## **CONTRIBUTING ZONE PLAN**

## SUNSET RIDGE APARTMENTS Austin, Travis County, TEXAS

Prepared For:

## Manifold Sunset Ridge Apartments, LLC 1608 W. 5<sup>th</sup> Street, Suite 230

Austin, TX 78703

Prepared By:

## KIMLEY-HORN AND ASSOCIATES, INC.

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Firm No. 928 KHA Project No. 0694274007

**APRIL 2024** 

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# SECTION 1: EDWARDS AQUIFER APPLICATION COVER PAGE

## 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 <u>30 TAC 213</u>.

#### **Administrative Review**

1. <u>Edwards Aquifer applications</u> 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: <u>http://www.tceq.texas.gov/field/eapp</u>.

- 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: <u>Sunset Ridge Apart-</u> <u>ments</u>			2. Regulated Entity No.: N/A					
3. Customer Name: <u>Manifold Sunset Ridge</u> <u>Apartments, LLC</u>		4. Customer No.: N/A						
5. Project Type: (Please circle/check one)	New	Modif	icatior	1	Exter	nsion	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-r	Non-residential 8. S			8. Sit	te (acres):	19.6
9. Application Fee:	\$8,000	10. P	10. Permanent BMP(s):			s):	Retention Irrig	gation and Biofiltration
11. SCS (Linear Ft.):	N/A	12. AST/UST (No. Tanks):			ıks):	· N/A		
13. County:	Travis	14. Watershed:				Barton Creek & Williamson Creek		

## **Application Distribution**

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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.)					
County(ies)					
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	_X_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		

Austin Region

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.

Kendyl Saul

Print Name of Customer/Authorized Agent

e fame a

04/30/2024

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):	Payable to TCEQ (Y/N):	
Core Data Form Complete (Y/N):	Check: Signed (Y/N):	
Core Data Form Incomplete Nos.:	Less than 90 days old (Y/N):	

# SECTION 2: CONTRIBUTING ZONE PLAN

## **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: Kendyl Saul

Date: 03/06/2024

Signature of Customer/Agent:

Kendyk June

Regulated Entity Name: Sunset Ridge Apartments

## **Project Information**

- 1. County: Travis
- 2. Stream Basin: Colorado
- 3. Groundwater Conservation District (if applicable): <u>N/A</u>
- 4. Customer (Applicant):

Contact Person: Tyler GroomsEntity: Manifold Sunset Ridge Apartments, LLCMailing Address: 1608 W 5th Street, Suite 230City, State: Austin, TXZip: 78703Telephone: (619) 818-0151Fax: N/AEmail Address: tgrooms@manifoldre.com

TCEQ-10257 (Rev. 02-11-15)

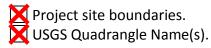
5. Agent/Representative (If any):

Contact Person: Kendyl Saul Entity: Kimley Horn Mailing Address: <u>6800 Burleson Rd Building 312, Suite 150</u> City, State: <u>Austin, TX</u> Zip: <u>78744</u> Telephone: <u>512-271-6315</u> Fax: <u>N/A</u> Email Address: Kendyl.Saul@kimley-horn.com

6. Project Location:

X The project site is located inside the city limits of <u>Austin</u>

- 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. X 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.
  <u>8413 Southwest Parkway, Austin, Texas (Tracts located between Sunset Ridge and Southwest Parkway)</u>
- 8. X 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. X Attachment B USGS Quadrangle Map. A copy of the official 7  $\frac{1}{2}$  minute USGS Quadrangle Map (Scale: 1" = 2000') is attached. The map(s) clearly show:



- 10. X 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
  - X 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: \_\_\_\_\_ Residential: # of Living Unit Equivalents: <u>308</u> Commercial Industrial Other: \_\_\_\_\_

13. Total project area (size of site): <u>19.6</u> Acres

Total disturbed area: <u>17.9</u> Acres

- 14. Estimated projected population: <u>N/A</u>
- 15. The amount and type of impervious cover expected after construction is complete is shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	154,770	÷ 43,560 =	3.55
Parking	214,520	÷ 43,560 =	4.92
Other paved surfaces	-	÷ 43,560 =	-
Total Impervious Cover	369,290	÷ 43,560 =	8.47

#### Table 1 - Impervious Cover

Total Impervious Cover <u>8.47</u> ÷ Total Acreage <u>19.3</u> X 100 = 43.86 % Impervious Cover

16. X 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. X 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.

XN/A

18.	Туре	of	project:
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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.  $L \times W = Ft^2 \div 43,560 Ft^2/Acre = acres.$ 21. Pavement Area: Length of pavement area: \_\_\_\_\_ feet. Width of pavement area: feet.  $L \times W = Ft^2 \div 43,560 Ft^2/Acre = acres.$ 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. X 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. X 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):

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.

X Sewage Collection System (Sewer Lines):

The sewage collection system will convey the wastewater to the <u>South Austin Regional</u> Treatment Plant. The treatment facility is:

	Existing.
	Proposed
□ N//	4

## 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 NOT APPLICABLE - NO PERMANENT ABOVE GROUND STORAGE TANKS ARE PROPOSED

27. Tanks and substance stored:

#### Table 2 - Tanks and Substance Storage

AST Number	Size (Gallons)	Substance to be Stored	Tank M	laterial
1				
2				
3				
4				
5				
		To	tal x 1 5 =	Gallons

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. X The Site Plan must have a minimum scale of 1'' = 400'.

Site Plan Scale: 1'' = 60''.

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.

XNo 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): <u>FEMA Flood Map Firm Panel No. 48453C0420J (Eff, 1/22/2020)</u>

36. X 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. X The drainage patterns and approximate slopes anticipated after major grading activities.
- 39. X Areas of soil disturbance and areas which will not be disturbed.
- 40. X Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
- 41. X Locations where soil stabilization practices are expected to occur.
- 42. Surface waters (including wetlands).

X N/A

43. X Locations where stormwater discharges to surface water.

There will be no discharges to surface water.

44. Temporary aboveground storage tank facilities.

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



- 48. X 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. X 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.

KThe 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. X 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. X 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.

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. X 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. X 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

X Signed by the owner or responsible party

Outlines specific procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofit.

K 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.

XN/A

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

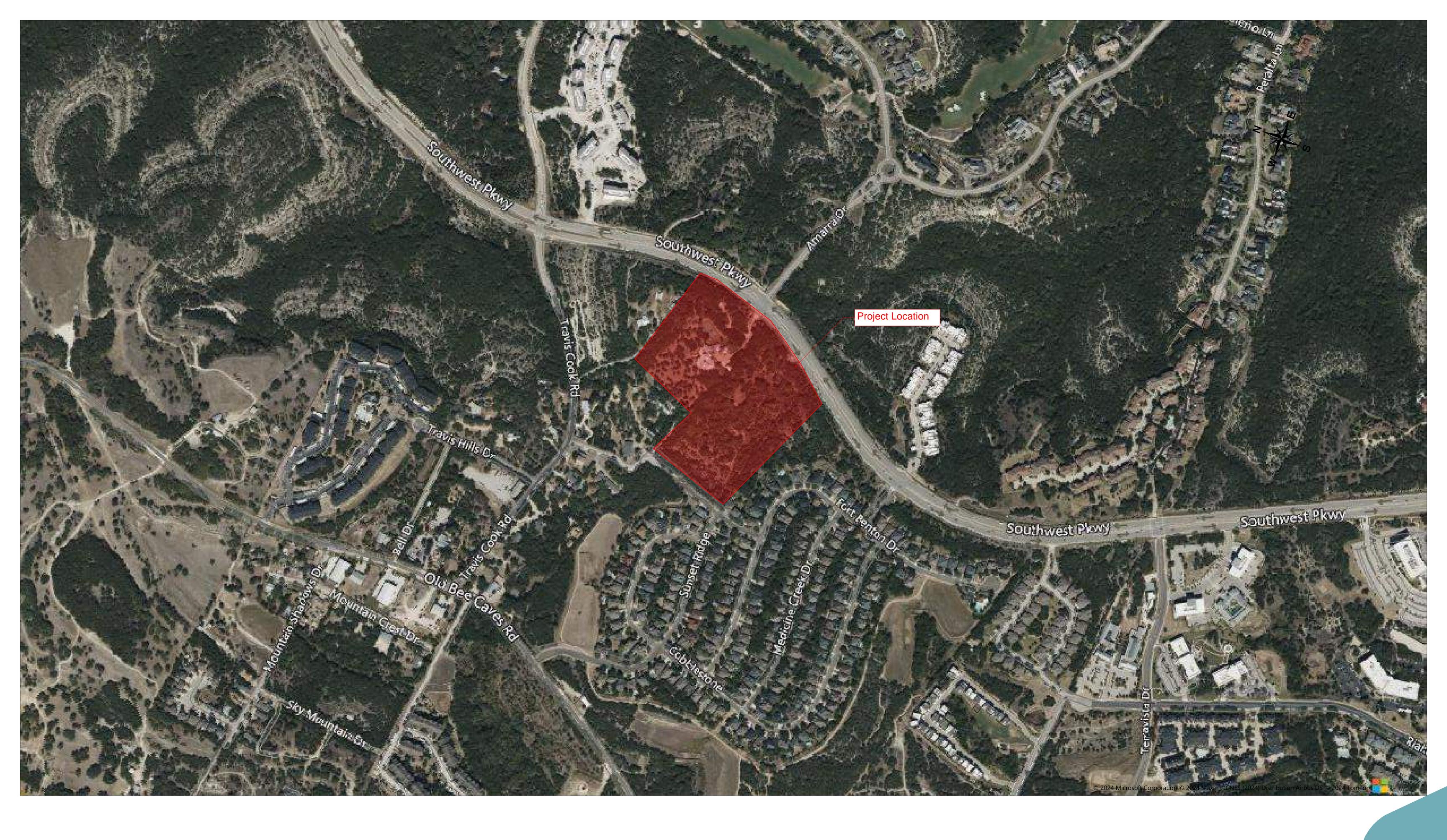
- 59. X The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner 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. X 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. XAny 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.
  - X The Temporary Stormwater Section (TCEQ-0602) is included with the application.

ATTACHMENT A: Road Map



# ROAD MAP 8413 SOUTHWEST PARKWAY AUSTIN, TEXAS 03/06/2024

MANIFOLD - SOUTHWEST PARKWAY\COMMENTS-APPROVED DOCS-PERMITS\5 - DOCS AND REPORTS\TCEQ CZP\EXHIBITS\ROAD MAP EXHIBIT.DWG

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ATTACHMENT B: USGS Quadrangle Map



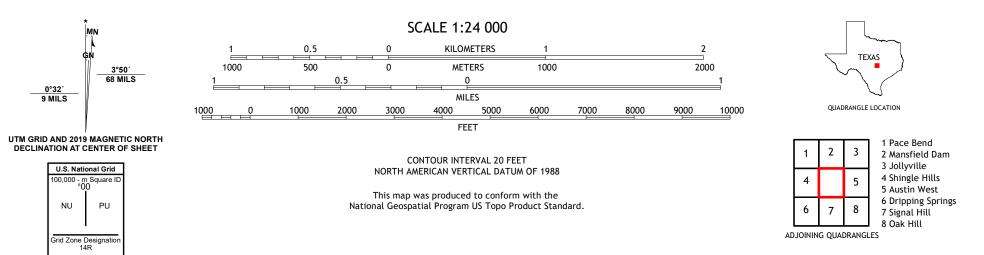


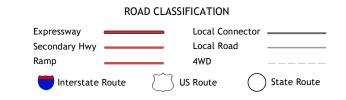






Produced by the United States Geological Survey North American Datum of 1983 (NAD83) World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 14R This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.





BEE CAVE, TX 2022



#### **ATTACHMENT C: Project Narrative**

The Sunset Ridge Apartments project proposes improvements on a  $\pm 19.6$ -acre site located at 8413 Southwest Parkway, Austin, Travis County, Texas. The Property is comprised of a  $\pm 9.606$  acre tract (the "Sunset Ridge Tract") and a  $\pm 9.9692$  acre tract (the "Jamail Tract") along Southwest Parkway. The Sunset Ridge Tract is currently undeveloped and the Jamail Tract is developed with a single-family residence. The development proposed with this site plan application is for the construction of a 442-unit multi-family project with onsite affordability units, parking and related utility improvements to support the development.

No portion of the site is located within the Federal Emergency Management Agency's 100-year floodplain according to Flood Insurance Rate Map number 48453C0420J, dated January 22, 2020, for Travis County, Texas and incorporated areas. The site is located within the Edwards Aquifer Contributing Zone according to the Texas Commission on Environmental Quality (TCEQ). There are no critical water quality zones or water quality transition zones on-site. There are no critical environmental features located on-site according to an ERI performed for the property.

Areas within the projects that are proposed to be demolished include an existing single-family residence, associated utilities (water tank, (2) OSSF, overhead utilities), a perimeter fence, concrete sidewalk and concrete driveway.

The site is in the Barton Creek and Williamson Creek watersheds. These watersheds are within the Barton Springs Zone as classified by the Watershed Protection Ordinance. Water Quality Best Management Practices (BMP) for the Project will address the water quality requirements for the ultimate area disturbed by inclusion of retention, detention, and biofiltration ponds.

#### **ATTACHMENT D: Factors Affecting Surface Water Quality**

No Industrial associated activity discharges are expected for this proposed residential development site. Surface water quality can be affected by disturbance during construction and by development after construction. Soil disturbance form clearing and grubbing and cut / fill operations can lead to discharge of sediment unless adequate temporary erosion control measures are in place. For this project, the use of silt fence, construction entrances, and rock berms will prevent sediment form leaving the sire. Siltation collected by the control measures will be cleaned from fences, berms, etc. on a routine schedule as outlined in the SWPPP and contract specifications.

During construction, surface water quality may also be affected by a spill of hydrocarbons or other hazardous substances used in construction. The most likely instances of a spill of hydrocarbons or hazardous substances are:

- a) Refueling construction equipment.
- b) Oil and grease from the asphalt pavement and vehicle traffic.
- c) Performing operator-level maintenance, including adding petroleum, oils, or lubricants.
- d) Normal silt build-up
- e) Unscheduled or emergency repairs, such as hydraulic fluid leaks.
- f) Trash with becomes loose from subdivision residents.
- g) Fertilizers used in the landscaping around the apartment buildings.

Every effort will be taken to be cautious and prevent spills. In the event of a fuel or hazardous substance spill as defined by the Reportable Quantities Table 1 (page 3) of the TCEQ's Small-Business Handbook for Spill Response (RG-285, June 1997), the contractor is required to clean up the spill and notify the TCEQ as required in RG-285. During business hours report spills to the TCEQ's Austin Regional Office at (512) 339-2929, after business hours call 1-800-832-8224, the Environmental Response Hotline or (512) 463-7727, the TCEQ Spill Reporting Hotline, which is also answered 24 hours a day. After construction is complete, impervious cover for the tract of land is the major reason for degradation of water quality. Impervious cover includes the building foundations, street pavement and concrete sidewalks. Oil and fuel discharge from vehicles is anticipated. The proposed permanent BMPs on this project will help mitigate these occurrences.

## ATTACHMENT E: Volume and Character of Stormwater

#### **EXISTING HYDROLOGIC CONDITIONS ANALYSIS**

The drainage analysis of the existing site conditions was performed with theNRCS Method using Atlas 14 rainfall data. The site has six existing on-site drainage areas and one offsite drainage area which outfall at seven separate points of analysis (POA-1, POA-2, POA-3, POA-4, POA-5, POA-6 and POA-7). Runoff from the existing drainage area EDA-1 flows from the center of the property to the east (POA-1). Runoff from the existing drainage area EDA-2 flows from the center of the property to the southwest (POA-2). Runoff from the existing drainage area EDA-3 flows from the center of the property to the east (POA-3). Runoff from the existing drainage area EDA-4 flows from the center of the property to the north (POA-4). Runoff from the existing drainage area EDA-5 flows from the center of the property to the southwest (POA-5). Runoff from the existing drainage area EDA-6 flows from the center of the property to the southwest (POA-5). Runoff from the existing drainage area EDA-6 flows from the center of the property to the southwest (POA-6). Runoff from the existing drainage area EDA-6 flows from the center of the property to the southwest (POA-6). Runoff from the existing drainage area EDA-6 flows from the center of the property to the southwest (POA-6). Runoff from the existing drainage area EDA-6 flows from the center of the property to the southwest (POA-6). Runoff from the existing drainage area EDA-6 flows from the center of the property to the southwest (POA-6). Runoff from the existing drainage area EDA-6 flows from the center of the property to the southwest (POA-6). Runoff from the existing drainage area EDA-6 flows from the center of the property to the southwest (POA-6). Runoff from the existing drainage area EDA-6 flows from the center of the property to the southwest (POA-6). Runoff from the existing drainage area EDA-6 flows from the center of the property to the southwest (POA-6).

The approach taken for the existing conditions of this site is to maintain the design peak flows to assure the downstream storm infrastructure can adequately convey the runoff and that the major point of confluence is not adversely affected. Table 4.1 below summarizes the existing drainage areas and the runoff produced for each storm event.

EXISTING CONDIT	IONS									
								PEAK FLOV	VS AT POA	
DRAINAGE AREA	AREA (AC.)	IMPERVIOUS COVER	BASE CN	IMPERVIOUS CN	WEIGHTED CN	TC (MIN)	Q2 (CFS)	Q10 (CFS)	Q25 (CFS)	Q100 (CFS)
EDA-1	4.19	3.9%	80	98	80.69	11.9	9.1	21.0	28.1	39.0
EDA-2	4.45	0.0%	80	98	80.00	12.1	9.3	21.9	29.4	41.0
EDA-3	1.75	8.9%	80	98	81.60	12.0	4.0	8.9	11.9	16.4
EDA-4	0.38	0.0%	80	98	80.00	11.3	0.8	1.9	2.6	3.6
EDA-5	6.02	9.4%	80	98	81.69	8.1	14.3	31.8	42.4	58.9
EDA-6	2.82	0.0%	80	98	80.00	9.0	6.3	14.4	19.3	26.8
OFF-1	1.07	45.0%	80	98	88.10	9.6	3.2	6.3	8.1	10.8

 Table 4.1
 Existing Drainage Areas Summary

## **PROPOSED HYDROLOGIC CONDITIONS ANALYSIS**

The drainage analysis of the existing site conditions was performed with theNRCS Method using Atlas 14 rainfall data. The proposed drainage areas consider the additional impervious cover added in the proposed development. The proposed drainage areas generally follow the same drainage paths as existing conditions. The existing and proposed drainage areas were analyzed at their respective points of analysis. In all analyzed storm events, 2-year, 10-year, 25-year and 100-year, no point of analysis increased in peak run-off in the developed condition.

The time of concentrations were calculated using the equations used in the City of Austin (COA DCM) for sheet flow, shallow concentrated flow, and channel flow. Zone 1 of the City of Austin 24-hour rainfall hyetographs (COA DCM) were used to define the 2, 10, 25, and 100-year rainfall events.

Proposed drainage areas correspond to their respective existing drainage areas by number. For example, PDA-1 is outfalling to the same point-of-analysis (POA-1) as EDA-1.

PROPOSED CONDITIONS PEAK FLOWS AT POA (UNDETAIN						AINED)	PEAK FLOWS AT POA (DETAINED			AINED)				
DRAINAGE AREA	AREA (AC.)	IMPERVIOUS COVER	BASE CN	IMPERVIOUS CN	WEIGHTED CN	TC (MIN)*	Q2 (CFS)	Q10 (CFS)	Q25 (CFS)	Q100 (CFS)	Q2 (CFS)	Q10 (CFS)	Q25 (CFS)	Q100 (CFS)
PDA-1	1.58	2.3%	80	98	80.41	5.0	4.4	10.1	13.5	18.8	0	0	0	0
PDA-2	7.88	62.9%	80	98	91.31	17.2	0	0	0	0	6.8	17.8	26.0	40.7
PDA-3	1.22	17.9%	80	98	83.22	5.0	3.8	8.2	10.8	14.8	0	0	0	0
PDA-4	0.18	0.0%	80	98	80.00	13.3	0.4	0.8	1.1	1.6	0	0	0	0
PDA-5	6.17	52.8%	80	98	89.51	12.2	0	0	0	0	14.2	29.7	38.6	52.3
PDA-6	2.60	0.5%	80	98	80.10	11.1	5.6	13.1	17.5	24.4	0	0	0	0
OFF-1	1.07	45.0%	80	98	88.10	9.6	16.20	29.20	38.00	52.70	0	0	0	0

Table 4.2Proposed Drainage Areas Summary

## ATTACHMENT F: Suitability Letter From Authorized Agent

An authorizes suitability letter from Hays County will be included in this application once received.

## ATTACHMENT G: Alternative Secondary Containment Methods

This attachment is not applicable. No alternative secondary containment methods will be utilized.

## ATTACHMENT H: AST Containment Structure Drawings

This attachment is not applicable. No ASTs will be utilized.

## ATTACHMENT I: 20% or Less Impervious Cover Waiver

This attachment is not applicable.

## ATTACHMENT J: BMPs for Upgradient Stormwater

Stormwater originating up-gradient of the project site (OFF-1) will travel through the site via sheet flow and proposed swale to maintain existing drainage patterns to ultimately be conveyed to the adjacent neighborhood's storm system that leads to the associated private pond. Please refer to the existing/proposed drainage area maps provided at the end of this report under the appropriate tab.

## ATTACHMENT K: BMPs for On-site Stormwater

A biofiltration pond and retention-irrigation system will be utilitized as the permanent best management practice on this site. All stormwater runoff from impervious areas will be collected by an underground storm system or sheet flow and conveyed to the ponds to the required overall removal of a minimum of 93% of the increase in Total Suspended Solids.

Construction plans, calculations, and specifications are provided at the end of this report under the appropriate tab.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-20	009			Project Name: Sunset Ridge Apartments Date Prepared: 3/11/2024
. The Required Load Reduction for the tot	al project:	Calculations	from RG-348	Pages 3-27 to 3-30
	Page 3-29 Equation 3.3: $L_M =$	27.2(A <sub>N</sub> x P)		
where:	A <sub>N</sub> =	Net increase		ting from the proposed development = 80% of increased lo area for the project a, inches
Predevelopment impervious a Total post-development impervious	County = al project area included in plan * = area within the limits of the plan * =	Travis 19.62 0.87 8.47 0.43	acres acres acres inches	
	L <sub>M TOTAL PROJECT</sub> =	6616	lbs.	
Number of drainage basins / ou	tfalls areas leaving the plan area =	2		
Drainage Basin Parameters (This inform				
L	Orainage Basin/Outfall Area No. =	1		
Predevelopment impervious area Post-development impervious area Post-development impervious fraction	-	0.87 4.97 0.52	acres acres acres Ibs.	
Indicate the proposed BMP Code for this				
	Proposed BMP = Removal efficiency =		rrigation percent	
. Calculate Maximum TSS Load Removed	$(L_R)$ for this Drainage Basin by the	ne selected E	MP Type.	
RG	-348 Page 3-33 Equation 3.7: L <sub>R</sub> =	(BMP efficie	ncy) x P x (A <sub>1</sub> x 34	34.6 + A <sub>P</sub> x 0.54)
where:	A <sub>C</sub> =	Total On-Site	e drainage area ir	in the BMP catchment area
	A			

 $A_I$  = Impervious area proposed in the BMP catchment area

 $A_P$  = Pervious area remaining in the BMP catchment area

 $L_{\text{R}}$  = TSS Load removed from this catchment area by the proposed BMP

A <sub>C</sub> =	9.63	acres
$A_I =$	4.97	acres
$A_P =$	4.66	acres
$L_R =$	5583	lbs

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

Desired L <sub>M THIS BASIN</sub> =	- 3572	lbs.	
F =	= 0.64		
6. Calculate Capture Volume required by the BMP Type for this drainage ba	asin / outfall ar	<u>ea.</u>	Calculations from RG-348 Pages 3-34 to 3-36
Rainfall Depth = Post Development Runoff Coefficient = On-site Water Quality Volume =	0.37	inches cubic feet	
	Calculations f	from RG-348	Pages 3-36 to 3-37
Off-site area draining to BMP = Off-site Impervious cover draining to BMP = Impervious fraction of off-site area = Off-site Runoff Coefficient = Off-site Water Quality Volume =	= 0.00 = 0 = 0.00	acres acres cubic feet	
Storage for Sediment = Total Capture Volume (required water quality volume(s) x 1.20) =		cubic feet	
7. Retention/Irrigation System	Designed as	Required in R	G-348 Pages 3-42 to 3-46
Required Water Quality Volume for retention basin =	= 10070	cubic feet	
Irrigation Area Calculations:			
Soil infiltration/permeability rate = Irrigation area =		in/hr square feet acres	Enter determined permeability rate or assumed value of 0.1

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009				Project Name: Date Prepared:	Sunset Ridge Apartments 3/11/2024
. The Required Load Reduction for the total project:	Ca	alculations	from RG-348		Pages 3-27 to 3-30
Page 3-29 Eq	uation 3.3: $L_M = 27$	.2(A <sub>N</sub> x P)			
where:		•		• • •	d development = 80% of increased load
			•	ea for the project	
	P = Av	verage ann	ual precipitation,	inches	
Site Data: Determine Required Load Removal Based on t	the Entire Project				
	County =	Tracis			
Total project area inclu	•	19.62	acres		
Predevelopment impervious area within the limit	ts of the plan * =	0.87	acres		
Total post-development impervious area within the limit	its of the plan* =	8.47	acres		
Total post-development impervious c		0.43			
	P =	28	inches		
L	M TOTAL PROJECT =	5788	lbs.		
Number of drainage basins / outfalls areas leaving	the plan area =	2			
Drainage Basin Parameters (This information should be	provided for each	basin):			
Drainage Basin/Ou	tfall Area No. =	2			
Total drainage bas	sin/outfall area =	10.00	acres		
Predevelopment impervious area within drainage bas		0.00	acres		
Post-development impervious area within drainage bas		3.49	acres		
Post-development impervious fraction within drainage bas	sin/outfall area =	0.35			
	$L_{M THIS BASIN} =$	2655	lbs.		
Indicate the proposed BMP Code for this basin.					
F	Proposed BMP = Bi	o Retentic	n		
		89			

#### <u>4. Calculate Maximum TSS Load Removed ( $L_R$ ) for this Drainage Basin by the selected BMP Type.</u>

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

where:

 $A_{C}$  = Total On-Site drainage area in the BMP catchment area

A<sub>I</sub> = 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 <sub>C</sub> =	10.00	acres
$A_I =$	3.49	acres
$A_P =$	6.51	acres
$L_R =$	3093	lbs

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

Desired L <sub>M THIS BASIN</sub> =	2655	lbs.		
F =	0.86			
6. Calculate Capture Volume required by the BMP Type for this drainage to	oasin / outfall	area.	Calculations from RG-348	Pages 3-34 to 3-36
Rainfall Depth =		inches		
Post Development Runoff Coefficient = On-site Water Quality Volume =		cubic feet		
	Calculations f	rom RG-348	Pages 3-36 to 3-37	
Off-site area draining to BMP = Off-site Impervious cover draining to BMP =		acres acres		
Impervious fraction of off-site area = Off-site Runoff Coefficient =	• 0	0000		
Off-site Water Quality Volume =	· 0	cubic feet		
<pre>Storage for Sediment = Total Capture Volume (required water quality volume(s) x 1.20) =</pre>		cubic feet		
7. Retention/Irrigation System	Designed as I	Required in R	G-348 Pages 3-4	2 to 3-46
Required Water Quality Volume for retention basin =	NA	cubic feet		
Irrigation Area Calculations:				
Soil infiltration/permeability rate = Irrigation area =		in/hr square feet acres	Enter determined permeability	rate or assumed value of 0.1

## ATTACHMENT L: BMPs for Surface Streams

There are no existing surface streams or sensitive features on site. All permanent BMPs have been designed to remove 80% of the increase in Total Suspended Solids as per current TCEQ requirements.

# Kimley »Horn

# **ATTACHMENT M: Construction Plans**

Calculations for the load removal requirements for the project and the load removal provided by the permanent BMP's are provided at the end of this report. The calculations have been signed and sealed by a professional engineer licensed in the state of Texas. The load removal requirements are derived from the equations from the technical guidance manual based upon project area and increase in impervious cover. All stormwater runoff from impervious areas will be treated by the proposed permanent BMP's to provide the overall required removal of 80% of the increase in Total Suspended Solids. Provided within the calculations is a summary of the amount of pollutant load required to be removed from the drainage areas and the amount of removal provided by the permanent BMP's.

Construction plans, details, specifications, calculations, and construction notes are provided in at the end of this report under the appropriate tab

GENERAL PLAN NOTES:

- ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE REGISTERED PROFESSIONAL ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER
- 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.
- APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN INDICATES COMPLIANCE WITH 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.
- THERE ARE NO KNOWN CRITICAL ENVIRONMENTAL FEATURES WITHIN 150 FEET OF THE PROJECT SITE
- WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY AUSTIN WATER UTILITY. CONDITIONED UPON ALL FEES ANI CHARGES ARE PAID
- AS PART OF THIS SITE PLAN, THE STORM WATER POLLUTION PREVENTION PI SITE AT ALL TIMES.
- 7. THIS SITE IS LOCATED IN THE EDWARDS AQUIFER CONTRIBUTING ZONE
- 8. THE PLAN IS COMPLETE, ACCURATE, AND IN COMPLIANCE WITH CHAPTER 25-8, SUBCHAPTER A OF THE LAND DEVELOPMENT CODE
- COMPLIANCE WITH THE COMMERCIAL AND MULTI-FAMILY RECYCLING ORDINANCE IS MANDATORY FOR MULTI FAMILY COMPLEXES, BUSINESSES AND OFFICE BUILDINGS.
- SITE PLAN IS SUBJECT TO SUBCHAPTER E OF THE LAND DEVELOPMENT CODE (COMMERCIAL DESIGN STANDARDS)
- THE DISTURBED AREAS WITHIN THIS PROJECT SHALL BE REVEGETATED AND ALL PERMANENT EROSION/SEDIMENTATION CONTROLS COMPLETED PRIOR TO THE RELEASE OF FISCAL SURETY. ANY AREA WITHIN THE LIMITS OF DISTURBANCE OF THE PROJECT WHICH IS NOT ADEQUATELY REVEGETATED SHALL BE BROUGHT INTO COMPLIANCE PRIOR TO THE RELEASE OF THE PROJECT.
- 12. 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.
- 13. A UNIFIED DEVELOPMENT AGREEMENT HAS BEEN RECORDED FOR THIS SITE DOCUMENT NO
- 14. ALL PROPOSED WATER QUALITY MEASURES ARE TO BE PRIVATELY MAINTAINED
- 15. FOR MAINTENANCE OF THE WATER QUALITY AND/OR DETENTION FACILITY, SEE AGREEMENT FILED IN DOCUMENT NO. . OFFICIAL PUBLIC RECORDS, TRAVIS COUNTY, TEXAS
- 16. FOR INTEGRATED PEST MANAGEMENT PLAN, SEE AGREEMENT FILED IN DOCUMENT NO. . OFFICIAL PUBLIC RECORDS, TRAVIS COUNTY, TEXAS,
- 17. 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.
- THE SITE IS LOCATED IN THE WEST OAK HILL NEIGHBORHOOD PLAN
- 19. 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
- A FEE-IN-LIEU OF PARKLAND DEDICATION AND PARK DEVELOPMENT HAS BEEN PAID FOR 222 MARKET-RATE DWELLING UNITS, AN EXEMPTION TO THE PARKLAND DEDICATION ORDINANCE HAS BEEN GRANTED FOR 222 CERTIFIED AFFORDABLE DWELLING UNITS. THE PARKLAND DEDICATION ORDINANCE IS SUBJECT TO ENFORCEMENT IF THIS DEVELOPMENT NO LONGER COMPLIES WITH AFFORDABLE HOUSING REQUIREMENTS SET FORTH IN THE APPROVA FROM THE HOUSING DEPARTMENT
- THE DEVELOPER WILL CONSTRUCT A TRAFFIC SIGNAL AT SOUTHWEST PARKWAY AND AMARRA TRAIL. CONSTRUCTION SHALL BE COMPLETED AND ACCEPTED PRIOR TO THE FINAL CERTIFICATE OF OCCUPANCY FOR THE DEVELOPMENT

### BARTON SPRINGS ZONE - OPERATING PERMI

PECIFICATIONS FOR ALL EQUIPMENT/COMPONENTRY OF THE WATER QUALITY CONTROL SYSTEMS SHALL BE SUBMITTE TO THE WPD OPERATING PERMIT (OP) INSPECTION STAFF AND ENGINEER OF RECORD PRIOR TO THE INSTALLATION OF PUMP STATIONS AND IRRIGATION SYSTEMS, AND PRIOR TO THE MID-CONSTRUCTION MEETING FOR REVIEW AND APPROVAL THIS IS INCLUDING BUT NOT LIMITED TO MECHANICAL EQUIPMENT SUCH AS PUMPS. PANELS, PIPING, DISTRIBUTION COMPONENTS AND ANY OTHER ANCILLARY EQUIPMENT. FINAL APPROVAL OF SUBMITTAL AND EQUIPMENT, AND TESTING OF ALL COMPONENTS OF WATER QUALITY SYSTEM, IS REQUIRED BY WPD OP INSPECTION STAFF PRIOR TO CO. FINAL OCUMENTATION OF OPERATIONS/MAINTENANCE MANUAL AND AS-BUILTS SHALL BE SUBMITTED TO WPD OP INSPE STAFF AFTER BUILD OUT AND MUST BE APPROVED BY STAFF PRIOR TO THE END OF THE ONE YEAR PERFORMANCE PERIOD.

### TRAFFIC CONTROL NOTES:

THIS NOTE IS BEING PLACED ON THE PLAN SET IN PLACE OF A TEMPORARY TRAFFIC CONTROL PLAN (TCP) WITH 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 <u>TCPREVIEW@AUSTINTEXAS.GOV</u> FOR <u>REVIEW A MINIMUM OF 6</u> 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.

### TRAFFIC SIGNAL NOTE:

THE DEVELOPER WILL CONSTRUCT A TRAFFIC SIGNAL AT SOUTHWEST PARKWAY AND AMARRA TRAIL. CONSTRUCTION SHALL BE COMPLETED AND ACCEPTED PRIOR TO THE FINAL CERTIFICATE OF OCCUPANCY FOR THE DEVELOPMENT.

### WATERSHED STATUS:

THIS SITE IS LOCATED WITHIN THE BARTON CREEK AND WILLIAMSON CREEK WATERSHEDS WHICH ARE CLASSIFIED AS WITHIN THE BARTON SPRINGS ZONE. THIS SITE IS NOT LOCATED WITHIN THE EDWARDS AQUIFER RECHARGE ZONE.

SITE IS SUBJECT TO WATERSHED PROTECTION REGULATIONS.

FLOODPLAIN INFORMATION: NO PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN PER FEMA FIRM PANEL NO. 48453C0420J, TRAVIS COUNTY, TEXAS AND INCORPORATED AREAS (DATED JANUARY 22, 2020).

### LEGAL DESCRIPTION:

RACT 1: 9.606 ACRES OF LAND, MORE OR LESS, OUT OF THE JOSIAH HUDSON SURVEY NO. 530, ABSTRACT NO. 410, IN TRAVIS COUNTY, TEXAS AND BEING THE SAME LAND CONVEYED TO LOS INDIOS VENTURES, INC. IN DEEDS RECORDED IN DOCUMENT NO.(S) 2001073406 AND CORRECTED IN 2003083110, OFFICIAL PUBLIC RECORDS, TRAVIS COUNTY, TEXAS.

TRACT 2: 9.9692 ACRES OF LAND, MORE OR LESS, OUT OF THE JOSIAH HUDSON SURVEY NO. 530, ABSTRACT NO. 410, IN TRAVIS COUNTY, TEXAS AND BEING THE SAME LAND CONVEYED TO TIM JAMAIL IN DEED RECORDED IN VOLUME 12005, PAGE 2200, REAL PROPERTY RECORDS, TRAVIS COUNTY, TEXAS.

### APPLICABLE ORDINANCES:

-AMENDMENT FOR RESTRICTIVE COVENANT FOR ZONING CASE NO. C14-85-288.166(RCA2) -WILLIAMSON CREEK WATERSHED ORDINANCE NO. 810319-M

-COMPREHENSIVE WATERSHED ORDINANCE NO. 860508-V

-RESTRICTIVE COVENANT

VOLUME 10801, PAGE 236, REAL PROPERTY RECORDS AND AMENDED IN DOCUMENT NO. 2010095372, OFFICIAL PUBLIC RECORDS, TRAVIS COUNTY, TEXAS AND DOCUMENT NO. 2016094325, BUT OMITTING ANY COVENANT OR RESTRICTION BASED ON RACE, COLOR, RELIGION, SEX, DISABILITY, HANDICAP, FAMILIAL STATUS OR NATIONAL ORIGIN.

### TRACT 2

-BARTON CREEK WATERSHED ORDINANCE NO. 82 1118-N -RESTRICTIVE COVENANT

VOLUME 9889, PAGE 78, REAL PROPERTY RECORDS, TRAVIS COUNTY, TEXAS, AND DOCUMENT NO(S) 2012176737, 2012176738 AND DOCUMENT NO. 2016094325, OFFICIAL PUBLIC RECORDS, TRAVIS COUNTY, TEXAS, BUT OMITTING ANY COVENANT OR RESTRICTION BASED ON RACE, COLOR, RELIGION, SEX, DISABILITY, HANDICAP, FAMILIAL STATUS OR NATIONAL ORIGIN.

# SURVEYOR

3500 MCCALL LANE AUSTIN, TX 78744 PH: (512) 443-1724 ATTN: PATRICK QUIRING

LANDSCAPE ARCHITECT CHAPARRAL LAND SURVEYING NUDGE DESIGN 127 E RIVERSIDE DRIVE SUITE 103 AUSTIN, TX 78704 PH: (512) 415-5570

EVOLVE ARCHITECTS 1515 S CAPITAL OF TEXAS HWY AUSTIN, TEXAS 78746 PH. (512) 327-3397 ATTN: DREW SCHELFHOUT



CERTIFICATE OF REGISTRATION #928

REQUIRED TO BE ON

### OWNER NAME AND ADDRESS TRACT 1: LOS INDIOS VENTURES INC 1006 MOPAC CIR, STE 101 **AUSTIN. TX 78746**

TRACT 2: TIM JAMAIL 1006 MOPAC CIR, STE 101 **AUSTIN, TX 78746** 

DEVELOPER NAME AND ADDRESS MANIFOLD SUNSET RIDGE APARTMENTS, LLC 1608 W. 5TH STREET, SUITE 230 AUSTIN, TEXAS 78703

TRACT <sup>·</sup> GO-MU-CO-NP - GENERAL OFFICE MIXED USE CONDITIONAL OVERLAY NEIGHBORHOOD PLAN

TRACT 2: GO-CO-NP - GENERAL OFFICE CONDITIONAL OVERLAY NEIGHBORHOOD PLAN **RELATED CASES:** ZONING CASES: C14-85-288.166(RCA2),

C14-06-0061, C14-2010-0042, NPA-2016-0025.02 SITE PLAN CASES: SP-2014-0442C

> PRESSURE ZONE SOUTHWEST C

PRINCIPAL STREET SOUTHWEST PARKWAY

### AULCC: N/A

LICENSE AGREEMENT

SUBMITTAL DATE: 04/23/2024

APPLICABLE WATERSHED ORDINANCE OPERATING PERMIT WHERE APPLICABLE UNDER 25-8-233

WPDR SIGN-OFF AND DATE

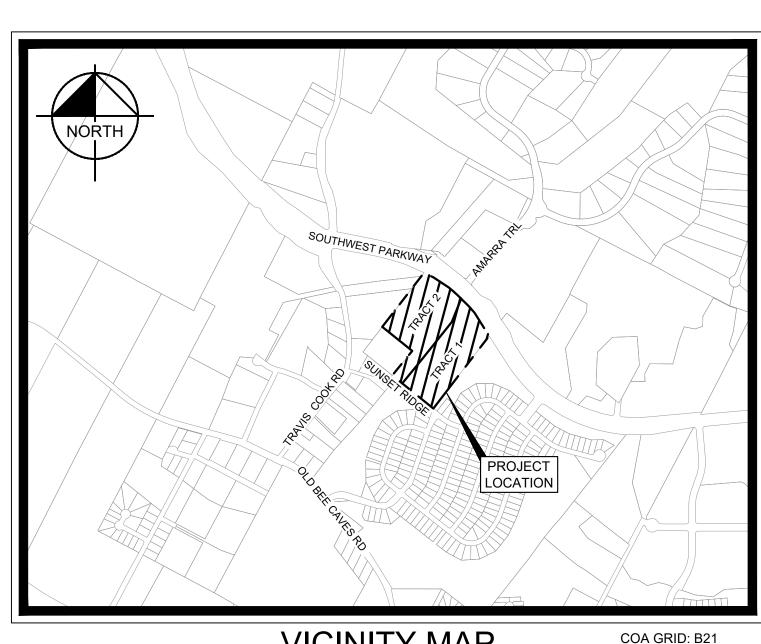
ARCHITECT SUITE 410

ATTN: CLARK BOCKHAHN

# CIVIL SITE DEVELOPMENT PLANS FOR

SUNSET RIDGE APARTMENTS

# 8413 SOUTHWEST PARKWAY AUSTIN, TX 78735



VICINITY MAP SCALE: 1" = 1000'

MAPSCO: 611C & 611D

MAY 2024

SHEET NO.	DESCRIPTION			40 41		R PLAN (1 OF 3) R PLAN (2 OF 3)		
1	COVER SHEET			42	WATE	R PLAN (3 OF 3)	)	
2	TRACT 1 FINAL PLAT			43	WATE	R PLAN & PROF	FILES	
3	TRACT 2 FINAL PLAT			44	OVER	ALL WASTEWA	TER PLAN	
4	CITY OF AUSTIN GENERAL NOTES			45	WAST	EWATER PLAN	(1 OF 3)	
5	KIMLEY-HORN GENER	RAL NOTES		46	WAST	EWATER PLAN	(2 OF 3)	
6	AWU GENERAL NOTE	S		47	WAST	EWATER PLAN	(3 OF 3)	
7	SURVEY			48	WAST	EWATER PLAN	& PROFILE	
8	OVERALL EXISTING CONDITIONS			49	EROS	ION CONTROL [	DETAILS	
9	DEMOLITION PLAN (1	,		50	SITE	DETAILS		
10	DEMOLITION PLAN (2	,		51	STOR	M DETAILS		
11	DEMOLITION PLAN (3	OF 3)		52	WATE	R DETAILS		
12A	TREE LIST (1 OF 2)			53	WAST	EWATER DETA	ILS	
12B	TREE LIST (2 OF2)			54	LAND	SCAPE NOTES A	AND CALCULAT	IONS
13	OVERALL EROSION C			55		MITIGATION		
14	OVERALL EROSION C	ONTROL PLAN -	PHASE 2	56		MITIGATION CC		
15	OVERALL SITE PLAN			57		NATURAL ARE		
16	SITE TABLES & NOTES			58		REVEGETATIO		
17	DIMENSION CONTROL	, ,		59		ALL LANDSCAP		_AN
18	DIMENSION CONTROL	( )		60		SCAPE PLAN (1	,	
19	DIMENSION CONTROL PLAN (3 OF 3)			61		SCAPE PLAN (2	,	
20	PROJECT CIRCULATION PLAN			62	11	SCAPE PLAN (3	,	
21	FIRE PROTECTION PLAN			63		SCAPE SEED MI	IX AND WATER	QUALITY
22				64		SCAPE DETAILS	<u>,</u>	
23	OVERALL GRADING PLAN			65		ATION NOTES A		
24	GRADING PLAN (1 OF 3)		+	66				
25	GRADING PLAN (2 OF 3)		F	67		OVERALL REFERENCE PLAN REIRRIGATION PLAN (1 OF 2)		
26								
27	EXISTING SLOPE MAP			69		IGATION DETAI	· /	
28	EXISTING DRAINAGE		F	70		IGATION DETAI	· /	
29	PROPOSED DRAINAG		F	70		ING FLOOR PLA	( )	
30	DRAINAGE CALCULAT	IUNS		71		ING FLOOR PLA	. ,	
31	POND 1 PLAN			72		ING FLOOR PLA	( )	
32	POND 1 DETAILS		L	10				
33	POND 2 PLAN							
34	POND 2 DETAILS	N						
35	OVERALL STORM PLA STORM PLAN (1 OF 3)							
36	STORM PLAN (1 OF 3)							
37	STORM PLAN (2 OF 3)							
38	, ,							
39	OVERALL WATER PLA	AIN						

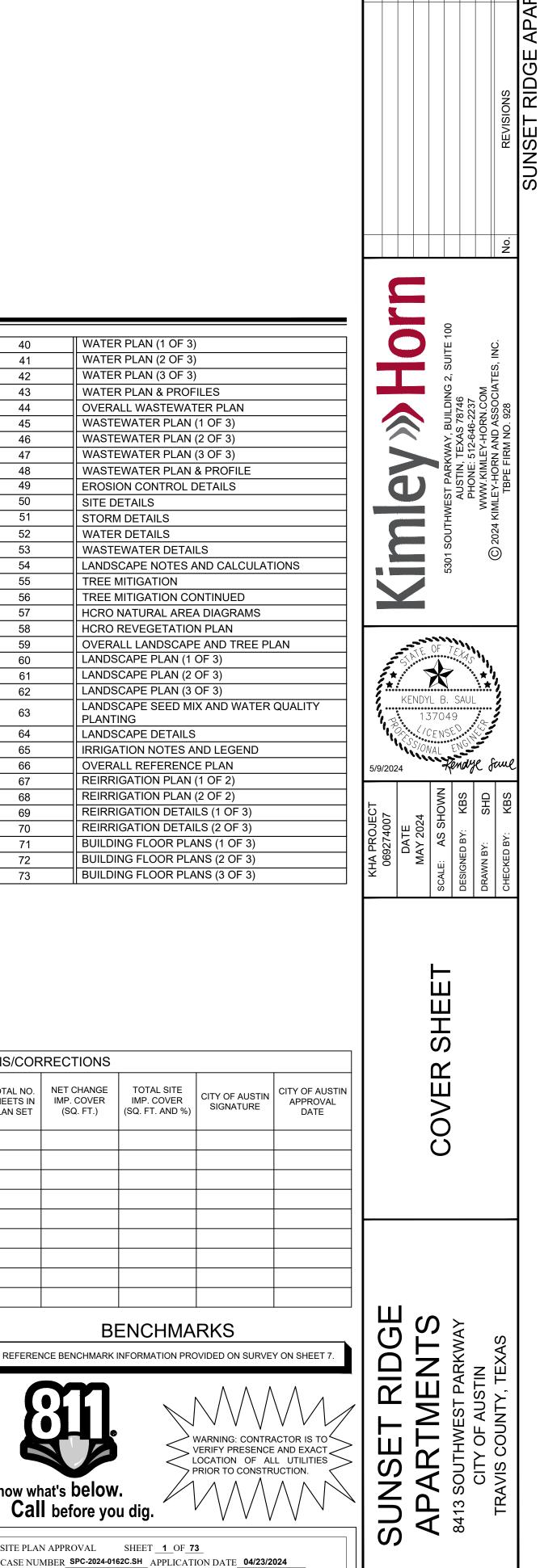
AUSTIN FIRE DEPARTMENT - PROJECT INFORMATION TABLE					
FIRE DESIGN CODES	2021 INTERNATIONAL FIRE CODE & CITY OF AUSTIN FIRE CODE AMENDMENTS				
FIRE FLOW DEMAND @ 20 PSI (GPM)	6,000 GPM				
OCCUPANCY CLASSIFICATION	MULTIFAMILY RESIDENTIAL				
CONSTRUCTION CLASSIFICATION	VA				
BUILDING FIRE AREA (SF)	110,261 SF				
AUTOMATIC FIRE SPRINKLER SYSTEM TYPE (IF APPLICABLE)	NFPA13				
REDUCED FIRE FLOW DEMAND @ 20 PSI FOR HAVING A SPRINKLER SYSTEM (GPM) (IF APPLICABLE)	1,500 GPM				
AFD FIRE HYDRANT FLOW TEST DATE	8/31/2023				
AFD FIRE HYDRANT FLOW TEST LOCATION	5600 BLK SUNSET RIDGE				
CITY OF AUSTIN PIPELINE ORDINANCE APPLIES TO PROJECT	NO				
HIGH-RISE	NO				
INTERNATIONAL WILDLAND-URBAN INTERFACE CODE	2015 WILDLAND-URBAN INTERFACE CODE (IWUIC) & AUSTIN LOCAL AMENDMENTS				
ALTERNATIVE METHOD OF COMPLIANCE (AMOC), IF APPLICABLE TO YOUR PROJECT	NOT APPLICABLE				

AUSTIN WATER	DATE
AUSTIN FIRE DEPARTMENT	DATE
DEVELOPMENT SERVICES DEPARTMENT	DATE
PARKS AND RECREATION DEPARTMENT	DATE

I CERTIFY THAT THESE ENGINEERING DOCUMENTS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THE INTENDED PURPOSES. INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION PRIOR TO FORMAL CITY APPROVAL.

# **SHEET INDEX**

SHEET NO 'S



SITE PLAN APPROVAL	SHEET <u>1</u> OF <u>73</u>
CASE NUMBER SPC-202	4-0162C.SH APPLICATION DATE 04/23/2024
APPROVED ON UNDER SECTION 112	☐ ADMINISTRATIVELY ☐ BY COMMISSION ☐ 142 OF CHAPTER 25-5 OF THE CITY OF AUSTIN COD
EXPIRATION DATE (LD	C 25-5-81) CASE MANAGER CHRIS SAPUPPO

BENCHMARKS

DEVELOPMENT SERVICES DEPARTMENT RELEASED FOR GENERAL COMPLIANCE:

Know what's **below**.

