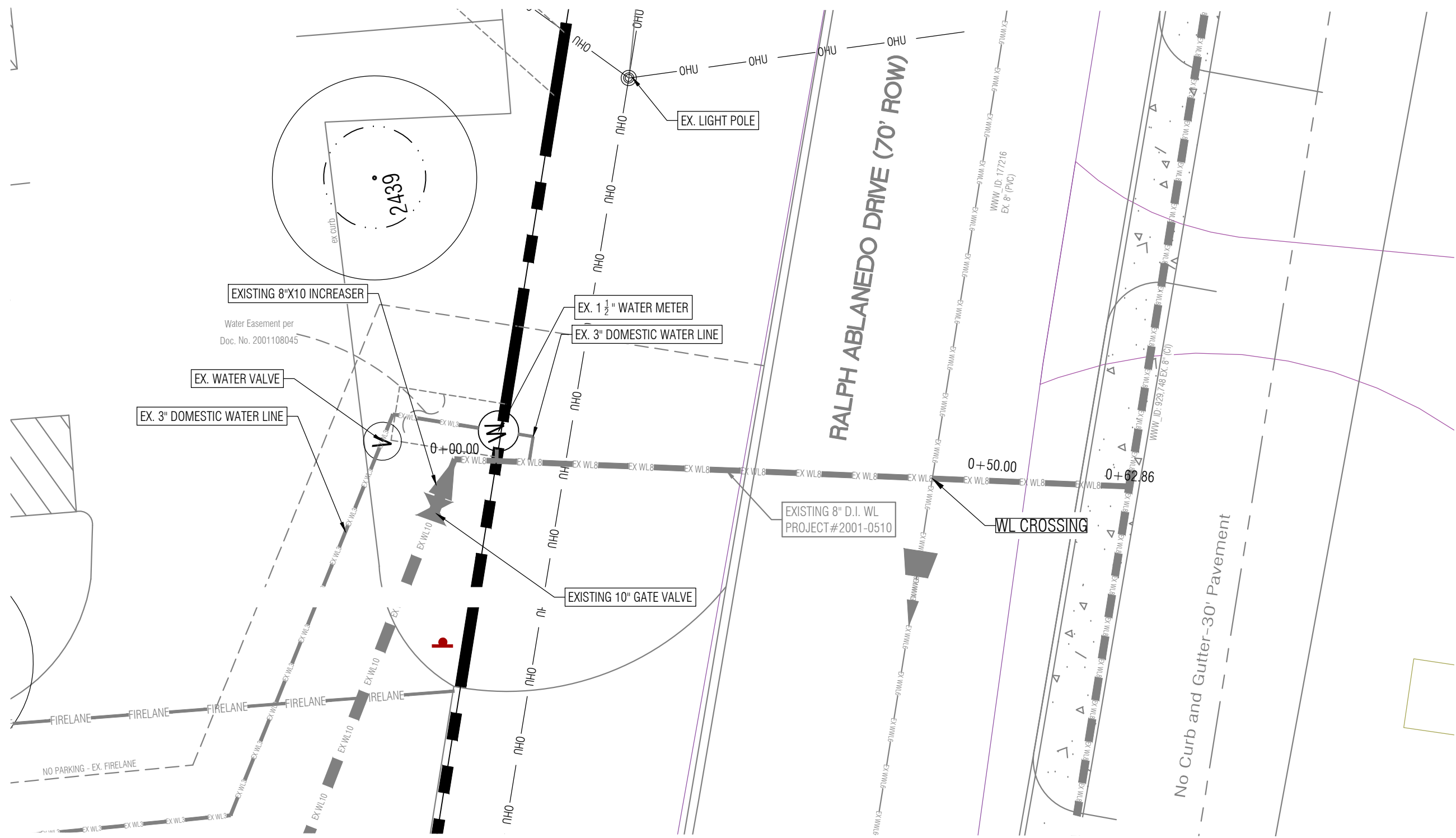
RICH INDUSTRIAL PARK
130 RALPH ABLANEDO DR
AUSTIN, TEXAS 78748

| REV. | DATE | DESCRIPTION | APPROVED BY |
|------|------|-------------|-------------|
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WATER DISTRIBUTION PLAN