SPC-2024-0162C.SH

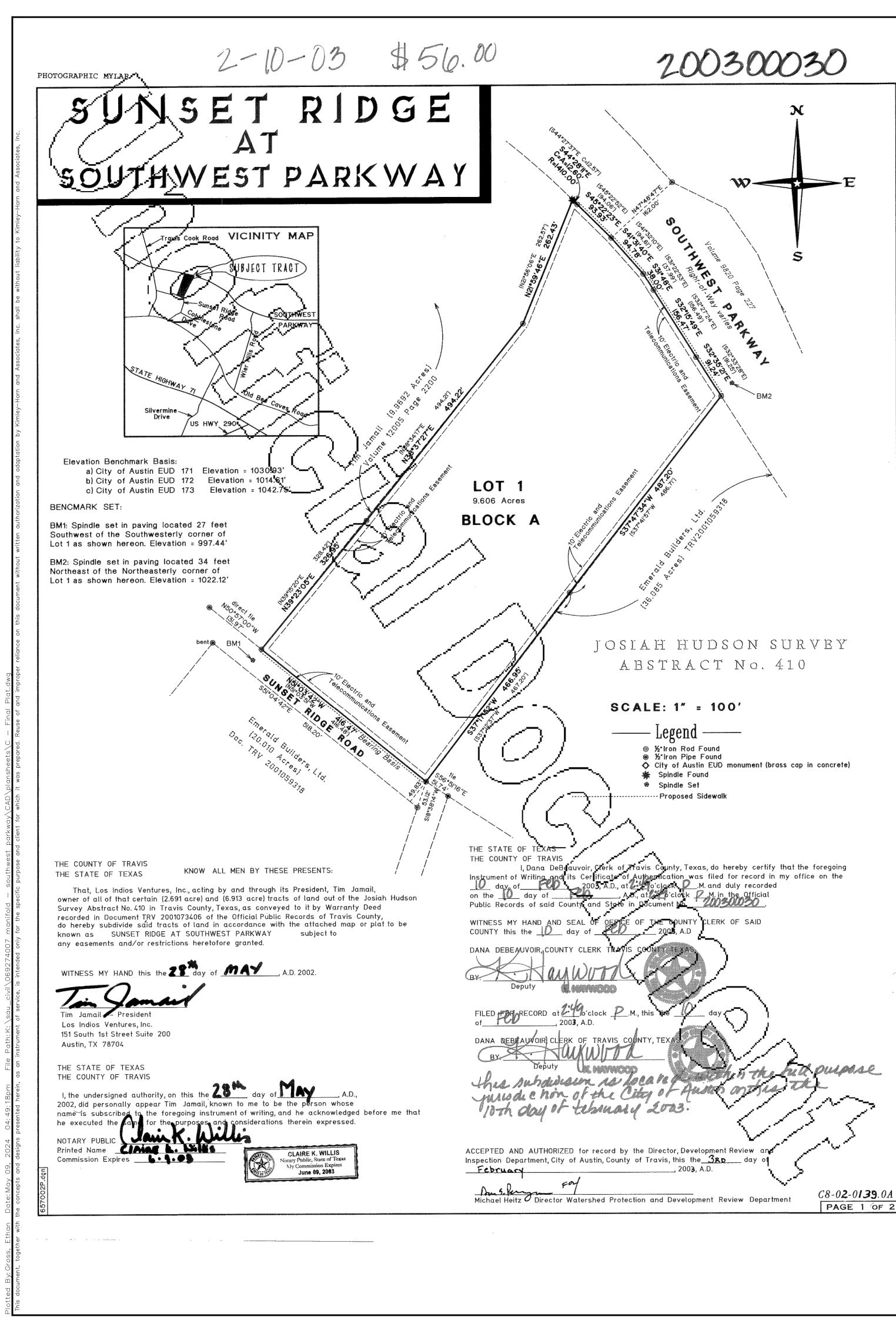
GO-MU-CO-NP

ZONING & GO-CO-NP

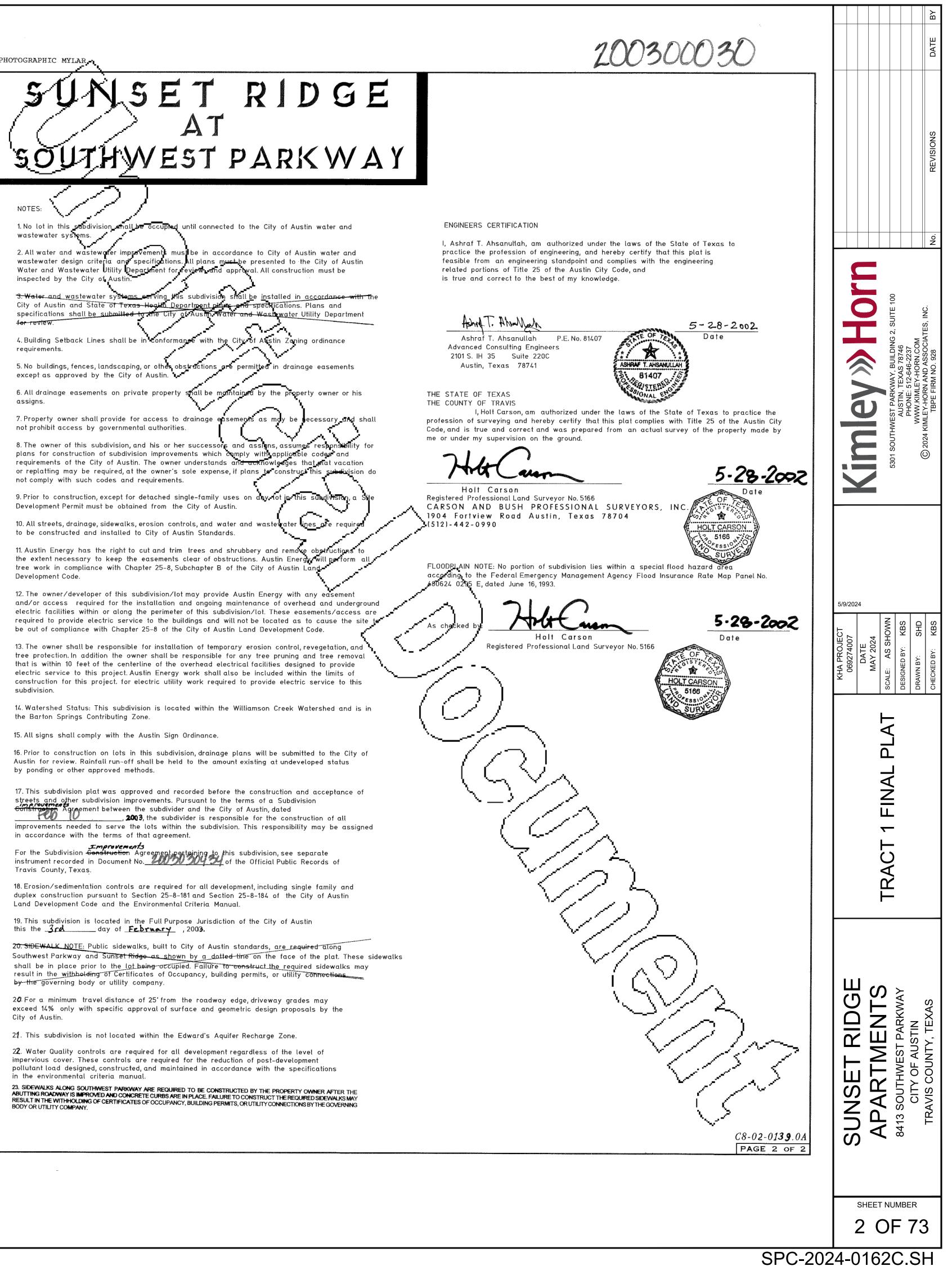
SHEET NUMBER

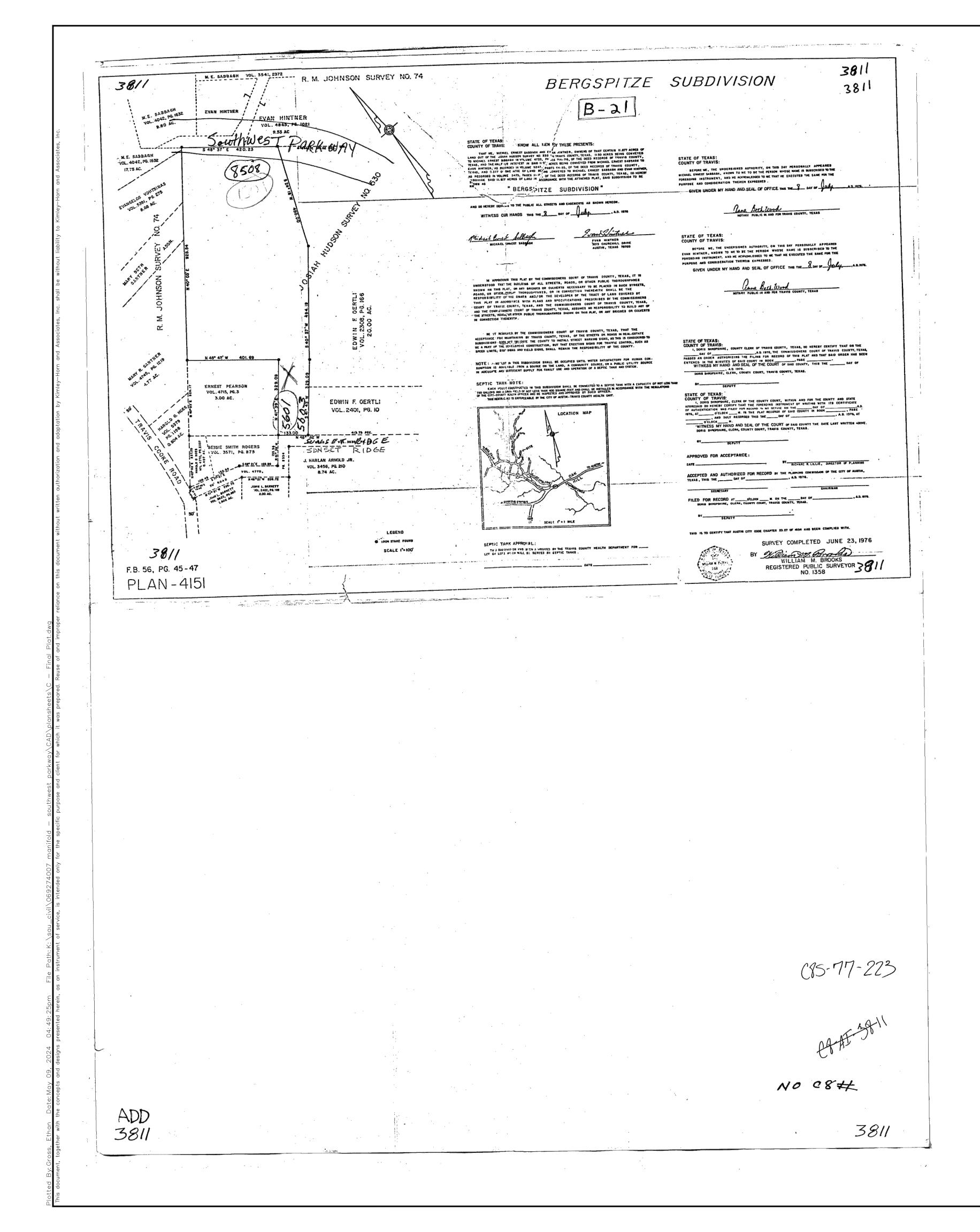
OF 73

APARTMENT



PHOTOGRAPHIC MYLAR





	REVISIONS DATE BY
	5301 SOUTHWEST PARKWAY, BUILDING 2, SUITE 100       Image: Source of the s
	VECT 007 24 KBS KBS KBS KBS KBS KBS KBS KBS KBS KBS
	TRACT 2 FINAL PLAT       BATE         DATE       MAY 2024         SCALE: AS SHOV       SCALE: AS SHOV         DESIGNED BY: KB       DESIGNED BY: KB         DRAWN BY: SHOP       DRAWN BY: SHOP         DRAWN BY: KB       DRAWN BY: KB
	SUNSET RIDGE APARTMENTS 8413 SOUTHWEST PARKWAY CITY OF AUSTIN TRAVIS COUNTY, TEXAS
SPC-202	SHEET NUMBER 3 OF 73 4-0162C.SH

### CITY OF AUSTIN STANDARD SITE PLAN NOTES SITE PLAN RELEASE NOTES

- 1. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE RELEASED SITE PLAN. ANY ADDITIONAL IMPROVEMENTS WILL REQUIRE SITE PLAN AMENDMENT AND APPROVAL OF THE DEVELOPMENT SERVICES DEPARTMENT
- APPROVAL OF THIS SITE PLAN DOES NOT INCLUDE BUILDING AND FIRE CODE APPROVAL NOR BUILDING PERMIT APPROVAL 3. ALL SIGNS MUST COMPLY WITH REQUIREMENTS OF THE LAND DEVELOPMENT CODE
- (CHAPTER 25-10) ADDITIONAL ELECTRIC EASEMENTS MAY BE REQUIRED AT A LATER DATE.
- WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF AUSTIN. ALL EXISTING STRUCTURES SHOWN TO BE REMOVED WILL REQUIRE A DEMOLITION
- PERMIT FROM THE CITY OF AUSTIN DEVELOPMENT SERVICES DEPARTMENT. FOR DRIVEWAY CONSTRUCTION: THE OWNER IS RESPONSIBLE FOR ALL COSTS FOR
- RELOCATION OF, OR DAMAGE TO UTILITIES. 8. FOR CONSTRUCTION WITHIN THE RIGHT-OF-WAY, A ROW EXCAVATION PERMIT IS
- REQUIRED 9. NO CERTIFICATE OF OCCUPANCY MAY BE ISSUED FOR THE PROPOSED RESIDENTIAL CONDOMINIUM PROJECT UNTIL THE OWNER OR OWNERS OF THE PROPERTY HAVE COMPLIED WITH CHAPTER 81 AND 82 OF THE PROPERTY CODE OF THE STATE OF TEXAS OR ANY OTHER STATUTES ENACTED BY THE STATE CONCERNING CONDOMINIUMS.

### FIRE DEPARTMENT

- 1. THE AUSTIN FIRE DEPARTMENT REQUIRES FINAL ASPHALT OR CONCRETE PAVEMENT ON REQUIRED ACCESS ROADS PRIOR TO THE START OF COMBUSTIBLE CONSTRUCTION. ANY OTHER METHOD OF PROVIDING "ALL-WEATHER DRIVING CAPABILITIES" SHALL BE REQUIRED TO BE DOCUMENTED AND APPROVED AS AN ALTERNATIVE METHOD OF CONSTRUCTION IN ACCORDANCE WITH APPLICABLE RULES FOR TEMPORARY ROADS OUTLINED IN THE CITY OF AUSTIN FIRE PROTECTION CRITERIA MANUAL
- FIRE HYDRANTS SHALL BE INSTALLED WITH THE CENTER OF THE FOUR (4) INCH OPENING (STEAMER) LOCATED AT LEAST 18 INCHES ABOVE FINISHED GRADE. THE STEAMER OPENING OF THE FIRE HYDRANTS SHALL FACE THE APPROVED FIRE ACCESS DRIVEWAY OR PUBLIC STREET AND SET BACK FROM THE CURB LINE(S) AN APPROVED DISTANCE, TYPICALLY THREE (3) TO SIX (6) FEET. THE AREA WITHIN THE THREE (3) FEET IN ALL DIRECTIONS FROM ANY FIRE HYDRANT SHALL BE FREE OF OBSTRUCTIONS, AND THE AREA BETWEEN THE STEAMER OPENING AN THE STREET OR DRIVEWAY GIVING EMERGENCY VEHICLE ACCESS SHALL BE FREE OF OBSTRUCTIONS
- . TIMING OF INSTALLATION: WHEN FIRE PROTECTION FACILITIES ARE INSTALLED BY THE CONTRACTOR, SUCH FACILITIES SHALL INCLUDE SURFACE ACCESS ROADS. EMERGENCY ACCESS ROADS OR DRIVES SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION. WHEN THE FIRE DEPARTMENT APPROVES AN ALTERNATE METHOD OF PROTECTION, THIS REQUIREMENT MAY BE MODIFIED AS DOCUMENTED IN THE APPROVAL OF THE ALTERNATE METHOD
- ALL EMERGENCY ACCESS ROADWAYS AND FIRE LANES, INCLUDING PERVIOUS/DECORATIVE PAVING SHALL BE ENGINEERED AND INSTALLED AS REQUIRED TO SUPPORT THE AXLE LOADS. OF EMERGENCY VEHICLES. A LOAD CAPACITY SUFFICIENT TO MEET THE REQUIREMENTS FOR HS-20 LOADING (16KIPS/WHEEL) AND A TOTAL VEHICLE LIVE LOAD OF 80,000 POUNDS IS CONSIDERED COMPLIANT WITH THIS REQUIREMENT.
- 5. FIRE LANES DESIGNATED ON SITE PLAN SHALL BE REGISTERED WITH CITY OF AUSTIN FIRE DEPARTMENT AND INSPECTED FOR FINAL APPROVAL. 6. THE MINIMUM VERTICAL CLEARANCE REQUIRED FOR EMERGENCY VEHICLE ACCESS ROADS OR DRIVES IS 14 FEET FOR THE FULL WIDTH OF THE ROADWAY OR DRIVEWAY.
- STENCIL THE WORDS "FIRE ZONE/TOW-AWAY ZONE" IN WHITE LETTERS AT LEAST 3" HIGH AT 35 FOOT INTERVALS ALONG THE CURB. SIGNS SHALL BE POSTED AT BOTH ENDS OF A FIRE ZONE AND AT INTERVALS OF 50 FEET OR LESS.

### 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.
- 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.
- CONTRACTOR SHALL NOTIFY THE CITY OF AUSTIN SITE & SUBDIVISION DIVISION TO SUBMIT REQUIRED DOCUMENTATION PAY CONSTRUCTION INSPECTION FEES AND TO SCHEDULE THE REQUIRED SITE AND SUBDIVISION PRE-CONSTRUCTION MEETING. THIS MEETING MUST BE HELD PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE R.O.W. OR PUBLIC EASEMENTS. PLEASE 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.
- ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.
- 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)

### AMERICANS WITH DISABILITIES ACT

THE CITY OF AUSTIN HAS REVIEWED THIS PLAN FOR COMPLIANCE WITH CITY DEVELOPMENT REGULATIONS ONLY. THE APPLICANT, PROPERTY OWNER, AND OCCUPANT OF THE PREMISES ARE RESPONSIBLE FOR DETERMINING WHETHER THE PLAN COMPLIES WITH ALL OTHER LAWS REGULATIONS, AND RESTRICTIONS WHICH MAY BE APPLICABLE TO THE PROPERTY AND ITS USE.

### TRANSPORTATION NOTES:

- 1. ALL ACCESSIBLE PARKING SPACES SHALL BE IDENTIFIED BY A SIGN, CENTERED AT THE HEAD OF THE TWO PARKING SPACES. SIGN TO INCLUDE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND STATE RESERVED OR EQUIVALENT LANGUAGE. COMPACT PARKING SPACES MUST BE IDENTIFIED BY A SIGN STATING "SMALL CAR ONLY"
- EACH PARKING SPACE SHALL HAVE A VERTICAL CLEARANCE AS SPECIFIED BY THE BUILDING CODE (MINIMUM 7 FEFT) 4. RAISED CONCRETE CURBS SHALL BE PROVIDED AT THE END OF PARKING BAY SAND ALL LANDSCAPED ISLANDS UNLESS OTHERWISE NOTED.
- 5. ALL PARKING AISLES ARE DESIGNED FOR TWO-WAY TRAFFIC UNLESS OTHERWISE NOTED. . WASTE HAULING WILL OPERATE OUTSIDE OF BUSINESS HOURS AFTER 8PM AND BEFORE

### AUSTIN ENERGY STANDARD 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 CHAPTER 25-8. SUBCHAPTER B OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE
- 2. THE OWNER/DEVELOPER OF THIS SUBDIVISION/LOT SHALL PROVIDE AUSTIN ENERGY WITH ANY EASEMENT AND/OR ACCESS REQUIRED, IN ADDITION TO THOSE INDICATED, FOR THE INSTALLATION AND ONGOING MAINTENANCE OF OVERHEAD AND UNDERGROUND FLECTRIC FACILITIES. THESE EASEMENTS AND/OR ACCESS ARE REQUIRED TO PROVIDE ELECTRIC SERVICE TO THE BUILDING AND WILL NOT BE LOCATED SO AS TO CAUSE THE SITE TO BE OUT OF COMPLIANCE WITH CHAPTER 25-8 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE. THE 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 ELECTRICAL 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 4. 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
- 5. ANY RELOCATION OF ELECTRIC FACILITIES SHALL BE AT LANDOWNER'S/DEVELOPER'S EXPENSE.

### 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. 3. 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
- 14 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 OF OWNER'S REPRESENTATIVE SHALL NOTIFY THE DEVELOPMENT SERVICES DEPARTMENT, 512-974-2278 OR BY EMAIL AT ENVIRONMENTAL INSPECTIONS@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
- 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 NADEQUACIES
- 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 (1/2) 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 (1/3) 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 SAT/VA ) 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 ( I OLIUM MULTIFLORUM ) OR PERENNIAL RYEGRASS ( I OLIUM
- 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 11/2 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	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 VEGETATIVE 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 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 11/2 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. . 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

	TABLE 2: HYDRO	MULCHING FOR PERM	IANENT VEGETATIVE STABILIZ	ATION
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 MANUFACTURES RECOMMENDATIONS)	
FIBER REINFORCED MATRIX (FRM)	65% ORGANIC DEFIBRATED FIBERS 25% 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 MANUFACTURES RECOMMENDATIONS)

10. THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE DEVELOPMENT SERVICES DEPARTMENT AT 512-974-2278 AT LEAST 48 HOURS PRIOR WITH THE LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE MATERIAI

SOURCE: RULE NO. R161-15.13. 1-4-2016 : RULE NO. R161-17.03 . 3-2-2017.

DEVELOPER INFORMATION:	
MANIFOLD REAL ESTATE	<u>(619)818-0151</u> PHONE #
PO BOX 200463	THONE #
OWNER ADDRESS	
KENDYL SAUL, KIMLEY-HORN AND ASSOCIATES, INC. OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS	(512)646-2237 PHONE #
CONTRACTOR	THOME #
PERSON OR FIRM RESPONSIBLE FOR EROSION/ SEDIMENTATION CONTROL MAINTENANCE	PHONE #
CONTRACTOR	
PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL	PHONE #
AREA PROTECTION MAINTENANCE	

ADDITIONAL EROSION CONTROL NOTES:

- 1. CONTRACTOR IS SOLELY RESPONSIBLE FOR IMPLEMENTATION. MAINTENANCE, AND EFFECTIVENESS OF ALL SWPPP CONTROLS - CONTROLS SHOWN ON THIS SITE MAP ARE SUGGESTED CONTROLS ONLY.
- 2. CONTRACTOR SHALL RECORD INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL DATES FOR EACH BMP EMPLOYED (WHETHER CALLED OUT ON ORIGINAL SWPPP OR NOT) DIRECTLY ON THE SITE MAP.
- THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF CEDAR PARK RULES AND REGULATIONS
- CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURE DURING SITE CONSTRUCTION SUCH AS 4. IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(D) OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT
- THE FARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY
- LANDSCAPING, THE BUILDING(S), AND SITE PAVING. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
- ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED BY THE CITY DURING CONSTRUCTION. REFERENCE EROSION CONTROL NOTES AND DETAILS ON SHEET 7.
- IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION. MULCH. TARP OR REVEGETATION MATTING IECM 1.4.4.B.3, SECTION 5, I.]. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4].
- ALL DISTURBED AREAS TO BE RE-VEGETATED PER CITY OF AUSTIN STANDARDS. 11. SEE LANDSCAPE ARCHITECT PLANS FOR TREE PRESERVATION PLAN AND TREE LIST.
- 12. CONTRACTOR WILL PICK UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE A
- 13. CONTRACTOR TO SLOPE EXCAVATION TOWARDS THE SOUTH EAST CORNER OF THE BUILDING AND DEWATER AS NECESSARY 14. CONTRACTOR SHALL MAINTAIN THE DEWATERING SYSTEM TO ENSURE PERFORMANCE. IF THE
- DEWATERING SYSTEM IS NOT PERFORMING. THE CONTRACTOR MUST IMMEDIATELY MAKE THE NECESSARY MODIFICATIONS. FOLLOWING THE ENVIRONMENTAL INSPECTOR'S DIRECTION TO ENSURE ADEQUATE SYSTEM PERFORMANCE. CONTRACTOR SHALL PROVIDE DEWATERING PLAN AT THE PRECONSTRUCTION MEETING. 15. FOR OFFSITE UTILITY WORK NO MORE THAN 2000 FEET OF CONSTRUCTION ZONE SHALL BE OPEN
- AT ANY TIME WITH CLEAN UP AND RESTORATION WORK OCCURRING BEFORE PROCEEDING TO THE NEXT SECTION. THE CONTRACTOR IS REQUIRED TO RESTORE ALL DISTURBED AREAS AS THE WORK PROGRESSES. [ECM 1.4.1.2(E), ECM 1.4.1.2(C) (2)] 16. PERPENDICULAR EROSION CONTROLS MUST BE INSTALLED EVERY 30 FEET AS THE TRENCH IS
- BACKEILLED ALL SPOILS ARE TO BE PLACED BACK IN TRENCH EVERY NIGHT; OR IF SPOILS PILES ARE TO REMAIN OVERNIGHT, SPOILS MUST BE PLACED ON THE UPHILL SIDE OF TRENCH WITHIN THE LOC.
- 18. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY SEDIMENT TRANSPORTED FROM THE LOC TO THE OFFSITE DETENTION / WATER QUALITY POND(S).

ECM 3.6.2. CITY OF AUSTIN MODIFIED TREE & NATURAL AREA PROT PLAN

- **BEFORE CONSTRUCTION:**
- 1. ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL
- 2. TREE PROTECTION SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE
- DEMOLITION OR SITE PREPARATION. REFER TO ECM 3.6.1.A. 3. FENCING FOR TREE PROTECTION SHALL BE CHAIN-LINK MESH WITH A MINIM SHALL BE INSTALLED AROUND OR BEYOND THE CRITICAL ROOT ZONE EXCEP
- 3.6.1.B.4. 4. UNFENCED SECTIONS OF THE CRITICAL ROOT ZONE SHALL BE COVERED WITH DEPTH OF 8 INCHES AND A MAXIMUM DEPTH OF 12 INCHES PER ECM 3.6.1.C.
- 5. WHERE FENCING IS LOCATED 5 FEET OR LESS FROM THE TRUNK OF A PRESE WRAPPING SHALL BE INSTALLED PER ECM 3.6.1.D.
- 6. EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AND MAINTA CAUSE IMPACTS THAT EXCEED PRESERVATION CRITERIA LISTED IN ECM 3.5.3

DURING CONSTRUCTION:

- 1. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER THAT DC PRESERVATION CRITERIA FOR THE TREES TO REMAIN. REFER TO ECM 3.5.2 A 2. FENCING MAY NOT BE TEMPORARILY MOVED OR REMOVED DURING DEVELOF
- AUTHORIZATION. THE FENCED CRITICAL ROOT ZONE SHALL NOT BE USED FC STORAGE OF ANY KIND AND SHALL BE KEPT FREE OF LITTER. REFER TO ECM 3. PRUNING SHALL BE IN COMPLIANCE WITH THE CURRENT ANSI A300 STANDAR
- AFTER CONSTRUCTION:
- 1. TREE PROTECTION SHALL BE REMOVED AT THE END OF THE PROJECT AFTER AND FINAL GRADING IS COMPLETE, BUT BEFORE FINAL INSPECTION. REFER
- 2. LANDSCAPE INSTALLATION WITHIN THE CRZ OF PRESERVED TREES, INCLUDIN PLANTINGS. SHALL NOT EXCEED PRESERVATION CRITERIA LISTED IN ECM 3.5
- 3. DOCUMENTATION OF TREE WORK PERFORMED MUST BE PROVIDED TO INSPE APPENDIX P-6.

THIS LIST IS NOT EXHAUSTIVE.

REFER TO APPROPRIATE ECM SECTIONS FOR FULL REQUIREMENTS.

APPENDIX P-3: ADDITIONAL EROSION CONTROL NOTES FOR BART( CONTRIBUTING ZONE

- DESIGNATION OF AN ENVIRONMENTAL PROJECT MANAGER WHO IS ON SITE > REQUIRED TO BE AT THE PRECONSTRUCTION AND MID-CONSTRUCTION MEE RESPONSIBLE FOR COMPLIANCE ON SITE OF THE TEMPORARY EROSION AND CONTROLS. THE ENVIRONMENTAL PROJECT MANAGER IS RESPONSIBLE FOR OF THE CONTROLS DURING THE CONSTRUCTION PERIOD. SHOULD THE PRO BE ABSENT FROM THE SITE FOR AN EXTENDED PERIOD (IN EXCESS OF ONE V ENVIRONMENTAL INSPECTOR WITH THE WATERSHED PROTECTION AND DEVI DEPARTMENT SHOULD BE INFORMED OF THE NAME OF A DESIGNATED REPLA
- 2. THE MAXIMUM LENGTH OF TIME BETWEEN CLEARING AND FINAL REVEGETAT NOT EXCEED 18 MONTHS UNLESS EXTENDED BY THE DIRECTOR OF THE WA AND DEVELOPMENT REVIEW DEPARTMENT (THIS DOES NOT AFFECT THE EXF PLAN OR BUILDING PERMIT. THIS REQUIREMENT APPLIES TO SITES THAT HAV ARE EXPERIENCING EROSION CONTROL PROBLEMS DUE TO DISTURBED SOIL AREAS MUST BE MAINTAINED TO PREVENT EROSION AND SEDIMENT LOADING
- DRAINAGE FACILITIES. 3. IT IS A VIOLATION OF THE CODE AND THIS DEVELOPMENT PERMIT TO ALLOW CONSTRUCTION SITE TO ENTER A CLASSIFIED WATERWAY DUE TO A FAILURE REQUIRED EROSION AND SEDIMENTATION CONTROLS OR TO FOLLOW THE AF SEQUENCE.

APPENDIX P-4: - STANDARD SEQUENCE OF CONSTRUCTION THE FOLLOWING SEQUENCE OF CONSTRUCTION SHALL BE USED FOR ALL DEVELO

- ENCOURAGED TO PROVIDE ANY ADDITIONAL DETAILS APPROPRIATE FOR THE PAR 1. TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSTALL APPROVED SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN AND IN ACCOR SEDIMENTATION CONTROL PLAN (ESC) AND STORMWATER POLLUTION PREVE THAT IS REQUIRED TO BE POSTED ON THE SITE, INSTALL TREE PROTECTION MEASURES AND CONDUCT "PRE - CONSTRUCTION" TREE FERTILIZATION (IF .
- 2. THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR MUST CONT SERVICES DEPARTMENT, ENVIRONMENTAL INSPECTION, AT 512-974-2278, 72 I SCHEDULED DATE OF THE REQUIRED ON-SITE PRECONSTRUCTION MEETING THE ENVIRONMENTAL PROJECT MANAGER, AND/OR SITE SUPERVISOR, AND/O RESPONSIBLE PARTY, AND THE GENERAL CONTRACTOR WILL FOLLOW THE E
- CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SW SITE, TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE REVIS COMPLY WITH CITY INSPECTORS' DIRECTIVES, AND REVISED CONSTRUCTION THE WATER QUALITY PLAN REQUIREMENTS AND THE EROSION PLAN. 4. ROUGH GRADE THE POND(S) AT 100% PROPOSED CAPACITY. EITHER THE PEI STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO I
- EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE CONSIST OF A SUMP PIT OUTLET AND AN EMERGENCY SPILL WAY MEETING T THE DRAINAGE CRITERIA MANUAL AND/OR THE ENVIRONMENTAL CRITERIA M OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINT COURSE OF CONSTRUCTION UNTIL INSTALLATION OF THE PERMANENT WATE 5. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED
- ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AN POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE. 6. BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES.
- 7. IN THE BARTON SPRINGS ZONE, THE ENVIRONMENTAL PROJECT MANAGER O SCHEDULE A MID-CONSTRUCTION CONFERENCE TO COORDINATE CHANGES SCHEDULE AND EVALUATE EFFECTIVENESS OF THE EROSION CONTROL PLA CONSTRUCTION ALTERATIONS TO THE SITE. PARTICIPANTS SHALL INCLUDE T PROJECT ENGINEER, GENERAL CONTRACTOR AND ENVIRONMENTAL PROJECT SUPERVISOR, THE ANTICIPATED COMPLETION DATE AND FINAL CONSTRUCT INSPECTION SCHEDULE WILL BE COORDINATED WITH THE APPROPRIATE CITY 8. PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT /
- INSTALLED PRIOR TO/CONCURRENTLY WITH REVEGETATION OF SITE. STORM OPERATIONAL AT THIS STAGE. 9. COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INS LANDSCAPING.
- 10. UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF A F DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE ENGINEER'S SEAL, SIGNATURE, AND DATE TO THE DEVELOPMENT SERVICES THAT CONSTRUCTION. INCLUDING REVEGETATION. IS COMPLETE AND IN SUE WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
- 11. UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE I SHALL SUBMIT A LETTER OF CONCURRENCE TO THE DEVELOPMENT SERVIC INDICATING THAT THE REQUIRED LANDSCAPING IS COMPLETE AND IN SUBST THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION THE APPROPRIATE CITY INSPECTOR.
- 12. AFTER A FINAL INSPECTION HAS BEEN CONDUCTED BY THE CITY INSPECTOR FROM THE CITY INSPECTOR, REMOVE THE TEMPORARY EROSION AND SEDIM AND COMPLETE ANY NECESSARY FINAL REVEGETATION RESULTING FROM RE CONTROLS. CONDUCT ANY MAINTENANCE AND REHABILITATION OF THE WAT CONTROLS.

NOTE THE SEQUENCE OF CONSTRUCTION SHOWN ABOVE IS A GENERAL OVER CONVEY THE GENERAL CONCEPTS OF THE EROSION CONTROL DESIGN AND SHO FOR CONSTRUCTION PURPOSES. THE CONTRACTOR IS SOLELY RESPONSIBLE FO CONSTRUCTION SEQUENCING NECESSARY TO CONSTRUCT THE PROPOSED IMP THESE PLANS. THE CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IMMEDI DURING CONSTRUCTION IF ANY ADDITIONAL INFORMATION ON THE CONS NECESSARY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLYING WITH TH AUTHORITY HAVING JURISDICTION AND ALL OTHER APPLICABLE LAWS.

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IN THE FIELD THAT AFFECT THE GRADING PLAN TO THE CIVIL ENGINEER. PRESERVATION PLAN BY THE LANDSCAPE ARCHITECT PRIOR TO COMMENCING THE WORK.

### EFFECTIVELY CONTROL EROSION AND PREVENT SEDIMENTATION FROM WASHING OFF THE SITE, THEN THE CONTRACTOR SHALL

11 OFF-SITE SOIL BORROW SPOIL AND STORAGE AREAS (IF APPLICABLE) ARE CONSIDERED AS PART OF THE PROJECT SITE AND MUST ALSO COMPLY WITH THE EROSION CONTROL REQUIREMENTS FOR THIS PROJECT. THIS INCLUDES THE INSTALLATION OF BMP'S TO CONTROL EROSION AND SEDIMENTATION AND THE ESTABLISHMENT OF PERMANENT GROUND COVER ON DISTURBED AREAS PRIOR TO FINAL APPROVAL OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE SWPPP AND EROSION CONTROL PLAN TO INCLUDE BMPS FOR ANY OFF-SITE THAT ARE NOT ANTICIPATED OR SHOWN ON THE EROSION CONTROL PLAN. 12. ALL STAGING, STOCKPILES, SPOIL, AND STORAGE SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. PROTECTIVE MEASURES SHALL BE PROVIDED IF NEEDED TO ACCOMPLISH THIS REQUIREMENT, SUCH AS COVERING OR

13. CONTRACTORS SHALL INSPECT ALL EROSION CONTROL DEVICES, BMPS, DISTURBED AREAS, AND VEHICLE ENTRY AND EXIT AREAS WEEKLY AND WITHIN 24 HOURS OF ALL RAINFALL EVENTS OF 0.5 INCHES OR GREATER, AND KEEP A RECORD OF THIS INSPECTION IN THE SWPPP BOOKLET IF APPLICABLE. TO VERIFY THAT THE DEVICES AND EROSION CONTROL PLAN ARE FUNCTIONING PROPERLY 14. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS IN ACCORDANCE WITH CITY SPECIFICATIONS. CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION TRAFFIC USES THE STABILIZED ENTRANCE AT

15. SITE ENTRY AND EXITS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING AND FLOWING OF SEDIMENT AND 16. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS FROM THE AFFECTED OFF-SITE ROADWAYS THAT ARE A

17. WHEN WASHING OF VEHICLES IS REQUIRED TO REMOVE SEDIMENT PRIOR TO EXITING THE SITE, IT SHALL BE DONE IN AN AREA

STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP BMP. 18. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ON-SITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER TCEQ AND CITY STANDARDS. IF NO ENGINEERING DESIGN HAS BEEN PROVIDED FOR A SEDIMENTATION BASIN ON THESE

19 ALL FINES IMPOSED FOR SEDIMENT OR DIRT DISCHARGED FROM THE SITE SHALL BE PAID BY THE RESPONSIBLE CONTRACTOR 20. WHEN SEDIMENT OR DIRT HAS CLOGGED THE CONSTRUCTION ENTRANCE VOID SPACES BETWEEN STONES OR DIRT IS BEING TRACKED ONTO A ROADWAY, THE AGGREGATE PAD MUST BE WASHED DOWN OR REPLACED. RUNOFF FROM THE WASH-DOWN OPERATION SHALL NOT BE ALLOWED TO DRAIN DIRECTLY OFF SITE WITHOUT FIRST FLOWING THROUGH ANOTHER BMP TO CONTROL SEDIMENTATION. PERIODIC RE-GRADING OR NEW STONE MAY BE REQUIRED TO MAINTAIN THE EFFECTIVENESS OF THE CONSTRUCTION ENTRANCE. 21. TEMPORARY SEEDING OR OTHER APPROVED STABILIZATION SHALL BE INITIATED WITHIN 14 DAYS OF THE LAST DISTURBANCE OF ANY AREA, UNLESS ADDITIONAL CONSTRUCTION IN THE AREA IS EXPECTED WITHIN 21 DAYS OF THE LAST DISTURBANCE.

23. UPON COMPLETION OF FINE GRADING, ALL SURFACES OF DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED. STABILIZATION IS ACHIEVED WHEN THE AREA IS EITHER COVERED BY PERMANENT IMPERVIOUS STRUCTURES, SUCH AS BUILDINGS, SIDEWALK, 24.AT THE CONCLUSION OF THE PROJECT, ALL INLETS, DRAIN PIPE, CHANNELS, DRAINAGEWAYS AND BORROW DITCHES AFFECTED BY THE CONSTRUCTION SHALL BE DREDGED, AND THE SEDIMENT GENERATED BY THE PROJECT SHALL BE REMOVED AND DISPOSED IN

### CONTRACTOR SHALL COMPLY WITH ALL TCEQ AND EPA STORM WATER POLLUTION PREVENTION REQUIREMENTS. 2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS

3. THE CONTRACTOR SHALL ENSURE THAT ALL PRIMARY OPERATORS SUBMIT A NOI TO TCEQ AT LEAST SEVEN DAYS PRIOR TO COMMENCING CONSTRUCTION (IF APPLICABLE), OR IF UTILIZING ELECTRONIC SUBMITTAL, PRIOR TO COMMENCING CONSTRUCTION. ALL PRIMARY OPERATORS SHALL PROVIDE A COPY OF THE SIGNED NOI TO THE OPERATOR OF ANY MS4 (TYPICALLY THE CITY)

4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE, INCLUDING POSTING SITE NOTICE, INSPECTIONS, DOCUMENTATION, AND SUBMISSION OF ANY INFORMATION REQUIRED

ALL CONTRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP SHALL SIGN THE REQUIRED CONTRACTOR CERTIFICATION STATEMENT ACKNOWLEDGING THEIR RESPONSIBILITIES AS SPECIFIED IN THE SWPPP. 6. A COPY OF THE SWPPP, INCLUDING NOI, SITE NOTICE, CONTRACTOR CERTIFICATIONS, AND ANY REVISIONS, SHALL BE SUBMITTED TO THE CITY BY THE CONTRACTOR AND SHALL BE RETAINED ON-SITE DURING CONSTRUCTION. 7. A NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO TCEQ BY ANY PRIMARY OPERATOR WITHIN 30 DAYS AFTER ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND A UNIFORM VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY STRUCTURES, A TRANSFER OF OPERATIONAL CONTROL HAS OCCURRED, OR THE OPERATOR HAS OBTAINED ALTERNATIVE AUTHORIZATION UNDER A DIFFERENT PERMIT. A COPY OF THE NOT SHALL BE PROVIDED TO THE OPERATOR OF ANY MS4 RECEIVING DISCHARGE FROM THE SITE.

. KH IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS PRELIMINARY DEMOLITION PLAN SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACT THAT ARE TO BE DEMOLISHED

2. KH DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON SURVEY AND UTILITY INFORMATION PROVIDED BY OTHERS, SHOWS ALL IMPROVEMENTS AND UTILITIES, THAT THE IMPROVEMENTS AND UTILITIES ARE SHOWN ACCURATELY, OR THAT THE UTILITIES SHOWN CAN BE REMOVED. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ITS OWN SITE RECONNAISSANCE TO SCOPE ITS WORK AND TO CONFIRM WITH THE OWNERS OF IMPROVEMENTS AND UTILITIES THE ABILITY AND 3. THIS PLAN IS INTENDED TO GIVE A GENERAL GUIDE TO THE CONTRACTOR, NOTHING MORE. THE GOAL OF THE DEMOLITION IS TO LEAVE THE SITE IN A STATE SUITABLE FOR THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC. TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR. 4. CONTRACTOR IS STRONGLY CAUTIONED TO REVIEW THE FOLLOWING REPORTS DESCRIBING SITE CONDITIONS PRIOR TO BIDDING AND

### b. ASBESTOS BUILDING INSPECTION REPORT(S) PROVIDED BY THE OWNER,

5. CONTRACTOR SHALL CONTACT THE OWNER TO VERIFY WHETHER ADDITIONAL REPORTS OR AMENDMENTS TO THE ABOVE CITED REPORTS HAVE BEEN PREPARED AND TO OBTAIN/REVIEW/AND COMPLY WITH THE RECOMMENDATION OF SUCH STUDIES PRIOR TO

6. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW THE SITE DETERMINE THE APPLICABLE REGULATIONS RECEIVE THE REQUIRED PERMITS AND AUTHORIZATIONS AND COMPLY . KH DOES NOT REPRESENT THAT THE REPORTS AND SURVEYS REFERENCED ABOVE ARE ACCURATE, COMPLETE, OR COMPREHENSIVE SHOWING ALL ITEMS THAT WILL NEED TO BE DEMOLISHED AND REMOVED. 8. SURFACE PAVEMENT INDICATED MAY OVERLAY OTHER HIDDEN STRUCTURES, SUCH AS ADDITIONAL LAYERS OF PAVEMENT

1. THE CONTRACTOR AND GRADING SUBCONTRACTOR SHALL VERIFY THE SUITABILITY OF EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE CIVIL ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF

3. UNLESS OTHERWISE NOTED, PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN IN PAVED AREA REFLECT TOP OF PAVEMENT SURFACE. IN LOCATIONS ALONG A CURB LINE, ADD 6-INCHES (OR THE HEIGHT OF THE CURB) TO THE PAVING GRADE FOR TOP OF CURB 4. PROPOSED SPOT ELEVATIONS AND CONTOURS OUTSIDE THE PAVEMENT ARE TO TOP OF FINISHED GRADE.

5. PROPOSED CONTOURS ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS AND DESIGNATED GRADIENT ARE TO BE USED IN CASE OF 3. ALL FINISHED GRADES SHALL TRANSITION UNIFORMLY BETWEEN THE FINISHED ELEVATIONS SHOWN

7. CONTOURS AND SPOT GRADES SHOWN ARE ELEVATIONS OF TOP OF THE FINISHED SURFACE. WHEN PERFORMING THE GRADING OPERATIONS. THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE ELEVATION HOLD-DOWN ALLOWANCE FOR THE THICKNESS OF PAVEMENT SIDEWALK TOPSOIL MULCH STONE LANDSCAPING RIP-RAP AND ALL OTHER SURFACE MATERIALS THAT WILL CONTRIBUTE TO THE TOP OF FINISHED GRADE. FOR EXAMPLE, THE LIMITS OF EARTHWORK IN PAVED AREAS IS THE BOTTOM OF THE 8. NO REPRESENTATIONS OF EARTHWORK QUANTITIES OR SITE BALANCE ARE MADE BY THESE PLANS. THE CONTRACTOR SHALL

VARIANCE FROM A BALANCED SITE SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CIVIL ENGINEER. 9. ALL GRADING AND EARTHWORK SHALL COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING 10. ALL EXCAVATION IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED. UNUSABLE EXCAVATED MATERIAL AND ALL WASTE RESULTING FROM SITE CLEARING AND GRUBBING SHALL BE REMOVED FROM THE SITE AND APPROPRIATELY DISPOSED BY THE

11. EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF GRADING. REFERENCE EROSION CONTROL PLAN, DETAILS, GENERAL NOTES, AND SWPPP FOR ADDITIONAL INFORMATION AND 12.BEFORE ANY EARTHWORK IS PERFORMED, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF THE PROJECT'S PROPERTY LINE AND SITE IMPROVEMENTS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND

13. CONTRACTOR TO DISPOSE OF ALL EXCESS EXCAVATION MATERIALS IN A MANNER THAT ADHERES TO LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS. THE CONTRACTOR SHALL KEEP A RECORD OF WHERE EXCESS EXCAVATION WAS DISPOSED, ALONG WITH

SHALL REFER TO LANDSCAPE ARCHITECTURE PLANS FOR SPECIFICATIONS AND REQUIREMENTS FOR TOPSOIL. 15. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING 16.NO EARTHWORK FILL SHALL BE PLACED IN ANY EXISTING DRAINAGE WAY, SWALE, CHANNEL, DITCH, CREEK, OR FLOODPLAIN FOR ANY REASON OR ANY LENGTH OF TIME. UNLESS THESE PLANS SPECIFICALLY INDICATE THIS IS REQUIRED.

18. REFER TO DIMENSION CONTROL PLAN, AND PLAT FOR HORIZONTAL DIMENSIONS. 19. THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND CONDITION FILL PER THE PROJECT GEOTECHNICAL ENGINEER'S SPECIFICATIONS. THE FILL MATERIAL TO BE USED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO

20.CONTRACTOR IS RESPONSIBLE FOR ALL SOILS TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL SOILS TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR AND SHALL COMPLY WITH CITY STANDARD SPECIFICATIONS AND THE GEOTECHNICAL REPORT. SOILS TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING SOILS. THE OWNER SHALL APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR SOILS TESTING. 21.ALL COPIES OF SOILS TEST RESULTS SHALL BE SENT TO THE OWNER, ENGINEER AND ARCHITECT DIRECTLY FROM THE TESTING

22.IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE SOILS, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS. 23. THE SCOPE OF WORK FOR CIVIL IMPROVEMENT SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT AND STRUCTURAL PLANS AND SPECIFICATIONS FILL, CONDITIONING, AND PREPARATION

24.DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE TO GEOTECHNICAL REPORT'S RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PROPOSED BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING JE NONE IS CURRENTLY EXISTING

OF THE PROPOSED BUILDING(S) DURING GRADING OPERATIONS AND IN THE FINAL CONDITION. IF THE CONTRACTOR OBSERVES THAT THIS WILL NOT BE ACHIEVED, THE CONTRACTOR SHALL CONTACT THE ENGINEER TO REVIEW THE LOCATION 26.THE CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. CONTRACTOR SHALL CONTROL DUST BY SPRINKLING WATER OR BY OTHER MEANS APPROVED BY THE CITY AT NO ADDITIONAL COST TO THE OWNER

27. CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS NEEDED FOR GRADING OPERATIONS AND TO ACCOMMODATE PROPOSED GRADE, INCLUDING THE UNKNOWN UTILITIES NOT SHOWN ON THESE PLANS. CONTRACTOR SHALL REFER TO THE GENERAL NOTES "OVERALL" SECTION THESE PLANS FOR ADDITIONAL

28.EXISTING TREE LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. CONTRACTOR SHALL REPORT ANY DISCREPANCIES FOUND 29.CONTRACTOR SHALL FIELD VERIFY ALL PROTECTED TREE LOCATIONS, INDIVIDUAL PROTECTED TREE CRITICAL ROOT ZONES, AND PROPOSED SITE GRADING, AND NOTIFY THE CIVIL ENGINEER AND LANDSCAPE ARCHITECT OF ANY CONFLICTS WITH THE TREE

30. TREE PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY STANDARD TREE PROTECTION DETAILS AND THE

APPROVED TREE PRESERVATION PLANS BY THE LANDSCAPE ARCHITECT. 31.CONTRACTOR SHALL REFER TO THE LANDSCAPING AND TREE PRESERVATIONS PLANS FOR ALL INFORMATION AND DETAILS

- REGARDING EXISTING TREES TO BE REMOVED AND PRESERVED 32.NO TREE SHALL BE REMOVED UNLESS A TREE REMOVAL PERMIT HAS BEEN ISSUED BY THE CITY, OR CITY HAS OTHERWISE COL IN WRITING THAT ONE IS NOT NEEDED FOR THE TREE(S).
- 33 NO TREE SHALL BE REMOVED OR DAMAGED WITHOUT PRIOR AUTHORIZATION OF THE OWNER OR OWNER'S REPRESENTATIVE EXISTING TREES SHALL BE PRESERVED WHENEVER POSSIBLE AND GRADING IMPACT TO THEM HELD TO A MINIMUM. 34 AFTER PLACEMENT OF SUBGRADE AND PRIOR TO PLACEMENT OF PAVEMENT, CONTRACTOR SHALL TEST AND OBSERVE PAVE AREAS FOR EVIDENCE OF PONDING AND INADEQUATE SLOPE FOR DRAINAGE. ALL AREAS SHALL ADEQUATELY DRAIN TOWARI INTENDED STRUCTURE TO CONVEY STORMWATER RUNOFF. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER AND ENGINEER
- AREAS OF POOR DRAINAGE ARE DISCOVERED 35. CONTRACTOR FIELD ADJUSTMENT OF PROPOSED SPOT GRADES IS ALLOWED, IF THE APPROVAL OF THE CIVIL ENGINEER IS OB
- RETAINING WALLS . RETAINING WALLS SHOWN ARE FOR SITE GRADING PURPOSES ONLY, AND INCLUDE ONLY LOCATION AND SURFACE SPOT ELEV AT THE TOP AND BOTTOM OF THE WALL. 2. RETAINING WALL TYPE OR SYSTEM SHALL BE SELECTED BY THE OWNER.
- DIRT ONTO OFF-SITE ROADWAYS. ALL SEDIMENT AND DIRT FROM THE SITE THAT IS DEPOSITED ONTO AN OFF-SITE ROADWAY SHALL BE 3. RETAINING WALL DESIGN SHALL BE PROVIDED BY OTHERS AND SHALL FIT IN THE WALL ZONE OR LOCATION SHOWN ON THESE STRUCTURAL DESIGN AND PERMITTING OF RETAINING WALLS. RAILINGS, AND OTHER WALL SAFETY DEVICES SHALL BE PERFO A LICENSED ENGINEER AND ARE NOT PART OF THIS PLAN SET.
  - 4. RETAINING WALL DESIGN SHALL MEET THE INTENT OF THE GRADING PLAN AND SHALL ACCOUNT FOR ANY INFLUENCE ON ADJA BUILDING FOUNDATIONS, UTILITIES, PROPERTY LINES AND OTHER CONSTRUCTABILITY NOTES. 5. RETAINING WALL ENGINEER SHALL CONSULT THESE PLANS AND THE GEOTECHNICAL REPORT FOR POTENTIAL CONFLICTS.
  - 1. ALL PAVING MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS, THE CITY STANDARD DETAILS AN
  - SPECIFICATIONS, THE FINAL GEOTECHNICAL REPORT AND ALL ISSUED ADDENDA, AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS. THE CITY SPECIFICATIONS SHALL GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICTI SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION/DETAIL SHALL BE FOLLOWED 2. ALL PRIVATE ON-SITE PAVING AND PAVING SUBGRADE SHALL COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (O
  - EDITION), INCLUDING ALL ADDENDA. 3. ALL FIRELANE PAVING AND PAVING SUBGRADE SHALL COMPLY WITH CITY STANDARDS AND DETAILS. IF THESE ARE DIFFERENT THOSE IN THE GEOTECHNICAL REPORT. THEN THE MORE RESTRICTIVE SHALL BE FOLLOWED 4. ALL PUBLIC PAVING AND PAVING SUBGRADE SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATI
  - 5. CONTRACTOR IS RESPONSIBLE FOR ALL PAVING AND PAVING SUBGRADE TESTING AND CERTIFICATION, UNLESS SPECIFIED OT BY OWNER. ALL PAVING AND PAVING SUBGRADE TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING PAVING AND SUBGRADE. OWNER SH. APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR PAVING AND PAVING SUBGRADE TESTING. 6. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE PAVING AND P
  - SUBGRADE, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS. 7. DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE GEOTECHNICAL REPORT'S RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PRO BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC
  - FLATWORK ADJACENT TO THE BUILDING. IF NONE IS CURRENTLY EXISTING. 8. CURB RAMPS ALONG PUBLIC STREETS AND IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BASED ON THE CITY STAN CONSTRUCTION DETAIL AND SPECIFICATIONS
  - 9. PRIVATE CURB RAMPS ON THE SITE (I.E. OUTSIDE PUBLIC STREET RIGHT-OF-WAY) SHALL CONFORM TO ADA AND TAS STANDAR SHALL HAVE A DETECTABLE WARNING SURFACE THAT IS FULL WIDTH AND FULL DEPTH OF THE CURB RAMP. NOT INCLUDING F 10. ALL ACCESSIBLE RAMPS, CURB RAMPS, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA AND TAS STANDARDS.
  - EDITION. 11. ANY COMPONENTS OF THE PROJECT SUBJECT TO RESIDENTIAL USE SHALL ALSO CONFORM TO THE FAIR HOUSING ACT, AND ( WITH THE FAIR HOUSING ACT DESIGN MANUAL BY THE US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT. 12 CONTRACTOR SHALL CONSTRUCT PROPOSED PAVEMENT TO MATCH EXISTING PAVEMENT WITH A SMOOTH, FULSH, CONNECT 13. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS FOR FIRE LANES. PARKING STALLS, HANDICAPPED PAR
  - SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDING AS SHOWN ON THE PLANS. ALL PAINT PAVEMENT MARKINGS SHALL ADHERE TO CITY AND OWNER STANDARDS. 14. REFER TO GEOTECHNICAL REPORT FOR PAVING JOINT LAYOUT PLAN REQUIREMENTS FOR PRIVATE PAVEMENT. 15. REFER TO CITY STANDARD DETAILS AND SPECIFICATIONS FOR JOINT LAYOUT PLAN REQUIREMENTS FOR PUBLIC PAVEMENT.
  - 16. ALL REINFORCING STEEL SHALL CONFORM TO THE GEOTECHNICAL REPORT, CITY STANDARDS, AND ASTM A-615, GRADE 60, AI BE SUPPORTED BY BAR CHAIRS. CONTRACTOR SHALL USE THE MORE STRINGENT OF THE CITY AND GEOTECHNICAL STANDAR 17. ALL JOINTS SHALL EXTEND THROUGH THE CURB. 18. THE MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS SHALL BE 2 FEET.
  - 19. CONTRACTOR SHALL SUBMIT A JOINTING PLAN TO THE ENGINEER AND OWNER PRIOR TO BEGINNING ANY OF THE PAVING WOR 20. ALL SAWCUTS SHALL BE FULL DEPTH FOR PAVEMENT REMOVAL AND CONNECTION TO EXISTING PAVEMENT. 21.FIRE LANES SHALL BE MARKED AND LABELED AS A FIRELANE PER CITY STANDARDS.
  - 22. UNLESS THE PLANS SPECIFICALLY DICTATE TO THE CONTRARY. ON-SITE AND OTHER DIRECTIONAL SIGNS SHALL BE ORIENTED THEY ARE READILY VISIBLE TO THE ONCOMING TRAFFIC FOR WHICH THEY ARE INTENDED. 23.CONTRACTOR IS RESPONSIBLE FOR INSTALLING NECESSARY CONDUIT FOR LIGHTING, IRRIGATION, ETC. PRIOR TO PLACEMENT PAVEMENT. ALL CONSTRUCTION DOCUMENTS (CIVIL, MEP, LANDSCAPE, IRRIGATION, AND ARCHITECT) SHALL BE CONSULTED.
  - 24.BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA, TAS, FHA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS. ACCESSIBLE PARKING SPACES. ACCESS AISLES, AND ACCESS ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWA CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
  - 25. CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAV TO VERIFY THAT ADA/TAS SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA AND TAS SLOPE COMPLIANCE ISSUES.