SITE CIVIL PLAN
10
of 31

SP-2022-0364C

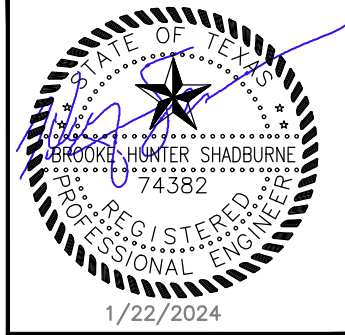


| LEGEND | |
|----------|-----------------------------------------------|
| PROPOSED | DESCRIPTION |
| • | BOLLARD |
| — | SIGN POST |
| —OE— | OVER HEAD ELEC. LINE |
| —OT— | OVER HEAD TELEPHONE |
| —ST— | STORM SEWER LINE |
| —WL— | WATER LINE |
| —WW— | WASTE WATER LINE |
| —FM— | FORCE MAIN |
| —EX WL— | EXISTING WATER LINE |
| —EX WW— | EXISTING WASTEWATER LINE |
| —GAS— | GAS LINE |
| — | PROPERTY LINE |
| — | EASEMENT |
| ○ | FOUND IRON PIN |
| ○ | POWER POLE |
| ○ | DOWN GUY |
| ○ | FIRE HYDRANT |
| ○ | WATER VALVE |
| ○ | WATER METER |
| ○ | GATE VALVE |
| ○ | REDUCER |
| ○ | GAS METER |
| ○ | GAS VALVE |
| ○ | METAL FENCE |
| ○ | WIRE FENCE |
| ○ | WASTEWATER MANHOLE |
| ○ | MANHOLE |
| ○ | CLEAN OUT |
| ○ | DRAINAGE INLET |
| ○ | HANDICAP PARKING |
| ○ | ELECTRIC PULL BOX |
| ○ | ELECTRIC METER |
| ○ | ELECTRIC TRANSFORMER |
| ○ | TELEPHONE SERVICE BOX |
| ○ | 9' X 17.5' PARKING SPACE |
| ○ | PROPOSED SPOT GARDE |
| ○ | PROPOSED FINISHED GRADE |
| ○ | DRAINAGE AREA LINES |
| ○ | LIMITS OF CONSTRUCTION |
| ○ | SPOILS AND STORAGE AREA |
| ○ | TRIANGULAR FILTER DIKE |
| ○ | TREE FENCE PROTECTION |
| ○ | SILT FENCE |
| ○ | CONSTRUCTION ENTRANCE |
| ○ | ACCESSIBLE ROUTE |
| ○ | TREE TO BE SAVED WITH HALF CRZ, & QUARTER CRZ |
| ○ | TREE TO BE REMOVED |
| ○ | HERITAGE TREE HATCH |

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CITY APPROVAL STAMP

AUSTIN CIVIL ENGINEERING, INC.
TYPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018