- ALL STORM SEWER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS
- 2. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLA THE STORM SEWER 3. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING STOF SEWER FACILITIES THAT ARE TO BE CONNECTED TO. PRIOR TO START OF CONSTRUCTION OF ANY STORM SEWER, AND SHALL
- THE ENGINEER OF ANY CONFLICTS DISCOVERED. 4 THE CONTRACTOR SHALL VERIEV AND COORDINATE ALL DIMENSIONS SHOWN INCLUDING THE HORIZONTAL AND VERTICAL LC
- OF CURB INLETS AND GRATE INLETS AND ALL UTILITIES CROSSING THE STORM SEWER 5. FLOW LINE, TOP-OF-CURB, RIM, THROAT, AND GRATE ELEVATIONS OF PROPOSED INLETS SHALL BE VERIFIED WITH THE GRADIN AND FIELD CONDITIONS PRIOR TO THEIR INSTALLATION.
- 6. ALL PUBLIC STORM SEWER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WORKS STAND DETAILS AND SPECIFICATIONS CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS
- 7. ALL PRIVATE STORM SEWER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICABLE PLUMBII CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS. 8. ALL PVC TO RCP CONNECTIONS AND ALL STORM PIPE CONNECTIONS ENTERING STRUCTURES OR OTHER STORM PIPES SHALL
- CONCRETE COLLAR AND BE GROUTED TO ASSURE THE CONNECTION IS WATERTIGHT. 9. ALL PUBLIC STORM SEWER LINES SHALL BE MINIMUM CLASS III RCP. PRIVATE STORM SEWER LINES 18-INCHES AND GREATER CLASS III RCP OR OTHER APPROVED MATERIAL
- 10. WHERE COVER EXCEEDS 20-FEET OR IS LESS THAN 2-FEET, CLASS IV RCP SHALL BE USED. 11.IF CONTRACTOR PROPOSES TO USE HDPE OR PVC IN LIEU OF RCP FOR PRIVATE STORM SEWER, CONTRACTOR SHALL SUBMIT TECHNICAL DATA TO THE OWNER, ENGINEER AND CITY ENGINEER/INSPECTOR FOR APPROVAL PRIOR TO ORDERING THE MATE ANY PROPOSED HDPE AND PVC SHALL BE WATERTIGHT
- 12. THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL STORM SEWER LINES. 13. EMBEDMENT FOR ALL STORM SEWER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS.
- 14. ALL WYE CONNECTIONS AND PIPE BENDS ARE TO BE PREFABRICATED AND INSTALLED PER MANUFACTURERS SPECIFICATIONS 15. USE 4 FOOT JOINTS WITH BEVELED ENDS IF RADIUS OF STORM SEWER IS LESS THAN 100 FEET 16 THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN. PREPARED BY A PROFESSION ENGINEER IN THE STATE OF TEXAS. TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENC OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY. 17. THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.

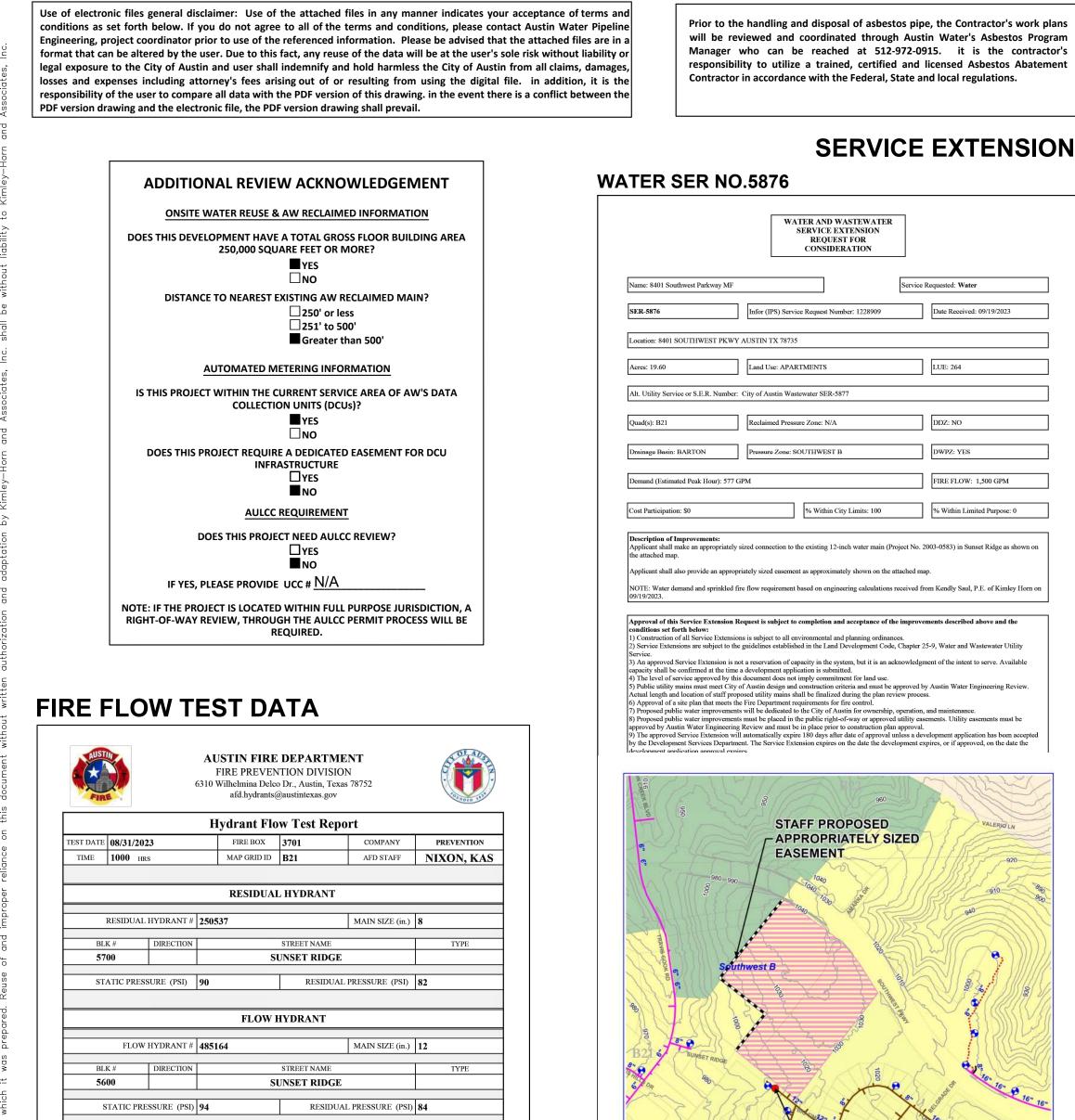
### ANY PONDS THAT ARE INTENDED TO HOLD WATER INDEFINITELY SHALL BE CONSTRUCTED WATERTIGHT. 2. FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY: THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT

- POND LINER SPECIFICATIONS 3. A GEOTECHNICAL ENGINEER SHALL REVIEW AND APPROVE ALL POND LINER MATERIAL, PLACEMENT PROCEDURES, AND PROVI
- TESTING TO ENSURE THE POND LINER MATERIAL PLACED IS WATERTIGHT. 4. STORM SEWER PIPES AND HEADWALLS THAT CONNECT TO A POND INTENDED TO HOLD WATER INDEFINITELY SHALL BE INSTA WITH WATERTIGHT JOINTS TO AT LEAST 1-FOOT ABOVE THE NORMAL POOL WATER SURFACE ELEVATION.
- 5. ANY GRAVEL OR OTHER PERVIOUS EMBEDMENT AROUND PIPES OR OUTFALL STRUCTURES NEAR THE POND SHALL BE ELIMINA AT LEAST 20-FEET FROM THE POND SO NO ROUTE FOR WATER TO LEAK THROUGH THE EMBEDMENT MATERIAL IS PROVIDED. IN THESE AREAS SHALL BE OF IMPERVIOUS MATERIAL
- 6. FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY: THE WATER LEVEL FOLLOWING COMPLETION AND FILLING OF THE SHALL BE MONITORED BY THE CONTRACTOR FOR AT LEAST 60 DAYS TO OBSERVE WATER INFLOW, OUTFLOW, AND CALCULATE EVAPORATION TO VERIFY THAT THE POND IS WATERTIGHT
- 14. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF TOPSOIL AT THE COMPLETION OF FINE GRADING. CONTRACTOR 7. FOR ANY PONDS INTENDED TO HOLD WATER INDEFINITELY: THE POND WATER LEVEL SHALL ALSO BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION SO THAT IT REMAINS FULL TO ITS DESIGN WATER LEVEL, AND IS NOT LC AS THIS MAY DRY-OUT THE POND LINER AND RISK ITS WATERTIGHT PROPERTIES.

### WATER AND WASTEWATER: . ALL WATER AND WASTEWATER MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARD CONSTRUCTION DETAIL

- SPECIFICATIONS 2. CONTRACTOR SHALL FIELD VERIFY THE SIZE, CONDITION, HORIZONTAL, AND VERTICAL LOCATIONS OF ALL EXISTING WATER AN WASTEWATER FACILITIES THAT ARE TO BE CONNECTED TO, PRIOR TO START OF CONSTRUCTION OF ANY WATER OR WASTEWA CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS DISCOVERED.
- 3. CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION ALL UTILITY SERVICES ENTERING THE BUILDING 4. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATION OF ALL UTILITY CROSSINGS PRIOR TO THE INSTALLATION OF ANY PIPE 5. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLA
- THE WATER AND WASTEWATER IMPROVEMENTS. 6. ALL PUBLIC WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO CITY PUBLIC WO STANDARD DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS. 7. ALL PRIVATE WATER AND WASTEWATER CONSTRUCTION, PIPE, STRUCTURES, AND FITTINGS SHALL ADHERE TO THE APPLICAE
- PLUMBING CODE. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS 8. FIRE SPRINKLER LINES SHALL BE DESIGNED AND INSTALLED BY A LICENSED FIRE SPRINKLER CONTRACTOR, AND COMPLY TO 1 APPLICABLE CODES AND INSPECTIONS REQUIRED. THESE PLANS WERE PREPARED WITHOUT THE BENEFIT OF THE FIRE SPRIN DESIGN. CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES.
- 9. EMBEDMENT FOR ALL WATER AND WASTEWATER LINES, PUBLIC OR PRIVATE, SHALL BE PER CITY STANDARD DETAILS. 10. CONTRACTOR SHALL TAKE REQUIRED SANITARY PRECAUTIONS, FOLLOWING ANY CITY, TCEQ, AND AWWA STANDARDS, TO KEE WATER PIPE AND FITTINGS CLEAN AND CAPPED AT TIMES WHEN INSTALLATION IS NOT IN PROGRESS.
- 11 CONTRACTOR SHALL PROVIDE CONSTRUCTION SURVEYING FOR ALL WATER AND WASTEWATER LINES 25.CONTRACTOR SHALL ENSURE THAT SUFFICIENT POSITIVE SLOPE AWAY FROM THE BUILDING PAD IS ACHIEVED FOR ENTIRE PERIMETER 12. ALL WATER AND WASTEWATER SERVICES SHALL TERMINATE 5-FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE. 13. CONTRACTOR SHALL COMPLY WITH CITY REQUIREMENTS FOR WATER AND WASTEWATER SERVICE DISRUPTIONS AND THE AM
  - PRIOR NOTICE THAT IS REQUIRED. AND SHALL COORDINATE DIRECTLY WITH THE APPROPRIATE CITY DEPARTMENT. 14. CONTRACTOR SHALL SEQUENCE WATER AND WASTEWATER CONSTRUCTION TO AVOID INTERRUPTION OF SERVICE TO SURRO PROPERTIES
  - 15. CONTRACTOR SHALL MAINTAIN WATER SERVICE AND WASTEWATER SERVICE TO ALL CUSTOMERS THROUGHOUT CONSTRUCTI NECESSARY, BY USE OF TEMPORARY METHODS APPROVED BY THE CITY AND OWNER). THIS WORK SHALL BE CONSIDERED
  - SUBSIDIARY TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED 16. THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL WATER AND WASTEWATER LINES CROSSING THE PROJECT. SHALL REPAIR ALL DAMAGED LINES IMMEDIATELY ALL REPAIRS OF EXISTING WATER MAINS WATER SERVICES SEWER MAINS SANITARY SEWER SERVICES ARE SUBSIDIARY TO THE WORK, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
  - 17. VALVE ADJUSTMENTS SHALL BE CONSTRUCTED SUCH THAT THE COVERS ARE AT FINISHED SURFACE GRADE OF THE PROPOS PAVEMENT 18. THE ENDS OF ALL EXISTING WATER MAINS THAT ARE CUT, BUT NOT REMOVED, SHALL BE PLUGGED AND ABANDONED IN PLACE
  - WORK SHALL BE CONSIDERED AS A SUBSIDIARY COST TO THE PROJECT AND NO ADDITIONAL COMPENSATION SHALL BE ALLO
    - © COPYRIGHT 2017 KIMLEY-HORN AND ASSOCIATES, INC., ALL RIGHTS RESERVED

	THRUST	E HYDRANTS, VALVES, TEES, BENDS, WYES, REDUCERS, FITTINGS, AND ENDS SHALL BE MECHANICALLY RESTRAINED AND/OR BLOCKED TO CITY STANDARDS. ACTOR SHALL INSTALL A FULL SEGMENT OF WATER OR WASTEWATER PIPE CENTERED AT ALL UTILITY CROSSINGS SO THAT THE	BY
CONFIRMED	JOINTS 21.ALL CRO MATERIA 22.ALL CRO	ARE GREATER THAN 9-FEET FROM THE CROSSING. DSSINGS AND LOCATIONS WHERE WASTEWATER IS LESS THAN 9-FEET FROM WATER, WASTEWATER CONSTRUCTION AND ALS SHALL COMPLY WITH TCEQ CHAPTER 217.53. DSSING AND LOCATIONS WHERE WATER IS LESS THAN 9-FEET FROM WASTEWATER, WATER CONSTRUCTION AND MATERIALS	DATE
/EMENT RDS THE EER IF ANY OBTAINED.	23.ALL WA SPECIFI a. ALL WA SHALL C	COMPLY WITH TCEQ CHAPTER 290.44. TER AND WASTEWATER SHALL BE TESTED IN ACCORDANCE WITH THE CITY, AWWA, AND TCEQ STANDARDS AND CATIONS. AT A MINIMUM, THIS SHALL CONSIST OF THE FOLLOWING: TERLINES SHALL BE HYDROSTATICALLY TESTED AND CHLORINATED BEFORE BEING PLACED INTO SERVICE. CONTRACTOR COORDINATE WITH THE CITY FOR THEIR REQUIRED PROCEDURES AND SHALL ALSO COMPLY WITH TCEQ REGULATIONS.	
EVATIONS	REQUIR INSPEC 24.CONTRA	WATER LINES AND MANHOLES SHALL BE PRESSURE TESTED. CONTRACTOR SHALL COORDINATE WITH THE CITY FOR THEIR ED PROCEDURES AND SHALL ALSO COMPLY WITH TCEQ REGULATIONS. AFTER COMPLETION OF THESE TESTS, A TELEVISION TION SHALL BE PERFORMED AND PROVIDED TO THE CITY AND OWNER ON A DVD. ACTOR SHALL INSTALL DETECTABLE WIRING OR MARKING TAPE A MINIMUM OF 12" ABOVE WATER AND WASTEWATER LINES.	φ.
SE PLANS. FORMED BY	SHALL C 25.DUCTILE SINGLE	R DECALS SHALL BE LABELED "CAUTION - WATER LINE", OR "CAUTION - SEWER LINE". DETECTABLE WIRING AND MARKING TAPE COMPLY WITH CITY STANDARDS, AND SHALL BE INCLUDED IN THE COST OF THE WATER AND WASTEWATER PIPE. E IRON PIPE SHALL BE PROTECTED FROM CORROSION BY A LOW-DENSITY POLYETHYLENE LINER WRAP THAT IS AT LEAST A LAYER OF 8-MIL. ALL DUCTILE IRON JOINTS SHALL BE BONDED.	EVISIONS
DJACENT	27.CONTRA INTERVA HAVE CA	LINES SHALL BE INSTALLED AT NO LESS THAN THE MINIMUM COVER REQUIRED BY THE CITY. ACTOR SHALL PROVIDE CLEAN-OUTS FOR PRIVATE SANITARY SEWER LINES AT ALL CHANGES IN DIRECTION AND 100-FOOT ALS, OR AS REQUIRED BY THE APPLICABLE PLUMBING CODE. CLEAN-OUTS REQUIRED IN PAVEMENT OR SIDEWALKS SHALL AST IRON COVERS FLUSH WITH FINISHED GRADE.	
AND DN CTING	FLOOR E PUBLIC 29.THE CO	ACTOR SHALL PROVIDE BACKWATER VALVES FOR PLUMBING FIXTURES AS REQUIRED BY THE APPLICABLE PLUMBING CODE (E.G. ELEVATION OF FIXTURE UNIT IS BELOW THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE SEWER). CONTRACTOR SHALL REVIEW BOTH MEP AND CIVIL PLANS TO CONFIRM WHERE THESE ARE REQUIRED. NTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL	
(OR LATEST ENT THAN	SAFETY OPEN TI	ER IN THE STATE OF TEXAS, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO RENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY. NTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.	oʻz
TIONS. OTHERWISE OR.		TIONS AND DEFINITIONS:	
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FIC TO	BCR BMP BOC	BEGIN CURB RETURN BEST MANAGEMENT PRACTICE BACK OF CURB	ATE 2
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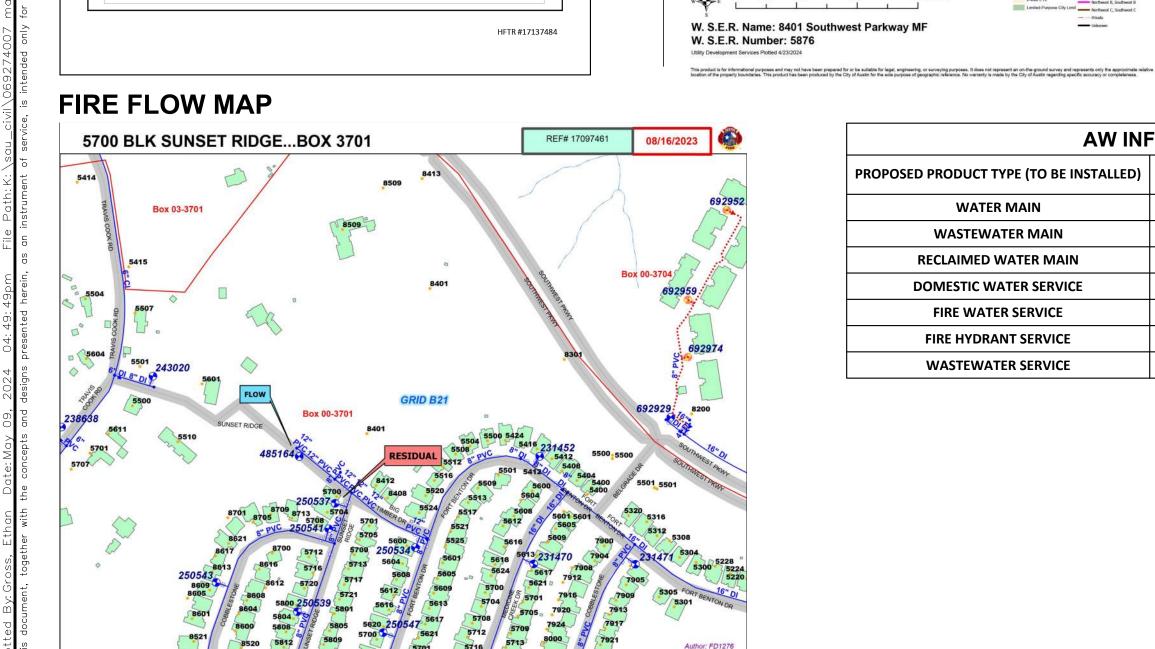
ALL RESPONSIBILITY FOR THE ADEQUECY OF THESE PLANS REMAINS WITH THE ENGINEER. APPROVAL OF THESE PLANS BY

"REVIEWED BY AUSTIN WATER" APPLIES ONLY AW PUBLIC FACILITIES. ALL OTHER WATER AND WASTEWATER FACILITIES

THE CITY OF AUSTIN DOES NOT REMOVE THESE RESPONSIBILITIES.

INSIDE PRIVATE PROPERTY ARE UNDER THE JURISDICATION OF BUILDING INSPECTIONS.

**GENERAL NOTES** 



dc = discharge coefficient

FLOW RATE (GPM) =

NOTE: This information represents the water supply characteristics in the immediate area on the date and time tested.

the project in question and that any differences in elevation between the test location and project are accounted for

and included in the hydraulic calculations.

The City of Austin does not guarantee this data will be representative of the water supply characteristics at any time in the future. It is the requesting party's responsibility to ensure that this test information is appropriate to the location of

straight 2½" butt = 0.9 w/ 45° elbow = 0.75

0.9

1539

AW INFRASTRUCTURE INFORMATION					
PROPOSED PRODUCT TYPE (TO BE INSTALLED)	LENGTH OF PIPE (L.F.)	SIZE OF PIPE (INCH)	NO. OF SERVICES		
WATER MAIN	-	-	-		
WASTEWATER MAIN	-	-	-		
RECLAIMED WATER MAIN	-	-	-		
DOMESTIC WATER SERVICE	32	6	1		
FIRE WATER SERVICE	50	8	1		
FIRE HYDRANT SERVICE	-	-	-		
WASTEWATER SERVICE	21	8	1		

VALERIO LN

Water Line by Zone

I ----- Northwest C, Southwest

PR\_ZONE

- Unknown

STAFF PROPOSED

CONNECTION POINT

APPROXIMATE

1.200 Fee

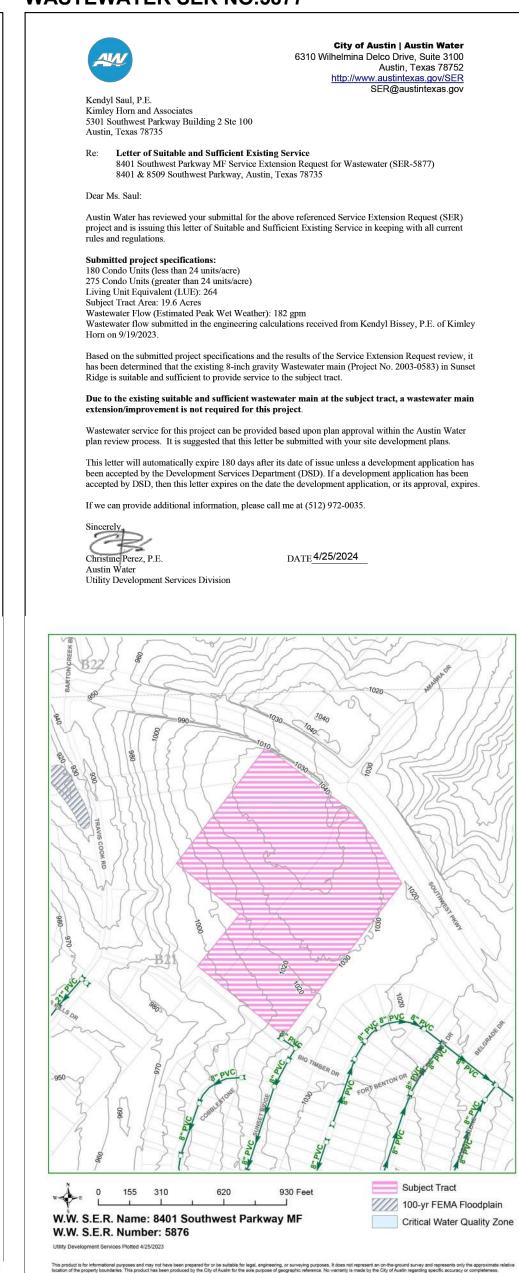
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Modifications to Austin Water signed and stamped sheets are not permitted. All design modifications will need to be submitted via the ABC portal for a plan Correction or a Revision. All unethical engineering practices, including modifying City Stamped plan sheets, shall be reported to the Texas Board of Professional Engineers and Land Surveyors (PELS). Reference: Texas Engineering Practice Act and Rules, Subchapter C: Professional

# SERVICE EXTENSION REQUESTS



**Conduct and Ethics** 



# **PROJECT INFORMATION**<sup>1</sup>

FIRE, DOMESTIC AND IRRIGAT	ION DEMAND DA
GRID NUMBER:	B21
MAPSCO NUMBER:	611C & 611D
AW INTERSECTION NUMBER:	28450 28451
BUILDING SIZE IN SQUARE FEET:	LARGEST BUILDING = 11
BUILDING TYPE PER IFC:	VA
BUILDING HEIGHT:	(REF. SHEET 16)
AVAILABLE FIRE FLOW CALCS AT 20 PSI:	4,965 GPM
REQUIRED BUILDING FIRE FLOW PER IFC:	6,000 GPM
REDUCED FIRE FLOW PER <u>75</u> % FIRE SPRINKLER REDUCTION PER IFC TABLE B105.2:	1,500 GPM
MINIMUM FIRE FLOW (SEE NOTE #2 BELOW):	1,000 GPM
DOMESTIC WATER DEMAND IN GPM:	700 GPM
WATER SUPPLY FIXTURE UNITS (WSFU) FLUSH TANKS OR FLUSHOMETERS (CIRCLE APPLICABLE ITEM):	X WSFU
AUSTIN WATER PRESSURE ZONE:	SOUTHWEST C
STATIC WATER PRESSURE IN PSI:	71 PSI
STATIC PRESSURE AT THE HIGHEST LOT SERVED IN PSI:	77.5 PSI
STATIC PRESSURE AT THE LOWEST LOT SERVED IN PSI:	103.5 PSI
MAXIMUM IRRIGATION DEMAND:	180 GPM
FIRE LINE VELOCITY: 10" FIRE LINE	6.13 FT/S
DOMESTIC LINE VELOCITY: 6" DOMESTIC LINE	7.94 FT/S
LIVING UNIT EQUIVALENT (LUEs)	254

NOTE: LOTS WITH 65 PSI OR GREATER REQUIRE A PRV TO BE INSTALLED ON THE PROPERTY OWNERS SIDE WATER METER. 1. WITH THE EXCEPTION OF PROVIDING THE REQUIRED INFORMATION, DO NOT REVISE THESE TABLES IN A

2. MIN. FIRE FLOW: DESIGN ENGINEER MUST INDICATE VALUES WHICH COMPLY WITH IFC TABLES B105.2 (REQUIRED OR REDUCED FIRE FLOWS), MIN FIRE FLOW VALUE SHALL BE NO LESS THAN 100 13 SYSTEMS OR 1500 GPM FOR NFPA 13R SYSTEMS (FOOTNOTES A AND B FOR TABLE B105.2).

3. IF DEMAND, OTHER THAN MINIMUM FIRE FLOW, IS UTILIZED IN FIRE LINE VELOCITY DETERMIN ENGINEERING JUSTIFICATION SHALL BE SHOWN ON THIS SHEET WITH APPLICABLE DATA AND CALC

# **INSPECTION NOTES**

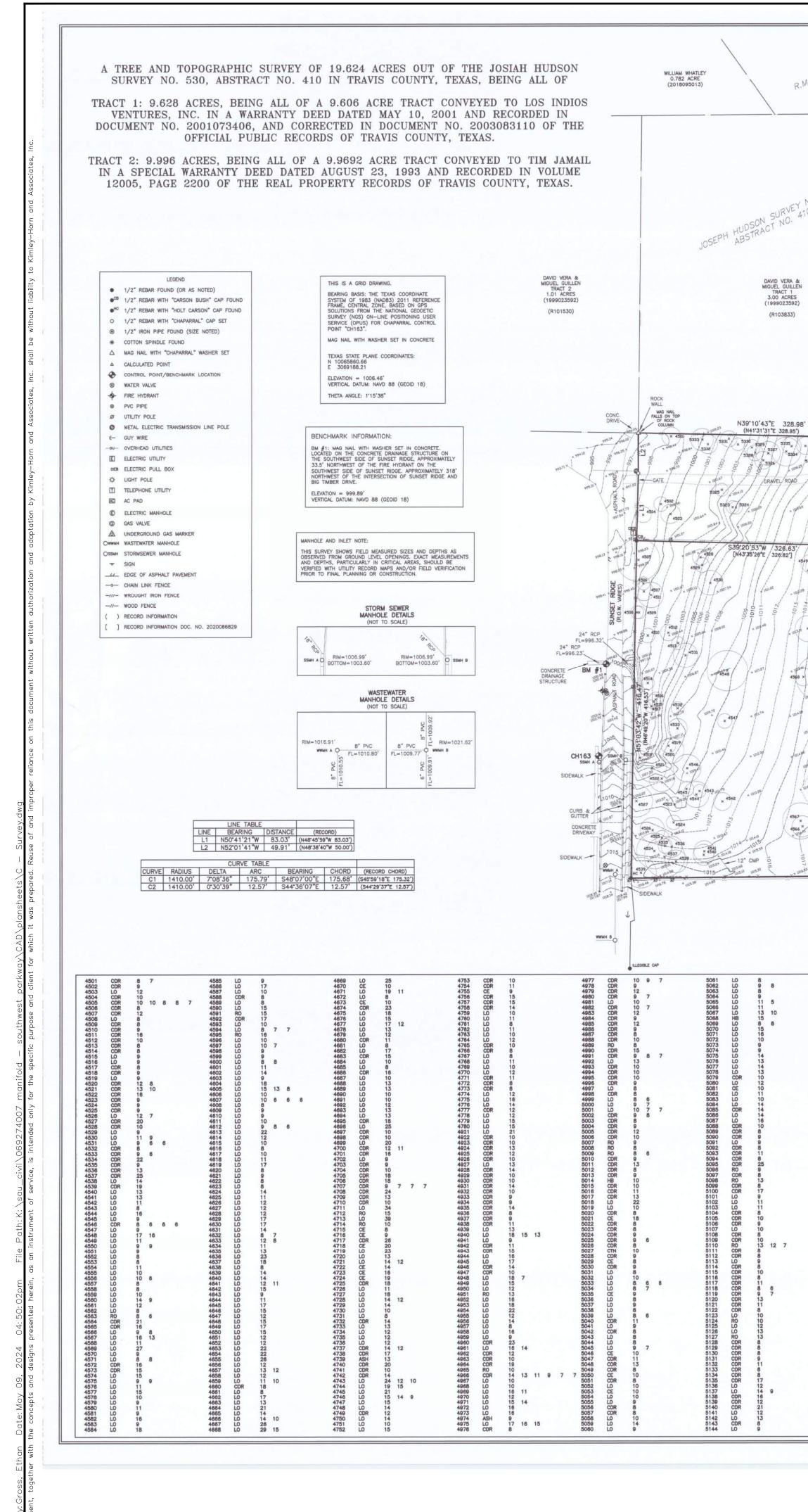
PLEASE CONTACT DEVELOPMENT SERVICES DEPARTMENT, SITE AND SUBDIVISION SITESUBINTAKE@AUSTINTEXAS.GOV FOR ARRANGEMENTS FOR PAYMENT OF INSPE ASSIGNMENT FOR INSPECTION OF THE PUBLIC UTILITIES TO THIS SITE. INSPECT BEFORE ANY PRE-CONSTRUCTION MEETING CAN BE HELD.

# **STANDARD CONSTRUCTION NOTES**

- THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF E
- CONTRACTOR MUST OBTAIN A ROW PERMIT FROM AUSTIN TRANSPORTATION DEPT 2. WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY. ACTIVITY WITHIN R
- 3. AT LEAST 48 HOURS PRIOR TO BEGINNING ANY UTILITY CONSTRUCTION ACTIVITY THE APPLICABLE CITY OF AUSTIN INSPECTION GROUP (AUSTIN TRANSPORTATION. REQUIREMENTS AT WWW.AUSTINTEXAS.GOV.
- THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM EXCAVATION IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS. THE ENDS AT R.O.W./EASEMENT LINES.
- 5. NO OTHER UTILITY SERVICE/APPURTENANCES SHALL BE PLACED NEAR THE PRO WASTEWATER UTILITY SERVICE THAT WOULD INTERFERE WITH THE WATER AND WAS
- MINIMUM TRENCH SAFETY MEASURES SHALL BE PROVIDED, AS REQUIRED E INSPECTORS.
- ALL MATERIALS TESTS ORDERED BY THE OWNER FOR QUALITY ASSURANCE PU 7. FUNDED BY THE OWNER IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITER PRESSURE TAPS SHALL BE ALLOWED ON A CASE BY CASE BASIS, AS DETERMI AND LARGER SHALL BE ALLOWED ONLY IN THE FOLLOWING CASES: A) A TEST S
- NOT FEASIBLE B) MORE THAN 30 CUSTOMERS OR A SINGLE CRITICAL CUSTOMER OR C) THE EXISTING WATER LINE WARRANTS IT. 9. WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE
- PRESSURE TESTING SHALL BE CONDUCTED AND FALL UNDER THE SPECIFICATIONS THE APPROVED PLANS. 10. ALL MATERIAL USED ON THIS PROJECT MUST BE LISTED ON THE STANDARD PR
- REVIEW OF THE STANDARDS COMMITTEE FOR REVIEW AND APPROVAL PRIOR REQUIRED BEFORE APPROVAL WILL BE GIVEN ANY CONSIDERATION.
- WHEN WATER SERVICES ARE DAMAGED AND THE SERVICE MATERIAL IS POLYETHYI BRASS FITTINGS, OR THE FULL LENGTH SHALL BE REPLACED PER CURRENT S TAMPERED WITH IN ANY WAY, THE FULL LENGTH OF SERVICE LINE SHALL BE I REPAIR COUPLINGS ARE NOT ALLOWED FOR ANY WATER OR WASTEWATER SERVICE
- WHEN AN EXISTING WATERLINE SHUT OUT IS NECESSARY AND POSSIBLE, THE CO 12. NOTIFY AUSTIN WATER DISPATCH AND THE AFFECTED CUSTOMERS A MINIMUM OF THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR SO THAT HE CAI
- PRIOR TO RELOCATING ANY DOMESTIC OR FIRE DEMAND WATER METERS. THE THAT ARE INDICATED TO BE RELOCATED OR SALVAGED. THE CONTRACTOR SHA LOCATION INDICATED ON THE CONSTRUCTION PLANS.
- 14. THE CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL LOCATIONS OF ONSITE UTILITY WORK.
- ALL WATER, WASTEWATER AND RECLAIMED MAINS SHALL BE INSTALLED IN ACCOF 15. UTILITY CRITERIA MANUAL AND TCEQ CHAPTERS 210, 217, AND 290.
- PROJECT-SPECIFIC SHOP DRAWINGS SHALL BE SUBMITTED FOR AW APPROVAL F 16. DIAMETER. THE SHOP DRAWINGS SHALL INCLUDE THE FLOWLINE ELEVATION OF ALL SECTIONS TO 48" DIAMETER SECTIONS; TOP OF MANHOLE AND SURROUN CONSIDERATIONS SPECIFIED IN THE CONTRACT DOCUMENTS.
- WHEN CONCRETE MANHOLES LARGER THAN 48 INCH DIAMETER ARE USED, DF 17. SUBMITTED FOR BASE SLABS, FLAT TOP LIDS (IF USED), AND FLAT TYPE CONC MANHOLE SECTIONS.
- 18. ALL FIRE HYDRANTS AND VALVES THAT ARE TO BE ABANDONED SHALL BE REM GIVEN 48 HOURS PRIOR, TO PIPELINE OPERATIONS DISTRIBUTION SYSTEM - VALVES 19. ALL EXISTING WATER METERS IDENTIFIED TO BE RELOCATED OR ABANDONED AT
- CONSTRUCTION AND GIVEN IMMEDIATELY TO THE CITY OF AUSTIN INSPECTOR. THE ENGINEER SHALL CALL OUT THE SIZE, TYPE AND USE (DOMESTIC OR IRRIGATION OF IRRIGATION OF IRRIGATION OF IRRIGATION OF INTERNATION OF 20. WATER METER NUMBERS WILL NOT BE REQUIRED TO BE PLACED ON THE PLAN S
- PROVIDE RELEVANT DATA FOR THE EXISTING INFORMATION ON EXISTING METER SUBMITTED TO AUSTIN WATER TAPS OFFICE FOR REVIEW AND PROCESSING. 21. NO CONNECTION MAY BE MADE BETWEEN THE PRIVATE PLUMBING AND AUSTIN V
- INSTALLED. 22. METER BOXES AND CLEAN OUTS SHALL NOT BE LOCATED WITHIN PAVED AREAS S

AW EXPIRATION STAMP

ATA 110,261 SF 6) C	Deter Notice:Meter Notice:Meter 1.5 inches and larger must be purchased and ordered 90 days in advance of installation.Meter (s) Requirement for Project:Address: 8413 SOUTHWEST PARKWAYProposed Use: DOMESTICType: COMPOUNDSize: 6" CPM Range: 1350Service Units: 67.5Meter (s) Requirement for Project:Address: 8413 SOUTHWEST PARKWAYProposed Use: LANDSCAPEType: TURBINE CLASS IISize: 2" CPM Range: 190Service Units: 16	CITY OF AUSTIN AUSTIN WATER October 2021	VERSION 2.0 STANDARD NO. 1 OF 1	No. REVISIONS DATE BY
OF THE DOMESTIC ANYWAY. 5 B105.1(2) OR 00 GPM FOR NFPA ATION, CULATIONS.	T ID JOB	ND S AND		Sant Southwest Parkway, BullDING 2, SUITE 100 Bastin, TEXAS 78746 PHONE: 512-646-2237 WWW.KIMLEY-HORN AND ASSOCIATES, INC. TBPE FIRM NO. 928
IDDING SHALL CON T, RIGHT OF WAY RIGHT-OF-WAY SH IN PUBLIC R.O.W DEVELOPMENT SE AT 1-800-344- E LOCATIONS OF CITY OF AUSTIN PERTY LINE, OR STEWATER SERVICE BY OSHA, CITY JRPOSES, SHALL M 1804S.04. NED BY THE DIRE SHUT OUT INDICA (AS DEFINED BY WITH CITY STAND S AS WATER LINE RODUCTS LISTING. TO START OF PE LENE (PE), THE LI STANDARD DETAILO REPLACED (NOTE: E LINE REPAIR, RE ONTRACTOR SHALL FORTY-EIGHT (48 AN NOTIFY THE AU CONTRACTOR SHALL INSTALL THE T EXISTING UTILITII	COBECT 1, 2002 WE MATERIALS AND METHODS USED TO DO THIS WORK. MANAGEMENT DIVISION BEFORE BEGINNING CONSTRUCTION ALL COMPLY WITH APPROVED TOP. A OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY REVICES, OR PUBLIC WORKS). SEE CURRENT NOTIFICATION B377 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR WATER AND WASTEWATER MAINTENANCE RESPONSIBILITY OTHER ASSIGNED LOCATION DESIGNATED FOR WATER AND BC CONDUCTED BY AN INDEPENDENT LABORATORY AND ECTOR'S DESIGNEE. NORMALLY PRESSURE TAPS 4 INCHES TO AND ADEQUATE SHUT OUT TO PERFORM THE WORK IS AUSTIN WATER) WOULD BE IMPACTED BY THE SHUT OUT ADAD SPECIFICATION ITEMS 510.3 (27)–(29). FORCE MAIN EXCORDS DESIGNEE NORMALLY PRESSURE TAPS 4 INCHES TO AND MATERIAL NOT LISTED HAS TO GO THROUGH THE RECORD SPECIFICATION ITEMS 510.3 (27)–(29). FORCE MAIN AND MATERIAL NOT LISTED HAS TO GO THROUGH THE RECORD SPECIFICATION ITEMS 510.3 (27)–(29). FORCE MAIN EXCORDS DESIGNEE NORMALLY PRESSURES SHOWN ON ADAT SPECIFICATION ITEMS 510.3 (27)–(29). FORCE MAIN EXCORDS DESIGNEE NORMALLY PRESSURES SHOWN ON ADAT SPECIFICATION ITEMS 510.3 (27)–(29). FORCE MAIN EXCORDS AND EVALUATION OF PRODUCTS ARE IN SHALL BE REPAIRED ONLY BY HEAT FUSION WELD, AT (5). WHEN POLYBUTYLENE (PB) TUBING IS DAMAGED ON FULL LENGTH IS FROM CORPORATION STOP TO METER). UNTRY THE CONSTRUCTION INSPECTOR WHO WILL THEN (5). WHEN POLYBUTYLENE (PB) TUBING IS DAMAGED TO FULL LENGTH IS FROM CORPORATION STOP TO METER). UNTRY THE CONSTRUCTION INSPECTOR WHO WILL THEN (5). WHEN POLYBUTYLENE (PB) TUBING IS DAMAGED TO FULL LENGTH IS FROM CORPORATION STOP TO METER). UNTRY THE CONSTRUCTION INSPECTOR WHO WILL THEN (5). WHEN POLYBUTYLENE (PB) TUBING IS DAMAGED TO SHUCAREFULLY REMOVE ALL METERS AND METERS BOXES REMOVED METER OR CITY PROVIDED METER AT THE NEW ES, BELOW GROUND AND OVERHEAD, PRIOR TO STARTING E EPARATION DISTANCES INDICATED ON THE PLANS, PER	WATER GENERAL INFORMATION AI ION NOTES FOR COMMERCIAL SITE SUBDIVISION PLANS		KENDYL B. SAUL 137049 127049 137049 127049 127040 127049 127049 127040 127049
L CONNECTING PI IDING GROUND E ORAWINGS THAT A CRETE PIECES US IOVED, SALVAGED ES AND HYDRANT THE DEVELOPMEN TION) OF ALL EXIS SHEET. A SEPAR RS TO RECEIVE	IRCULAR VERTICAL MANHOLE SECTIONS LARGER THAN 48" IPES; ELEVATIONS OF TRANSITIONS FROM LARGE DIAMETER ELEVATIONS; AND DETAILS OF SPECIAL CONSTRUCTION ARE SEALED BY A PROFESSIONAL ENGINEER SHALL BE SED TO TRANSITION FROM LARGER TO SMALLER DIAMETER AND RETURNED TO AUSTIN WATER. NOTICE SHOULD BE SERVICES SUPERVISOR AT 512–972–1280. NT SHALL BE REMOVED FROM THE METER BOX PRIOR TO STING WATER METERS TO BE RELOCATED OR REPURPOSED. ATE AUSTIN WATER TAPS OFFICE FORM WILL BE USED TO APPROPRIATE CREDITS. THIS FORM SHALL BE DIRECTLY ICTURE UNTIL A CITY APPROVED WATER METER HAS BEEN YS AND SIDEWALKS. AUSTIN WATER REVIEW BLOCK			SUNSET RIDGE APARTMENTS 8413 SOUTHWEST PARKWAY CITY OF AUSTIN TRAVIS COUNTY, TEXAS
				SHEET NUMBER 6 OF 73



WEKSHI CAPITAL TRACT 2 (2019167115) ARNO & DARLENE WILEY BOHM 4.532 ACRES - (2018107081) WEKSHI CAPITAL TRACT 1 4.75 ACRES (2019167115) 1-----TRACT A THE MARY BETH GARTNER ADDITION (70/90) (R103834) (R103831) (R103832) N37"42'10"E 713.11' (N40"01'34"E 712.94') \$37"42'10"W 212.08' R.M. JOHNSON SURVEY NO. 74 P21- 92400 Et 100 JOSEPH HUDSON SURVEY NO. 530 DAVID VERA & MIGUEL GUILLEN TRACT 1 3.00 ACRES (1999023592) (R103833) 9.606 ACRE 4614 × x 4615 \* 1020.201 \* 1070.00 \* 1020.201 \* 1070.00 \* 1020.201 \* 1070.00 \* 1020.201 \* 1070.00 \* 1020.201 \* 1070.00 \* 1020.201 \* 1070.00 × 1032.48 4625 4575 × 4622 0 4623 × × 103035 4725 2.1 Mana And RAIL S37'31'59"W 953.85' (S41'46'34"W 1250.90') TRAVIS COUNTRY WEST HOA, INC. (2005010226) LOT 17, BLOCK A TRAVIS COUNTRY WEST SECTION TWO (200100145) (R520823) TREE INDEX 
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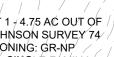
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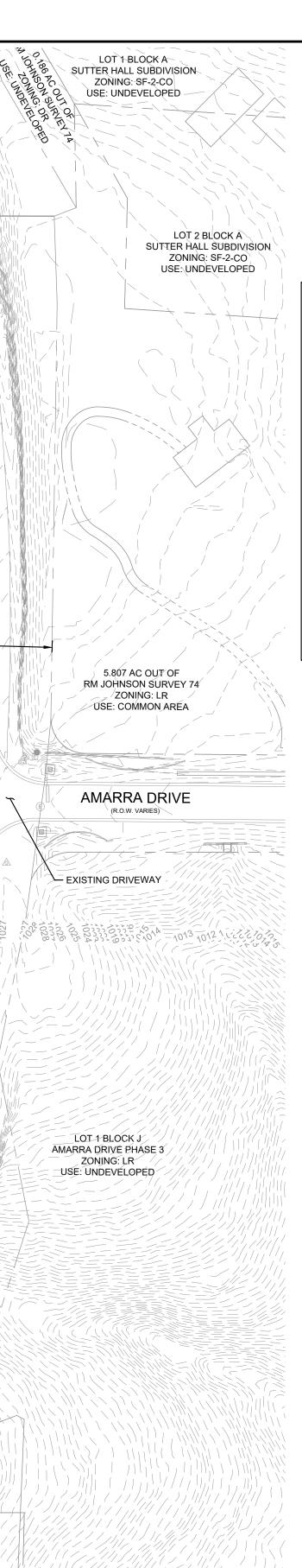
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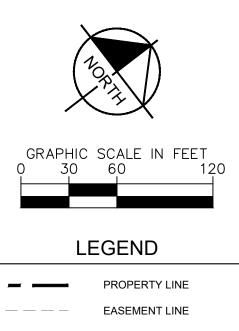
 552 5145 5146 5147 5229 5230 5231 CDR CDR CDR 5397 5397 53997 53999 53909 53403 5403 5403 54045 5405 5422 5422 5422 5422 5422 5422 5422 5422 5422 5422 5422 5422 5422 5422 5422 5422 5422 5422 5422 5425 5445 5 8 7 7 TAG NO, TYPE INDICATES MULTI TRUNK 514 10 17 14 11 CDR CDR 9 8 8 16 16 13 INDIVIDUAL TRUNK DIA. (IN INCHES) CDR CDR CDR CDR CRITICAL ROOT ZONES (TREE CIRCLES) ARE SHOWN USING THE COA FORMULA FOR SINGLE AND MULTI TRUNK TREES. ASH = ASH CDR = CEDAR CE = CEDAR ELM CTN = COTTONWOOD HB = HACKBERRY LO = LIVE OAK PEAR PEAR RO = RED OAK CDR CDR CDR CDR THE SPECIES OF TREES SHOWN WERE DETERMINED TO THE BEST OF OUR ABILITIES BY ON THE GROUND SURVEY CREW, NOT A CERTIFIED ARBORIST. CONSULT A CERTIFIED ARBORIST FOR FINAL DETERMINATION OF SPECIES. CDR NOTE ABOUT DEAD TREES: IF THE TREE APPEARED TO BE DEAD, THEN IT HAS BEEN NOTED AS DEAD; HOWEVER, SUCH DETERNINATION IS SUBJECT TO VERIFICATION BY A QUALIFIED ARBORIST. 518 518 518 518 518 519 519 519 519 519 519 519 519 519 5 12 11 8 8 5213 5214 5215 5216 5217 5218 5219 5220 5221 CDR 5228 PEAR CDR

CONNER B94 ACRES 91/275) International Inter		No. REVISIONS DATE DATE BY
CALE: I" = 5C GRAPHIC SCALE 5 2 0 0 0 CRAPHIC SCALE 5 2 0 0 0 CRA		Saot Southwest Parkway, BullDING 2, SUITE 100 BIONE: 512-646-2237 WWW.KIMLEY-HORN.COM © 2024 KIMLEY-HORN AND ASSOCIATES, INC. TBPE FIRM NO. 928
		KHA PROJECT069274007069274007069274007DATEMAY 2024SCALE: AS SHOWNDESIGNED BY: KBSDRAWN BY: SHDCHECKED BY: KBS
		SURVEY
SURVEYOR'S CERTIFICATE: DATE OF SURVEY: I hereby certify the topographic survey shown hereon was octually made upon the ground under my direction and supervision on the jate shown. Paul J. Fugel Paul Paul J. Fugel Paul J. Fug		SUNSET RIDGE APARTMENTS 8413 SOUTHWEST PARKWAY CITY OF AUSTN TRAVIS COUNTY, TEXAS
	SURVEY SHEET IS SCALED AT 60% OF FULL SIZE	SHEET NUMBER









EXISTING OVERHEAD POWER LINE EXISTING WATER LINE EXISTING WASTEWATER LINE EXISTING STORM LINE EXISTING FENCE EXISTING POWER POLE EXISTING FIRE HYDRANT EXISTING WATER VALVE EXISTING WATER METER EXISTING WASTEWATER MANHOLE

### TREE

### HERITAGE TREE

### NOTES:

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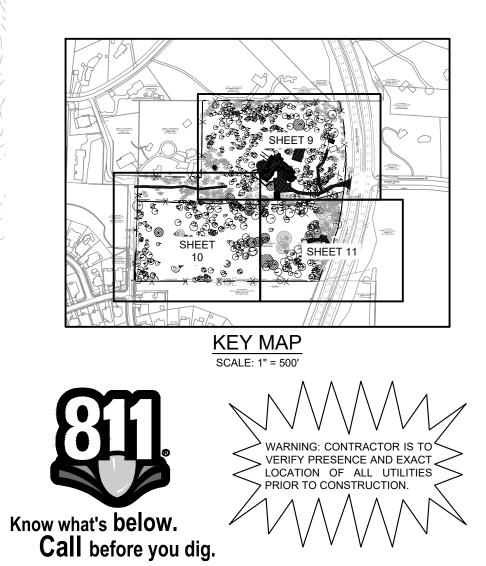
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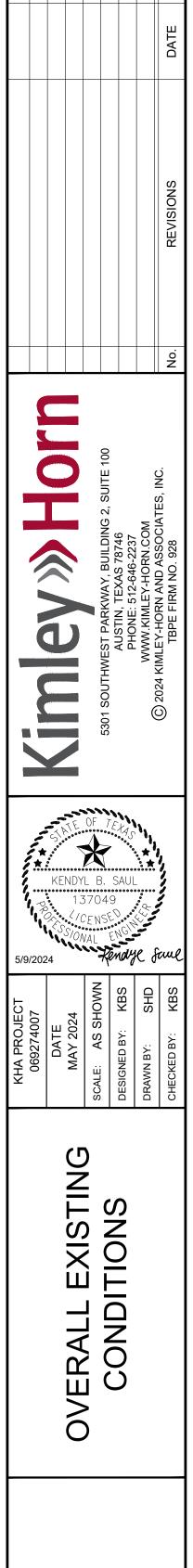
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- TREES AND TOPOGRAPHY BASED UPON SURVEY BY CHAPARRAL ON SEPTEMBER 19, 2023. TBPELS #10124500. NO WARRANTY IS EXPRESSED OR IMPLIED AS TO THEIR ACCURACY.
- CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS PRIOR TO CONSTRUCTION.
- A PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE. REFERENCE THE EROSION CONTROL PLAN SHEET FOR EROSION CONTROLS TO BE PLACED PRIOR TO THE PRECONSTRUCTION MEETING. EROSION CONTROLS MUST BE MAINTAINED DURING ANY SITE DISTURBANCE
- OR CONSTRUCTION ACTIVITIES. LOCATIONS OF PUBLIC AND FRANCHISE UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE COMPLETE. CONTRACTOR SHALL CALL THE ONE CALL CENTER (472-2822) AT LEAST 48 HOURS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL CONTACT ANY OTHER UTILITY COMPANIES WHO DO NOT SUBSCRIBE TO THE ONE CALL PROGRAM FOR LINE MARKINGS. THE CONTRACTOR BEARS SOLE RESPONSIBILITY FOR VERIFYING LOCATIONS OF EXISTING UTILITIES, SHOWN OR NOT SHOWN, AND FOR ANY DAMAGE DONE TO THESE FACILITIES.
- REMOVAL OR RELOCATION OF EXISTING PUBLIC AND PRIVATE FRANCHISE UTILITIES (WATER, ELECTRIC, AND GAS ETC.) WITHIN THE LIMITS OF THE SITE DEMOLITION SHALL BE COORDINATED WITH THE APPLICABLE UTILITY AGENCIES.
- ALL UTILITIES IN STREET RIGHT-OF-WAY TO REMAIN IN PLACE UNLESS NOTED OTHERWISE THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND 12
- DISPOSAL OF EXISTING PAVEMENT SECTION, STRUCTURAL SUBGRADE, STRUCTURAL FOUNDATION, AND UTILITIES WITHIN THE SITE. CONTRACTOR TO DISPOSE ALL DEMOLITION SPOILS OFF-SITE IN A LEGAL MANNER. CONTRACTOR SHALL BE RESPONSIBLE FOR DA EXISTING LIT IRRIGATION LINES, PAVEMENT, ETC., TO REMAIN RESULTING FROM
- DEMOLITION ACTIVITIES AND REPAIR AT THEIR OWN EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL. ALL ITEMS TO BE REMOVED SHALL BE DISPOSED OFF-SITE IN A MANNER
- ACCEPTABLE TO ALL APPLICABLE REGULATIONS. CONTRACTOR TO RESTORE ANY CONCRETE CURB & GUTTER AND FIRE LANE 16 STRIPING PROPOSED TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION.
- 17 REFERENCE TREE LIST ON SHEET 12A. REFERENCE LANDSCAPE SHEETS FOR TREE REMOVAL AND MITIGATION 18. CALCULATIONS.
- REFERENCE ARBORIST REPORT COMPLETED BY BARTLETT TREE EXPERTS, 19 DATED OCTOBER 2, 2023.
- 20. REFERENCE ENVIRONMENTAL RESOURCE INVENTORY (ERI) COMPLETED BY ECS SOUTHWEST, DATED SEPTEMBER 20, 2023. 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 8" LAYER OF ORGANIC HARDWOOD MULCH OUTSIDE OF THE FENCING.
- STRAPPING 2X4 OR THICKER LUMBER (TO MATCH HEIGHT OF BUILDING) 22. SECURELY AROUND TREE TRUNK, BUTTRESS ROOTS, AND ROOT FLARE, IS REQUIRED IF FENCING CANNOT GO AROUND THE ENTIRE HALF CRZ. 23. 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

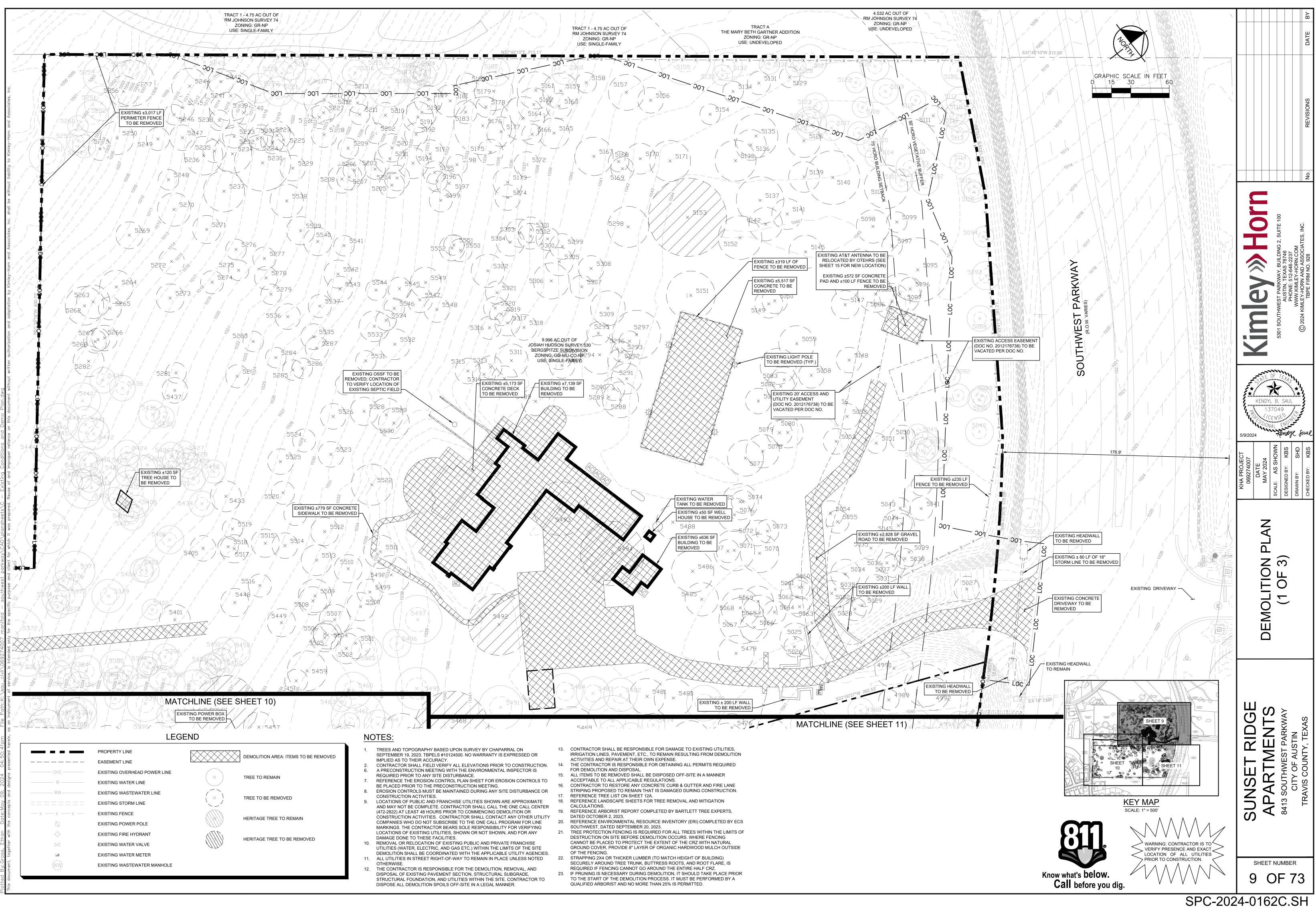
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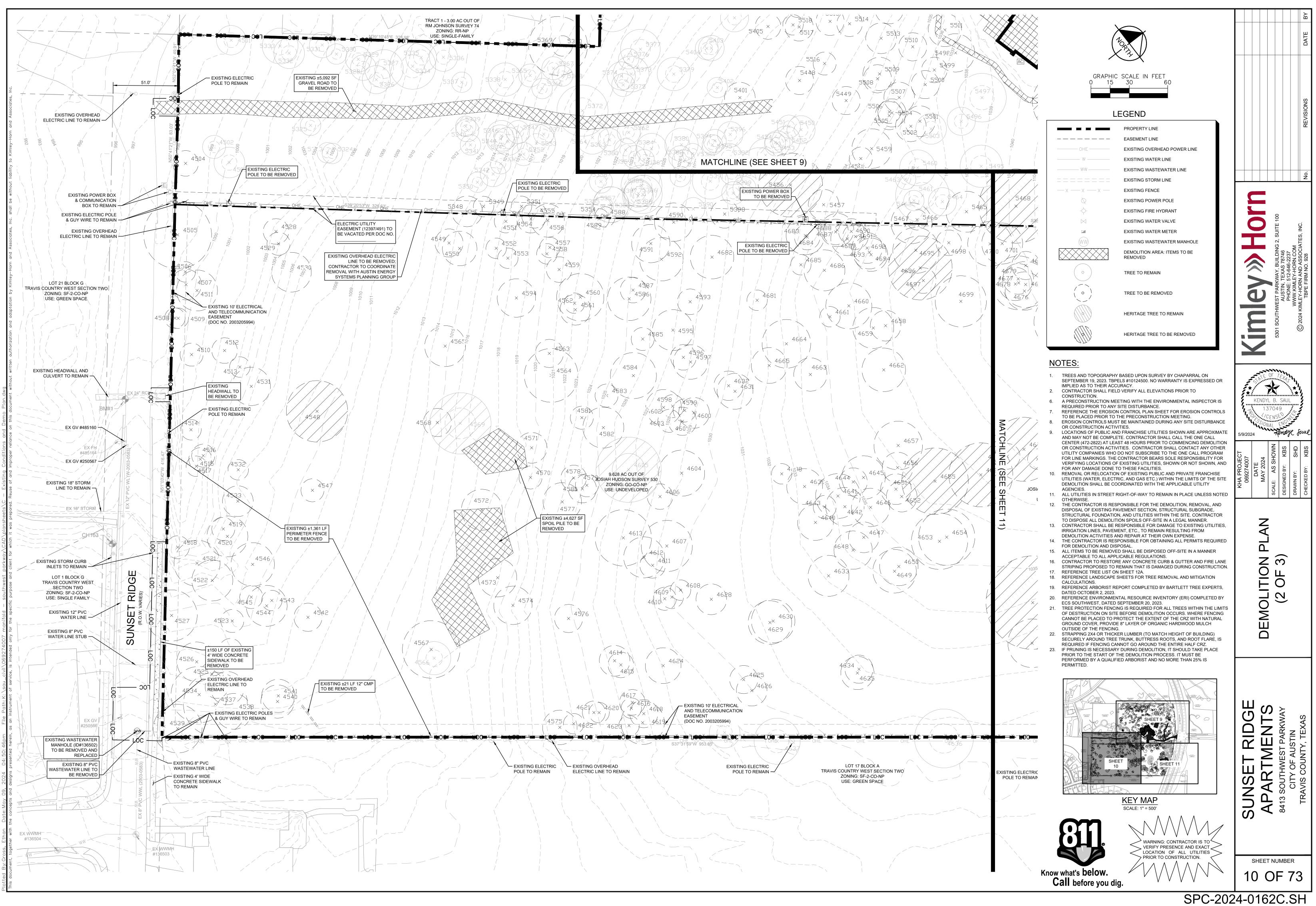


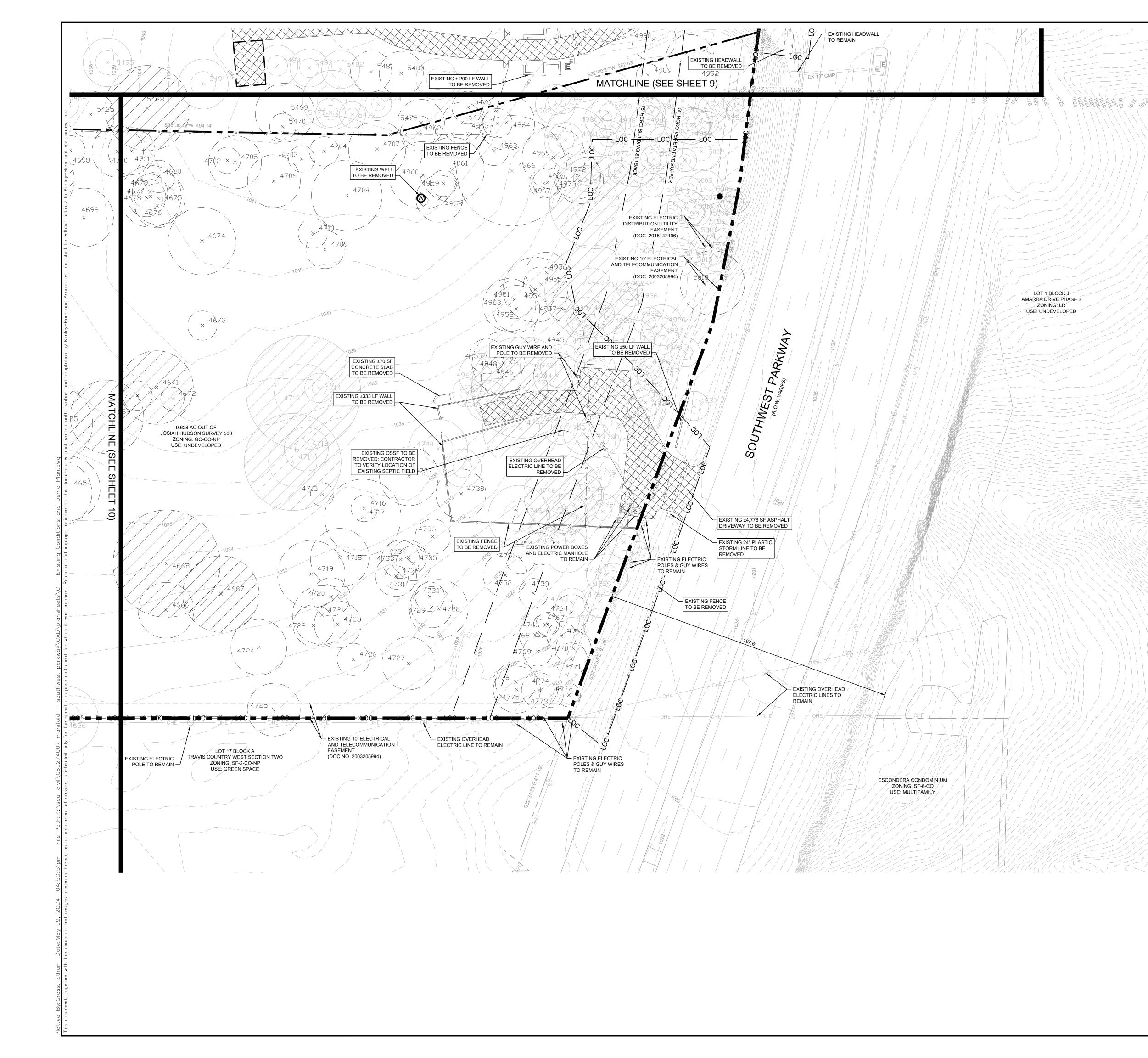


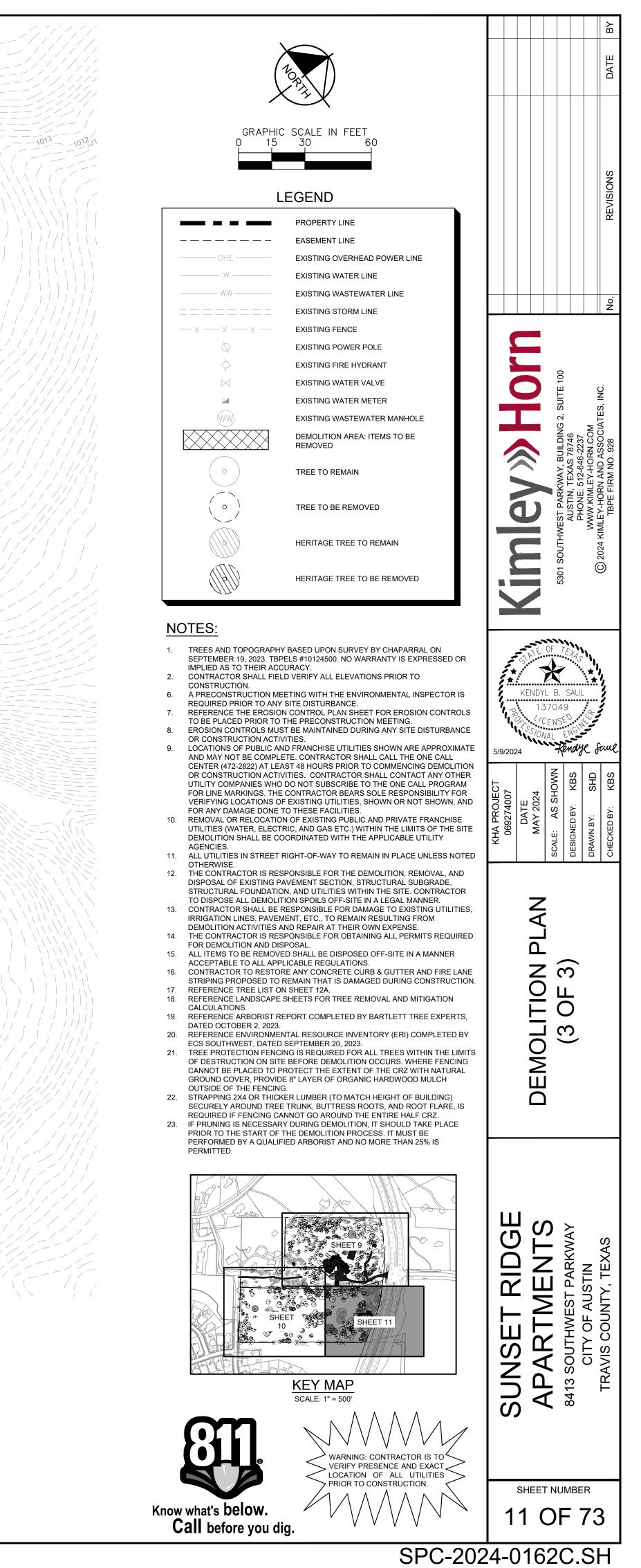


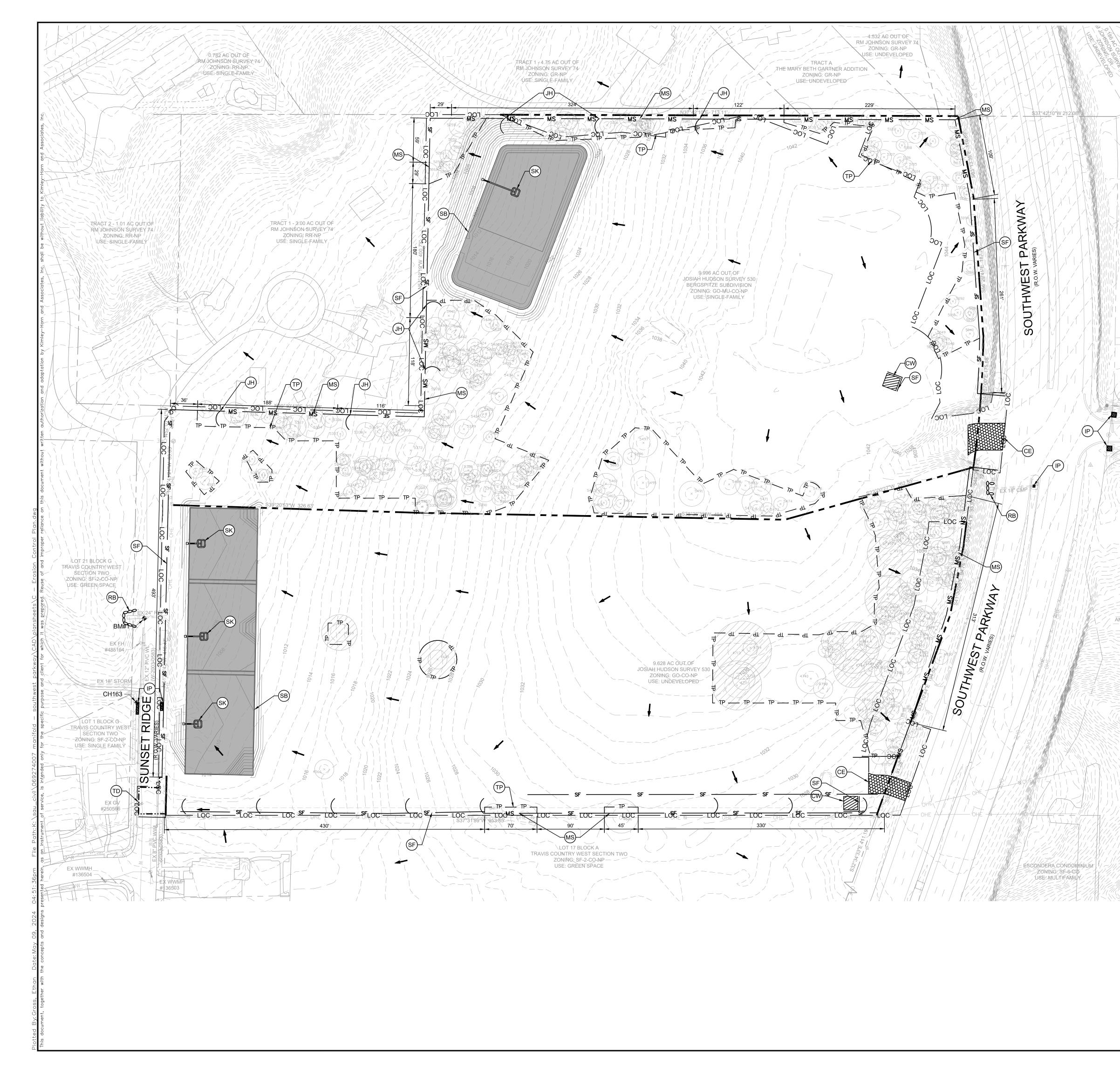
SHEET NUMBER 8 OF 73

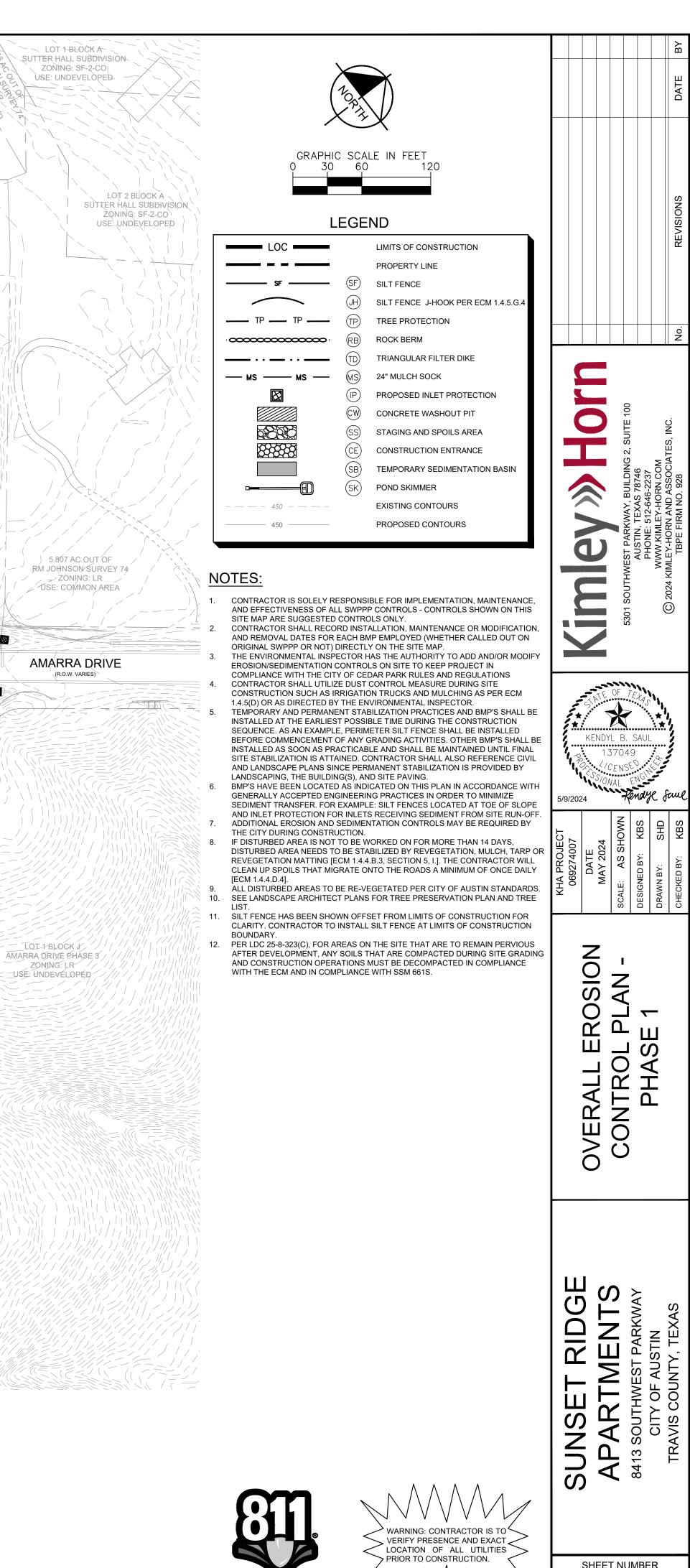










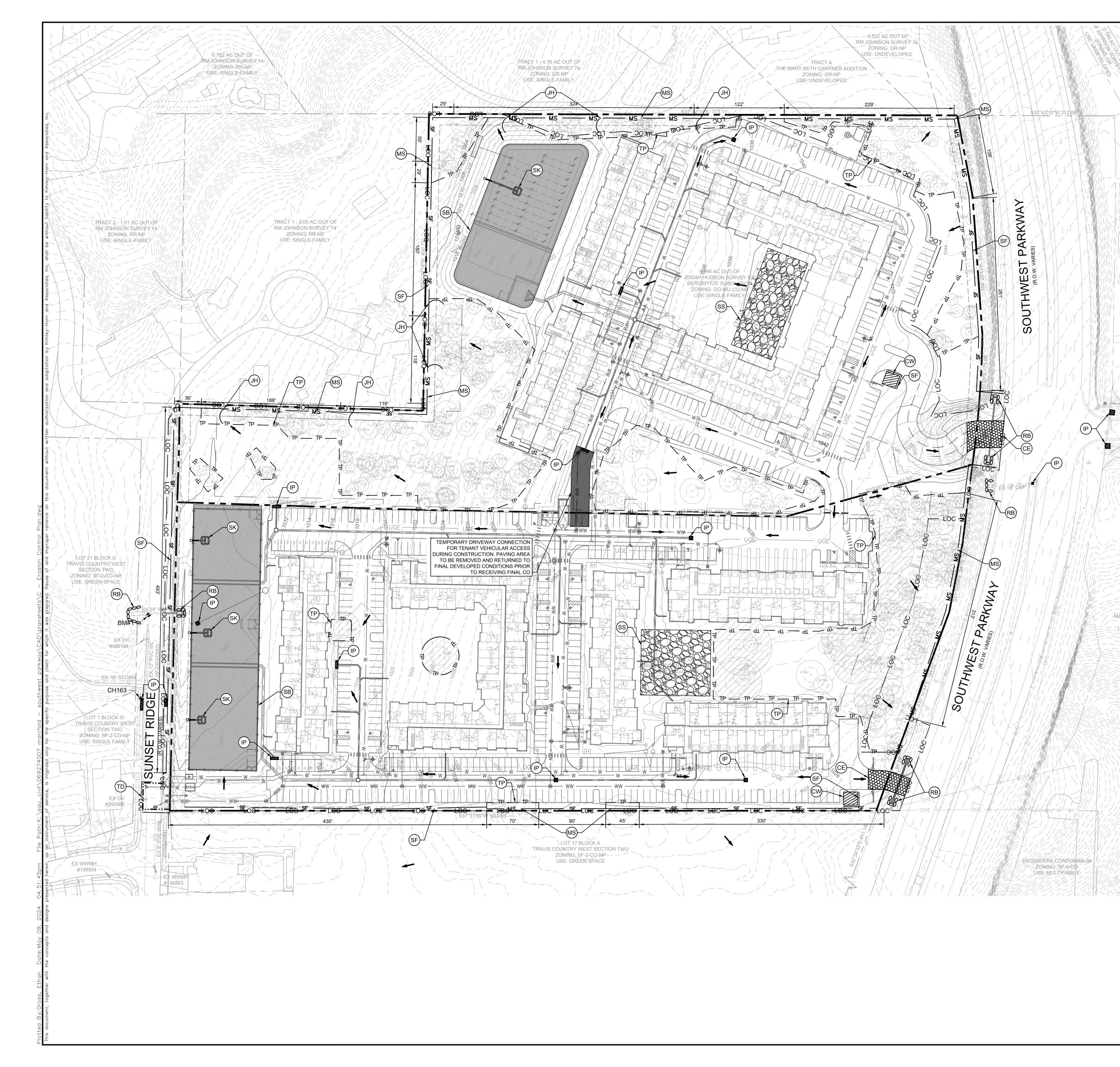


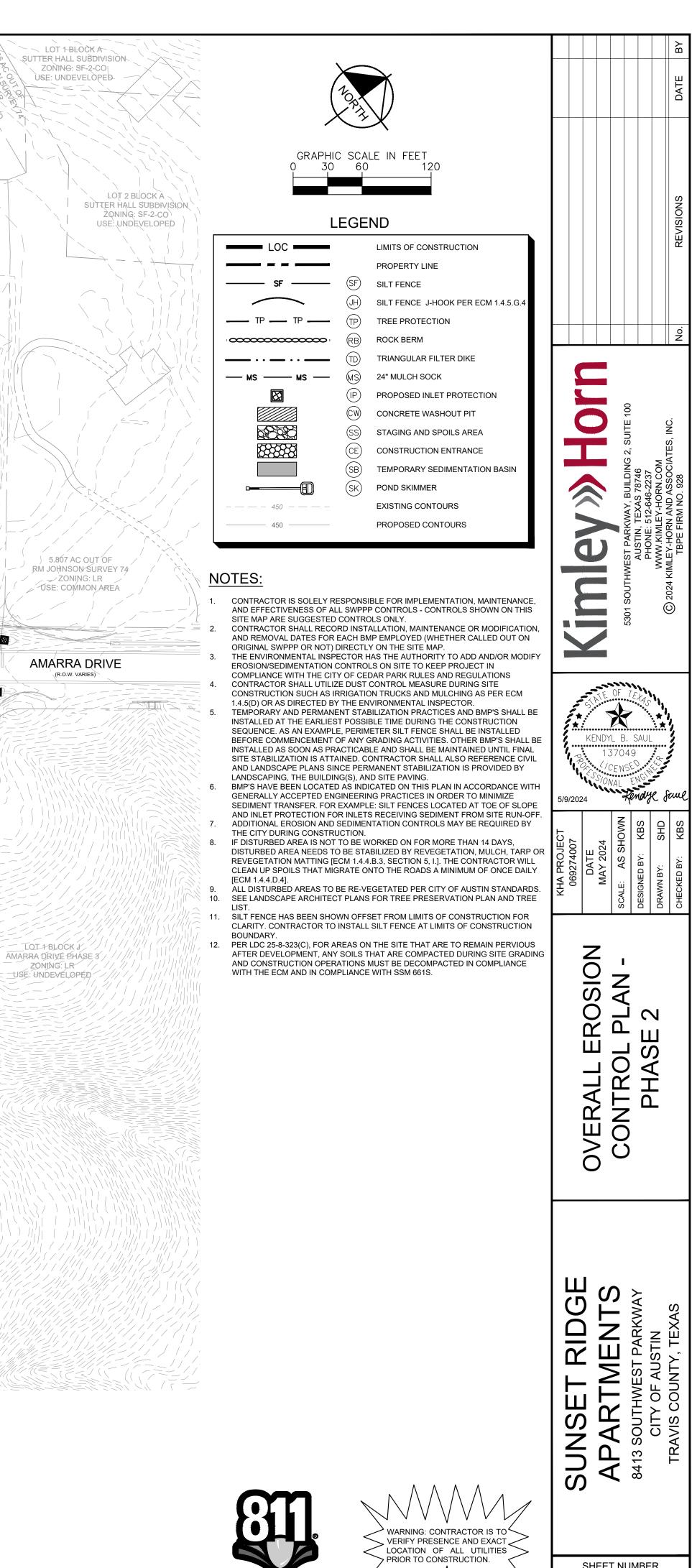
Know what's **below. Call** before you dig.

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SHEET NUMBER

13 OF 73



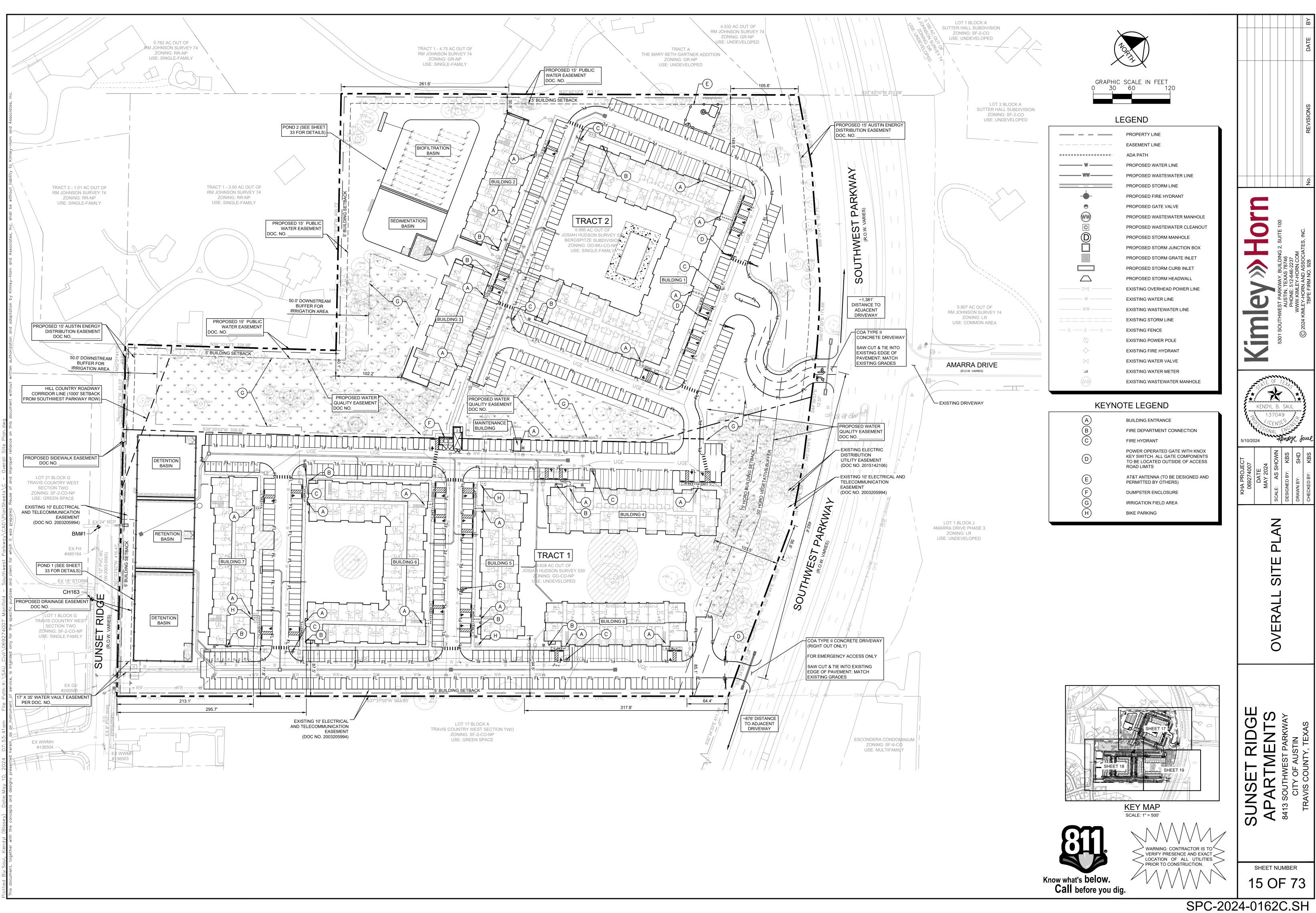


Know what's **below. Call** before you dig.

SPC-2024-0162C.SH

SHEET NUMBER

14 OF 73



		TRACT	ORMATION 1 TF	RACT 2	CUMULA.	TIVE	1.	TREES AND TOPOGRAPH
ZONING		GO-CO-		IU-CO-NP	N/A		2.	WARRANTY IS EXPRESSE THE PEDESTRIAN CONNE VEHICULAR ACCESS.
EXISTING USE		UNDEVELO		E-FAMILY	N/A		3. 4.	ALL FIRE DEPARTMENT A ESTABLISH FIRE ZONES A
SITE AREA		9.628 AC (419		(435,422 SF)	19.624 AC (854	4,837 SF)		ZONE/TOW-AWAY ZONE", ALSO, SIGNS SHALL BE P
MAX ALLOWABLE	BUILDING COVERAG	E 60% (251,64	19 SF) 60% (2	61,253 SF)	60% (512,9	02 SF)		BE APPROVED BY THE FIR INTERVALS NOT TO EXCE
PROPOSED BUILD		22.9% (96,0	,	(65,428 SF)	31.4% (161,4		5. 6.	ALL PARKING SPACES SH WARNING SIGNS ARE REC PERSONNEL AWARE OF T
MAX ALLOWABLE	D GROSS FLOOR ARE	EA 189,459		2,897 SF	482,356 N/A		7.	EVERY HANDICAP ACCES PARKING SURFACE, AT TI
PROPOSED F.A.R.		0.45 :		.67 : 1	0.56 :			SYMBOL OF ACCESSIBILI OBSCURED BY A VEHICLE
MAX ALLOWABLE	BUILDING HEIGHT			60 FT			8.	ANSI A1171-1986-4.6.2. CONTRACTOR TO COORE
PROPOSED BUILD	DING HEIGHT		SEE BUILDING I				9.	AREAS. CONTRACTOR TO FIELD \
FOUNDATION TYP	ΡE			ON GRADE			10. 11	CONSTRUCTION. CAUTION: DO NOT PLACE ALL DIMENSIONS ARE TO
FINISHED FLOOR	ELEVATION		VARIES (S	EE SHEET 23)				ALL RADII TO BE 3' UNLES
		THE AFFORDABILITY					14.	THE MAXIMUM SLOPE OF IN.
COVENANT FOR 2	ZONING CASE NO. C1	VE COVENANT ORDINA 14-85-288.166. /IENT FOR TRACT 1 HA:					16.	
	JECT TO COMPLIAN	CE WITH THE PROVISIO					17. 18.	ALL LANDSCAPED AREAS APPROVED BARRIERS AS ADEQUATE BARRIERS BE
5. TRACT 1 IS SUB (ORDINANCE NO.	BJECT TO COMPLIANO 810319-M).	CE WITH THE PROVISIO			RSHED ORDINA	NCE	10.	CONCRETE CURB ARE RE VEHICULAR USE AREAS A
7. TRACT 2 IS SUB	JECT TO COMPLIANO	YE COVENANT FOR ZO CE WITH THE PROVISIO		( )	ED ORDINANCE		19.	LANDSCAPE AREAS". RETAINING WALLS OVER
(ORDINANCE NO.	82 1118-N)							THE WALL SHALL BE ENG COMPATIBILITY STANDAR
								A. ALL REFUSE RECEPTAB THE LOCATION OF AND ACCOUNTABLE OFFICIA
					0 0100 000000		C	ACCOUNTABLE OFFICIA A PERSON MAY NOT CO AND 7:00AM.
BUILDING 1		ROSS FLOOR AREA	BUILDING HEIGHT BU	JILDING STORIES	S BUILDING		20.	AND 7:00AM. ANY PROPOSED MODIFIC INCREASING THE HEIGHT
BUILDING 2		,347 SF	44 - 1	4	VA		21.	COMMISSION AND OR CIT ALL ON-SITE UTILITIES SH
BUILDING 3		7,851 SF	42' - 2"	4	VA		22.	OTHERWISE LOCATED [25 EXTERIOR LIGHTING ILLU
BUILDING 4 BUILDING 5		3,836 SF	39' - 2" 36' - 9"	4	VA VA		23.	CS-1 ZONING DISTRICTS, PER ECM 1.6.8.2.E, THE M
BUILDING 6		2,213 SF	43' - 5"	4	VA			THAT MAY BE ESTABLISH TO LESS THAN 2000 SQU/ UNDISTURBED NATURAL
BUILDING 7		5,182 SF	42' - 3"	4	VA		24.	LANDSCAPING OR TURF. SCREENING FOR SOLID V
BUILDING 8 MAINTENANCE		4,504 SF 236 SF	43' - 11" 11'	4	VA VA		25.	QUALITY TO, PRINCIPAL E ALL EXTERIOR LIGHTING
		N WAIVED WITH AFFOR		•				AND WILL BE REVIEWED I FIXTURES SHALL BE SUB
		IMPERVIOL		-				
SITE	E AREA	TRACT 1 9.628 AC (419,415 3	TRACT SF) 9.996 AC (435		CUMULATIVE .624 AC (854,837	SF)		
EXISTING IMP	ERVIOUS COVER	1% (3,988 SF)	7.9% (34,46	5 SF)	4.5% (38,453 SF	·)		
	IMPERVIOUS COVER		, , , , , , , , , , , , , , , , , , ,	,	45% (383,123 SF	-)		Figure 34: Examples of fully-shielde
	PERVIOUS COVER	51.9% (217,644 SI	=) 34.8% (151,6	04 3 5 1 4	12 20/ /260 220 6			
	N SPACE PARKING REC	5.6% (46,500 SF	PARKII TH AFFORDABILITY UN	0 SF)	43.2% (369,328 S 8.3% (70,700 SF RAM. REFER TO	;) 		
			PARKII TH AFFORDABILITY UN	0 SF)	8.3% (70,700 SF	;) 		
	PARKING REC	REQUIREMENT WAIVED WI REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT	0 SF) NG LOCKED PROGR REQUIRED P PER LDC APP 28	8.3% (70,700 SF RAM. REFER TO PARKING PENDIX A	;) 		
	PARKING REC	REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM 134 - 2 BEDROOM	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2 SPACES/UNIT	NG LOCKED PROGR REQUIRED P PER LDC APP 28 156 268	8.3% (70,700 SF RAM. REFER TO PARKING PENDIX A	;) 		
TRACT 1	PARKING REC	REQUIREMENT WAIVED WI REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT	NG LOCKED PROGR REQUIRED P PER LDC APP 28 156	8.3% (70,700 SF RAM. REFER TO PARKING PENDIX A	;) 		
TRACT 1	PARKING REC	REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM 134 - 2 BEDROOM 6 - 3 BEDROOM 6 - 4 BEDROOM	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2 SPACES/UNIT 2.5 SPACES/UNIT	NG LOCKED PROGR REQUIRED P PER LDC APP 28 156 268 15 18	8.3% (70,700 SF RAM. REFER TO PARKING PENDIX A	;) 		
TRACT 1	PARKING REC	REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM 134 - 2 BEDROOM 6 - 3 BEDROOM 6 - 4 BEDROOM TOTAL = 278 UNITS 23 - EFFICIENCY 71 - 1 BEDROOM	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT TRACT 1 SUBTOTAI 1.0 SPACES/UNIT 1.5 SPACES/UNIT	NG LOCKED PROGR REQUIRED P PER LDC APP 28 156 268 15 18 - 485 23 107	8.3% (70,700 SF	;) 		
TRACT 1 TRACT 2	PARKING REC	REQUIREMENT WAIVED WI REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM 134 - 2 BEDROOM 6 - 3 BEDROOM 6 - 4 BEDROOM TOTAL = 278 UNITS 23 - EFFICIENCY 71 - 1 BEDROOM 69 - 2 BEDROOM 3 - 3 BEDROOM	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2 SPACES/UNIT 2 SPACES/UNIT 3 SPACES/UNIT TRACT 1 SUBTOTAL 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT	0 SF) NG LOCKED PROGR REQUIRED P PER LDC APP 28 156 268 15 18 - 485 23 107 138 8	8.3% (70,700 SF	;) 	· · · · · · · · · · · · · · · · · · ·	
	PARKING REC PROPOSED USE MULTIFAMILY RESIDENTIAL MULTIFAMILY	REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM 134 - 2 BEDROOM 6 - 3 BEDROOM 6 - 4 BEDROOM TOTAL = 278 UNITS 23 - EFFICIENCY 71 - 1 BEDROOM 69 - 2 BEDROOM	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 3 SPACES/UNIT	NG LOCKED PROGR REQUIRED P PER LDC APP 28 156 268 15 18 - 485 23 107 138 8 0	8.3% (70,700 SF	;)		
	PARKING REC PROPOSED USE MULTIFAMILY RESIDENTIAL MULTIFAMILY	REQUIREMENT WAIVED WI REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM 134 - 2 BEDROOM 6 - 3 BEDROOM 6 - 4 BEDROOM TOTAL = 278 UNITS 23 - EFFICIENCY 71 - 1 BEDROOM 69 - 2 BEDROOM 3 - 3 BEDROOM 0 - 4 BEDROOM	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2 SPACES/UNIT 2 SPACES/UNIT 3 SPACES/UNIT TRACT 1 SUBTOTAL 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT	NG LOCKED PROGR REQUIRED P PER LDC APP 28 156 268 15 18 - 485 23 107 138 8 0 - 276	8.3% (70,700 SF	;)		
TRACT 2	PARKING REC PROPOSED USE MULTIFAMILY RESIDENTIAL MULTIFAMILY	REQUIREMENT WAIVED WI REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM 134 - 2 BEDROOM 6 - 3 BEDROOM 6 - 4 BEDROOM TOTAL = 278 UNITS 23 - EFFICIENCY 71 - 1 BEDROOM 69 - 2 BEDROOM 3 - 3 BEDROOM 0 - 4 BEDROOM	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2 SPACES/UNIT 2 SPACES/UNIT 3 SPACES/UNIT 1.5 SPACES/UNIT 1.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 3 SPACES/UNIT	NG LOCKED PROGR REQUIRED P PER LDC APP 28 156 268 15 18 - 485 23 107 138 8 0 - 276	8.3% (70,700 SF	;)	· · · · · · · · · · · · · · · · · · ·	
TRACT 2	PARKING REC PROPOSED USE MULTIFAMILY RESIDENTIAL MULTIFAMILY	REQUIREMENT WAIVED WI REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM 134 - 2 BEDROOM 6 - 3 BEDROOM 6 - 4 BEDROOM TOTAL = 278 UNITS 23 - EFFICIENCY 71 - 1 BEDROOM 69 - 2 BEDROOM 3 - 3 BEDROOM 0 - 4 BEDROOM	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2 SPACES/UNIT 2 SPACES/UNIT 3 SPACES/UNIT 1.5 SPACES/UNIT 1.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 3 SPACES/UNIT	NG IOCKED PROGR REQUIRED P PER LDC APP 28 156 268 15 18 - 485 23 107 138 8 0 - 276 - 761	8.3% (70,700 SF RAM. REFER TO A PARKING PENDIX A	;)	то	TAL PARKING PROVIDED
TRACT 2 CUMULATIVE TRACT 1	PARKING REC PROPOSED USE MULTIFAMILY RESIDENTIAL MULTIFAMILY RESIDENTIAL ADA PARKING PROVIDED 15	REQUIREMENT WAIVED WI REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM 134 - 2 BEDROOM 6 - 3 BEDROOM 6 - 4 BEDROOM TOTAL = 278 UNITS 23 - EFFICIENCY 71 - 1 BEDROOM 3 - 3 BEDROOM 3 - 3 BEDROOM 0 - 4 BEDROOM 0 - 4 BEDROOM 0 - 4 BEDROOM TOTAL = 166 UNITS GARAGE PARKING PROVIDED 22	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 1.0 SPACES/UNIT 1.0 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT	0 SF) NG LOCKED PROGR REQUIRED P PER LDC APP 28 156 268 15 18 - 485 23 107 138 8 0 - 276 - 761 ING TABLE COMPACT P PROVID 18	8.3% (70,700 SF RAM. REFER TO A PARKING PENDIX A	AUSTIN LDC 25-6-471	то	TAL PARKING PROVIDED 412
TRACT 2 CUMULATIVE	PARKING REC PROPOSED USE MULTIFAMILY RESIDENTIAL MULTIFAMILY RESIDENTIAL	REQUIREMENT WAIVED WI REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM 134 - 2 BEDROOM 6 - 3 BEDROOM 6 - 4 BEDROOM TOTAL = 278 UNITS 23 - EFFICIENCY 71 - 1 BEDROOM 69 - 2 BEDROOM 3 - 3 BEDROOM 0 - 4 BEDROOM 0 - 4 BEDROOM TOTAL = 166 UNITS GARAGE PARKING PROVIDED	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2 SPACES/UNIT 2 SPACES/UNIT 3 SPACES/UNIT 1.5 SPACES/UNIT 1.5 SPACES/UNIT 1.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 3 SPACES/UNIT TRACT 2 SUBTOTAL TRACT 1 & 2 TOTAL PROVIDED PARK	0 SF)           NG           LOCKED PROGR           REQUIRED P           PER LDC APP           28           156           268           15           18           -           485           23           107           138           8           0           -           276           761           ING TABLE           COMPACT P           PROVID	8.3% (70,700 SF RAM. REFER TO A PARKING PENDIX A	AUSTIN LDC 25-6-471	то	TAL PARKING PROVIDED
TRACT 2 CUMULATIVE TRACT 1 TRACT 2	PARKING REC PROPOSED USE MULTIFAMILY RESIDENTIAL MULTIFAMILY RESIDENTIAL ADA PARKING PROVIDED 15 9 24	REQUIREMENT WAIVED WI REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM 134 - 2 BEDROOM 6 - 3 BEDROOM 6 - 4 BEDROOM TOTAL = 278 UNITS 23 - EFFICIENCY 71 - 1 BEDROOM 69 - 2 BEDROOM 3 - 3 BEDROOM 0 - 4 BEDROOM 0 - 4 BEDROOM 0 - 4 BEDROOM TOTAL = 166 UNITS GARAGE PARKING PROVIDED 222 333 55 ACCESSIBLE PARKIN	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 1.0 SPACES/UNIT 1.0 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 2.5 SPACES/UNIT 3	NG REQUIRED P PER LDC APP 28 156 268 15 18 - 485 23 107 138 8 0 - 276 - 761 ING TABLE COMPACT P PROVID 18 0 18	8.3% (70,700 SF	AUSTIN LDC 25-6-471	то	TAL PARKING PROVIDED 412 252
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TRACT 2 CUMULATIVE TRACT 1 TRACT 2 CUMULATIVE TRACT 1	PARKING REC PROPOSED USE MULTIFAMILY RESIDENTIAL MULTIFAMILY RESIDENTIAL ADA PARKING PROVIDED 15 9 24 REQUIRED ADA PARKING 9	REQUIREMENT WAIVED WI REQUIRED PARKING AREA OR QUANTITY 28 - EFFICIENCY 104 - 1 BEDROOM 134 - 2 BEDROOM 6 - 3 BEDROOM 6 - 4 BEDROOM TOTAL = 278 UNITS 23 - EFFICIENCY 71 - 1 BEDROOM 69 - 2 BEDROOM 3 - 3 BEDROOM 0 - 4 BEDROOM 22 33 55 ACCESSIBLE PARKING REGULAR ADA PARKING PROVIDED 12	PARKII TH AFFORDABILITY UN TABLE RATIO 1.0 SPACES/UNIT 1.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 1.0 SPACES/UNIT 1.0 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/UNIT 2.5 SPACES/UNIT 3 SPACES/	0 SF)         NG         LOCKED PROGR         REQUIRED P         PER LDC APP         28         156         28         156         28         156         28         156         28         156         28         156         28         156         28         107         138         8         0         276         761         ING TABLE         COMPACT P         PROVID         18         0         18         0         18         0         18         15	8.3% (70,700 SF RAM. REFER TO . PARKING PENDIX A PARKING ST. PARKING ST. PARKING	AUSTIN LDC 25-6-471	то	TAL PARKING PROVIDED 412 252
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GRAPHY BASED UPON SURVEY BY CHAPARRAL ON SEPTEMBER 19, 2023. TBPELS #10124500. NO RESSED OR IMPLIED AS TO THEIR ACCURACY. CONNECTION TO SUNSET RIDGE IS AN APPROVED AEC FOR LDC 2.3.1.B IN LIEU OF PROVIDING MENT ACCESS DRIVES/ROADS TO HAVE A MINIMUM 14' VERTICAL CLEARANCE. CONES AS SHOWN ON SITE BY PAINTING CURB RED. STENCIL THE WORDS, "FIRE ZONE", IN <u>WHITE LETTERS</u> AT LEAST 3 INCHES HIGH AT 35-FOOT INTERVALS ALONG THE CURB. LL BE POSTED AT BOTH ENDS OF A FIRE ZONE. ALTERNATE MARKING OF THE FIRE LANES MAY THE FIRE CHIEF PROVIDED THE FIRE LANES ARE CLEARLY IDENTIFIED AT BOTH ENDS AND AT D EXCEED 35 FEET. SEC. 901.4.2 CES SHALL HAVE MINIMUM 7'-0" VERTICAL CLEARANCE. RE REQUIRED TO BE PLACED UNDER THE OVERHEAD ELECTRIC LINES TO MAKE ALL RE OF THE ELECTRIC HAZARD. ACCESSIBLE PARKING SPACE SHALL BE IDENTIFIED BY A SIGN CENTERED 5 FEET ABOVE THE E, AT THE HEAD OF THE PARKING SPACE. THE SIGN MUST INCLUDE THE INTERNATIONAL SSIBILITY AND STATE RESERVED, OR EQUIVALENT LANGUAGE. SUCH SIGNS SHALL NOT BE EHICLE PARKED IN THE SPACE AND SHALL MEET THE CRITERIA SET FORTH IN UBC, 3108(c) AND COORDINATE WITH PROJECT ARBORIST TO TRIM TREES TO ENSURE VISIBILITY NEAR PARKING FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO PLACE THE STAGING AREA IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. ARE TO FACE OF CURB UNLESS OTHERWISE NOTED. UNLESS OTHERWISE NOTED. SSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP. OPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 TES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50. ES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM, AND SLIP RESISTANT. AREAS ARE TO BE PROTECTED BY SIX-INCH WHEEL CURBS, WHEELSTOPS, OR OTHER ERS AS PER ECM 2.4.7. ERS BETWEEN ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, SUCH AS A 6" ARE REQUIRED. IF A STANDARD 6" CURB AND GUTTER ARE NOT PROVIDED FOR ALL REAS AND ADJACENT LANDSCAPE AREAS, COMPLY WITH ECM, SECTION 2.4.7, "PROTECTION OF OVER FOUR FEET IN HEIGHT MEASURED FROM THE BOTTOM OF THE FOOTING TO THE TOP OF BE ENGINEERED AND REQUIRE A SEPARATE BUILDING PERMIT. [IBC CODE 105.2] ANDARDS NOTES:

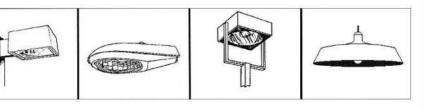
EPTABLES WILL BE ENCLOSED. F AND ACCESS TO A REFUSE RECEPTABLE IS SUBJECT TO REVIEW AND APPROVAL BY THE DFFICIAL. NOT COLLECT OR ALLOW ANOTHER TO COLLECT REFUSE RECEPTABLES BETWEEN 10:00PM ODIFICATIONS WHICH INCLUDE MOVING A STRUCTURE MORE THAN TWENTY-FIVE (25') FEET OR