RICH INDUSTRIAL PARK
130 RALPH ABLANEDO DR
AUSTIN, TEXAS 78748

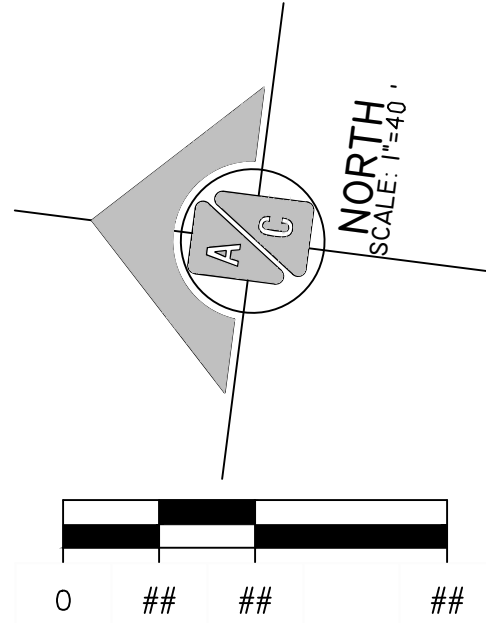
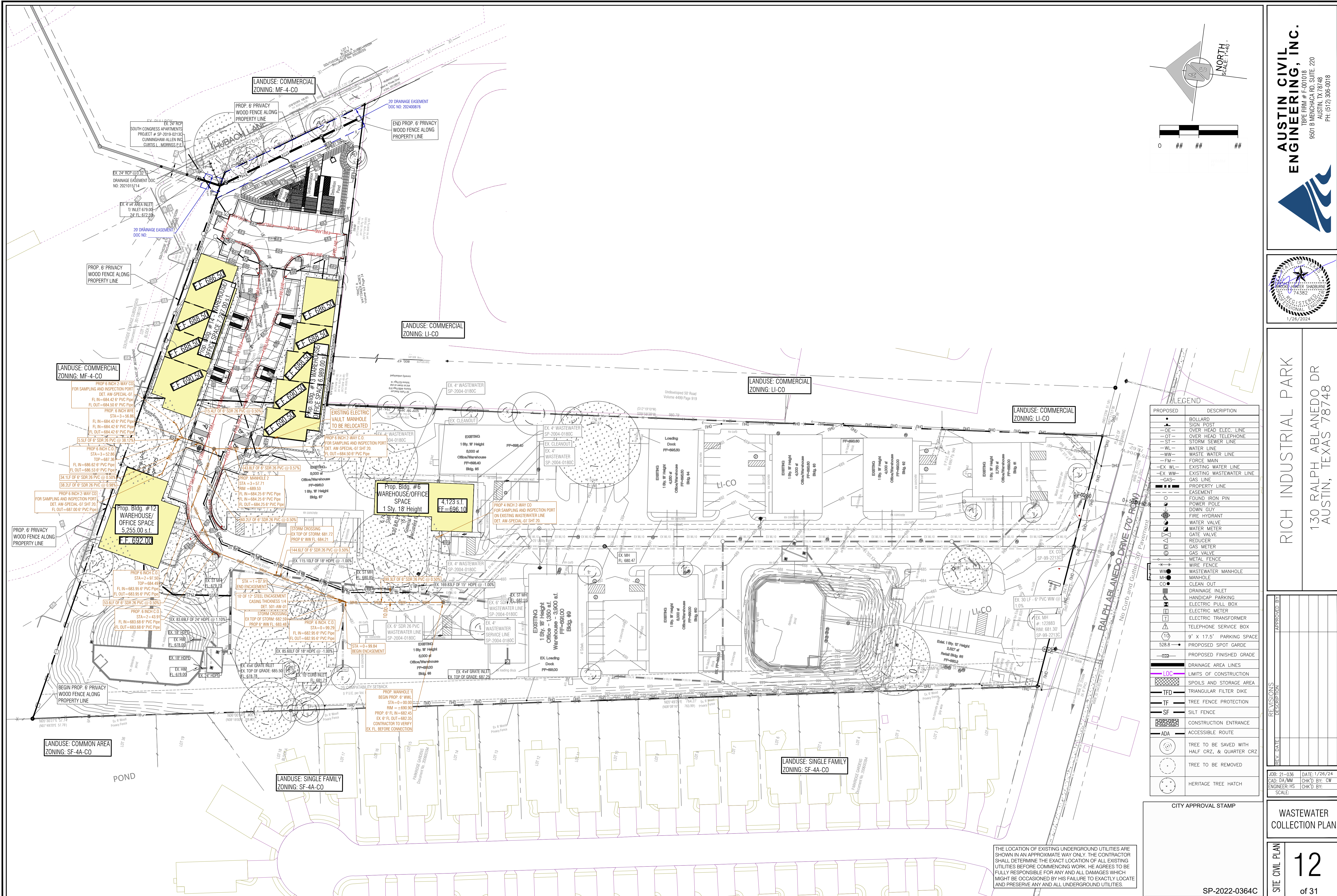
| REVISIONS | |
|-----------|-------------|
| REV. DATE | DESCRIPTION |
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| | |
| | |

JOB: 21-036 DATE: 1/22/24
CAD: D.J.M. CHK'D BY: CW
ENGINEER: HS CHK'D BY: CW
SCALE:

WATER PLAN & PROFILE

SITE CIVIL PLAN
11
of 31

SP-2022-0364C



| PROPOSED | DESCRIPTION |
|----------|-----------------------------------------------|
| ● | BOLLARD |
| — | SIGN POST |
| — | OVER HEAD ELEC. LINE |
| — | OVER HEAD TELEPHONE |
| — | STORM SEWER LINE |
| — | WATER LINE |
| — | WASTE WATER LINE |
| — | FORCE MAIN |
| — | EXISTING WATER LINE |
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| ○ | EASEMENT |
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| ○ | MANHOLE |
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AUSTIN CIVIL ENGINEERING, INC.
TEPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

RICH INDUSTRIAL PARK
130 RALPH ABLANEDO DR
AUSTIN, TEXAS 78748

REV. DATE

DESCRIPTION

APPROVED BY

JOB: 21-036
CAD: DA/MM
ENGINEER: HS

DATE: 1/26/24
CHK'D BY: CW
CHK'D BY:

SCALE:

WASTEWATER COLLECTION PLAN

SITE CIVIL PLAN

12

of 31

SP-2022-0364C

1/26/24