EIGHT OR SQUARE FOOTAGE OF A BUILDING, WILL REQUIRE REVIEW BY THE PLANNING TIES SHALL BE LOCATED UNDERGROUND UNLESS REQUIRED BY THE UTILITY TO BE

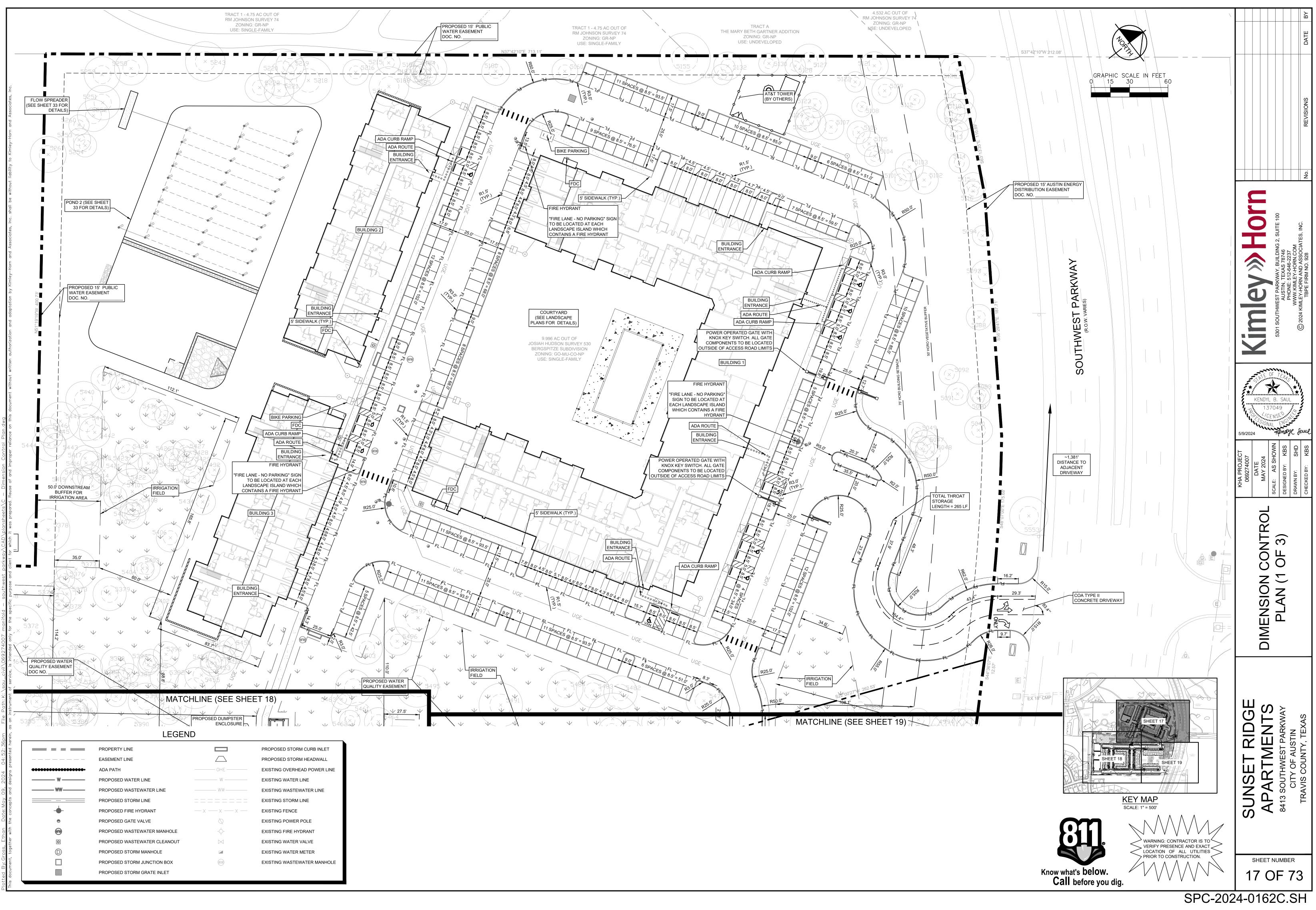
IG ILLUMINATING A BUILDING ABOVE THE SECOND FLOOR IS PROHIBITED IN THE GO, LR, CS, OR RICTS, WHEN ADJACENT TO AN LA, RR, OR SF-1 ZONING DISTRICT (SECTION 25-2-585). THE MAXIMUM PORTION OF ANY COMMERCIAL, MULTI-FAMILY, OR SINGLE FAMILY/DUPLEX LOT ABLISHED AS TURF OR LANDSCAPES IS 15 PERCENT. HOWEVER, NO LOT SHALL BE RESTRICTED 0 SQUARE FEET OF TURF OR LANDSCAPED AREA. FOR THE PURPOSE OF THIS RULE,

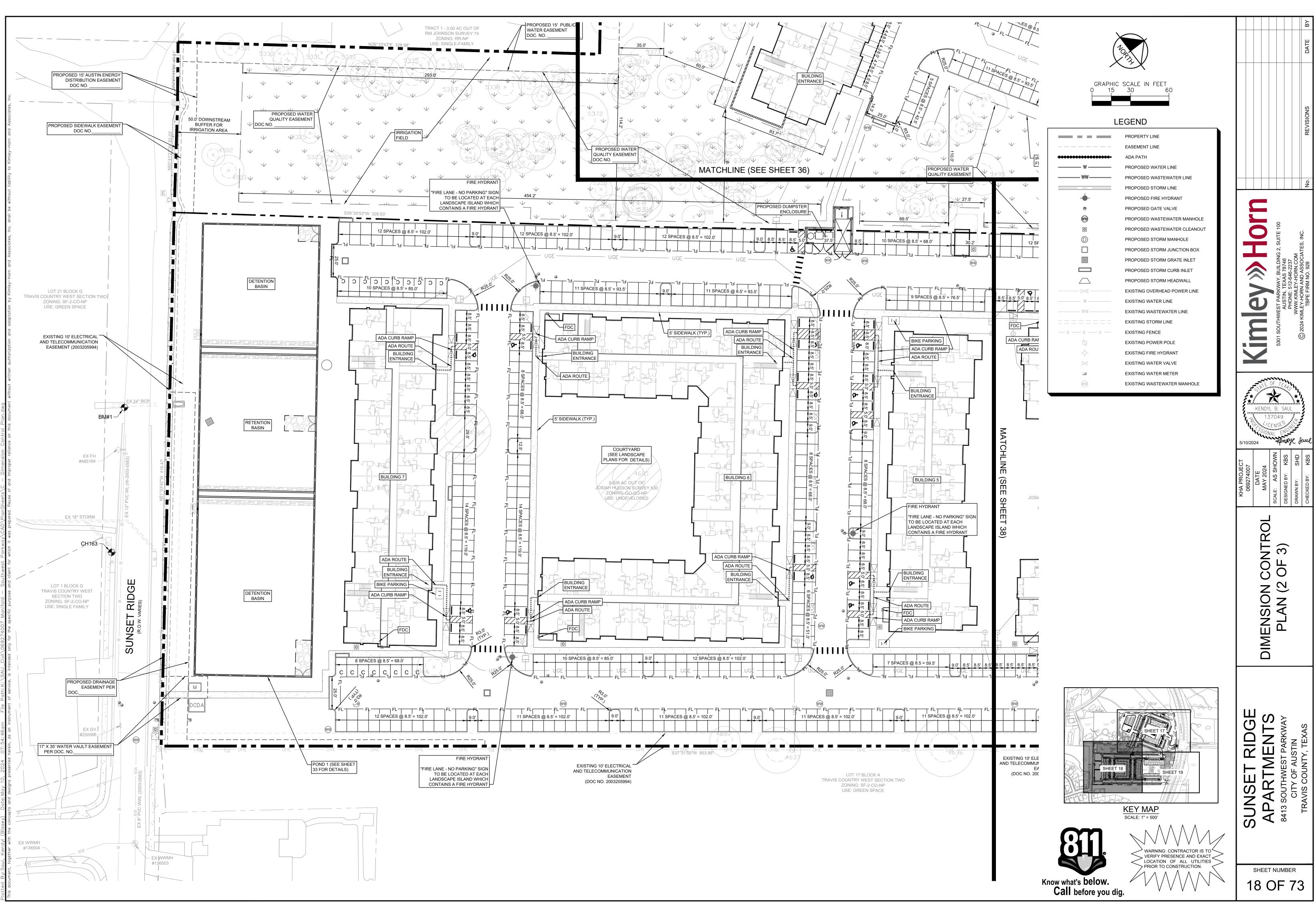
TURAL AREAS OR AREAS RESTORED TO NATURAL CONDITIONS SHALL NOT BE CONSIDERED OLID WASTE COLLECTION AND LOADING AREAS SHALL BE THE SAME AS, OR OF EQUAL CIPAL BUILDING MATERIALS.

HTING WILL BE FULL CUT-OFF AND FULLY SHIELDED IN COMPLIANCE WITH SUBCHAPTER E 2.5 EWED DURING BUILDING PLAN REVIEW. ANY CHANGE OR SUBSTITUTION OF LAMP/LIGHT E SUBMITTED TO THE DIRECTOR FOR APPROVAL IN ACCORDANCE WITH SECTION 2.5.2.E.

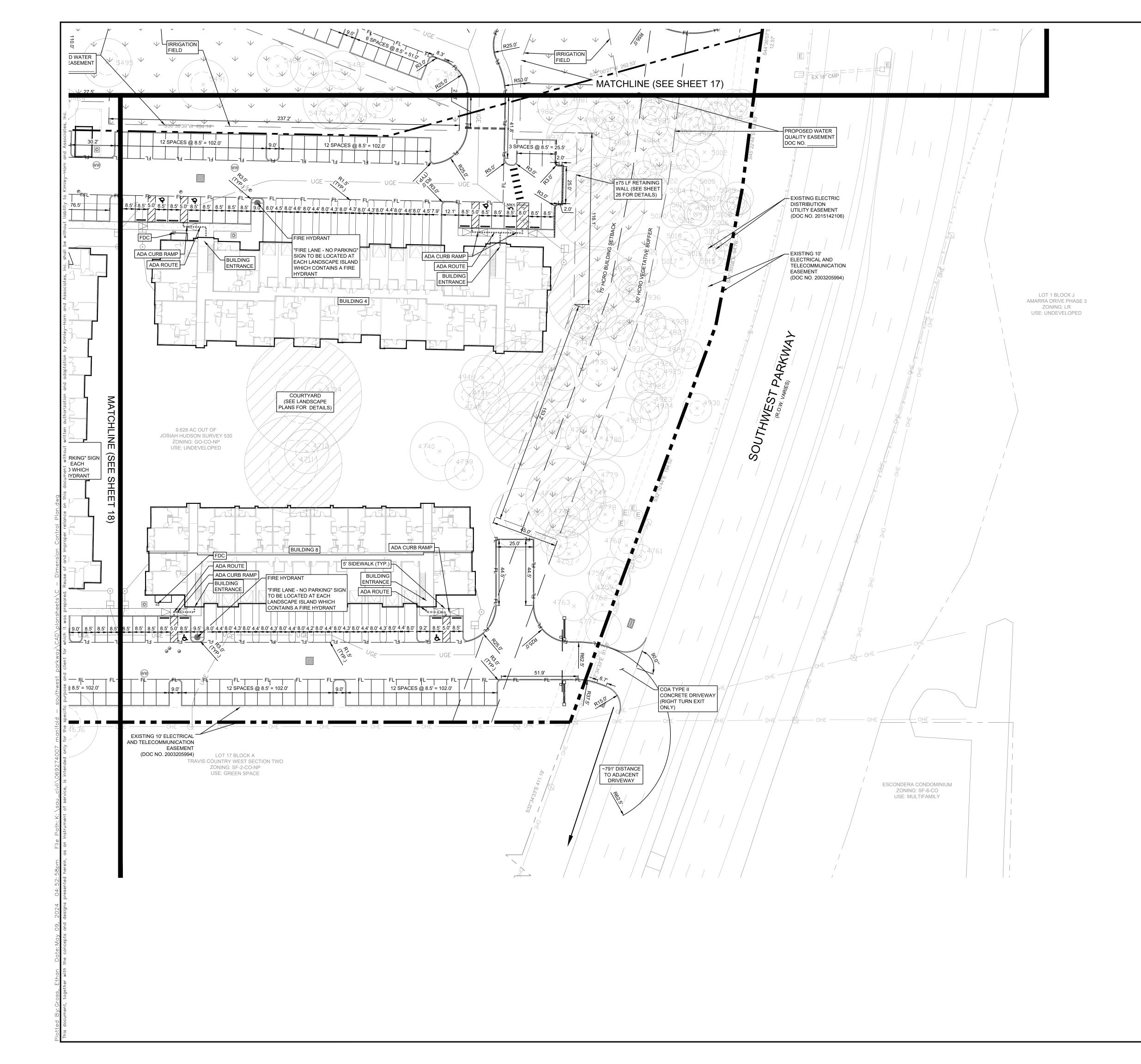


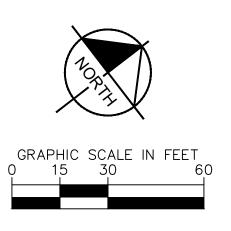
		BY
TRACT 1 <u>CITY OF AUSTIN FULL-PURPOSE</u> APPENDIX Q-1 NET SITE AREA	TRACT 2         CITY OF AUSTIN FULL-PURPOSE         APPENDIX Q-1         NET SITE AREA	DATE E
1GROSS SITE AREA=9.628 ACRESSITE DEDUCTIONS2CRITICAL WATER QUALITY ZONE (CWQZ)=0 ACRES3WATER QUALITY TRANSITION ZONE (WQTZ)=0 ACRES4WASTEWATER IRRIGATION AREAS=0 ACRES5DEDUCTION SUBTOTAL=0 ACRES6(GROSS SITE AREA MINUS DEDUCTION SUBTOTAL)=9.628 ACRES7AREA OF UPLANDS WITH SLOPES 0-15%=9.407 X 100%=9AREA OF UPLANDS WITH SLOPES 15-25%=0.165 X 40%=9AREA OF UPLANDS WITH SLOPES 25-35%=0.022 X 20%=10AREA OF UPLANDS WITH SLOPES >35%=0.034 X 0%=11UPLANDS WITH SLOPES >35%0.034 X 0%=0.000 ACRES	1GROSS SITE AREA= $9.996$ ACRESSITE DEDUCTIONS=0 ACRES2CRITICAL WATER QUALITY ZONE (CWQZ)=0 ACRES3WATER QUALITY TRANSITION ZONE (WQTZ)=0 ACRES4WASTEWATER IRRIGATION AREAS=0 ACRES5DEDUCTION SUBTOTAL=0 ACRES6(GROSS SITE AREA MINUS DEDUCTION SUBTOTAL)= $9.996$ ACRES7AREA OF UPLANDS WITH SLOPES 0-15%= $9.955 \times 100\%$ =9AREA OF UPLANDS WITH SLOPES 15-25%= $0.017 \times 40\%$ $0.007$ ACRES9AREA OF UPLANDS WITH SLOPES 25-35%= $0.010 \times 20\%$ $0.002$ ACRES10AREA OF UPLANDS WITH SLOPES >35%= $0.014 \times 0\%$ =11NET SITE AREA= $9.964$ ACRES	No. REVISIONS
ALLOWABLE IMPERVIOUS COVER2IMPERVIOUS COVER ALLOWED AT $55$ % X $0.000$ =0Ad3IMPERVIOUS COVER ALLOWED AT $55$ % X $9.477$ = $5.213$ Ad4TOTAL ALLOWED IMPERVIOUS COVER4PROPOSED IMPERVIOUS COVER= $5.213$ Ad5IMPERVIOUS COVER5IMPERVIOUS COVER IN NON-FP WQTZ $5A$ EXISTING PROPOSED TO REMAIN5BPROPOSED NEW= $0$ ACRES	ACRES       4       TOTAL ALLOWED IMPERVIOUS COVER       =       3.487       ACRES         PROPOSED IMPERVIOUS COVER       5       IMPERVIOUS COVER IN NON-FP WQTZ       5       5       IMPERVIOUS COVER IN NON-FP WQTZ         SA       EXISTING PROPOSED TO REMAIN       =       0       ACRES       5         SB       PROPOSED NEW       =       0       ACRES       5         SCRES       5C       SUBTOTAL       =       0       ACRES         6       IMPERVIOUS COVER IN UPLANDS ZONE       -       -       ACRES         6       IMPERVIOUS COVER IN UPLANDS ZONE       -       -       ACRES         6       IMPERVIOUS COVER IN UPLANDS ZONE       -       -       ACRES         6       IMPERVIOUS COVER IN UPLANDS ZONE       -       -       ACRES         6       IMPERVIOUS COVER IN UPLANDS ZONE       -       -       -         6       IMPERVIOUS COVER IN REMAIN       =       0       ACRES       -         CRES       6C       SUBTOTAL       =       3.482       ACRES         CRES       7       TOTAL PROPOSED IMPERVIOUS COVER       =       3.482       ACRES         ALLOWABLE IMPERVIOUS COVER BREAKDOWN BY SLOPE CATEGORY       -	SITE TABLES & NOTES BESICHER KIS BESICHER KIS CHECKED BY: KIS DRAWN BY: SHOWN ESCALE: AS SHOWN DESICHED BY: KIS DRAWN BY: SHO DESICHED BY: KIS DRAWN BY: SHOWN DESICHED BY: KIS DRAWN BY: SHOWN DESICHED BY: KIS DRAWN BY: SHOWN DESICHED BY: KIS DRAWN SWILLEY-HORN AND ASSOCIATES, INC. TBPE FIRM NO. 928 TRPE FIRM NO. 928
		SUNSET RIDGE APARTMENTS 8413 SOUTHWEST PARKWAY CITY OF AUSTIN TRAVIS COUNTY, TEXAS
		sheet number 16 OF 73





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# LEGEND

L	LGLIND
	PROPERTY LINE
	EASEMENT LINE
******************	ADA PATH
W	PROPOSED WATER LINE
WW	PROPOSED WASTEWATER LINE
	PROPOSED STORM LINE
	PROPOSED FIRE HYDRANT
•	PROPOSED GATE VALVE
	PROPOSED WASTEWATER MANHOLE
Ø	PROPOSED WASTEWATER CLEANOUT
$\bigcirc$	PROPOSED STORM MANHOLE
	PROPOSED STORM JUNCTION BOX
	PROPOSED STORM GRATE INLET
	PROPOSED STORM CURB INLET
	PROPOSED STORM HEADWALL
OHE	EXISTING OVERHEAD POWER LINE
W	EXISTING WATER LINE
WW	EXISTING WASTEWATER LINE
	EXISTING STORM LINE
— X — X — X —	EXISTING FENCE
$\Diamond$	EXISTING POWER POLE
-\$	EXISTING FIRE HYDRANT
$\bowtie$	EXISTING WATER VALVE
	EXISTING WATER METER
WW	EXISTING WASTEWATER MANHOLE

 $\approx$ 

5/9/2024

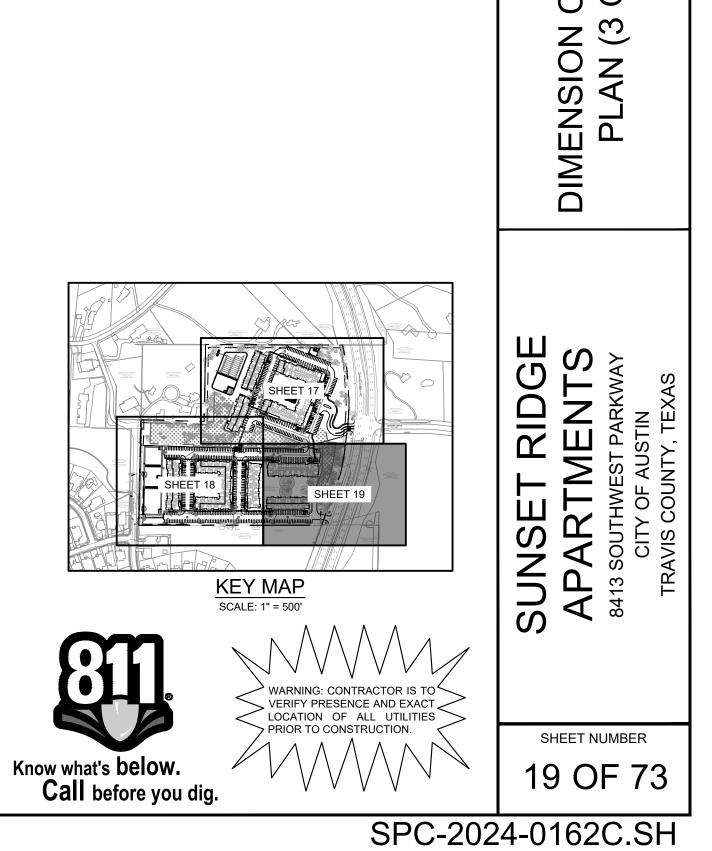
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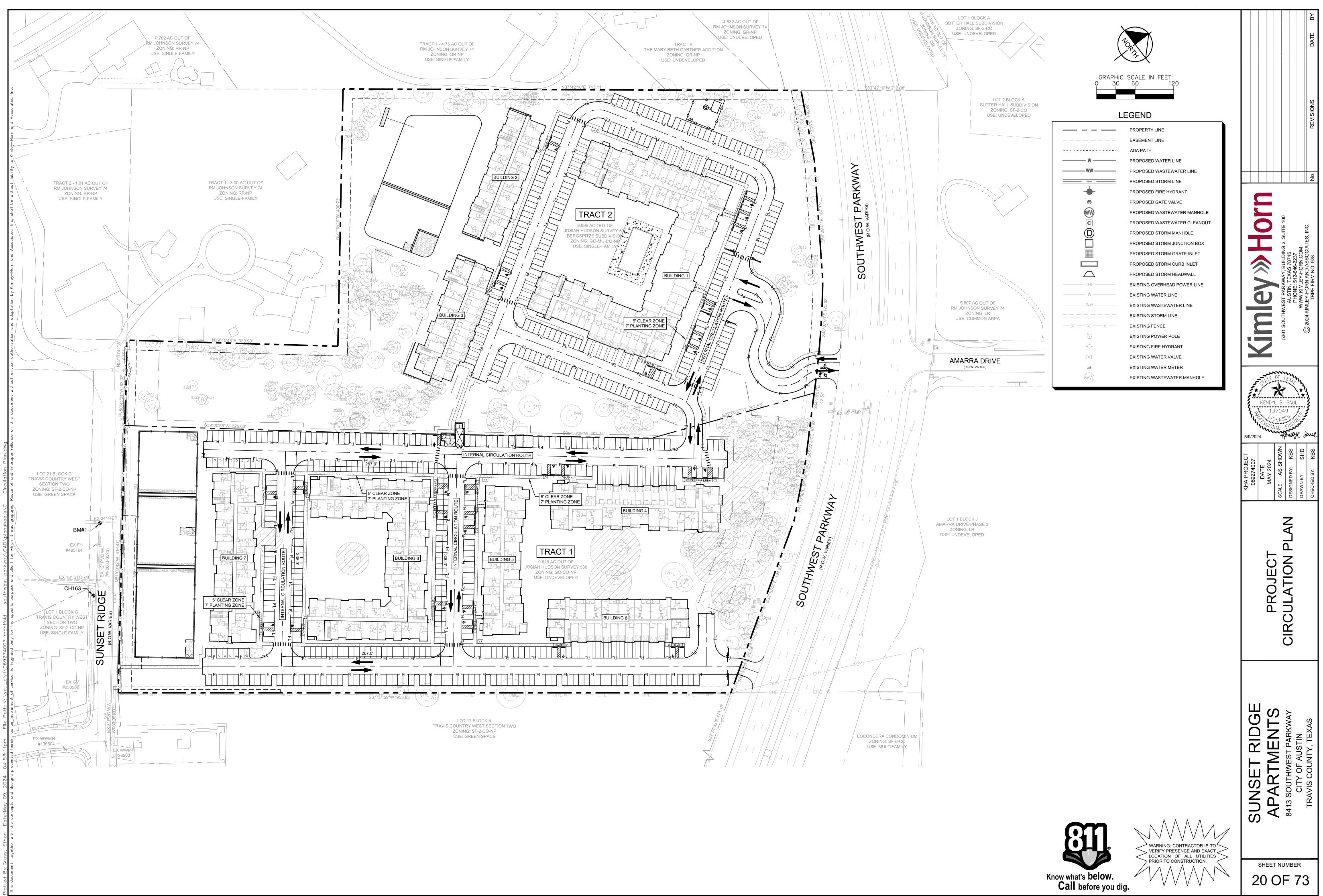
KENDYL B. SAUL

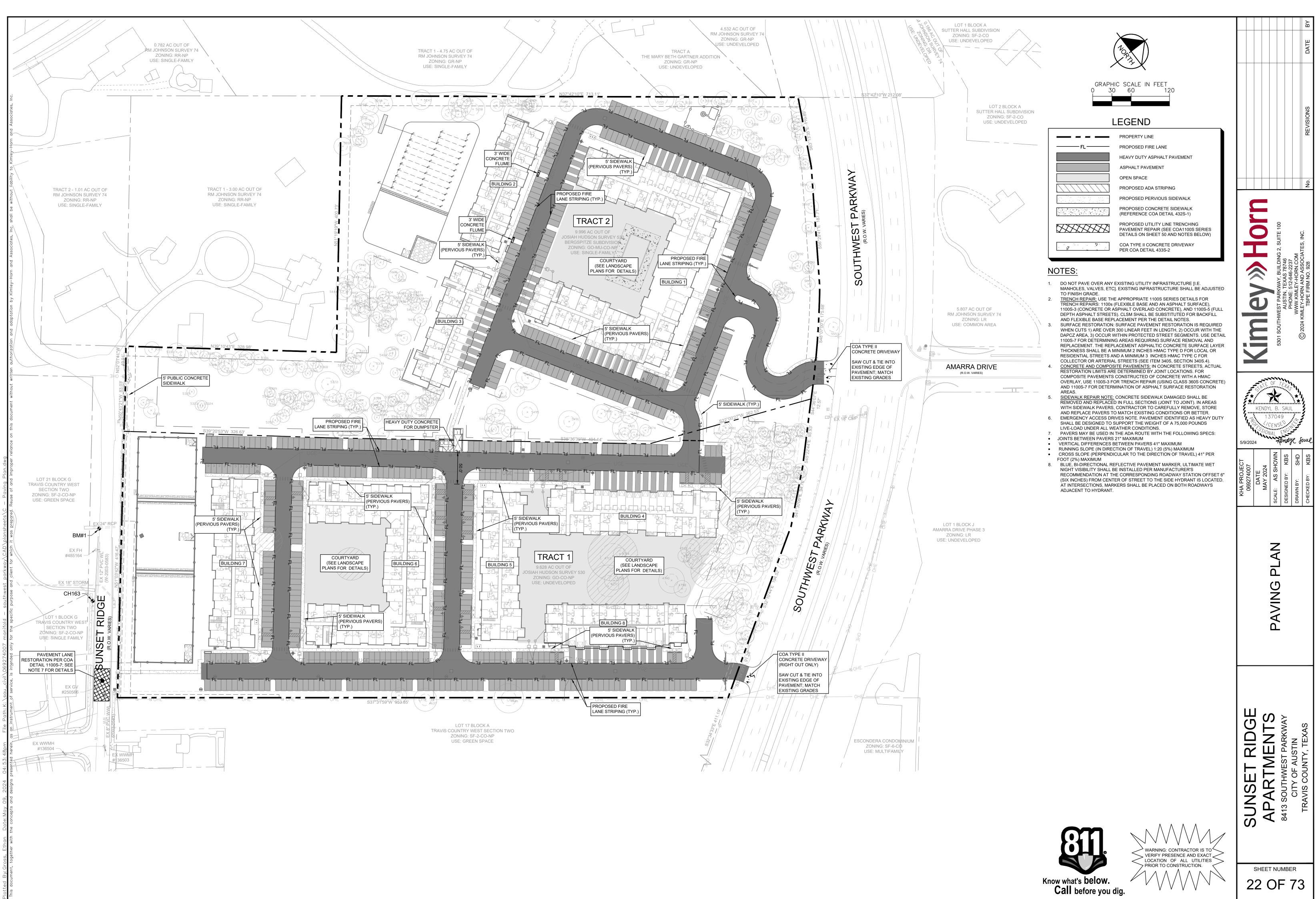
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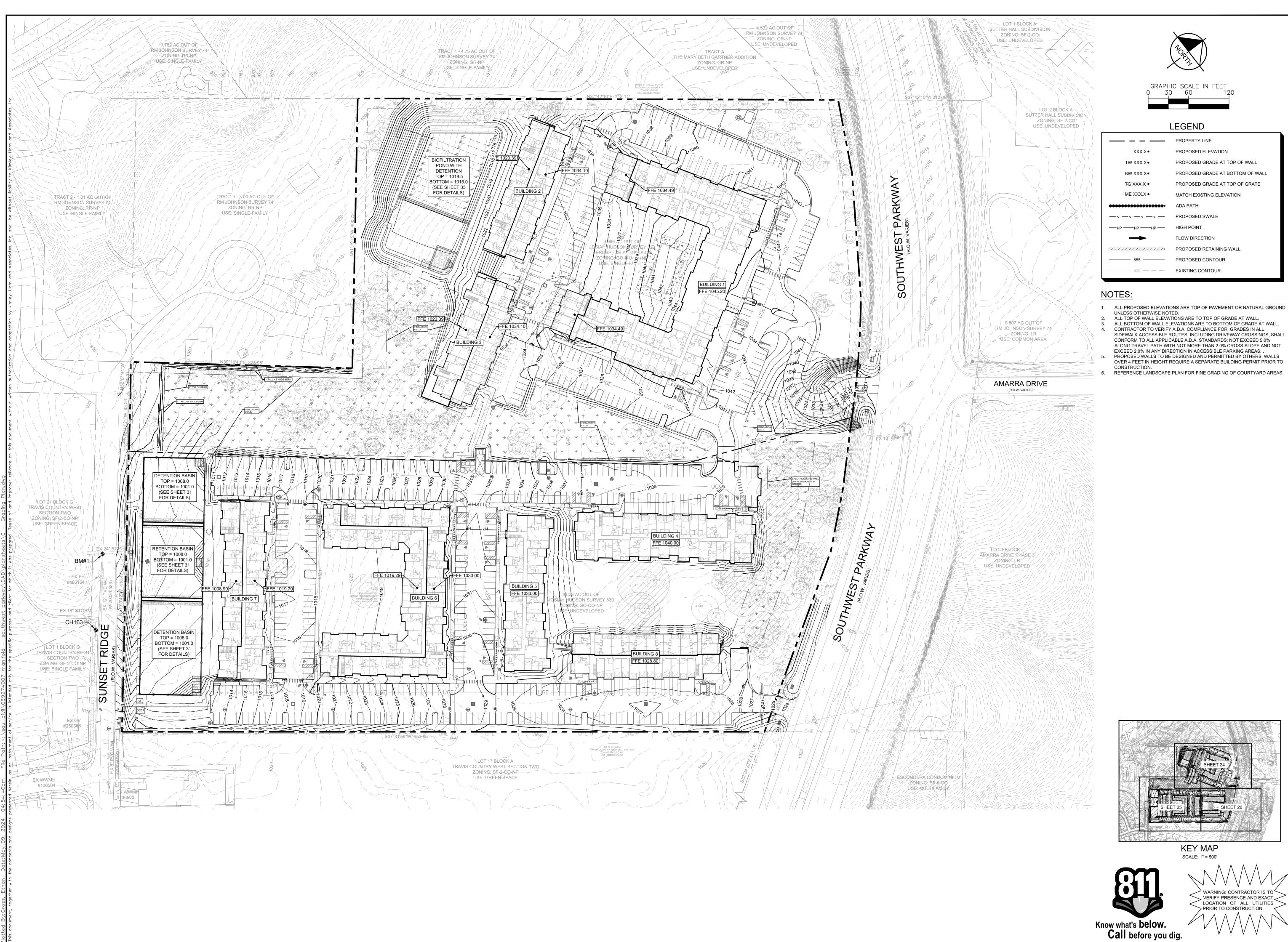
-Kenovyk

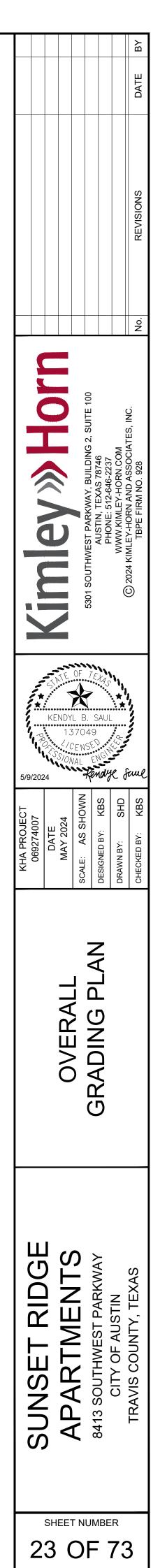
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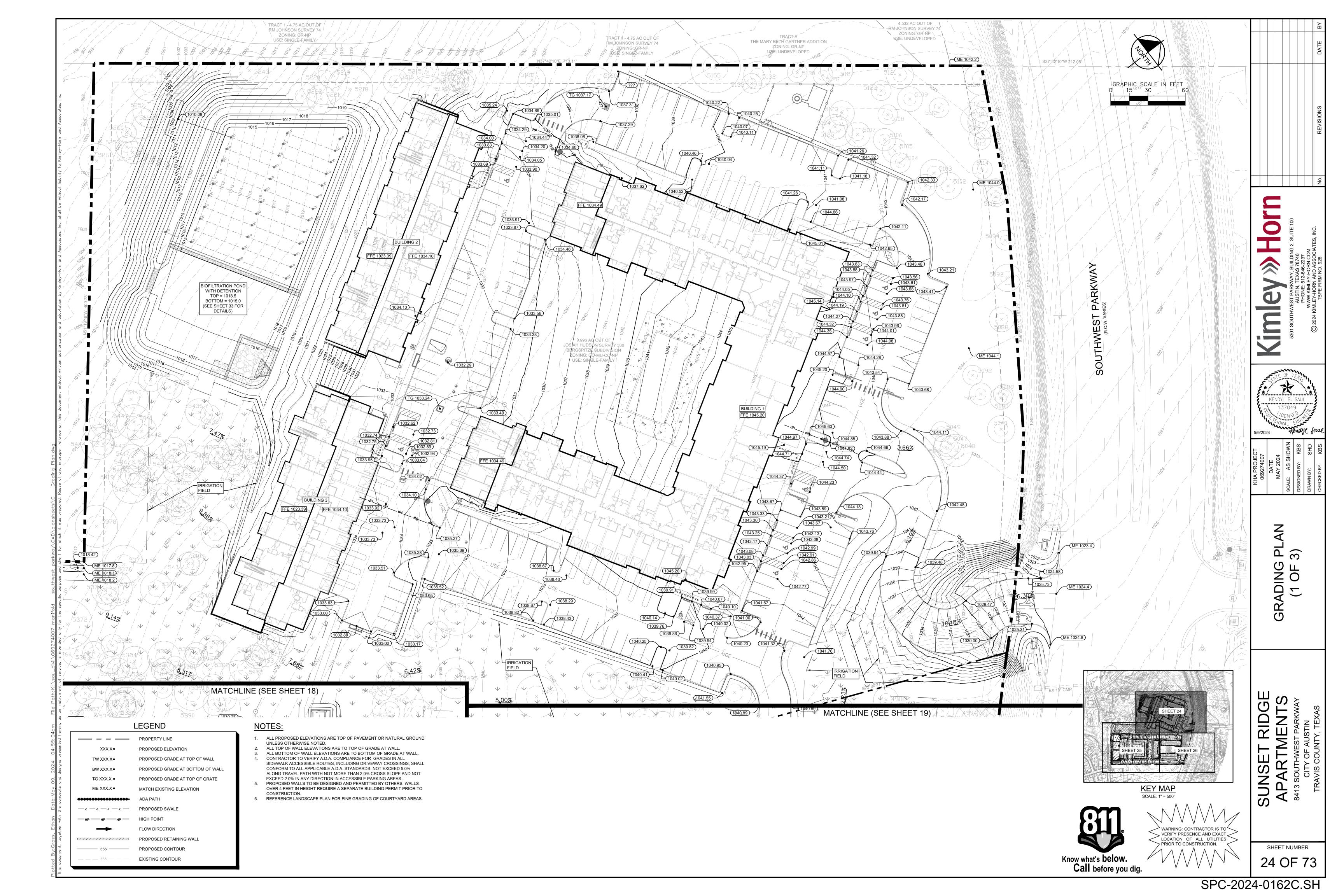


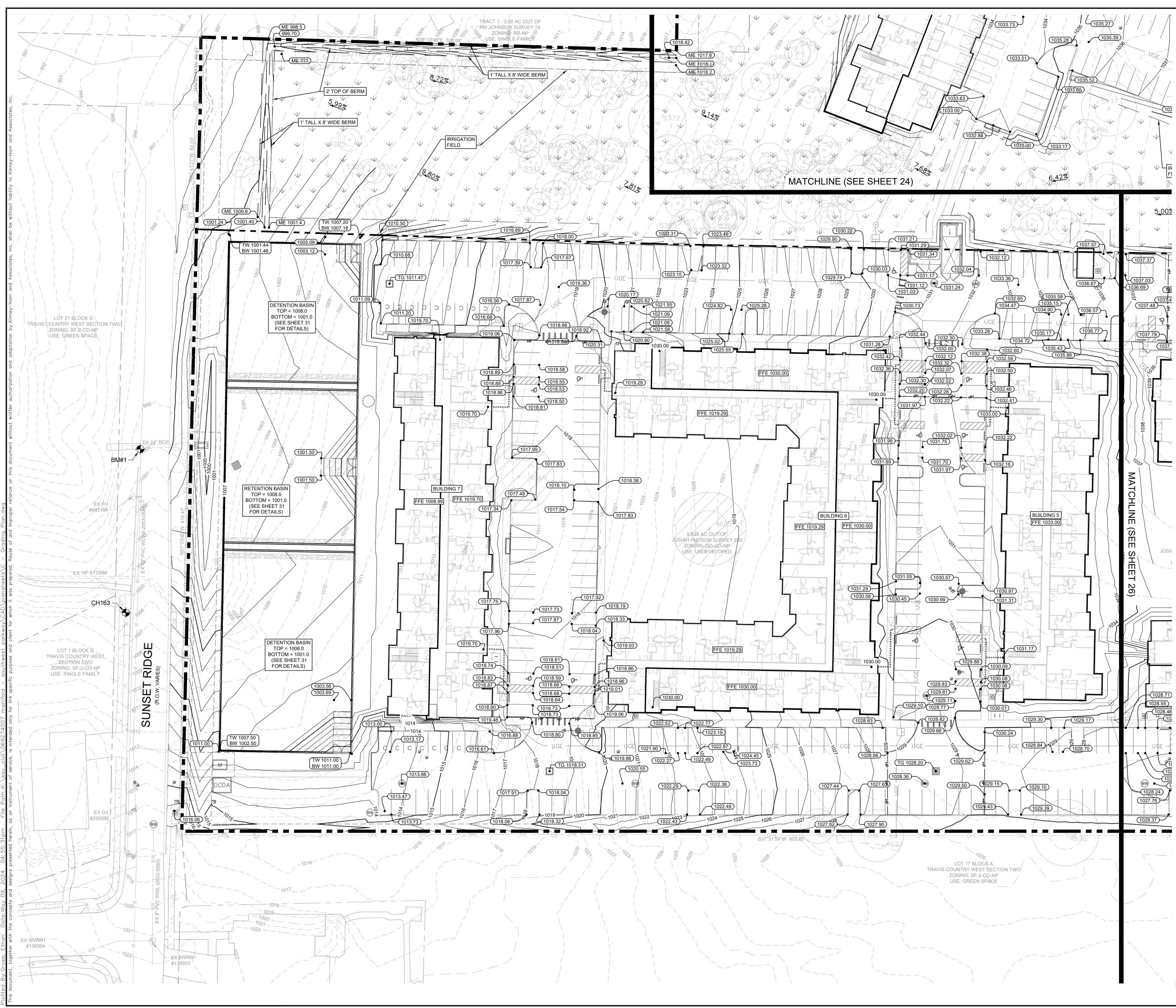


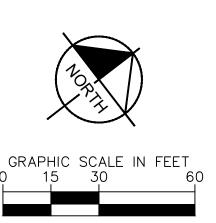




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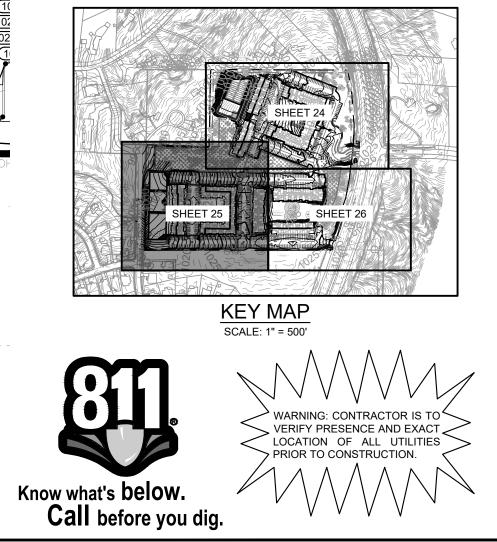
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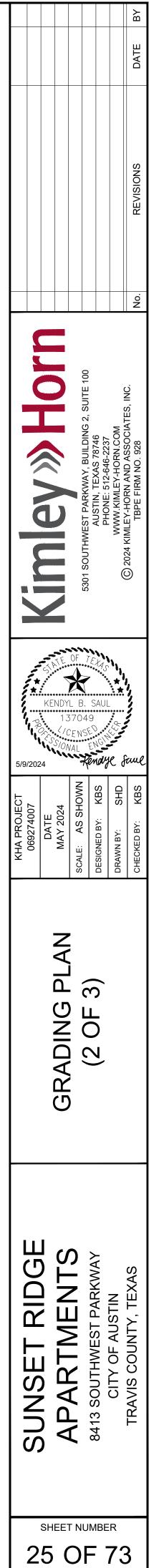
	PROPERTY LINE
XXX.X•	PROPOSED ELEVATION
TW XXX.X•	PROPOSED GRADE AT TOP OF WALL
BW XXX.X•	PROPOSED GRADE AT BOTTOM OF WALL
TG XXX.X •	PROPOSED GRADE AT TOP OF GRATE
ME XXX.X •	MATCH EXISTING ELEVATION
••••••••••••••••••	ADA PATH
_< _< _< _< _	PROPOSED SWALE
	HIGH POINT
$\rightarrow$	FLOW DIRECTION
	PROPOSED RETAINING WALL
555	PROPOSED CONTOUR
555	EXISTING CONTOUR

# NOTES:

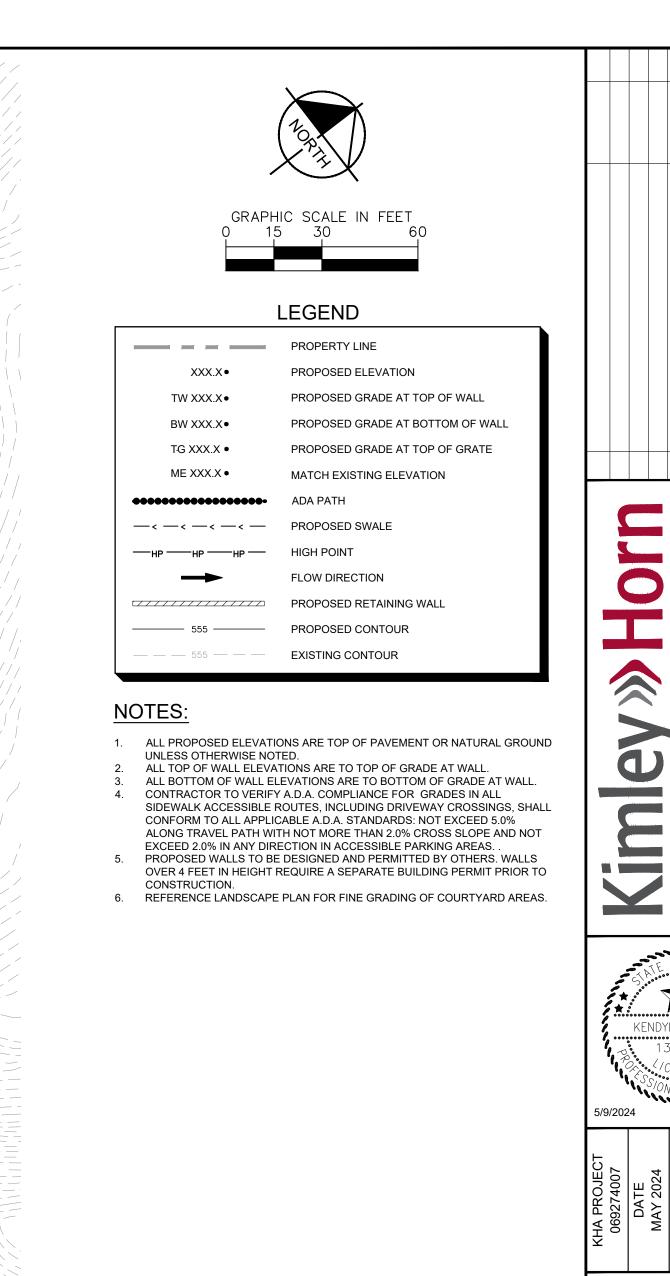
6.

- ALL PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR NATURAL GROUND UNLESS OTHERWISE NOTED.
- ALL TOP OF WALL ELEVATIONS ARE TO TOP OF GRADE AT WALL. ALL BOTTOM OF WALL ELEVATIONS ARE TO BOTTOM OF GRADE AT WALL. CONTRACTOR TO VERIFY A.D.A. COMPLIANCE FOR GRADES IN ALL SIDEWALK ACCESSIBLE ROUTES, INCLUDING DRIVEWAY CROSSINGS, SHALL CONFORM TO ALL APPLICABLE A.D.A. STANDARDS: NOT EXCEED 5.0% ALONG TRAVEL PATH WITH NOT MORE THAN 2.0% CROSS SLOPE AND NOT EXCEED 2.0% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS. . PROPOSED WALLS TO BE DESIGNED AND PERMITTED BY OTHERS. WALLS OVER 4 FEET IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT PRIOR TO
- CONSTRUCTION. REFERENCE LANDSCAPE PLAN FOR FINE GRADING OF COURTYARD AREAS.







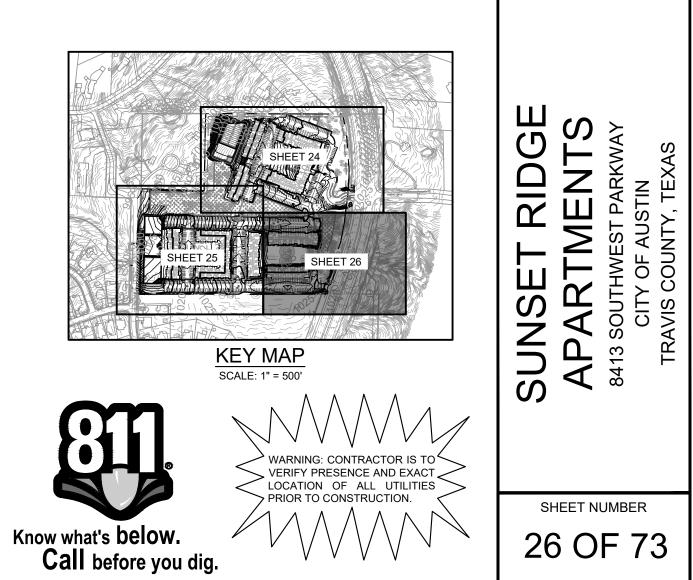


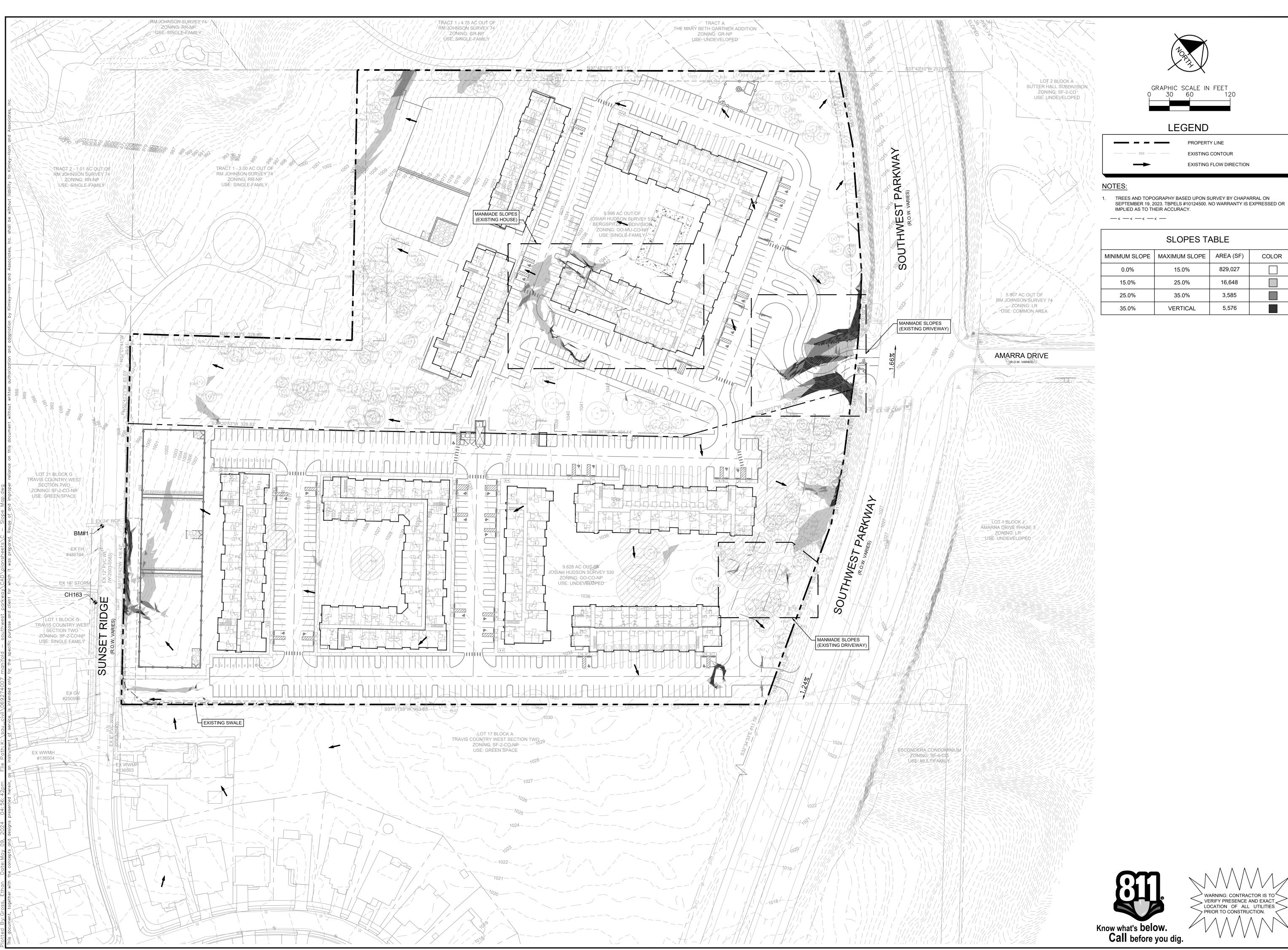
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GRADING (3 OF 3

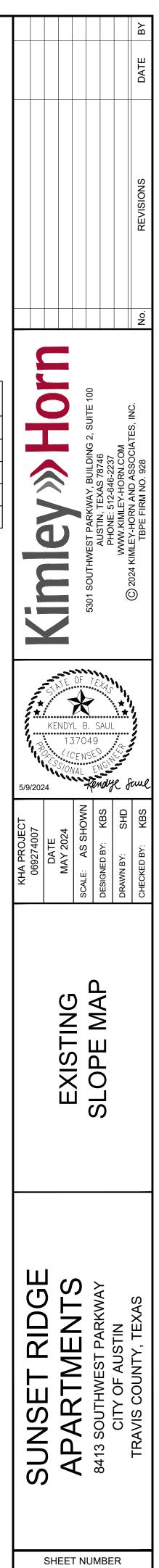




EXISTING FLOW DIRECTION

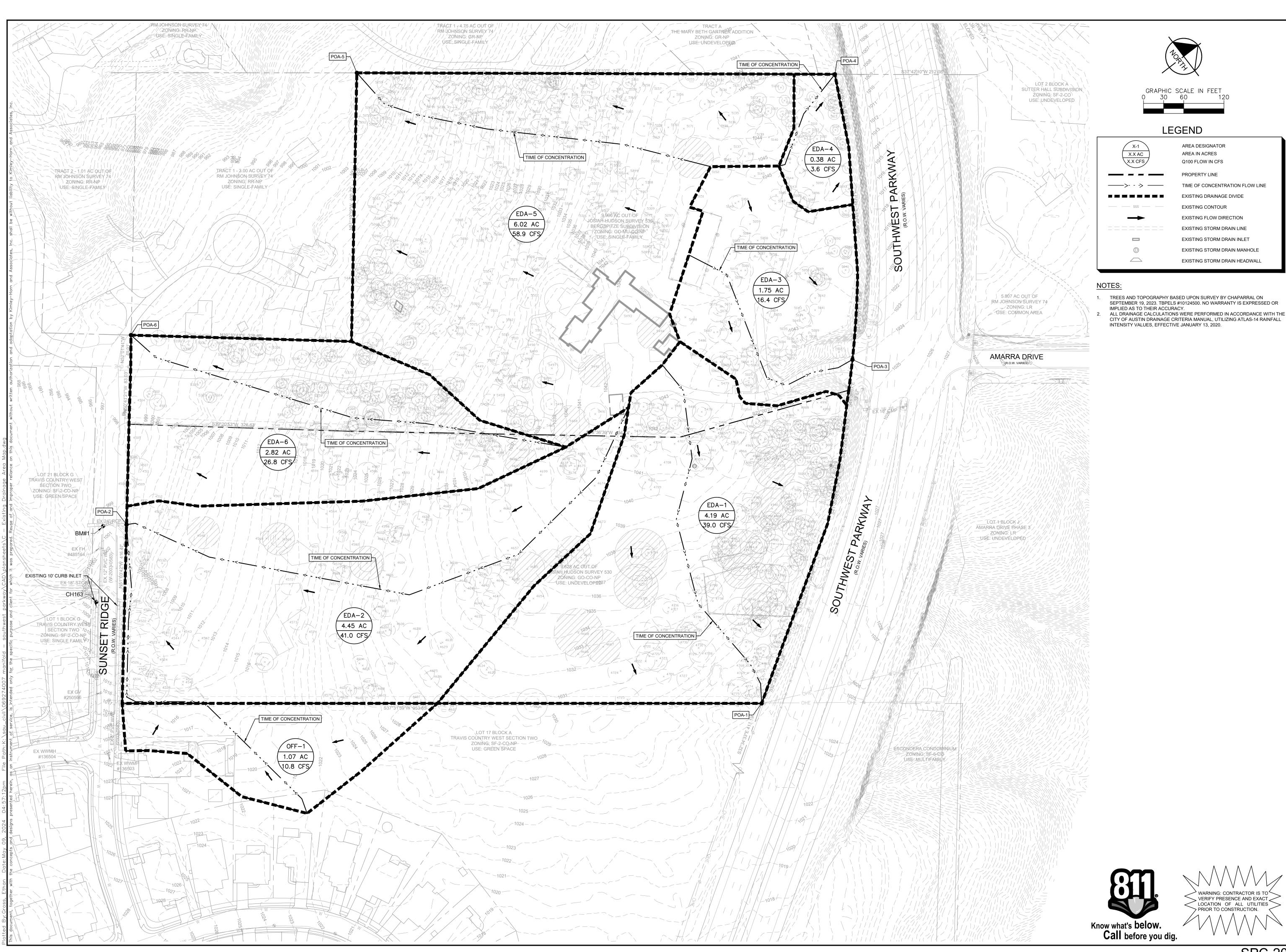
TREES AND TOPOGRAPHY BASED UPON SURVEY BY CHAPARRAL ON SEPTEMBER 19, 2023. TBPELS #10124500. NO WARRANTY IS EXPRESSED OR

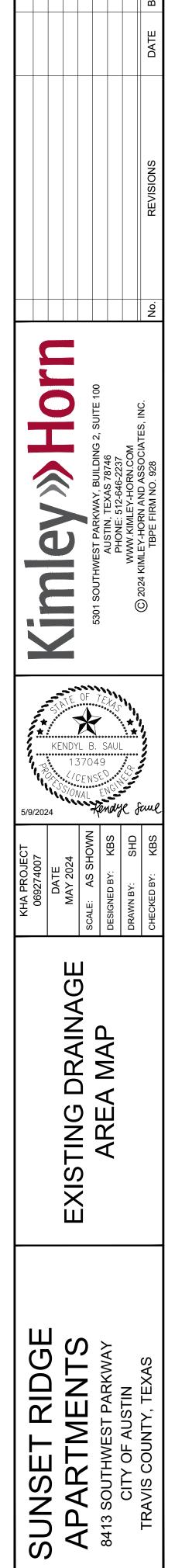
MINIMUM SLOPE	MAXIMUM SLOPE	AREA (SF)	COLOR
0.0%	15.0%	829,027	
15.0%	25.0%	16,648	
25.0%	35.0%	3,585	
35.0%	VERTICAL	5,576	
	0.0% 15.0% 25.0%	0.0%         15.0%           15.0%         25.0%           25.0%         35.0%	0.0%         15.0%         829,027           15.0%         25.0%         16,648           25.0%         35.0%         3,585



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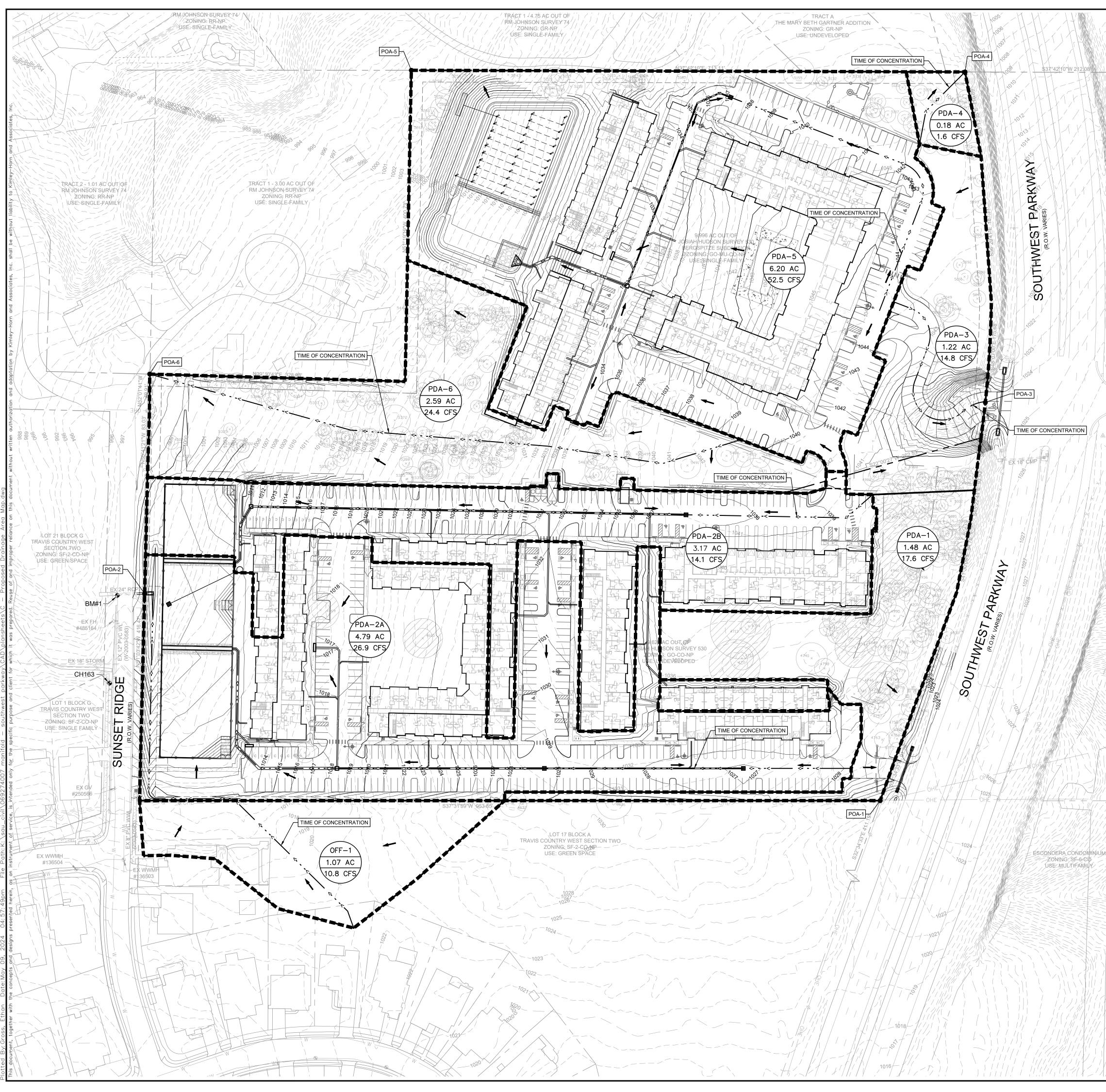
27 OF 73

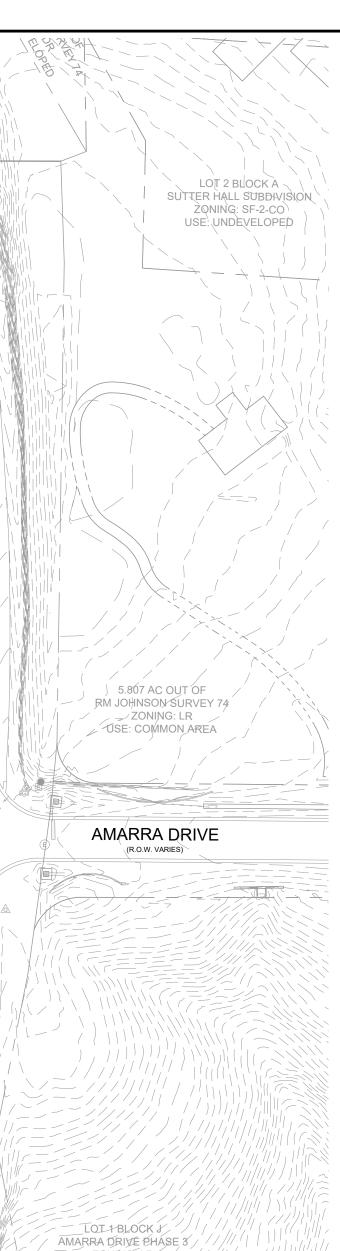




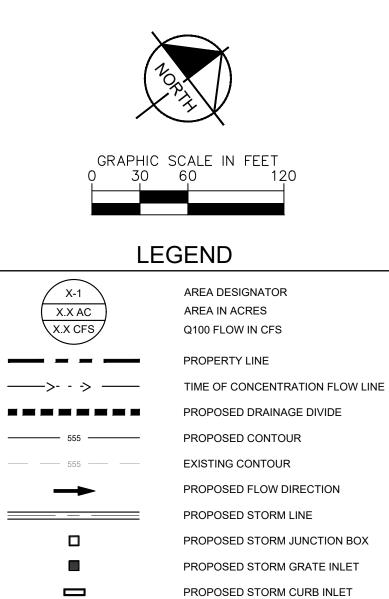
28 OF 73 SPC-2024-0162C.SH

SHEET NUMBER





ZONING: LR USE: UNDEVELOPED



### NOTES:

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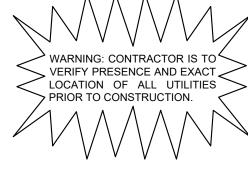
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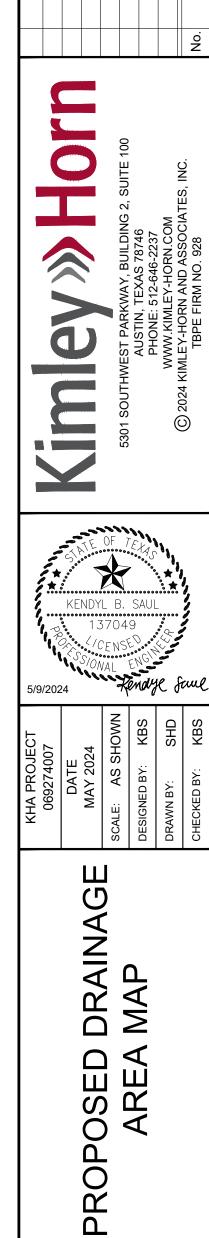
1. TREES AND TOPOGRAPHY BASED UPON SURVEY BY CHAPARRAL ON SEPTEMBER 19, 2023. TBPELS #10124500. NO WARRANTY IS EXPRESSED OR IMPLIED AS TO THEIR ACCURACY. ALL DRAINAGE CALCULATIONS WERE PERFORMED IN ACCORDANCE WITH THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL, UTILIZING ATLAS-14 RAINFALL INTENSITY VALUES, EFFECTIVE JANUARY 13, 2020.

PROPOSED STORM MANHOLE

PROPOSED STORM DRAIN HEADWALL









SHEET NUMBER 29 OF 73

### EXISTING DRAINAGE CALCULATIONS

						EXIS	TING TIME O	OF CONCEN	TRATION				
DRAINAGE		SHEET	FLOW		S	HALLOW CC	NCENTRATE	Ð		CHANN	EL FLOW		тот
AREA	Length (ft)	Manning's n	Slope (ft/ft)	T <sub>SF</sub> (min)	Length (ft)	Paved (Y/N)	Slope (ft/ft)	T <sub>SC</sub> (min)	Length (ft)	Slope (ft/ft)	Velocity (ft/s)	T <sub>CF</sub> (min)	(1
EDA-1	100	0.15	0.015	9.66	457	N	0.044	2.25	0	0.01	1.0	0.00	· ·
EDA-2	100	0.15	0.020	8.61	790	N	0.055	3.48	0	0.01	1.0	0.00	
EDA-3	100	0.15	0.011	10.94	267	N	0.072	1.03	0	0.01	1.0	0.00	
EDA-4	100	0.15	0.011	10.94	65	N	0.029	0.39	0	0.01	1.0	0.00	
EDA-5	100	0.15	0.039	6.59	459	N	0.094	1.55	0	0.01	1.0	0.00	
EDA-6	100	0.15	0.037	6.74	578	N	0.069	2.27	0	0.01	1.0	0.00	
OFF-1	100	0.15	0.020	8.61	126	N	0.016	1.03	0	0.01	1.0	0.00	

	EXISTING DRAINAGE AREA CALCULATIONS - NRCS METHOD											
	DROLOGIC SOIL GROUP: D											
DRAINAGE AREA	AREA	AREA	IMPERVIOUS COVER	IMPERVIOUS COVER	PERVIOUS CURVE NO.	IMPERVIOUS CURVE NO.	WEIGHTED CURVE NO.					
	(SF)	(AC)	(AC)	%	Cn*	Cn*	Cn*					
EDA-1	182,318	4.19	0.16	3.9	80.00	98.00	80.69					
EDA-2	193,999	4.45	0.00	0.0	80.00	98.00	80.00					
EDA-3	76,327	1.75	0.16	8.9	80.00	98.00	81.60					
EDA-4	16,714	0.38	0.00	0.0	80.00	98.00	80.00					
EDA-5	262,440	6.02	0.56	9.4	80.00	98.00	81.69					
EDA-6	123,038	2.82	0.00	0.0	80.00	98.00	80.00					
OFF-1	46,731	1.07	0.48	45.0	80.00	98.00	88.10					

	EXISTING DRAINAGE PEAK DISCHARGE											
DRAINAGE		STORM	EVENT									
AREA	2YR-24HR	10YR-24HR	25YR-24HR	100YR-24HR								
EDA-1	9.13	21.00	28.06	39.01								
EDA-2	9.34	21.89	29.40	41.05								
EDA-3	3.96	8.94	11.88	16.44								
EDA-4	0.82	1.92	2.58	3.60								
EDA-5	14.33	31.80	42.44	58.92								
EDA-6	6.28	14.44	19.29	26.81								
OFF-1	3.22	6.33	8.09	10.81								

NOTE: EXISTING PEAK DISCHARGE VALUES FROM HEC-HMS MODEL

### PROPOSED DRAINAGE CALCULATIONS

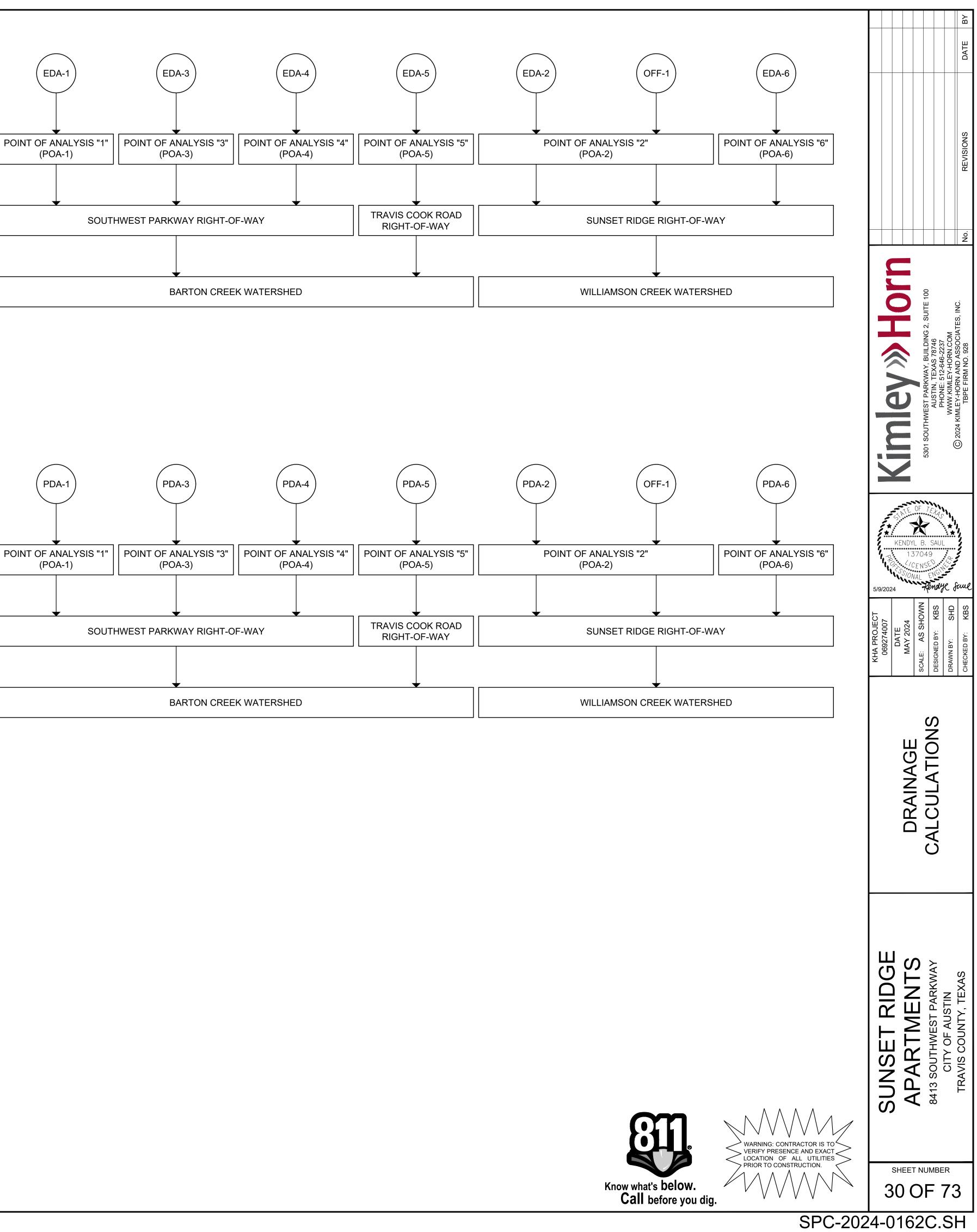
		PROPOSED TIME OF CONCENTRATION												
DRAINAGE		SHEET	FLOW		S	HALLOW CO	NCENTRATE	Ð		CHANNI	EL FLOW		TOTAL TC	TC MINIMUM
AREA	Length (ft)	Manning's n	Slope (ft/ft)	T <sub>SF</sub> (min)	Length (ft)	Paved (Y/N)	Slope (ft/ft)	T <sub>SC</sub> (min)	Length (ft)	Slope (ft/ft)	Velocity (ft/s)	T <sub>CF</sub> (min)	(min)	(min)
PDA-1	35	0.15	0.015	4.17	0	Y	0.017	0.00	0	0.01	1.0	0.00	4.2	5.0
PDA-2A	100	0.011	0.010	1.41	39	Y	0.010	0.32	750	0.02	1.0	12.50	14.2	14.2
PDA-2B	100	0.011	0.012	1.31	160	Y	0.010	1.34	873	0.02	1.0	14.55	17.2	17.2
PDA-3	100	0.011	0.055	0.71	165	Y	0.120	0.39	0	0.01	1.0	0.00	1.1	5.0
PDA-4	100	0.15	0.007	13.11	15	N	0.007	0.19	0	0.01	1.0	0.00	13.3	13.3
PDA-5	100	0.011	0.010	1.41	364	Y	0.010	2.98	469	0.02	1.0	7.82	12.2	12.2
PDA-6	100	0.15	0.021	8.45	678	N	0.070	2.65	0	0.01	1.0	0.00	11.1	11.1
OFF-1	100	0.15	0.020	8.61	126	N	0.016	1.03	0	0.01	1.0	0.00	9.6	9.6

	PROPOSED DRAINAGE AREA CALCULATIONS - NRCS METHOD								
HYDROLOGIC	HYDROLOGIC SOIL GROUP: D								
DRAINAGE	AREA	AREA	IMPERVIOUS	IMPERVIOUS	PERVIOUS	IMPERVIOUS	WEIGHTED		
AREA			COVER	COVER	CURVE NO.	CURVE NO.	CURVE NO.		
	(SF)	(AC)	(AC)	%	Cn*	Cn*	Cn*		
PDA-1	64,480	1.48	0.04	2.4	80.00	98.00	80.44		
PDA-2	347,044	7.97	5.01	62.9	80.00	98.00	91.32		
PDA-2A	208,749	4.79	2.58	53.9	80.00	98.00	89.71		
PDA-2B	138,295	3.17	2.42	76.4	80.00	98.00	93.75		
PDA-3	53,061	1.22	0.22	17.9	80.00	98.00	83.22		
PDA-4	7,699	0.18	0.00	0.0	80.00	98.00	80.00		
PDA-5	269,861	6.20	3.25	52.5	80.00	98.00	89.45		
PDA-6	112,691	2.59	0.01	0.5	80.00	98.00	80.10		
OFF-1	46,731	1.07	0.48	45.0	80.00	98.00	88.10		

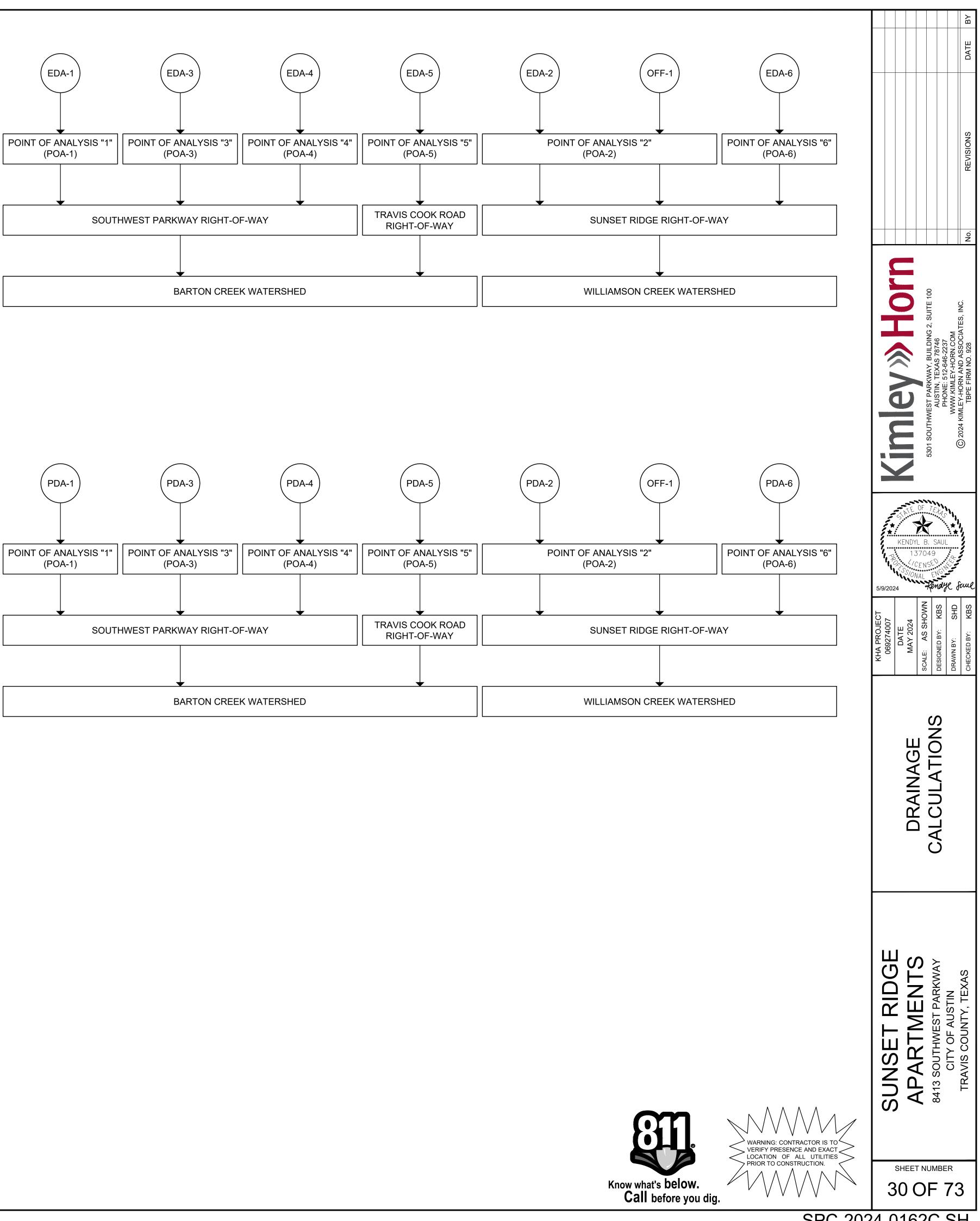
	PROPOSED DRAINAGE PEAK DISCHARGE					
DRAINAGE		STORM	EVENT			
AREA	2YR-24HR	10YR-24HR	25YR-24HR	100YR-24HR		
PDA-1	4.09	9.45	12.63	17.62		
PDA-2	7.57	17.89	26.52	41.02		
PDA-2A	4.14	10.49	16.61	26.90		
PDA-2B	3.43	7.40	9.91	14.12		
PDA-3	3.78	8.22	10.81	14.84		
PDA-4	0.36	0.84	1.13	1.58		
PDA-5	14.27	29.81	38.72	52.47		
PDA-6	5.62	13.05	17.48	24.36		
OFF-1	3.22	6.33	8.09	10.81		
NOTE: PROPOS	ED PEAK DISCH	IARGE VALUES I	FROM HEC-HMS	MODEL		

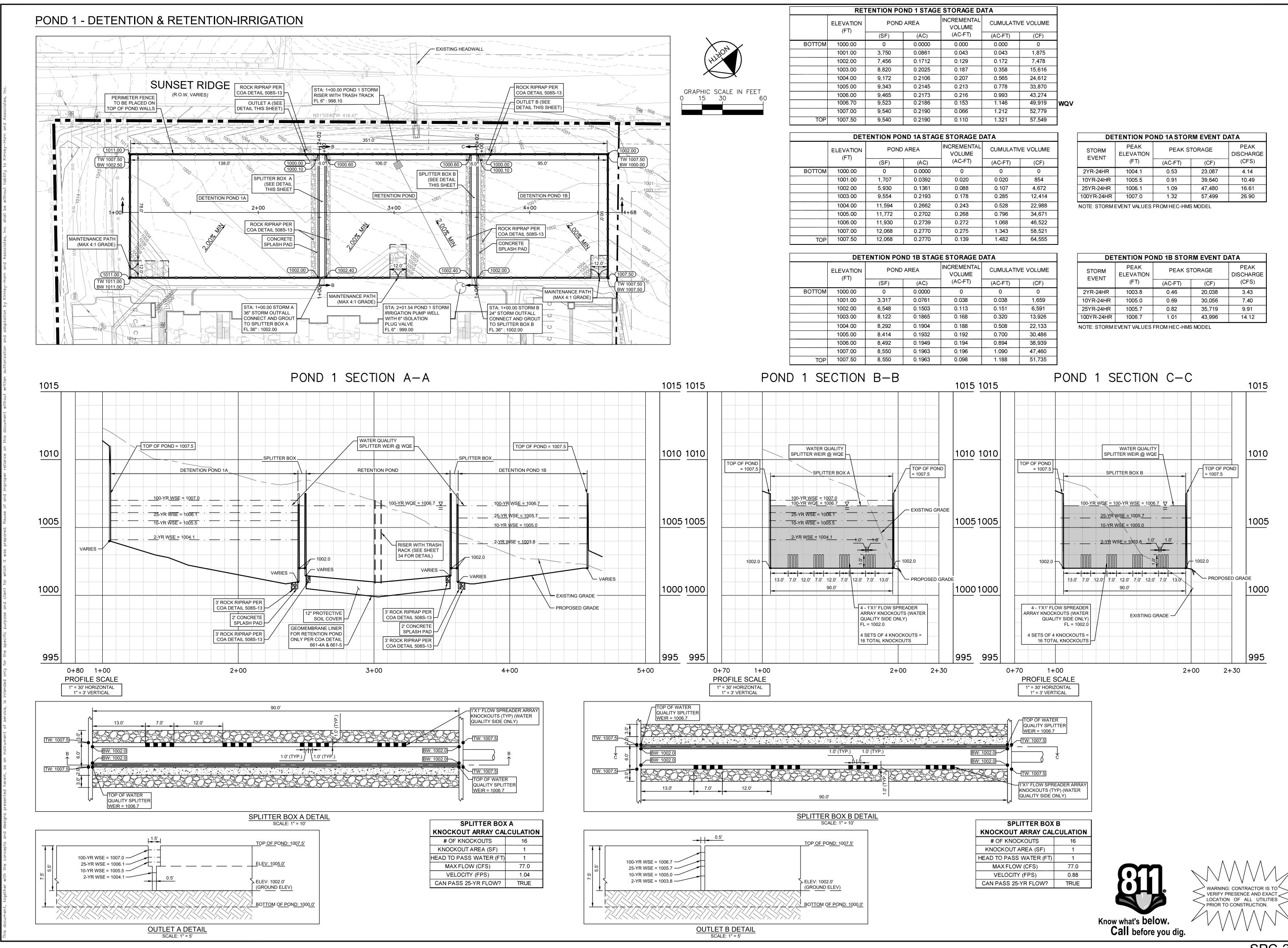
	POINT	OF ANALYSIS	SUMMARY	
POINT OF ANALYSIS	STORM EVENT	EXISTING RUNOFF (CFS)	DEVELOPED RUNOFF (CFS)	IS DEVELOPED ≤EXISTING?
	2	9.13	4.09	YES
POA-1	10	21.00	9.45	YES
FOA-I	25	28.06	12.63	YES
	100	39.01	17.62	YES
	2	12.56	10.79	YES
POA-2	10	28.22	24.22	YES
PUA-2	25	37.49	34.61	YES
	100	51.86	51.83	YES
	2	3.96	3.78	YES
	10	8.94	8.22	YES
POA-3	25	11.88	10.81	YES
	100	16.44	14.84	YES
	2	0.82	0.36	YES
	10	1.92	0.84	YES
POA-4	25	2.58	1.13	YES
	100	3.60	1.58	YES
	2	14.33	14.27	YES
DOAG	10	31.80	29.81	YES
POA-5	25	42.44	38.72	YES
	100	58.92	52.47	YES
	2	6.28	5.62	YES
504.6	10	14.44	13.05	YES
POA-6	25	19.29	17.48	YES
	100	26.81	24.36	YES

TAL TC (min)	TC MINIMUM (min)
11.9	11.9
12.1	12.1
12.0	12.0
11.3	11.3
8.1	8.1
9.0	9.0
9.6	9.6









RETENTION POND 1 STAGE STORAGE DATA							
	ELEVATION (FT)	POND	AREA	INCREMENTAL VOLUME	CUMULATIN	/E VOLUME	
	(11)	(SF)	(AC)	(AC-FT)	(AC-FT)	(CF)	
BOTTOM	1000.00	0	0.0000	0.000	0.000	0	7
	1001.00	3,750	0.0861	0.043	0.043	1,875	1
	1002.00	7,456	0.1712	0.129	0.172	7,478	1
	1003.00	8,820	0.2025	0.187	0.358	15,616	
	1004.00	9,172	0.2106	0.207	0.565	24,612	
	1005.00	9,343	0.2145	0.213	0.778	33,870	1
	1006.00	9,465	0.2173	0.216	0.993	43,274	
	1006.70	9,523	0.2186	0.153	1.146	49,919	∣wqv
	1007.00	9,540	0.2190	0.066	1.212	52,779	
TOP	1007.50	9,540	0.2190	0.110	1.321	57,549	

DETENTION POND 1A STAGE STORAGE DATA						
	DEI	ENTION PO	ND 1A STAG	E STORAGE D		
	ELEVATION (FT)	POND AREA		INCREMENTAL VOLUME	CUMULATIN	/E VOLUME
	(1 1)	(SF)	(AC)	(AC-FT)	(AC-FT)	(CF)
BOTTOM	1000.00	0	0.0000	0	0	0
	1001.00	1,707	0.0392	0.020	0.020	854
	1002.00	5,930	0.1361	0.088	0.107	4,672
	1003.00	9,554	0.2193	0.178	0.285	12,414
	1004.00	11,594	0.2662	0.243	0.528	22,988
	1005.00	11,772	0.2702	0.268	0.796	34,671
	1006.00	11,930	0.2739	0.272	1.068	46,522
	1007.00	12,068	0.2770	0.275	1.343	58,521
TOP	1007.50	12,068	0.2770	0.139	1.482	64,555

	DET	ENTION PO	ND 1B STAC	<b>SE STOF</b>
	ELEVATION (FT)	PONE	D AREA	INCREM VOL
	(1 1)	(SF)	(AC)	
BOTTOM	1000.00	0	0.0000	0
	1001.00	3,317	0.0761	0.0
	1002.00	6,548	0.1503	0.1
	1003.00	8,122	0.1865	0.1
	1004.00	8,292	0.1904	0.1
	1005.00	8,414	0.1932	0.1
	1006.00	8,492	0.1949	0.1
	1007.00	8,550	0.1963	0.1
TOP	1007.50	8,550	0.1963	0.0













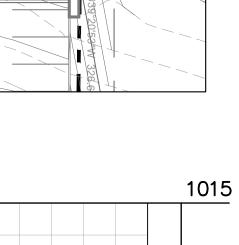






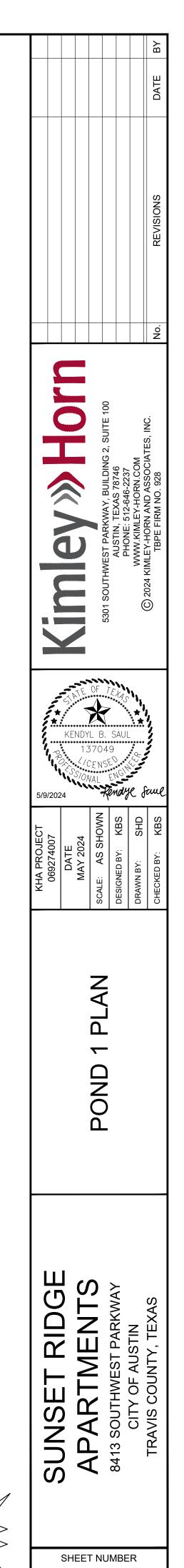






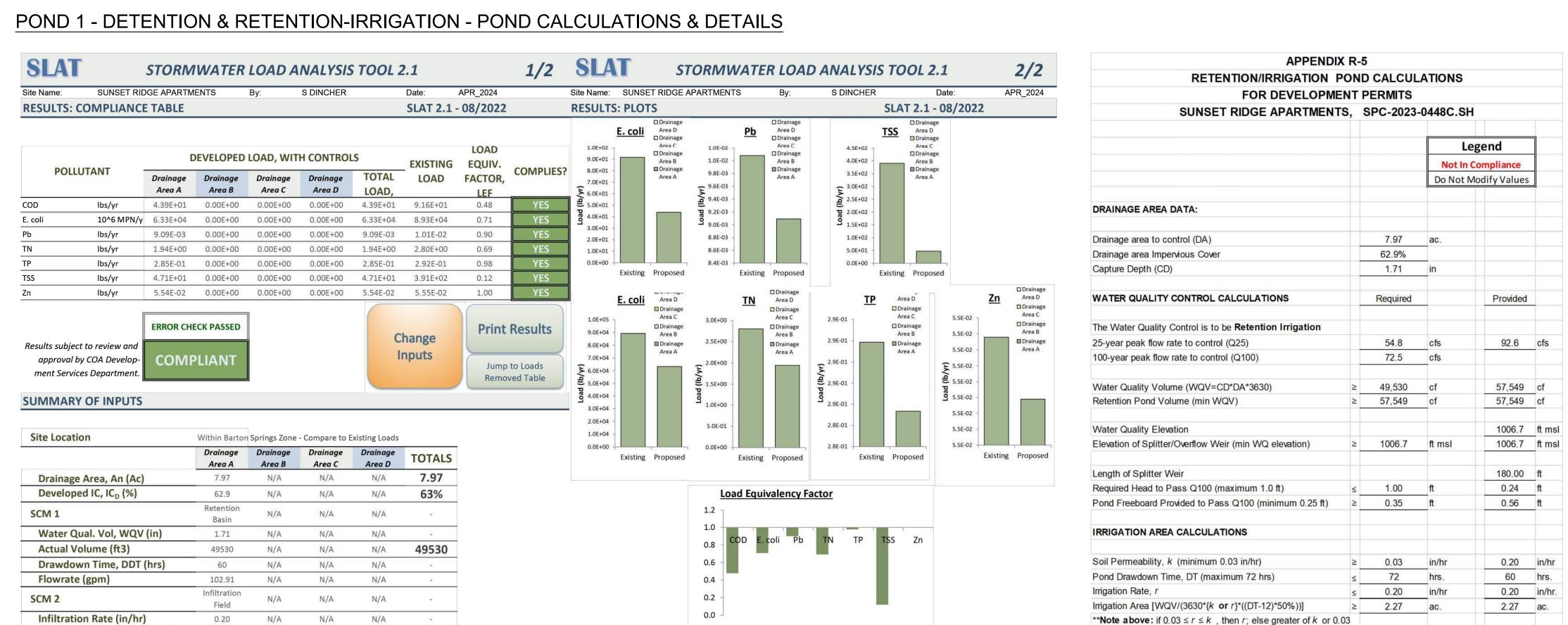
DE	DETENTION POND 1A STORM EVENT DATA					
STORM	PEAK ELEVATION	PEAK S	PEAK STORAGE			
	(FT)	(AC-FT)	(CF)	(CFS)		
(R-24HR	1004.1	0.53	23,087	4.14		
YR-24HR	1005.5	0.91	39,640	10.49		
	1000 1			10.01		

DETENTION POND 1B STORM EVENT DATA						
STORM EVENT	PEAK ELEVATION	PEAK S	PEAK DISCHARGE			
	(FT)	(AC-FT)	(CF)	(CFS)		
2YR-24HR	1003.8	0.46	20,038	3.43		
10YR-24HR	1005.0	0.69	30,056	7.40		
25YR-24HR	1005.7	0.82	35,719	9.91		
100YR-24HR	1006.7	1.01	43,996	14.12		



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PROPER FUNCTION:

Results subject to review and approval by COA Development Services Department

N/A

N/A

NO

N/A

N/A

NO

2.27

N/A

N/A

NO

### WATER QUALITY NOTES

Irrigation Rate (gpm)

Error with Input Values?

Appx. Min. Infilt. Field Area (Ac)

1. REFER TO 65-70 FOR IRRIGATION PUMP AND IRRIGATION FIELD DESIGN, NOTES, AND

2.27

102.9

NO

- SPECIFICATIONS FOR ALL EQUIPMENT/COMPONENTS OF THE WATER QUALITY CONTROL SYSTEMS SHALL BE SUBMITTED TO THE OPERATING PERMIT (OP) INSPECTION STAFF AND ENGINEER OF RECORD PRIOR TO THE INSTALLATION OF PUMP STATIONS AND IRRIGATION SYSTEMS, AND PRIOR TO THE MID-CONSTRUCTION MEETING FOR REVIEW AND APPROVAL. THIS IS INCLUDING BUT NOT LIMITED TO MECHANICAL EQUIPMENT SUCH AS PUMPS, PANELS, PIPING, DISTRIBUTION COMPONENTS AND ANY OTHER ANCILLARY EQUIPMENT. FINAL APPROVAL OF SUBMITTAL AND EQUIPMENT, AND TESTING OF ALL COMPONENTS OF WATER QUALITY SYSTEM, IS REQUIRED BY WPD OP INSPECTION STAFF PRIOR TO CO. FINAL DOCUMENTATION OF OPERATIONS/MAINTENANCE MANUAL AND AS-BUILTS SHALL BE SUBMITTED TO OP INSPECTION STAFF AFTER BUILD-OUT AND MUST BE APPROVED BY
- ALL EARTHEN EMBANKMENTS SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY IN

STAFF PRIOR TO THE END OF THE ONE-YEAR PERFORMANCE PERIOD.

- ACCORDANCE WITH COA STANDARD SPECIFICATIONS. 4. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE NO STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL.
- ALL STORM PIPE BELOW THE WQ ELEVATION MUST MEET ECM 1.6.2.C.1.C(1): DUE TO EXCESSIVE LEAKAGE ISSUES SUBMERGED INLETS AND STORM SEWERS TO SCMS ARE TO BE AVOIDED WHENEVER POSSIBLE. IN SITUATIONS WHERE SITE CONDITIONS REQUIRE A SUBMERGED INLET OR STORM SEWER THEN THE PORTION OF THE INLET PIPE THAT IS PLACED BELOW THE WATER QUALITY ELEVATION MUST BE DESIGNED TO STORE WATER. NOT SIMPLY CONVEY IT. IN THESE SITUATIONS THE POND LINER MUST EXTEND AND SURROUND THE PORTION OF THE INLET PIPE OR STORM SEWER THAT IS DESIGNED TO BE UNDER WATER AND ALL STRUCTURAL ELEMENTS AND PIPING BELOW THE WATER QUALITY ELEVATION SHALL BE WATERTIGHT ACCEPTABLE WATERTIGHT PIPING INCLUDES GASKETED RCP, PVC, AND WASTEWATER GRADE HDPE. LEAK TESTING OF THE SYSTEM WILL BE PERFORMED TO VERIFY THAT THE SYSTEM IS WATERTIGHT AND ABLE TO PERFORM AS DESIGNED.

### POND RETAINING WALL NOTE

- ALL RETAINING WALLS USED FOR DETENTION AND RETENTION BASIN SHALL BE CONCRETE.
- RETAINING WALLS OVER FOUR FEET IN HEIGHT MEASURED FROM THE BOTTOM OF THE FOOTING TO THE TOP OF THE WALL SHALL ENGINEERED AND REQUIRE A SEPARATE BUILDING PERMIT. [IBC CODE 105.2]
- RETAINING WALLS WITHIN SCMS REQUIRE WATER-TIGHTNESS. WATER-TIGHTNESS IN RETAINING WALLS IS ESSENTIAL TO THE FUNCTION OF THE STRUCTURE. WATERSTOPS SHALL BE PROVIDED DURING CONSTRUCTION OF EXPANSION JOINTS IN RETAINING WALLS PER STANDARD SPECIFICATION 414S, CONCRETE RETAINING WALLS. [1.6.3.B.6: RETAINING WALLS]

### **RETENTION-IRRIGATION SYSTEMS (SECTION 1.6.7.A)**

- 1. BASINS, STRUCTURAL INTEGRITY OF BASINS SHALL BE MAINTAINED AT ALL TIMES. WOODY VEGETATION SHOULD BE CONTROLLED/REMOVED TO PREVENT BASIN LEAKAGE. THE ABILITY OF THE BASIN TO RETAIN THE WATER QUALITY VOLUME SHALL BE EVALUATED BY THE COA.
- IRRIGATION AREAS. TO THE GREATEST EXTENT PRACTICABLE, IRRIGATION AREAS ARE TO REMAIN IN THEIR NATURAL STATE. HOWEVER, VEGETATION MUST BE MAINTAINED IN THE IRRIGATION AREA SUCH THAT IT DOES NOT IMPEDE THE SPRAY OF WATER FROM THE IRRIGATION HEADS. TREE AND SHRUB TRIMMINGS AND OTHER LARGE DEBRIS MUST BE REMOVED FROM THE IRRIGATION AREA. SEE REQUIREMENTS IN SECTION 1.6.7.A.3.(G) AND (H) REGARDING REQUIREMENTS FOR SOIL AND VEGETATION IN IRRIGATION AREAS.
- 3. PUMPS AND IRRIGATION SYSTEM. THE PUMPS AND IRRIGATION SYSTEM MUST BE INSPECTED OR TESTED A MINIMUM OF SIX (6) TIMES PER YEAR TO SHOW ALL COMPONENTS ARE OPERATING AS INTENDED. TWO (2) OF THESE SIX (6) INSPECTIONS SHOULD BE AFTER RAIN EVENTS TO ENSURE THAT THE IRRIGATION SYSTEM AND ALL OF ITS COMPONENTS PERFORM AS DESIGNED. THIS INCLUDES CONTROLS SUCH AS WEATHER STATIONS OR RAIN SENSORS, DELAYS, VALVES, ALARM SYSTEM. DISTRIBUTION LINES. OR OTHER COMPONENTS AS SPECIFIED IN THE SYSTEM DESIGN. SPRINKLER HEADS MUST BE CHECKED TO DETERMINE IF ANY ARE BROKEN, CLOGGED, OR NOT SPRAYING PROPERLY. ALL INSPECTION AND TESTING REPORTS MUST BE KEPT ON SITE AND ACCESSIBLE TO THE CITY OF AUSTIN.
- THE OVERALL SYSTEM SHALL BE INSPECTED FOR THE ABILITY TO RETAIN THE WATER QUALITY VOLUME ON SITE PER ECM SECTION 1.6.7.A.
- A SIGN IS REQUIRED ON OR NEAR THE CONTROL BOX WITH THE NAME AND PHONE NUMBER OF THE OPERATOR OF THE PUMP SYSTEM IN CASE OF EMERGENCY OR MAINTENANCE CONCERNS.
- 6. ECM 1.6.7(A)(3): • A DUAL PUMP SYSTEM IS REQUIRED WITH EACH PUMP CAPABLE OF DELIVERING 100% OF THE DESIGN CAPACITY. PLUG VALVES MUST BE LOCATED OUTSIDE THE WET WELL ON THE DISCHARGE SIDE
- OF EACH PUMP TO ISOLATE PUMPS FOR MAINTENANCE AND THROTTLING. PLEASE INCLUDE THE REQUIRED PLUG VALVES IN THE DESIGN. • FOUR CONTROL SETTING MUST BE USED: ONE FOR STARTING THE PUMP, ONE FOR
- SHUTTING OFF THE PUMP AT THE NORMAL LOW WATER LEVEL, ONE FOR BACK UP SHUT OFF THE PUMP IN CASE THE FIRST SHUT-OFF FAILS, AND ONE TO INDICATE A HIGH-WATER | EVEL AN ALARM SYSTEM SHALL BE PROVIDED CONSISTING OF A RED LIGHT LOCATED AT A
- HEIGHT OF AT LEAST 5 FEET ABOVE THE GROUND LEVEL AT THE WET WELL. THE ALARM SHALL ACTIVATE WHEN: • THE HIGH-WATER LEVEL HAS BEEN MAINTAINED IN EXCESS OF 72 HOURS.
- THE WATER LEVEL IS BELOW THE SHUTOFF FLOAT AND THE PUMP HAS NOT TURNED OFF. • THE HIGH/LOW-PRESSURE PUMP SHUT OFF SWITCH HAS BEEN ACTIVATED.
- THE ALARM MUST BE VANDAL PROOF AND WEATHER RESISTANT. A GREEN "PUMP RUN LIGHT" SHALL BE PROVIDED WHICH IS ACTIVATED ANY TIME A PUMP IS RUNNING. THE GREEN LIGHT SHOULD BE LOCATED DIRECTLY ADJACENT TO THE RED ALARM LIGHT. PROVIDE PUMP DETAILS INDICATING THIS.
- ALL IRRIGATION SYSTEM DISTRIBUTION AND LATERAL PIPING (I.E., FROM THE PUMPS TO THE SPRAY HEADS) MUST BE SCHEDULE 80 PVC. ALL PIPES AND ELECTRICAL BUNDLES PASSING BENEATH DRIVEWAYS OR PAVED AREAS MUST BE SLEEVED WITH PVC CLASS 200 PIPE WITH SOLVENT WELDED JOINTS. SLEEVE DIAMETER MUST EQUAL TWICE THAT OF THE PIPE OR ELECTRICAL BUNDLE.
- ALL VALVES MUST BE DESIGNED SPECIFICALLY FOR SEDIMENT BEARING WATER AND BE OF APPROPRIATE DESIGN FOR THE INTENDED PURPOSE. ALL REMOTE CONTROL, GATE, AND QUICK COUPLING VALVES MUST BE LOCATED IN TEN-INCH OR LARGER PLASTIC VALVE BOXES. ALL PIPES AND VALVES MUST BE MARKED TO INDICATE THAT THEY CONTAIN NON-POTABLE WATER. ALL PIPING MUST BE BURIED TO PROTECT IT FROM WEATHER AND VANDALISM. THE DEPTH AND METHOD OF BURIAL MUST BE ADEQUATE TO PROTECT THE PIPE FROM VEHICULAR TRAFFIC SUCH AS MAINTENANCE EQUIPMENT. VELOCITIES IN ALL PIPELINES SHOULD BE SUFFICIENT TO PREVENT SETTLING OF SOLIDS. THE IRRIGATION DESIGN AND LAYOUT MUST BE INTEGRATED WITH THE TREE PROTECTION PLAN AND PRESENTED AS PART OF THE SITE PLAN OR
- SUBDIVISION CONSTRUCTION PLAN. SYSTEMS MUST INCLUDE A PLUG VALVE TO ALLOW FLUSHING AT THE END OF EVERY
- 7. GEOMEMBRANE BASIN LINER IS ELECTIVE AND SHALL COMPLY WITH ALL REQUIREMENTS OF ECM 1.6.2.

MAJOR MAINTENANCE REQUIREMENTS (ECM 1.6.3.C.1 1. THE FOLLOWING MAINTENANCE ACTIVITIES SHALL BE PERFORMED ON ALL SCMS, IN ADDITION TO THE REQUIREMENTS LISTED FOR THE INDIVIDUAL SCM TYPES, TO ENSURE

A) ACCUMULATED PAPER, TRASH AND DEBRIS SHALL BE REMOVED EVERY SIX (6) MONTHS OR AS NECESSARY TO MAINTAIN PROPER OPERATION

B) STRUCTURAL INTEGRITY SHALL BE MAINTAINED AT ALL TIMES. BASINS AND ALL APPURTENANCES SHALL BE INSPECTED ANNUALLY, OR MORE FREQUENTLY IF SPECIFIED, AND REPAIRS SHALL BE MADE IF NECESSARY, WHEN MAINTENANCE OR REPAIRS ARE PERFORMED, THE SCM SHALL BE RESTORED TO THE ORIGINAL LINES AND GRADES. C) CORRECTIVE MAINTENANCE SHALL OCCUR: I, ANY TIME DRAWDOWN OF THE WATER QUALITY VOLUME DOES NOT OCCUR WITHIN NINETY-SIX (96) HOURS (I.E., NO STANDING WATER IS ALLOWED). UNLESS A GREATER MAXIMUM DRAWDOWN TIME IS SPECIFIED IN THE

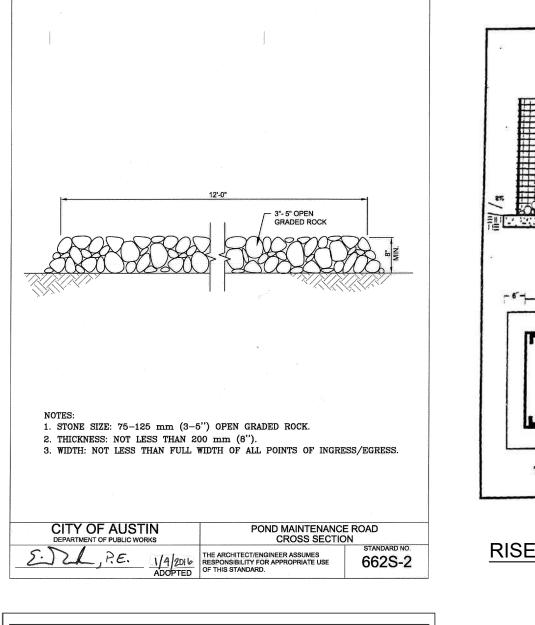
PLANS. II. FOR DETENTION PONDS ONLY, ANY TIME DRAWDOWN DOES NOT OCCUR WITHIN TWENTY-FOUR (24) HOURS. D) THE INLET AND OUTLET OF SCMS SHALL BE MAINTAINED UNIMPEDED IN ORDER TO CONVEY FLOW AT ALL TIMES. OBSERVED BLOCKAGES TO THE INLET AND OUTLET, DUE TO

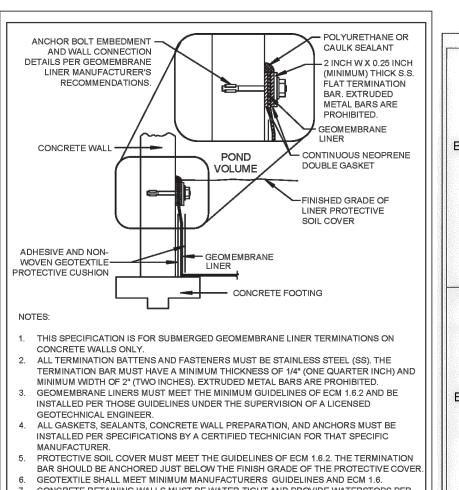
VEGETATION, SEDIMENT, DEBRIS, OR ANY OTHER CAUSE, SHALL BE REMOVED. E) NO UNVEGETATED AREA SHALL EXCEED TEN (10) SQUARE FEET. THIS PERFORMANCE REQUIREMENT APPLIES TO THE ENTIRE POND INCLUDING THE POND BOTTOM, SIDE

SLOPES, AND AREAS ADJACENT TO THE POND, AND IS INTENDED TO LIMIT EROSION F) INTEGRATED PEST MANAGEMENT SHALL BE PERFORMED AND SHALL ADHERE TO SECTION 1.6.2.F, INTEGRATED PEST MANAGEMENT GUIDELINES.

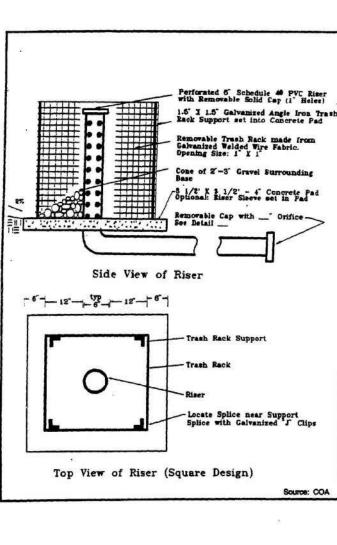
G) THE MINIMUM VEGETATION HEIGHT SHALL BE FOUR (4) INCHES IN THE SCM AND ALL APPURTENANCES, INCLUDING THE TOE OF THE BERM OR WALL OUTSIDE THE SCM, WHERE APPLICABLE

- H) SEDIMENT BUILD-UP SHALL BE REMOVED: I. WHEN THE ACCUMULATION EXCEEDS SIX (6) INCHES IN SPLITTER BOXES, WET WELLS AND BASINS
- II. WHEN SEDIMENT TRAPS ARE FULL. III. WHEN SEDIMENT, OF ANY AMOUNT, CAUSES STANDING WATER CONDITIONS OR REDUCES BASIN STORAGE BY MORE THAN 10%.
- I) WHEN SEDIMENT IS REMOVED, THE FOLLOWING REQUIREMENTS APPLY: I. IRRIGATION SHALL BE PROVIDED, AS NEEDED, UNTIL VEGETATION IS ESTABLISHED (WELL ROOTED). SEE SECTION 1.6.3.D, IRRIGATION GUIDELINES. II. THE DESIGN DEPTH OF THE FILTRATION MEDIA SHALL BE VERIFIED. SEE SECTION 163B5 III. TILLING OF THE FILTRATION MEDIUM IS NOT ALLOWED.

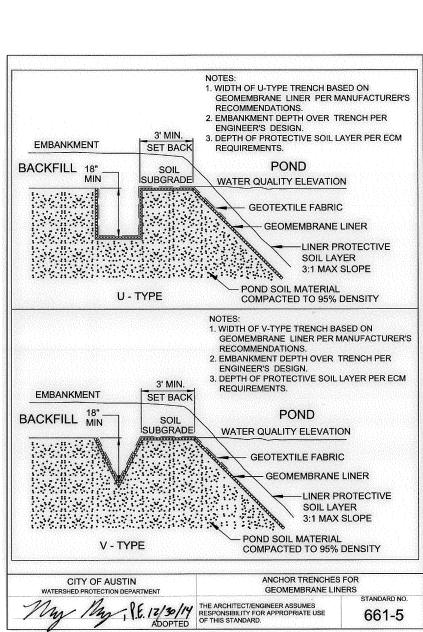




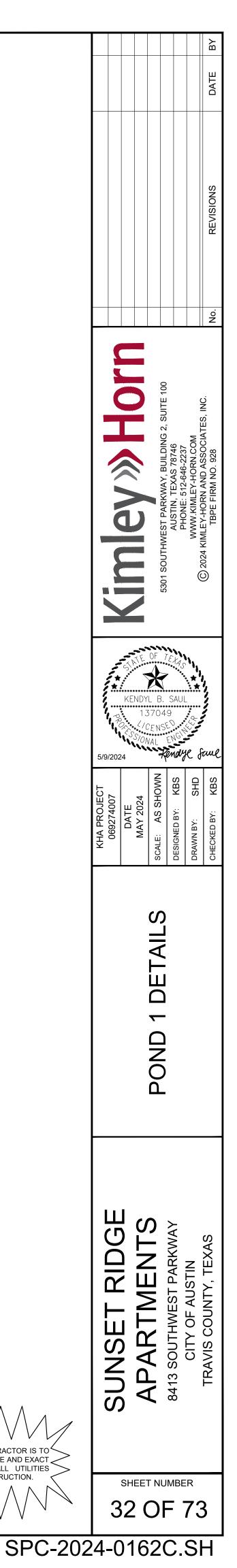
- CONCRETE RETAINING WALLS MUST BE WATER-TIGHT AND PROVIDE WATERSTOPS PER STANDARD SPECIFICATION 414S. DEVIATIONS FROM THIS DETAIL MAY BE PERMITTED PER MANUFACTURER GUIDELINES IF
- APPROVED BY THE CITY INSPECTOR AND A LICENSED GEOTECHNICAL ENGINEER. CITY OF AUSTIN CONCRETE WALL GEOMEMBRANE LINER ATTACHMENT
- ERSHED PROTECTION DEPARTME STANDARD NO 3/23/2023 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE 661-4A ADOPTED OF THIS STANDARD.









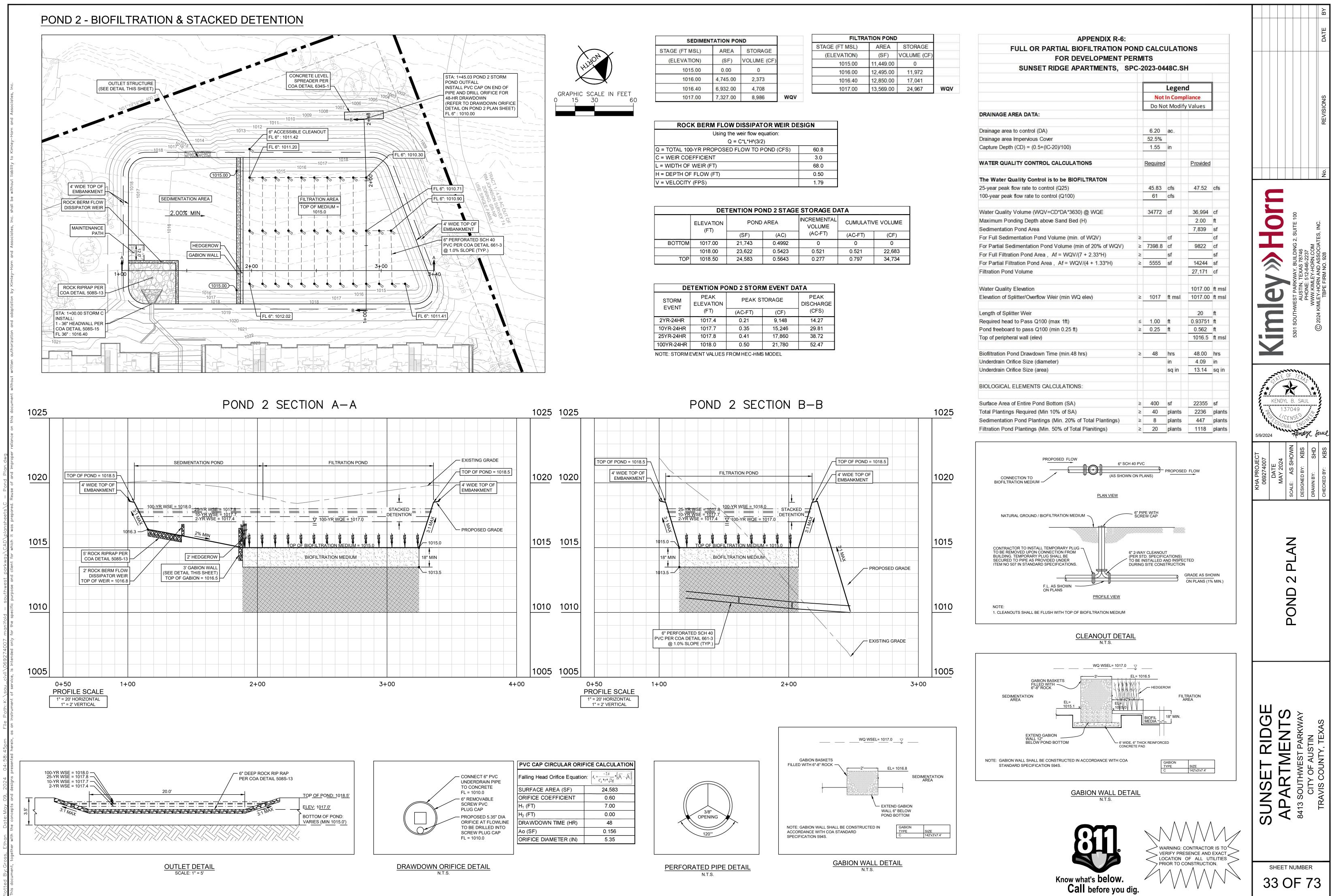


WARNING: CONTRACTOR IS TO

PRIOR TO CONSTRUCTION.

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

VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES





SEDIME			
STAGE (FT MSL)	AREA	STORAGE	
(ELEVATION)	(SF)	VOLUME (CF)	
1015.00	0.00	0	
1016.00	4,745.00	2,373	
1016.40	6,932.00	4,708	
1017.00	7,327.00	8,986	WQV

FILTRATION POND				
STAGE (FT MSL)	AREA	STORAG		
(ELEVATION)	(SF)	VOLUME (		
1015.00	11,449.00	0		
1016.00	12,495.00	11,972		
1016.40	12,850.00	17,041		
1017.00	13,569.00	24,967		

Q = TOTAL 100-YR PROPOSED FLOW TO POND (CFS)	60.8
C = WEIR COEFFICIENT	3.0
L = WIDTH OF WEIR (FT)	68.0
H = DEPTH OF FLOW (FT)	0.50
V = VELOCITY (FPS)	1.79

DETENTION POND 2 STAGE STORAGE DATA						
	ELEVATION (FT)	POND	AREA	INCREMENTAL VOLUME	CUMULATIVE VOLUME	
		(SF)	(AC)	(AC-FT)	(AC-FT)	(CF)
BOTTOM	1017.00	21,743	0.4992	0	0	0
	1018.00	23,622	0.5423	0.521	0.521	22,683
TOP	1018.50	24,583	0.5643	0.277	0.797	34,734

	DETENTION POND 2 STORM EVENT DATA	
--	-----------------------------------	--

STORM EVENT	PEAK ELEVATION	PEAK S	PEAK DISCHARGE		
	(FT)	(AC-FT)	(CF)	(CFS)	
2YR-24HR	1017.4	0.21	9,148	14.27	
10YR-24HR	1017.7	0.35	15,246	29.81	
25YR-24HR	1017.8	0.41	17,860	38.72	
100YR-24HR	1018.0	0.50	21,780	52.47	

SPC-2024-0162C.SH

# POND 2 - BIOFILTRATION & STACKED DETENTION - POND CALCULATIONS & DETAILS

### WATER QUALITY NOTES:

- 1. BIOFILTRATION MEDIUM SHALL COMPLY WITH ECM 1.6.7.C.4(A)
- 2. THE TOPS OF ALL CLEANOUTS OTHER THAN THE ACCESSIBLE CLEANOUT MUST BE FLUSH WITH THE TOP OF THE BIOFILTRATION MEDIUM.
- 3. THE TOP 2.80 FEET OF THE POND WILL SERVE AS STACKED DETENTION PER ECM 1.6.2.B.2. IN CONJUNCTION WITH DCM 1.2.4.E.17.
- 4. VEGETATION WITHIN THE BASIN SHALL NOT EXCEED 18 INCHES IN HEIGHT AT ANY TIME TO COMPLY WITH ECM 1.6.7.C.3.
- 5. ALL EARTHEN EMBANKMENTS SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH COA STANDARD
- SPECIFICATIONS.
- 6. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE NO STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL.

POND RETAINING WALL NOTE

- 1. ALL RETAINING WALLS USED FOR DETENTION AND RETENTION BASIN SHALL BE CONCRETE.
- 2. RETAINING WALLS OVER FOUR FEET IN HEIGHT MEASURED FROM THE BOTTOM OF THE FOOTING TO THE TOP OF THE WALL SHALL ENGINEERED AND REQUIRE A SEPARATE BUILDING PERMIT. [IBC CODE 105.2]
- ROUTINE MAINTENANCE REQUIREMENTS (ECM 1.6.3.C.7)
- THE FOLLOWING MAINTENANCE ITEMS SHOULD BE PERFORMED DEPENDING ON FREQUENCY AND TIME OF YEAR:
- BIWEEKLY DURING FIRST GROWING SEASON: INSPECT VEGETATION UNTIL 95% VEGETATIVE COVER IS ESTABLISHED.
- <u>MONTHLY</u>: CHECK FOR ACCUMULATED SEDIMENTS, REMOVE AS NEEDED.
   <u>QUARTERLY</u>: REMOVE DEBRIS AND ACCUMULATED SEDIMENTS; REPLACE SOIL MEDIA IN VOID AREAS CAUSED BY SETTLEMENT; REPAIR ERODED AREAS; REMULCH BY HAND ANY VOID AREAS. SEMI-ANNUALLY: REMOVE AND REPLACE DEAD OR DISEASED VEGETATION THAT IS CONSIDERED BEYOND TREATMENT (SEE PLANTING SPECIFICATIONS); TREAT ALL DISEASED TREES AND SHRUBS MECHANICALLY OR BY HAND DEPENDING ON THE
- INSECT OR DISEASE INFESTATION. IF DRAWDOWN EXCEEDS THE DRAWDOWN TIME ACCORDING TO SECTION 1.6.3.C.1, LIGHTLY SCARIFY SOIL WITH HAND CULTIVATOR; IF STANDING WATER REMAINS FOR GREATER THAN 96 HOURS, REMOVE TOP LAYER OF SEDIMENT, MULCH, AND POTENTIALLY VEGETATION; DE-COMPACT SOIL BY SCARIFICATION, AND REPLACE MULCH AND DISTURBED VEGETATION
- LATE WINTER: TRIM BUNCH GRASSES; MOW TURF GRASSES; HARVEST OTHER TYPES OF VEGETATION ACCORDING TO RECOMMENDATIONS IN THE PLANTING SPECIFICATIONS. ADHERE TO SECTION 1.6.3.C.6.A1.6.2.F, MOWING AND/OR TRIMMING. SPRING:REMOVE PREVIOUS MULCH LAYER AND APPLY NEW MULCH LAYER BY HAND ONCE EVERY TWO TO THREE YEARS.

SIGNAGE SHALL BE USED TO DELINEATE THE BOUNDARIES OF THE RAIN GARDEN AREA THAT ARE MAINTAINED WITH MINIMAL MOWING, FERTILIZERS, AND LIMITED USE OF ORGANIC HERBICIDES

MAJOR MAINTENANCE REQUIREMENTS (ECM 1.6.3.C.1)

1. THE FOLLOWING MAINTENANCE ACTIVITIES SHALL BE PERFORMED ON ALL SCMS, IN ADDITION TO THE REQUIREMENTS LISTED FOR THE INDIVIDUAL SCM TYPES, TO ENSURE PROPER FUNCTION:

A) ACCUMULATED PAPER, TRASH AND DEBRIS SHALL BE REMOVED EVERY SIX (6) MONTHS OR AS NECESSARY TO MAINTAIN PROPER OPERATION.

B) STRUCTURAL INTEGRITY SHALL BE MAINTAINED AT ALL TIMES. BASINS AND ALL APPURTENANCES SHALL BE INSPECTED ANNUALLY, OR MORE FREQUENTLY IF SPECIFIED, AND REPAIRS SHALL BE MADE IF NECESSARY. WHEN MAINTENANCE OR REPAIRS ARE PERFORMED, THE SCM SHALL BE RESTORED TO THE ORIGINAL LINES AND GRADES.

C) CORRECTIVE MAINTENANCE SHALL OCCUR: I. ANY TIME DRAWDOWN OF THE WATER QUALITY VOLUME DOES NOT OCCUR WITHIN NINETY-SIX (96) HOURS (I.E., NO STANDING WATER IS ALLOWED), UNLESS A GREATER MAXIMUM DRAWDOWN TIME IS SPECIFIED IN THE PLANS. II. FOR DETENTION PONDS ONLY, ANY TIME DRAWDOWN DOES NOT OCCUR WITHIN TWENTY-FOUR (24) HOURS.

D) THE INLET AND OUTLET OF SCMS SHALL BE MAINTAINED UNIMPEDED IN ORDER TO CONVEY FLOW AT ALL TIMES. OBSERVED BLOCKAGES TO THE INLET AND OUTLET, DUE TO VEGETATION, SEDIMENT, DEBRIS, OR ANY OTHER CAUSE, SHALL BE REMOVED.

E) NO UNVEGETATED AREA SHALL EXCEED TEN (10) SQUARE FEET. THIS PERFORMANCE REQUIREMENT APPLIES TO THE ENTIRE POND INCLUDING THE POND BOTTOM, SIDE SLOPES, AND AREAS ADJACENT TO THE POND, AND IS INTENDED TO LIMIT EROSION .

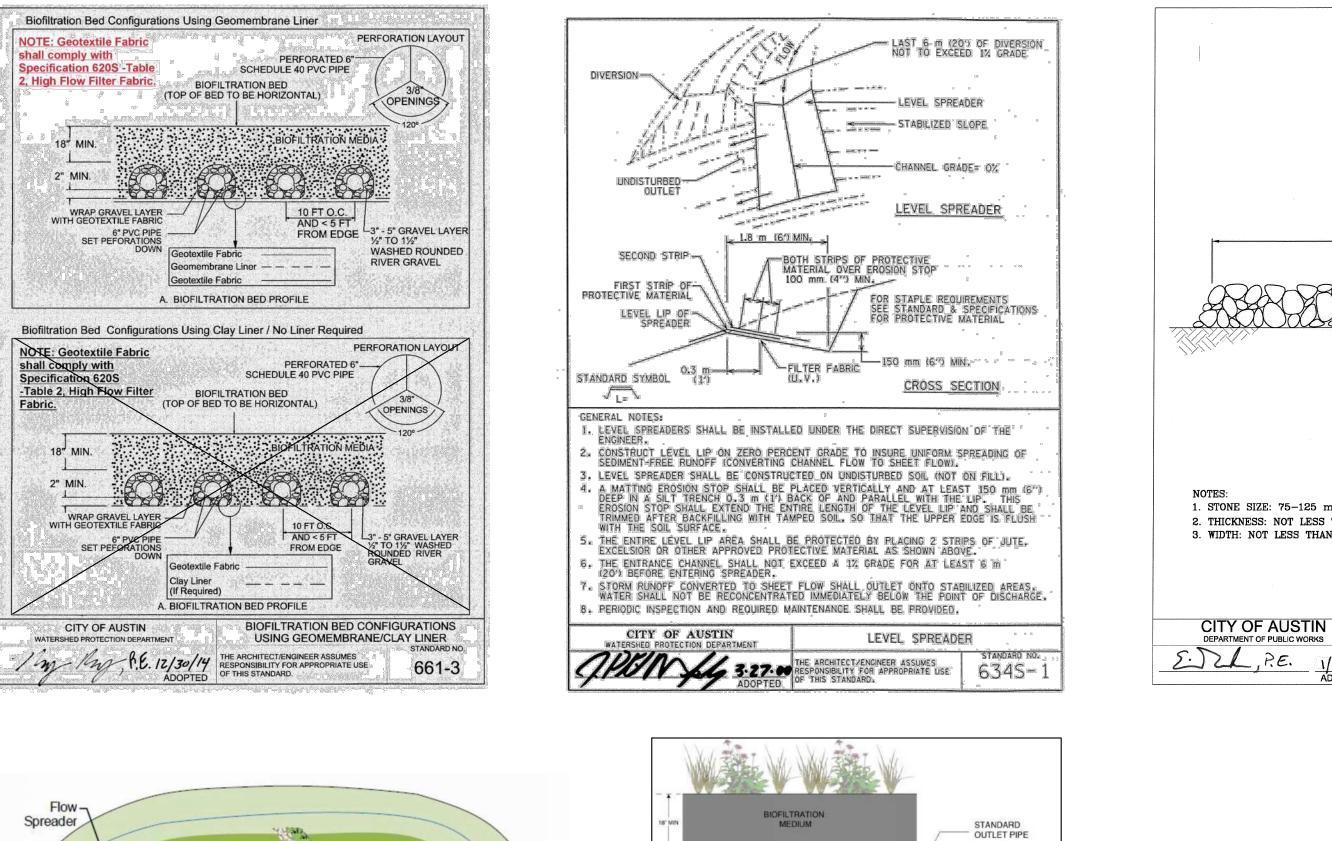
F) INTEGRATED PEST MANAGEMENT SHALL BE PERFORMED AND SHALL ADHERE TO SECTION 1.6.2.F, INTEGRATED PEST MANAGEMENT GUIDELINES.

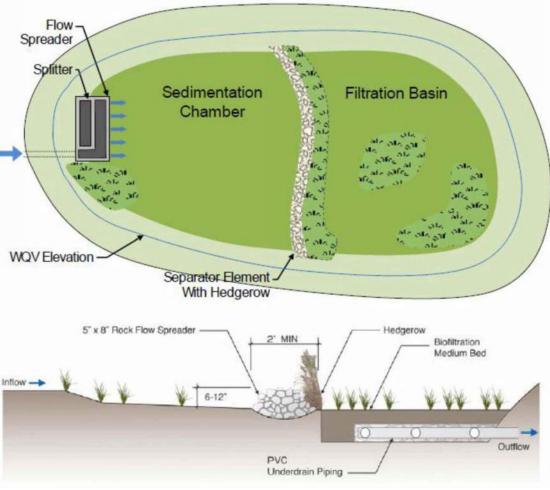
G) THE MINIMUM VEGETATION HEIGHT SHALL BE FOUR (4) INCHES IN THE SCM AND ALL APPURTENANCES. INCLUDING THE TOE OF THE BERM OR WALL OUTSIDE THE SCM, WHERE APPLICABLE.

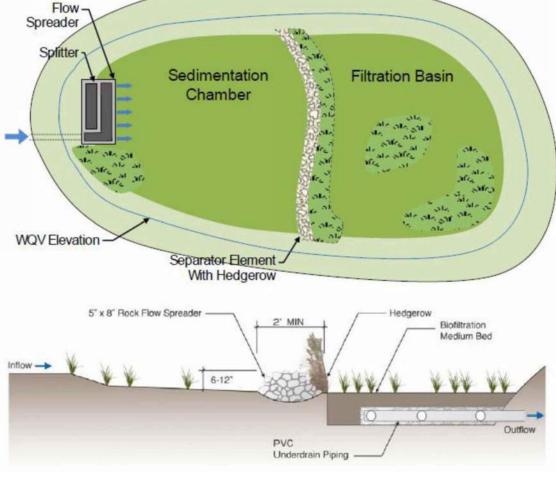
H) SEDIMENT BUILD-UP SHALL BE REMOVED: I. WHEN THE ACCUMULATION EXCEEDS SIX (6) INCHES IN SPLITTER BOXES, WET WELLS AND BASINS. II. WHEN SEDIMENT TRAPS ARE FULL.

III. WHEN SEDIMENT, OF ANY AMOUNT, CAUSES STANDING WATER CONDITIONS OR REDUCES BASIN STORAGE BY MORE THAN 10%. I) WHEN SEDIMENT IS REMOVED, THE FOLLOWING REQUIREMENTS APPLY:

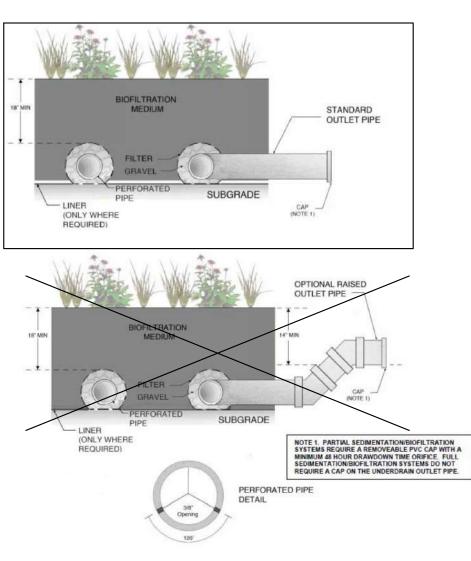
I. IRRIGATION SHALL BE PROVIDED, AS NEEDED, UNTIL VEGETATION IS ESTABLISHED (WELL ROOTED). SEE SECTION 1.6.3.D, IRRIGATION GUIDELINES. TION MEDIA SHALL BE VERIFIED. SEE SECTION 1.6.3.B.5. I. THE DESIGN DEPTH OF THE FILTRA III. TILLING OF THE FILTRATION MEDIUM IS NOT ALLOWED.



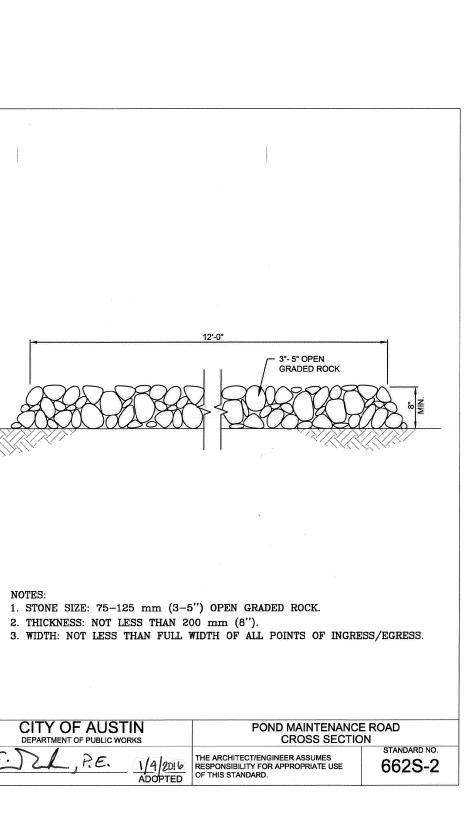


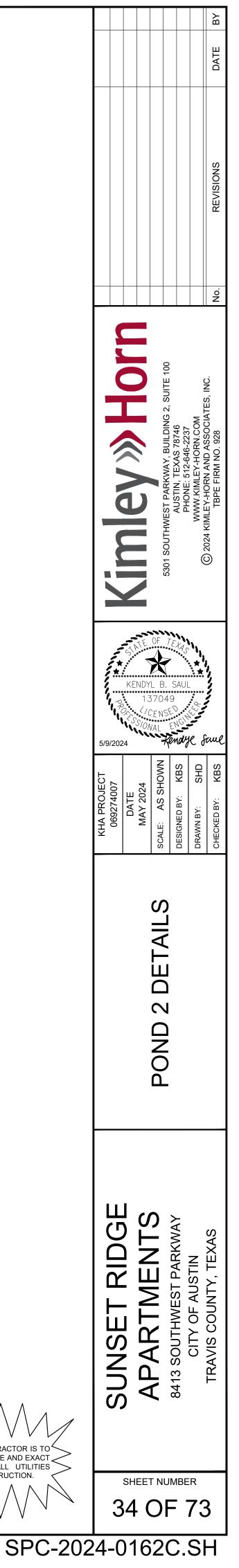


ECM FIGURE 1.6.7.C-2 PARTIAL BIOFILTRATION POND N.T.S.

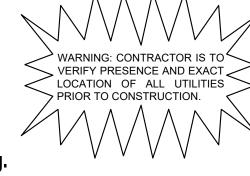


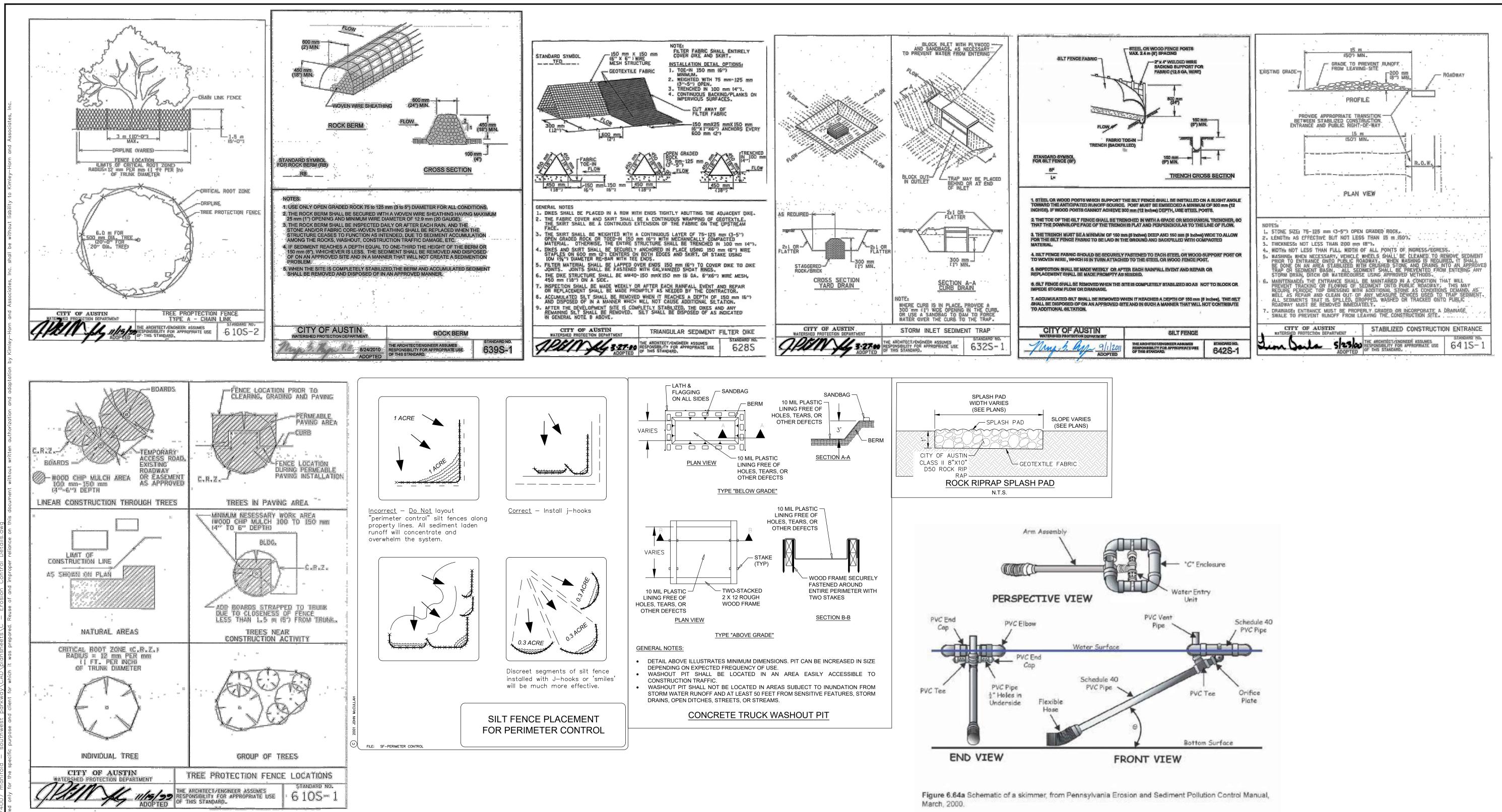
ECM FIGURE 1.6.7.C-3 BIOFILTRATION MEDIUM **BED WITH UNDERDRAIN SYSTEM** N.T.S.

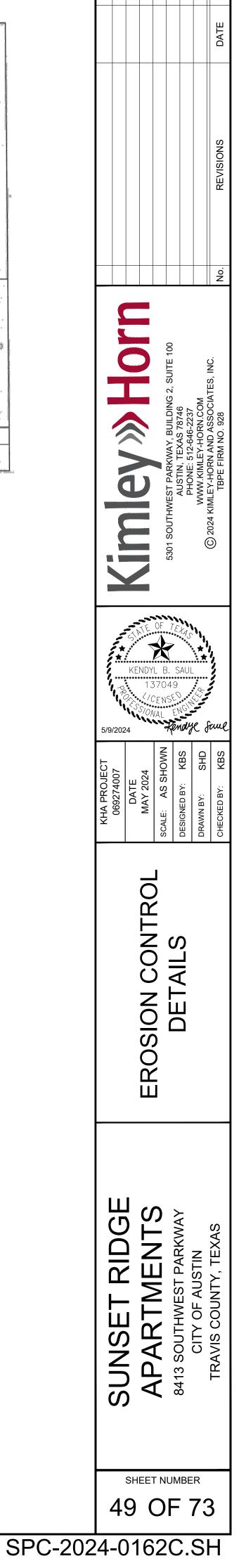


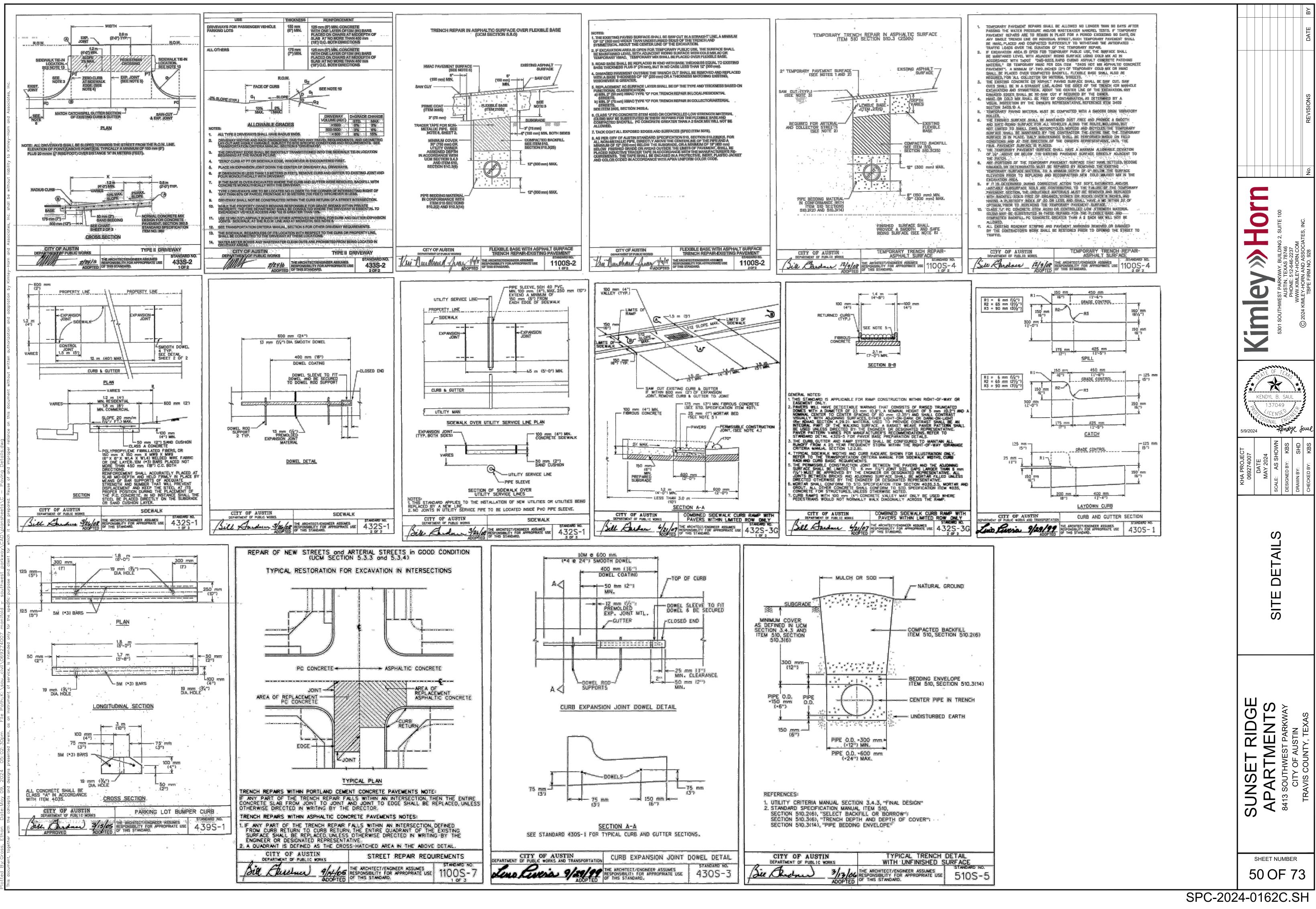












# NATIVE TURF GRASS SEED MIX:

COMMON NAME BUFFALOGRASS BLUE GRAMA CURLY MESQUITE **BOTANICAL NAME** Buchloe dactyloides Bouteloua gracilis Hilaria belangeri

THUNDERTURF, NATIVE AMERICAN SEED COMPANY, ITEM# 2863 APPLICATION RATE: 100 LBS / ACRE (TURF GRASS) INSTALL PER COA SPEC. 609S

# NATURAL AREA RESTORATION SEED MIX (SHADE):

SHADE FRIENDLY GRASS MIX, NATIVE AMERICAN SEED COMPANY, ITEM# 2862 APPLICATION RATE: 18 LBS / ACRE

COMMON NAME BLUE GRAMA PRAIRIE WILD RYE PLAINS BRISTLEGRASS SIDEOATS GRAMA LITTLE BLUESTEM PURPLETOP CEREAL RYE GRAIN HOODED WINDMILL GRASS

BOTANICAL NAME Bouteloua gracilis Elymus canadensis Setaria vulpiseta Bouteloua curtipendula Schizachyrium scoparium Tridens flavus Secale cereale Chloris cucullata COMMON NAME PLAINS BRISTLEGRASS SLIM TRIDENS INLAND SEAOATS PRAIRIE WILDRYE SPLITBEARD BLUESTEM WACO INDIANGRASS BOTANICAL NAME Setaria vulpiseta Tridens muticus Chasmanthium latifolium Elymus canadensis Andropogon ternarius Sorghastrum nutans

# WATER QUALITY AND DETENTION POND PLANTING LIST

COMMON NAME	BOTANICAL NAME	SIZE	NATIVE (Y) OR ADAPTED (A)
AGARITA	Berberis trifoliata	5 GALLON	Y
CHILIE PIQUIN	Capsicum annuum	1 GALLON	Y
DATURA	Datura wrightii	1 GALLON	Y
MISTFLOWER, WHITE	Ageratina havanensis	1 GALLON	Y
MUHLY, BIG	Muhlenbergia lindheimeri	1 GALLON	Y
PALMETTO, TEXAS DWARF	Sabal minor	5 GALLON	Y
SWITCHGRASS	Panicum virgatum	1 GALLON	Y
TURK'S CAP	Malvaviscus arboreus var. Drummondii	5 GALLON	Y
YUCCA, RED	Hesperaloe parviflora	1 GALLON	Y
YUCCA, TWISTLEAF	Yucca rupicola	1 GALLON	Y
ZEXMENIA	Wedelia texana	1 GALLON	Y



# NATURAL AREA RESTORATION SEED MIX (SUN):

CALICHE MIX, NATIVE AMERICAN SEED COMPANY, ITEM# 2860 APPLICATION RATE: 12 LBS / ACRE

## COMMON NAME

BUFFALOGRASS BLUE GRAMA CURLY MESQUITE PRAIRIE WILD RYE PLAINS BRISTLEGRASS SIDEOATS GRAMA GREEN SPRANGLETOP PURPLE THREE-AWN INDIAN GRASS SAND DROPSEED TALL DROPSEED

### **BOTANICAL NAME**

Buchloe dactyloides Bouteloua gracilis Hilaria belangeri Elymus canadensis Setaria vulpiseta Bouteloua curtipendula Leptochloa dubia Aristida purpurea Sorghastrum nutans Sporobolus cryptandrus Sporobolus compositus var. asper POLLINATOR ESSENTIALS MIX, NATIVE AMERICAN SEED COMPANY, ITEM# 4507 APPLICATION RATE: 5 LBS / ACRE

### COMMON NAME

AMERICAN BASKETFLOWER CUTLEAF DAISY LANCELEAF COREOPSIS PURPLE CONEFLOWER BLACK-EYED SUSAN GOLDEN-WAVE LEMON MINT BLUEBONNET ILLINOIS BUNDLEFLOWER PARTRIDGE PEA BUTTERFLY WEED INDIAN BLANKET PLAINS COREOPSIS WHITE PRAIRIE CLOVER

### **BOTANICAL NAME**

Centaurea americana Engelmannia peristenia Coreopsis lanceolata Echinacea purpurea Rudbeckia hirta Coreopsis basalis Monarda citriodora Lupinus texensis Desmanthus illinoensis Chamaecrista fasciculata Asclepias tuberosa Gaillardia pulchella Coreopsis tinctoria Dalea candida

WATER QUALITY PLANTING AREA

### PLANTING LEGEND

- Image: Chill PEQUIN
   Image: Chill PEQUIN
   Image: Chill PEQUIN

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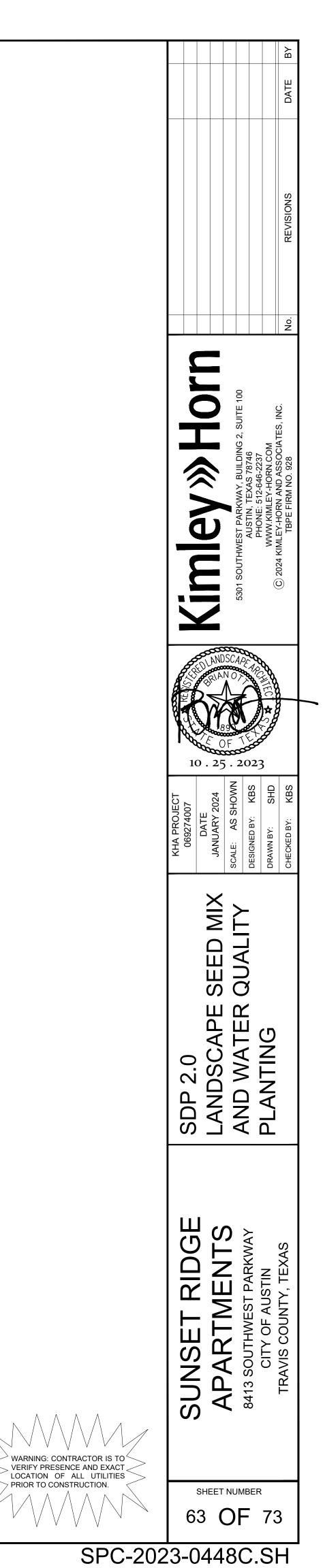
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- DATURA 
   O TWISTLEAF YUCCA
   DIG MUHLY
   O WHITE MISTFLOWEF
  - WHITE MISTFLOWER
     ZEXMINEA

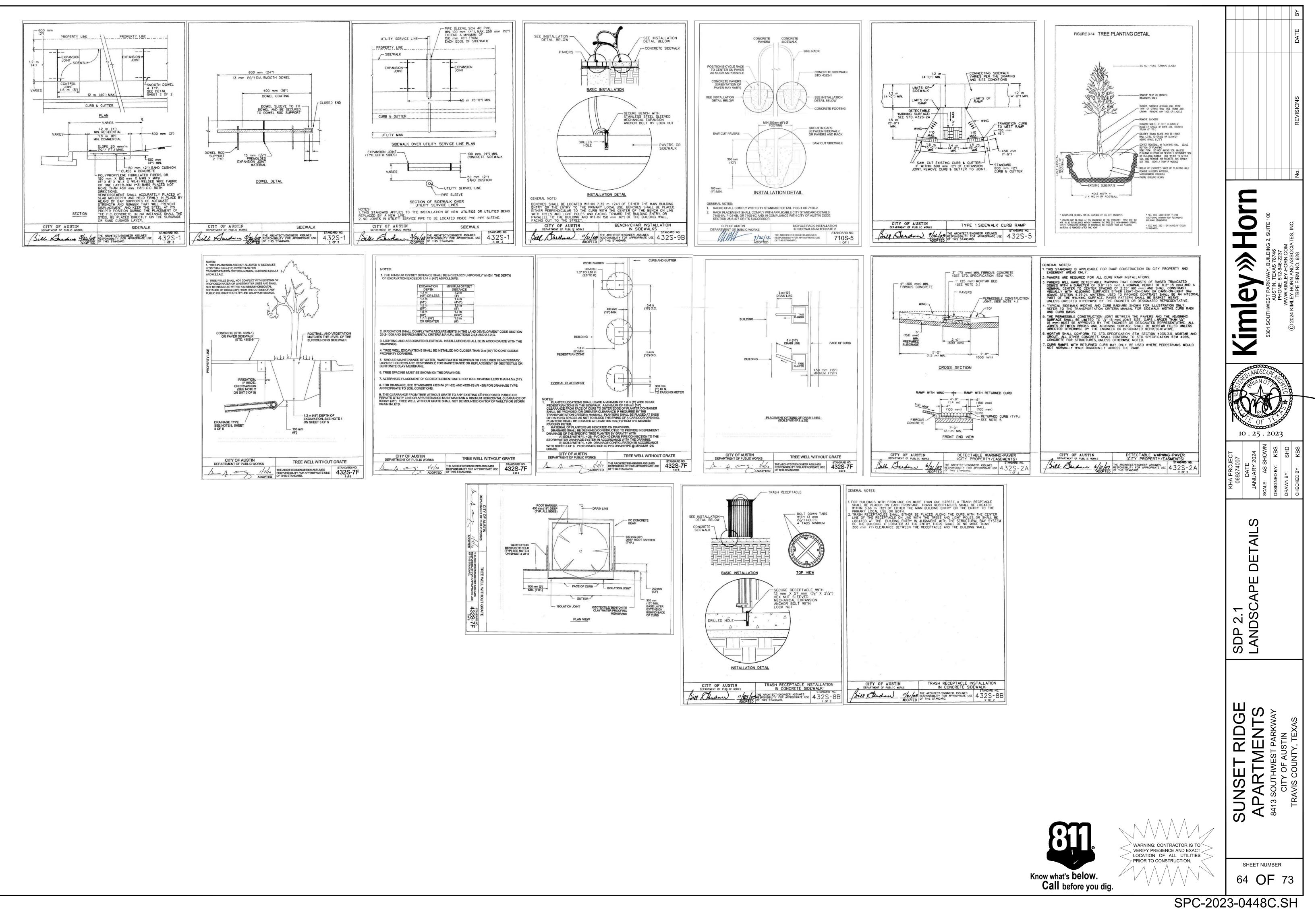
TURK'S CAP

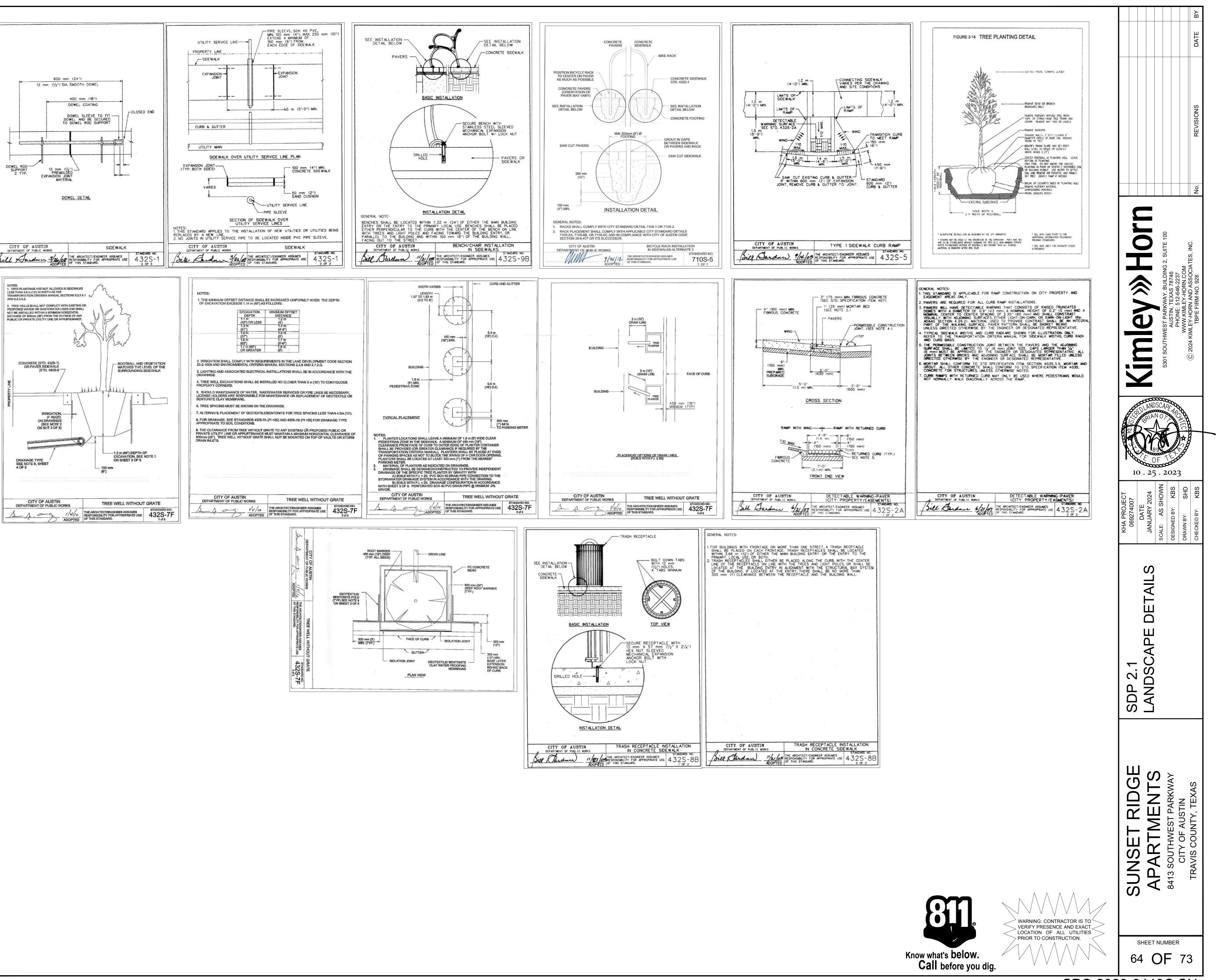
RED YUCCASWITCHGRASS

WATER QUALITY AND DETENTION POND LIST					
QUANTITY					
POND BOTTOM	SF	MULTIPLIER	(1 GALLON EQUIVALENT PLANTS)		
SEDIMENTATION PLANTS	7955	0.1	270	REQUIRED	
FILTRATION PLANTS	14895	0.2	950	REQUIRED	
SEDIMENTATION BASIN			<b></b>	-	
COMMON NAME	GALLON SIZE	QUANTITY	FACTOR	EQUIVALENT	
TEXAS DWARF PALMETTTO	5	25	4	100	
AGARITA	5	10	4	40	
TURKS CAP	5	15	4	60	
TWISTLEAF YUCCA	1	5	4	20	
CHILIE PIQUIN	1	5	1	5	
DATURA	1	10	1	10	
WHITE MISTFLOWER	1	5	1	5	
BIF MUHLY	1	15	1	15	
SWITCHGRASS	1	15	1	15	
RED YUCCA	1	0	1	0	
ZEXMENIA	1	0	1	0	
			PROVIDED 270		
FILTRATION BASIN	F				
COMMON NAME	GALLON SIZE	QUANTITY	FACTOR	EQUIVALENT	
TEXAS DWARF PALMETTTO	5	75	4	300	
AGARITA	5	20	4	80	
TURKS CAP	5	30	4	120	
TWISTLEAF YUCCA	1	20	4	80	
CHILIE PIQUIN	1	20	1	20	
DATURA	1	50	1	50	
WHITE MISTFLOWER	1	50	1	50	
BIF MUHLY	1	100	1	100	
SWITCHGRASS	1	100	1	100	
RED YUCCA	1	50	1	50	
ZEXMENIA	1	30	1	30	
			PROVIDED	950	









THE IRRIGATION MAINLINE SHALL BE INSTALLED NO CLOSER THEN 9 FEET IN ALL DIRECTIONS FROM WATER/WASTEWATER/DRAIN COLLECTION FACILITIES. ALL SEPARATION DISTANCES ARE MEASURED FROM THE OUTSIDE SURFACE OF EACH OF THE RESPECTIVE PIECES. ADJUST IRRIGATION MAINLINE AS NEEDED TO MAINTAIN ACCEPTABLE OFFSET one year performance period.

### NOTE:

NOTE:

PROVIDED

NOTE

NOTE

CROSSINGS.

BE PROPERLY IDENTIFIED.

LABELING AND SEPARATIONS.

Specifications for all equipment/components of the water quality control systems shall be submitted to the WPD Operating Permit (OP) Inspection Staff and Engineer of Record prior to the installation of pump stations and irrigation systems, and prior to the mid-construction meeting for review and approval. This is including but not limited to mechanical equipment such as pumps, panels, piping, distribution components and any other ancillary equipment. Final approval of submittal and equipment, and testing of all components of water quality system, is required by WPD OP Inspection Staff prior to CO. Final documentation of Operations/Maintenance manual and as-builts shall be submitted to WPD OP Inspection Staff after build out and must be approved by Staff prior to the end of the

THIS IRRIGATION SYSTEM IS DESIGNED FOR RECLAIMED WATER USE. A

COMPONENTS OF THE SYSTEM ARE TO BE NP (NON-POTABLE PURPLE) COMPLIANT

AS SUPPLIED BY THE MANUFACTURER. THE COMPONENTS SHALL MEET ALL TCEQ (TEXAS DEPARTMENT OF ENVIRONMENTAL QUALITY) AND LOCAL GOVERNING

ALL POTABLE WATER CROSSINGS SLEEVES SHALL EXTEND 9' HORIZONTALLY FROM

THE CENTER LINE OF THE POTABLE PIPE ON BOTH SIDES OF THE CROSSING AND

CONTRACTOR TO FOLLOW CHAPTER 290 SUBCHAPTER D TAC 30 FOR POTABLE WATER AND CHAPTER 210 RULES AND REGULATIONS FOR RECLAIMED WATER

CONTRACTOR TO CHECK WITH AUTHORITY HAVING JURISDICTION FOR ALL PIPE

WHERE POSSIBLE ADJUST MAINLINE LOCATION TO AVOID POTABLE WATER

PHOTOGRAPH AND GPS LOCATE ALL RECLAIMED WATER LINES CROSSINGS UNDER DOMESTIC WATER LINES. COORDINATE DATA WITH CIVIL ENGINEER AND OWNER'S RECORDS. REFER TO DTL. 9/SHEET 68.

AUTHORITY CODES FOR RECLAIMED WATER USE IN LANDSCAPE IRRIGATION

SYSTEMS. SIGNAGE AS REQUIRED BY LOCAL AUTHORITY/TCEQ SHALL BE

RECLAIMED CROSSINGS TO BE BELOW POTABLE WATER LINES.

# **BSZ WATER QUALITY NOTE**

# Type K Copper Service Loss: Design Pressure: HYDRAULIC LOSS CHART

ZONE 1

STATION

TOTAL

NO

Notes: System requires a minimum of 76 psi s properly. Irrigation Contractor shall conduct or pressure prior to starting work. Contractor shall pressure deficiencies or any other on site probl the system. Pipe has been size to insure that ve change pipe size in the field without consulting system designer.

Elevation Net Loss (+18 FT.): System Mainline Loss (4" Sch-40 Main): Backflow Preventer Loss : Water Meter Loss Master Electric Valve Loss :

Zone Pipe/Fitting Loss: 3" Electric Valve Loss:

# Static Pressure (PUMP SUPPLIED): ACCUMULATIVE LOSSES FROM CI Sprinkler head requirement:

Total Zone Flow:

Electric Valve Size:

Master Electric Valve Loss Type K Copper Service Loss: Design Pressure: Notes: System requires a minimum of 78 psi s properly. Irrigation Contractor shall conduct o pressure prior to starting work. Contractor shal pressure deficiencies or any other on site prob the system. Pipe has been size to insure that velocity does not exceed 5 FPS. do not change pipe size in the field without consulting system designer. HYDRAULIC LOSS CHART **h**-J ZONE 2

#### DESIGN STATISTICS F Total Zone Flow: Electric Valve Size Static Pressure (PUMP SUPPLIED): ACCUMULATIVE LOSSES FROM CI Sprinkler head requirement: Zone Pipe/Fitting Loss: 3" Electric Valve Loss: Elevation Net Loss (+16 FT.): System Mainline Loss (4" Sch-40 Main): Backflow Preventer Loss : Water Meter Loss :

PRESSURE REQUIREMENT CALCULATIONS @ ZONE No. 2				
DESIGN STATISTICS FOR CALCULATIONS				
e Flow:	110.0 g.p.m.			
alve Size:	3"			
ssure (PUMP SUPPLIED):	80.0 p.s.i.			
CCUMULATIVE LOSSES FROM CITY MAIN TO FUR	THEST HEAD			
ler head requirement:	60 p.s.i.			
Pipe/Fitting Loss:	3.82 p.s.i.			
ctric Valve Loss:	2.5 p.s.i.			
ion Net Loss (+16 FT.):	7.8 p.s.i.			
n Mainline Loss (4" Sch-40 Main): 3.26 p.s				
ow Preventer Loss :				
Meter Loss :				
r Electric Valve Loss :				
Copper Service Loss:				
Total Net Loss:	17.38 p.s.i.			
essure:	77.38 p.s.i.			
stem requires a minimum of 78 psi static pressure for system to operate rrigation Contractor shall conduct on site pressure test to verify site rior to starting work. Contractor shall notify Owner's Representative of eficiencies or any other on site problems that may alter the effectiveness of . Pipe has been size to insure that velocity does not exceed 5 FPS. do not				

PRESSURE REQUIREMENT CALCULATIONS @ ZONE No. 1				
DESIGN STATISTICS FOR CALCULATIONS				
e Flow:	110.0 g.p.m.			
alve Size:	3"			
ssure (PUMP SUPPLIED):	80.0 p.s.i.			
CCUMULATIVE LOSSES FROM CITY MAIN TO FUR	THEST HEAD			
ler head requirement:	60 p.s.i.			
Pipe/Fitting Loss:	3.42 p.s.i.			
ctric Valve Loss:	2.5 p.s.i.			
ion Net Loss (+18 FT.):	7.8 p.s.i.			
n Mainline Loss (4" Sch-40 Main):	1.6 p.s.i.			
ow Preventer Loss :				
Meter Loss :				
r Electric Valve Loss :				
Copper Service Loss:				
Total Net Loss:	15.31 p.s.i.			
essure:	75.31 p.s.i.			
stem requires a minimum of 76 psi static pressure for system to operate rrigation Contractor shall conduct on site pressure test to verify site rior to starting work. Contractor shall notify Owner's Representative of eficiencies or any other on site problems that may alter the effectiveness of . Pipe has been size to insure that velocity does not exceed 5 FPS. do not be size in the field without consulting system designer.				

VALVE SIZE	ZONE GPM	TOTAL RUN TIME	E GAL
3"	110.0	29.8 hr	196,731
3"	110.0	29.8 hr	196,731
			393,462 gal
		59.6 hr	52,595 CF

SCHEDULE IS BASED ON DISTRIBUTION OF TOTAL WATER QUALITY VOLUME

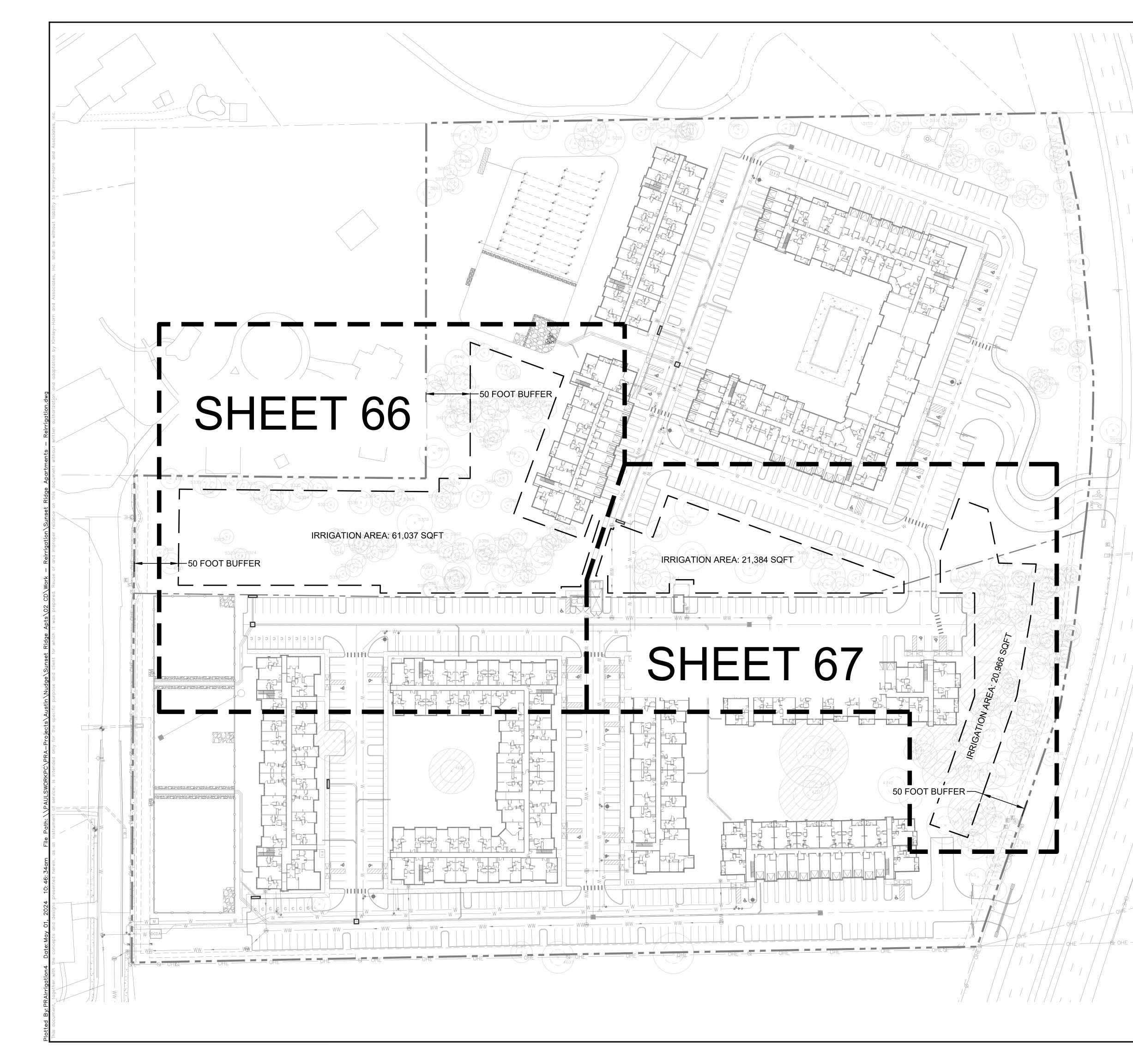
# → PROGRAM SCHEDULE & RUN TIMES

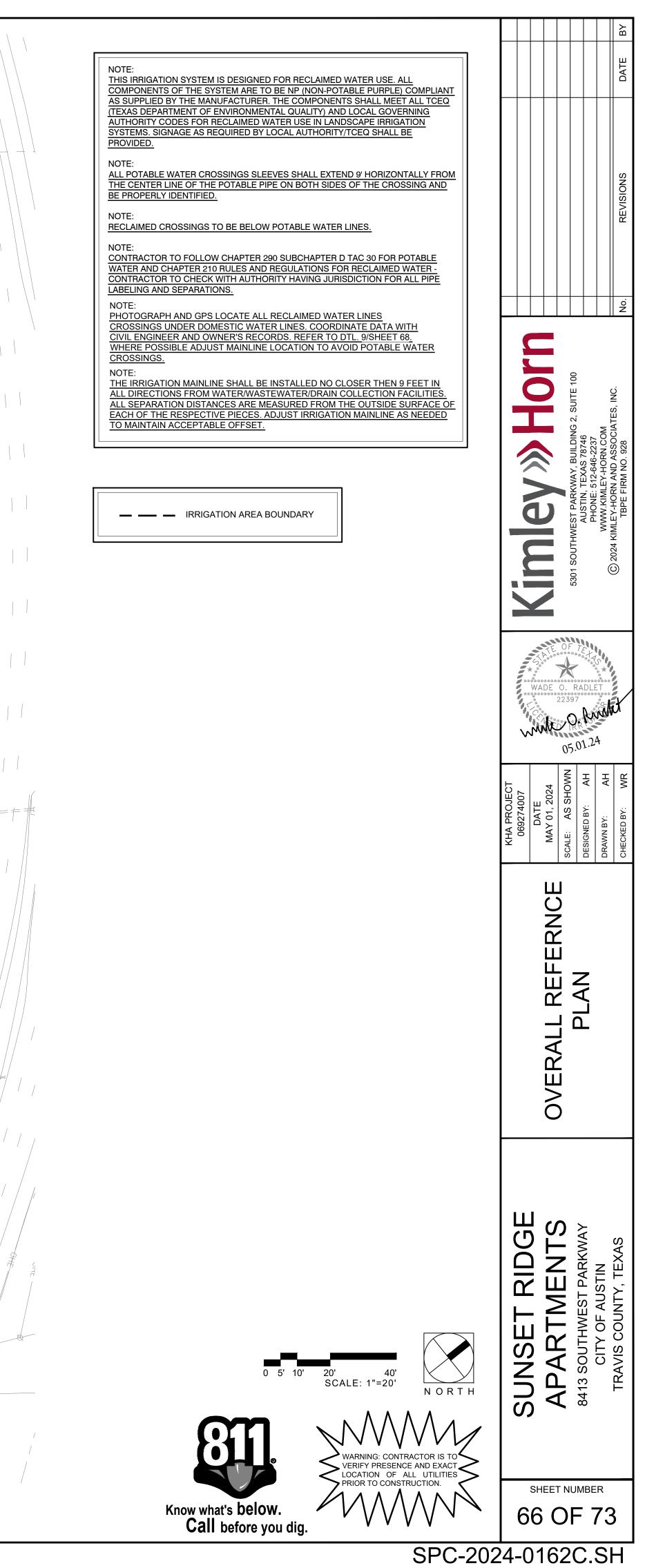
#### CONSTRUCTION NOTES

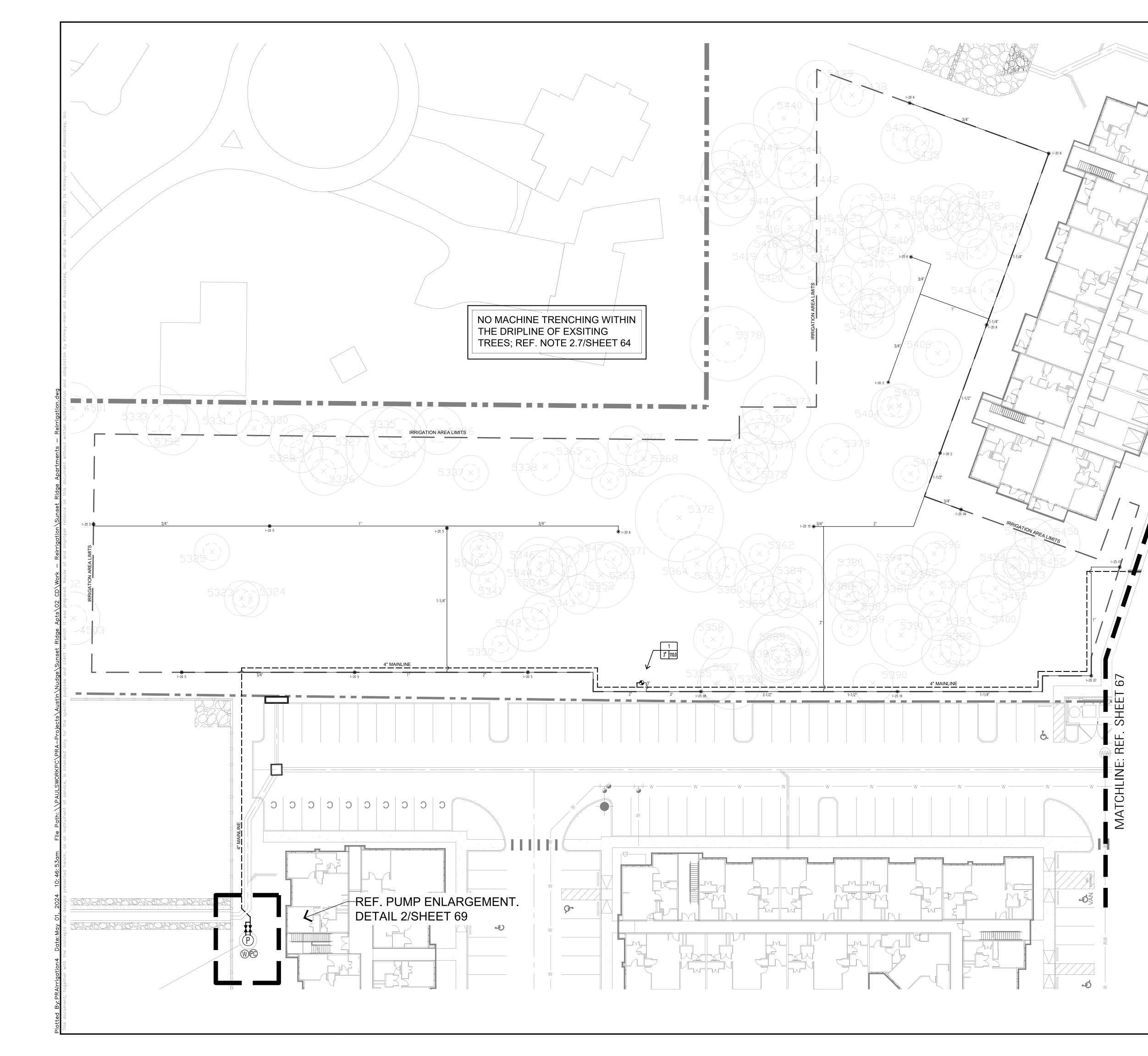
IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH THE SPECIFICATIONS AND ALL SUBMIT REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO NOTIFY THE OWNER'S REPRESENTATIVE FOR S INSPECTIONS AS SPECIFIED IN THE SPECIFICATIONS. FAILURE TO NOTIFY THE OWNER'S REPRESENTATIVE DOES NOT RELIEVE TH CONTRACTOR FROM INSPECTION APPROVAL AND WILL REQUIRE THE CONTRACTOR TO UNCOVER WORK AS REQUIRED FOR APPROVAL AT THE COST OF THE CONTRACTOR. IRRIGATION CONTRACTOR IS TO INFORM OWNER'S REPRESENTATIVE OF THE ST DATE OF WORK.

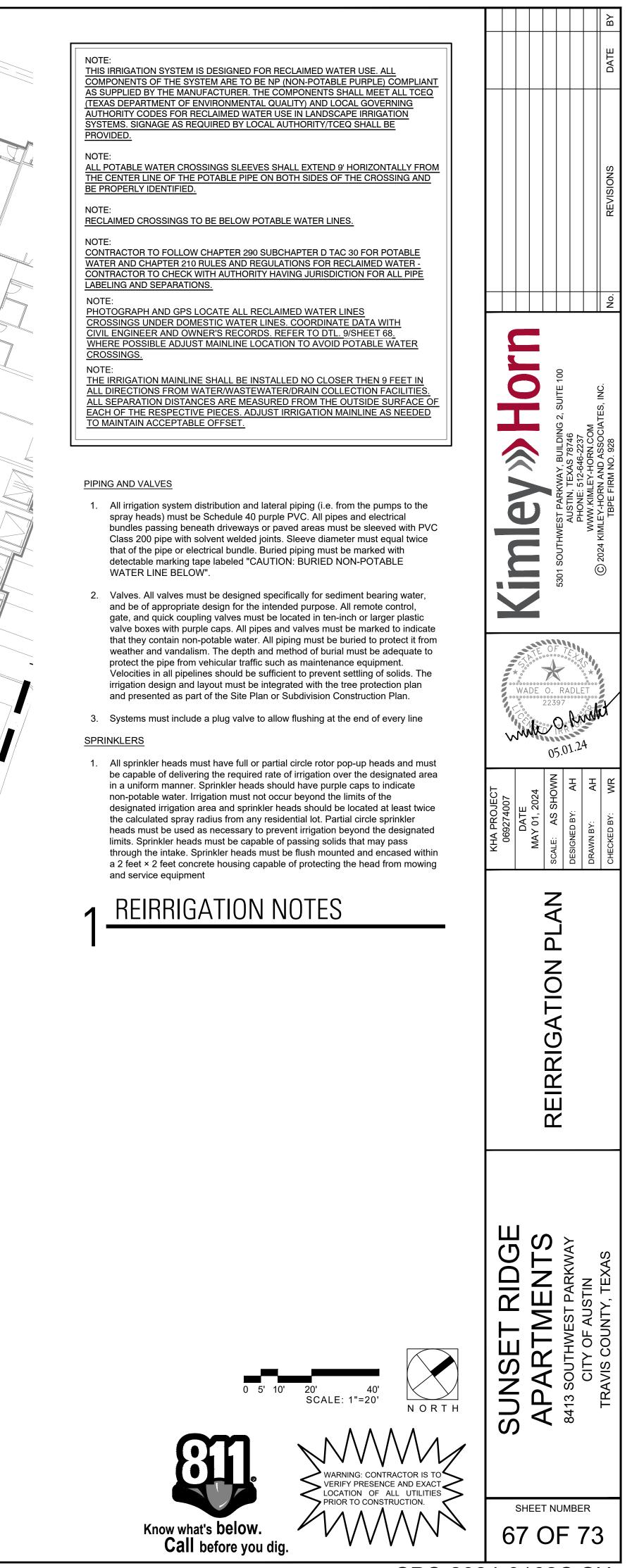
- 2. THE IRRIGATION CONTRACTOR IS REQUIRED BY LAW TO NOTIFY TEXAS ONE CALL (800-245-4545) 72 HOURS PRIOR TO ANY EXCAVATION. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. IRRIGATION CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DU TO DAMAGE OF SAID UTILITIES WHETHER OR NOT TEXAS ONE CALL IS NOTIFIED.
- 3. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WITHOUT VERIFYING ACTUAL ON-SITE WATER PRESSURE FRO THE SOURCE. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SH BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. THE IRRIGATION CONTRACTOR SHALL ASSU FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- 4. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH OTHER CONTRACTORS AS REQUIRED TO ACCOMPLISH IRRIGATION INSTALLATION.
- 5. DUE TO SCALE OF DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS SLEEVES, ETC., WHICH MAY BE REQUIRE IRRIGATION CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITION DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED I SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEM, PLANTING AND ARCHITECTURAL FEATURES. THIS DES IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC., SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS AND WITHIN PROPERTY LINES.
- 6. DURING INSTALLATION IT IS THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO COORDINATE PIPING WITH THE LANDSCAPE SUBCONTRACTOR TO AVOID CONFLICT WITH PROPOSED PLANTING. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION SUBCONTRACTOR TO MOVE PIPING TO ALLOW PROPER PLACEMENT OF PLANT MATERIAL. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER.
- NO MACHINE TRENCHING IS TO BE DONE WITHIN THE DRIPLINE OF EXISTING TREES. TRENCHING IS TO BE DONE BY HAND, AIR-SPADE BY TUNNELING UNDER ROOT SYSTEM BY METHOD APPROVED BY LANDSCAPE ARCHITECT. PIPING LAYOUT IS DIAGRAMMATIC AND PIPI SHALL BE ROUTED AROUND EXISTING TREES AS POSSIBLE TO AVOID DAMAGE TO THE ROOT SYSTEMS. DO NOT CUT ANY ROOT OVER DIAMETER UNLESS APPROVAL FROM THE LANDSCAPE ARCHITECT IS FIRST OBTAINED. ANY CUTS MADE SHALL BE CLEAN AND WITHOU FRAYED ENDS.
- 8. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR SLEEVES AND CHASES WHEREVER PIPING OR CONDUIT PASSES, UNDER PAVING, THROUGH WALLS, ETC. ALL SLEEVE LOCATIONS MAY NOT BE SHOWN ON PLAN, COORDINATE WITH ARCHITECTURAL AND CIVIL DRAWINGS, GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS AS REQUIRED. ALL SLEEVE AND CHASE LOCATIONS AF NOT NOTED ON PLAN. ALL SLEEVES 4" OR LESS SHALL BE SCH-40 PVC, ALL SLEEVES 6" OR GREATER SHALL BE CLASS-200 PVC. / SLEEVES TO BE SIZED TWICE THE DIAMETER OF PIPE OR COMBINATION OF PIPES ENCLOSED WITHIN THE SLEEVE.
- 9. CONFIRM STATIC WATER PRESSURE AT LEAST 7 DAYS BEFORE BEGINNING WORK. IF STATIC WATER PRESSURE IS LESS THAN STATED IN PRESSURE CALCULATIONS DO NOT PROCEED UNTIL DIRECTED SO BY THE LANDSCAPE ARCHITECT. IF ACTUAL SITE STATIC PRESSURE EXCEEDS DESIGN PRESSURE BY 15 P.S.I. IN ANY ZONE, A PRESSURE REDUCING VALVE SHALL BE INSTALLED. REFER TO DETAILS FOR MODEL.
- 10. ADJUSTABLE FLOW CONTROLS SHALL BE REQUIRED ON CIRCUIT REMOTE CONTROL VALVE. PRESSURE AT ANY POINT WITHIN A ZONE SHALL NOT VARY BY MORE THAN 10% FROM THE DESIGN SPRINKLER OPERATING PRESSURE. SEE SPECIFICATIONS FOR TESTING.
- 11. THE CONTRACTOR SHALL BE A REGISTERED LICENSED IRRIGATOR IN THE STATE OF TEXAS. CONTRACTOR MUST CONFORM TO A CODES AS STATED IN SECTION 344 OF THE TEXAS WATER CODE AS OUTLINED BY TCEQ.
- 12. OBTAIN COVERAGE TEST APPROVAL FROM OWNER'S REPRESENTATIVE PRIOR TO PLANTING, SODDING OR SEEDING.
- 13. ALL UNDESIGNATED END LATERAL PIPING SHALL BE  $\frac{1}{2}$ " IN SPRAY ZONES AND  $\frac{3}{4}$ " IN ROTOR ZONES.
- 14. SPRINKLER HEAD SPACING SHALL NOT EXCEED 50% OF SPRAY DIAMETER BASED ON MANUFACTURERS OPERATING SPECIFICATIONS. SPRINKLER HEAD SPACING SHALL BE DESIGNED FOR HEAD-TO-HEAD COVERAGE OR HEADS SHALL BE SPACED PER MANUFACTURER'S RECOMMENDATIONS AND ADJUSTED FOR PREVAILING WINDS. THE SYSTEM SHALL BE DESIGNED SO THAT IRRIGATION IS NOT APPLIED TO VEHICULAR TRAFFIC LANES, OTHER PAVEMENT OR STRUCTURES.
- 15. ALL ROTORS SHALL BE LOCATED 12" FROM PAVEMENT, CURBS OR EDGE OF STRUCTURE, ALL SPRAY HEADS SHALL BE LOCATED FROM PAVEMENT, CURBS OR EDGE OF STRUCTURE.
- 16. VALVE AND CIRCUITS SHALL BE SEPARATED BASED ON WATER USE, SO THAT TURF AREAS ARE WATERED SEPARATELY FROM SHRUB AND GROUND COVER AREAS. IRRIGATION HEADS IN THE TURF AREAS WILL BE VALVED SEPARATELY FROM SHRUB AND/O GROUND COVER AREAS. IT IS RECOMMENDED THAT SEASONAL COLOR AREAS BE WATERED SEPARATELY. UNDER NO CIRCUMSTANCES ARE ZONE TYPES TO BE COMBINED I.E. ROTARY HEADS WITH SPRAYS, TURF AREAS WITH PLANTING BEDS.
- 17. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM STATIC PRESSURE ON SITE PRIOR TO STARTING WORK. REFER TO NOTES AND #10.
- 18. IT IS THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO SECURE ALL REQUIRED PERMITS AND PAY ALL ASSOCIATED FEES UNL OTHERWISE NOTED. ALL LOCAL CODES SHALL PREVAIL OVER ANY DISCREPANCIES CONTAINED IN THESE DOCUMENTS.
- 19. UNSLEEVED PIPES MAY BE SHOWN UNDER PAVEMENT FOR GRAPHIC CLARITY. INSTALL PIPES IN ADJACENT SLEEVES WITHIN LANDSCAPE AREAS.
- 20. 120 VAC ELECTRICAL POWER SOURCE AT CONTROLLER LOCATION SHALL BE PROVIDED BY OTHERS. THE IRRIGATION CONTRACT SHALL MAKE THE FINAL CONNECTION FROM THE ELECTRICAL SOURCE TO THE CONTROLLER WITH A HARDWIRE CONNECTION APPROVED AND INSTALLED BY A LICENSED ELECTRICIAN.
- 21. SPRINKLER HEADS SHALL HAVE MATCHED PRECIPITATION RATES WITHIN EACH CONTROL VALVE CIRCUIT.
- 22. SERVICEABLE CHECK VALVES SHALL BE REQUIRED ADJACENT TO PAVED AREAS WHERE ELEVATION DIFFERENCES MAY CAUSE I HEAD DRAINAGE.
- 23. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH A CONTROLLER CAPABLE OF DUAL OR MULTIPLE PROGRAMMIN CONTROLLERS SHALL HAVE MULTIPLE CYCLE START CAPACITY AND A FLEXIBLE CALENDAR PROGRAM, INCLUDING THE CAPABILI OF BEING SET TO WATER EVERY FIVE DAYS. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH A RAIN SENSOR SHUT-OFF DEVICE.
- 24. ALL IRRIGATION WIRES SHALL BE UL LISTED FOR DIRECT UNDERGROUND BURIAL AND SHALL BE SIZED PER THE MANUFACTURER RECOMMENDATIONS. 3M-DBY WATERPROOF CONNECTORS TO BE USED ON ALL WIRE CONNECTIONS. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT.
- 25. ALL IRRIGATION HEADS SHALL BE ADJUSTED TO MINIMIZE OVER-SPRAY ONTO ALL IMPERVIOUS SURFACES.
- 26. ALL PIPE CONNECTIONS SHALL BE PRIMED WITH AN APPROVED COLOR PRIMER BEFORE BEING CHEMICAL WELDED.
- 27. AFTER AWARD OF CONTRACT AND BEFORE ANY IRRIGATION SYSTEM MATERIALS ARE ORDERED FROM SUPPLIERS OR DELIVERE TO THE JOB SITE, SUBMIT TO THE OWNER A COMPLETE LIST OF ALL IRRIGATION SYSTEM MATERIALS, OR PROCESSES PROPOSED BE FURNISHED AND INSTALLED AS PART OF THIS CONTRACT. THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE WILL ALLOW NO SUBSTITUTIONS WITHOUT PRIOR WRITTEN ACCEPTANCE. MANUFACTURER'S WARRANTIES SH NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL ONLY SUPPLEMENT THE GUARANTEE.
- 29. ALL TEMPORARY IRRIGATION SHALL BE DESIGNED PRIOR TO INSTALLATION BY A STATE OF TEXAS LICENSED IRRIGATOR. THE DESIGN IS TO BE SUBMITTED FOR APPROVAL PRIOR TO COMMENCING INSTALLATION OF THE TEMPORARY SYSTEM.
- 30. IRRIGATION CLOSEOUT DOCUMENTS SHALL INCLUDE A WATER BUDGET. A LAMINATED COPY OF THE WATER BUDGET SHALL BE PERMANENTLY INSTALLED INSIDE THE IRRIGATION CONTROLLER DOOR.
  - A. CHART CONTAINING ZONE NUMBER, PRECIPITATION RATE AND GPM. B. LOCATION OF EMERGENCY IRRIGATION SYSTEM SHUT-OFF VALVE.

			B≺
TAL SITE			DATE
HE TART	(9)	RE-IRRIGATION PUMP ASSEMBLY - DUAL SUBMERSIBLE PUMPS WITHIN WET WELL. SITEONE GREEN TECH MODEL PA43D-17N-463-PSR-RIP	
	(PC)	CUSTOM RE-IRRIGATION PUMP CONTROL PANEL BY SITEONE GREEN TECH. REF. NOTE 3/SHEET 67 FOR PANEL CONTROL REQUIREMENTS.	
UE	$\mathbb{W}$	WEATHER SENSOR - HUNTER RAIN-CLIK WEATHER SENSOR	ω l l l l l μ
	© ●	MP ROTATOR NOZZLE 90°-210°; SIZE AS SPECIFIED ON PLAN. MP ROTATOR NOZZLE 210°-270°; SIZE AS SPECIFIED ON PLAN.	KEVISIONS
DM HALL	• M#	MP ROTATOR NOZZLE 360°; SIZE AS SPECIFIED ON PLAN. MP ROTATOR; M35-M3500, M3-MP 3000, M2-MP 2000, M1-MP 1000,	REV
UME		M8-M800SR, MC-MP CORNER, MR,MS,ML- MP SIDESTRIPS AND END STRIPS NOTE: ALL MP ROTATOR SPRAY HEADS ARE TO BE HUNTER PROS-06-PRS40-CV-R SPRAY BODY; PROVIDE CHECK VALVE AT LOW HEAD	
ED.	$\oplus$ $\bigcirc$	HUNTER I-20-04-PRB-R OR I-25-04-R ROTOR HEAD - NOZZLE PER PLAN.	
S IS.	•	REMOTE CONTROL VALVE, HUNTER ICV-FS-R, SIZE AS INDICATED ON PLANS	
IN SIGN	M	MANUAL VALVE- SIZE OF MAINLINE	
_	# #" ##	– ZONE IDENTIFICATION – ZONE SIZE IN GALLONS PER MINUTE – VALVE SIZE THIS ZONE	Surre 100
E		MAIN LINE - USE SCH-40 PVC PURPLE PIPE, SIZE AS INDICATED ON PLANS	ATE ATE
: OR ING : 3/4"	1-1/2*	LATERAL LINE - USE SCH-40 PVC PURPLE PIPE. DO NOT DEVIATE ON SIZING WITHOUT CONSULTING WITH PROJECT DESIGNER.	BUILDIN 8 78746 6-2237 0RN.COM ASSOCI
JT		SLEEVE - USE DIAMETER 2 TIMES THAT OF SPRINKLER PIPE	MAY, B FIEXAS 512-646 EY-HOI A AND / RM NO
R ALL D		DESIGNATED FOR CROSSING PAVING ON ALL LATERAL LINES. USE CLASS 200 PVC PIPE, VALVE WIRING MAY BE RUN IN THE SAME SLEEVES.	PARKI STIN, 7 IONE: 5 IONE: 2 -1HORN 2-HORN
RE ALL		NOTE: REFER TO SHEETS 68 to 69 FOR DETAILS	
			© 2024 KIMLEY TE
	1 LEG	FND	2301 5301
	•		
ALL		STATEMENT OF IRRIGATION DESIGN STANDARDS CONFORMITY: This plan is complete and conforms to the design and installation parameters of the	*
		irrigation design and equipment standards set out by the City of Austin, TX and TCEQ (Texas Commission on Environmental Quality).	WADE O. RADLET 22397
		mule O. Rusket	A ANNIA
) AS T	-	Wade O. Radlet         TX LI # 22397	05.01.24
0 6"		SPECIAL NOTES: 1. THE IRRIGATION CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND	Σ Ţ Ţ Ψ
		STATE MANDATED IRRIGATION ORDINANCES AND CODES AND WILL SECURE ALL REQUIRED PERMITS.	HC_224
DR		2. ALL WIRES, CONTROL VALVES, AND PRESSURIZED WATER SUPPLY LINES SHALL NOT BE LOCATED WITHIN THE EXISTING ROW OR OUTSIDE PROPERTY BOUNDARIES.	KHA PROJECT 069274007 069274007 DATE MAY 01, 2024 SCALE: AS SHOV SCALE: AS SHOV DESIGNED BY: A DRAWN BY: A CHECKED BY: M
S #9		"Irrigation in Texas is regulated by the Texas Commission on	V
ESS		Environmental Quality (TCEQ), MC-178, PO Box 13087, Austin, Texas 78711-3087 TCEQ's website is: www.tceq.state.tx.us"	ļ ŭ
		TCEQ'S Website is. www.iceq.state.tx.us	
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		WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.	
		Know what's below.	
		Call before you dig.	65 OF 73

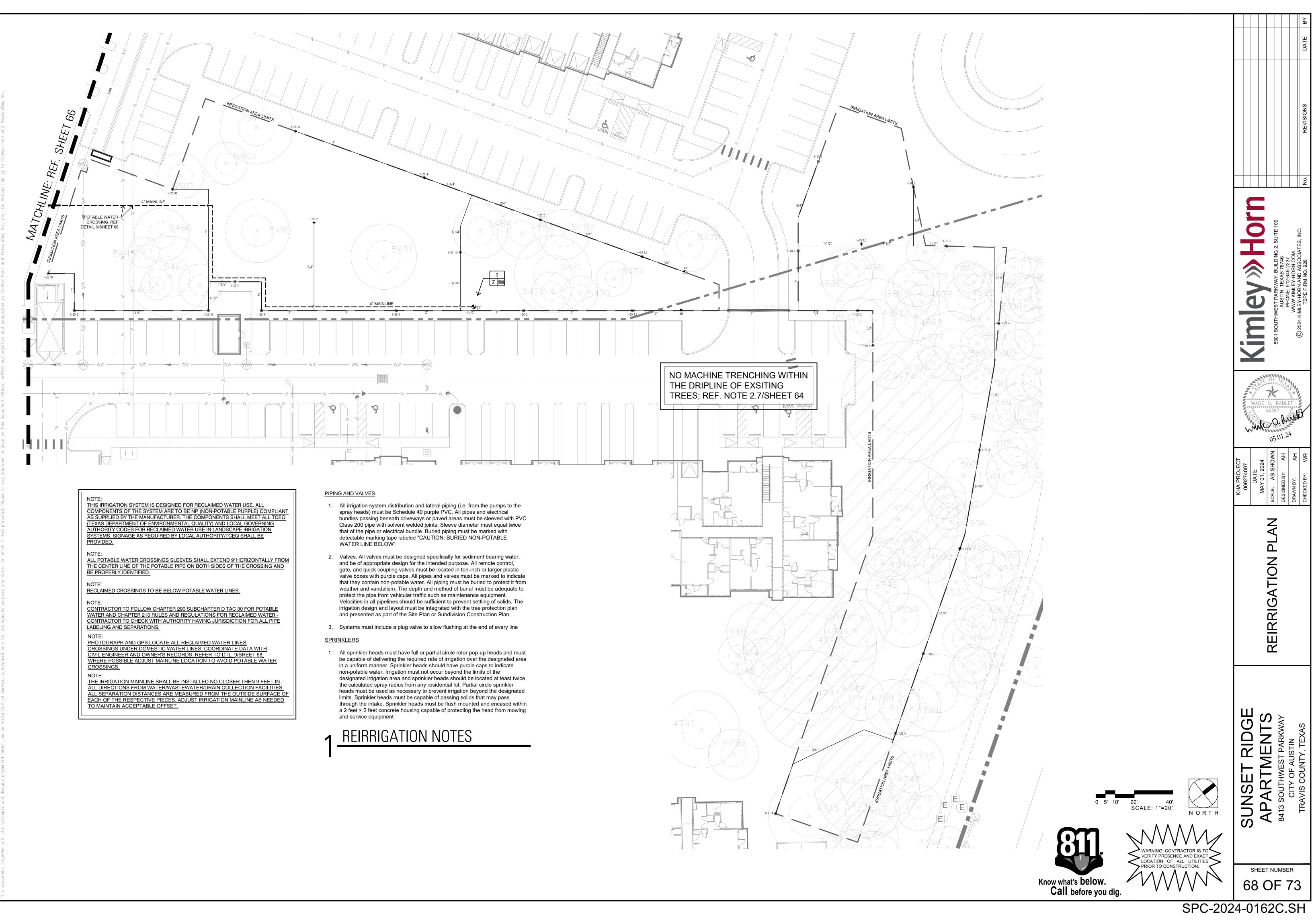


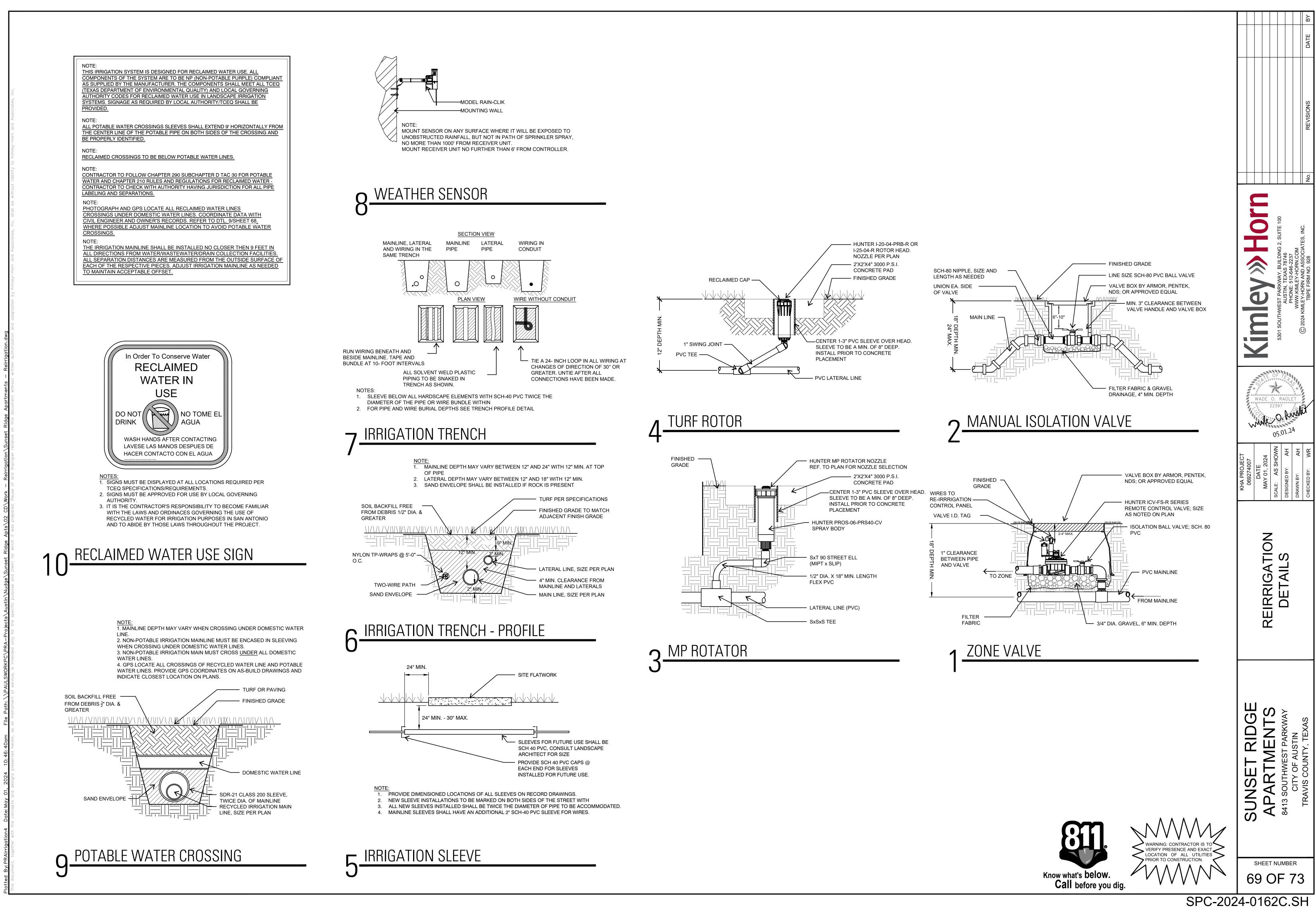


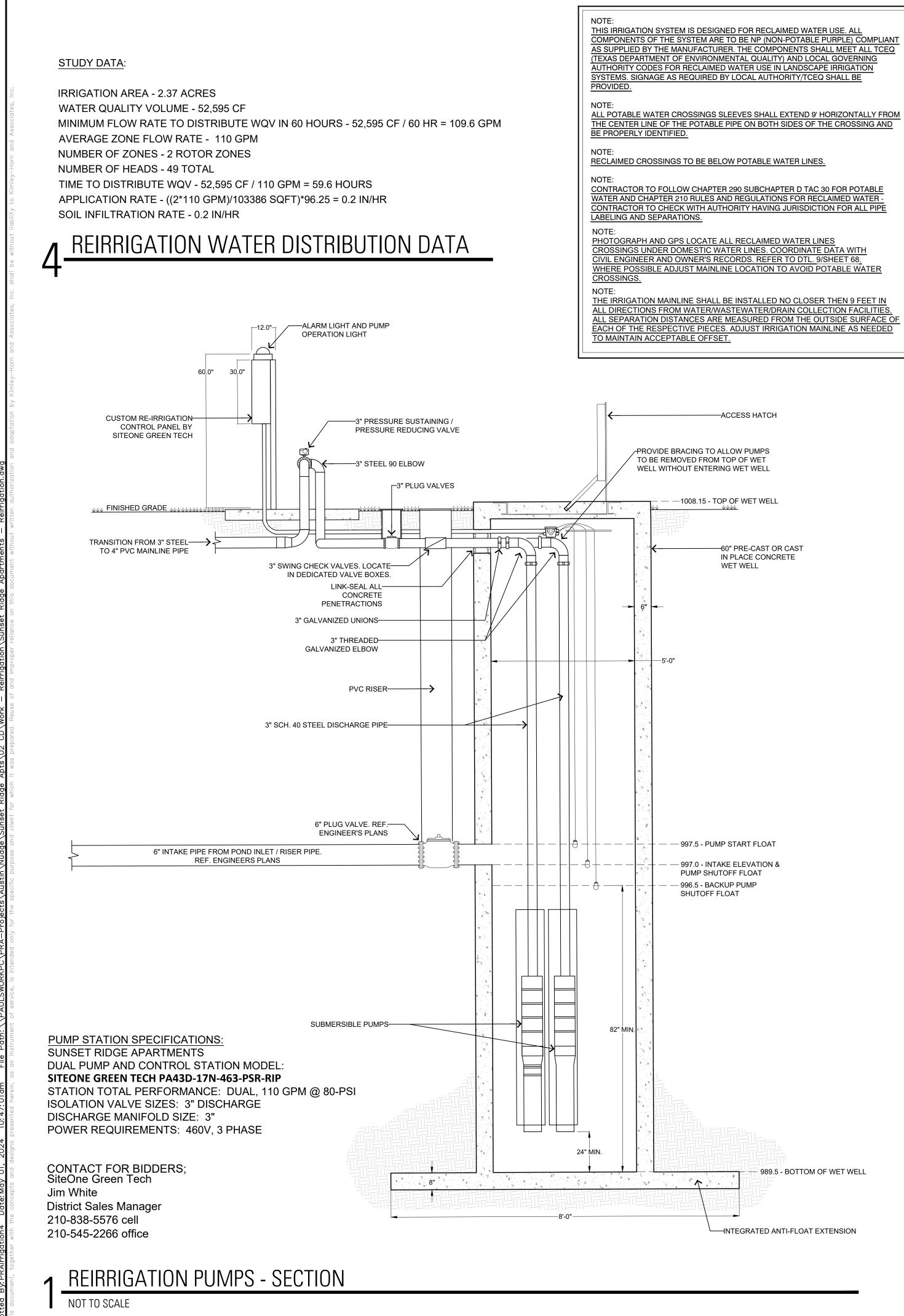




SPC-2024-0162C.SH







#### **Buoyancy Calculations**

Vet well Outside Dimensions	6.00	Feet
Vet well Inside Dimensions	5.00	Feet
Vet well Top Slab Elevation	1008.15	Feet
Vet well Bottom Elevation	989.50	Feet
Extended Base Slab Diameter	8.00	Feet
Extended Base Slab Thickness	0.67	Feet
op Slab Thickness	0.67	Feet

**Calculate Total Volume of Wet well Structure** 

Volume of Wet well Riser Sections= 527 Volume of Wet well Extended Base= 33 Total Volume of Wet well Structure= 561

**Calculate Total Volume of Water Displaced** H20 Displaced = (Volume of Wet well Structure) \* (62.4 lbs/cf) H20 Displaced = 34978 lbs

**Calculate Weight of Wet well Components** 

Section	Total Ht	Weight
Top Slab Thickness (ft.)	0.67	2827
Riser - Total Vertical Ft.	18.65	24169
Base Slab Thickness (ft.)	0.67	5027
Totals=	19.98333	32023

Total Weight of Concrete in Wet well= 32023 lbs.

Calculate Submerged Weight of Soil Above Extended Base/Footing 50 cf Total Area of Extended Base Total Area of Wet well Riser Area of Extended Base less Wet well Height of Soil Above Extended Base

Volume of Soil Above Extended Base Weight of Soil Above Extended Base (estimated) Total Weight of Soil Above Extended Base

50	81
28	sf
22	sf
20	ft
440	cf
50	lbs/cf
21991	lbs/cf

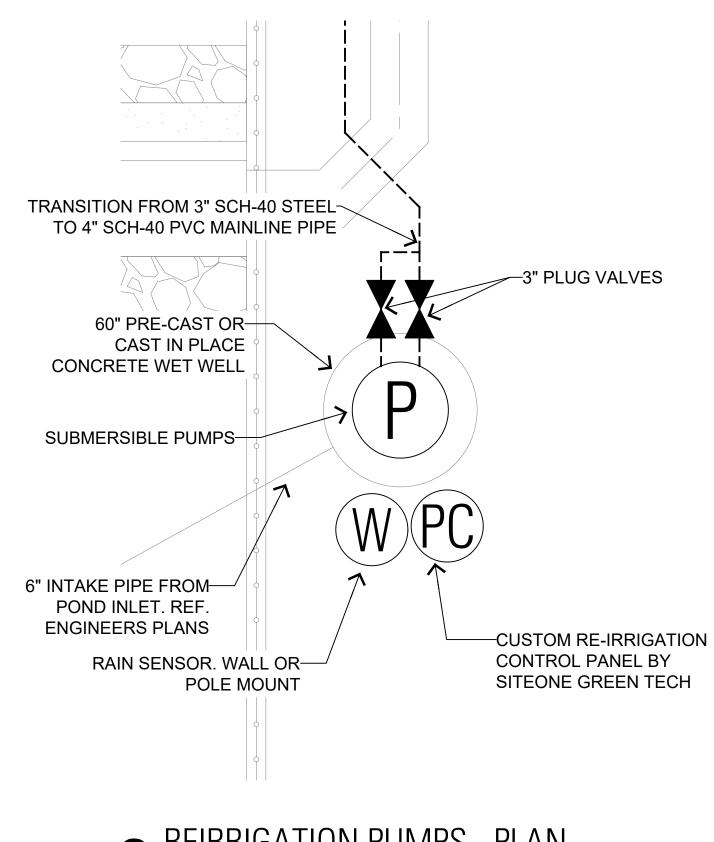
Flotation Protection Required?

Weight of Concrete and Weight of Soil Above Extended Base: Weight of Water Displaced By Wet Well: Flotation Protection Required?

34978 lbs NO

54014 lbs

# WET WELL BUOYANCY CALCULATIONS



→ REIRRIGATION PUMPS - PLAN

#### PUMPS

- 1. The retention basin must be emptied within 72-hours after a rain event ends. Emptying of the retention basin must not begin sooner than 12 hours after the end of the rainfall event. The flow rate of the pumps (gpm) shall be designed with either a 30 hour or 60 hour drawdown time (30 hrs for single zone irrigation systems and 60 hrs for multi-zone).
- 2. Pumps must be capable of delivering the required volume of water at the necessary rate and pressure to the irrigation system in the designated time period. Pumps and wet well must be sized to minimize the number of on and off-cycles of the pumps. The rate of inflow from the retention pond Intake Riser (see 1.6.7(A)(3)(c)) to the wet well must exceed the pump rate.
- 3. A dual pump system must be provided, with each pump capable of delivering 100 percent of the design capacity.
  - (a)Plug valves must be located outside the wet well on the discharge side of each pump to isolate the pumps for maintenance and for throttling if necessary. Butterfly valves and gate valves must not be used.
  - (b) Check valve(s) must be provided to prevent backflow from the irrigation system back into the pump well.
- (c) Pumps must be selected to operate within 20% of their best operating efficiency. 4. Pump Operation.
- - (a) The pumps must alternate on start up. The control logic must allow the system to operate normally with only one pump in service.
  - (b) A manual control must be provided so both pumps can be turned on if necessary. (c) A high/low-pressure pump shut off system (to detect line clogging or breaking) shall be installed in the pump discharge piping. As an alternative, an amp draw (overloads) or other equivalent monitoring device may be used.
- 5. Float controls or submersible transducers must be provided to control operation of the pumps. Three control settings must be used: (1) one for starting the pump, (2) one for shutting off the pump at the normal low water level, and (3) one for back up shut off of the pump in case the first shut-off fails.
- 6. An alarm system shall be provided consisting of a red light located at a height of at least five feet above the ground level at the wet well. The alarm shall activate when:
  - (a) The water level is below the primary shutoff float and the pump has not turned off. (b) The high/low-pressure pump shut off switch has been activated. (c) Any other pump failures or system shut down indicated by control panel.

The alarm must be vandal proof and weather resistant. If the system is to be privately maintained, a sign must be placed at the wet well clearly displaying the name and phone number of a responsible party that may be contacted if the alarm is activated

7. A green "pump run light" shall be provided which is activated any time a pump is running. The green light should be located directly adjacent to the red alarm light.

WET WELL

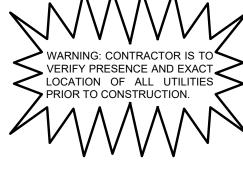
- 1. A separate wet well outside of the basin must be provided for the pumps. The wet well must be constructed of precast or cast in place concrete. Complete access to the pumps and other internal components of the wet well for maintenance must be provided through a lockable hatch cover. An isolation plug valve to prevent flow from the retention basin to the wet well during maintenance activities must be provided.
- 2. Calculations must be provided with the design showing that the wet well will not float under saturated-soil conditions. The top elevation of the well must be higher than the water quality elevation. The wet well, lateral inflow pipe, and pump must be designed to completely evacuate the retention pond. A space of at least two feet must be available below the bottom of the pump intake. The two-foot minimum space below the bottom of the pump may be waived if the applicant demonstrates that adequate filtration of the water quality volume is provided.
- 3. The pump installation in the wet well and access to the wet well must be designed to allow the pumps to be removed using truck-mounted hydraulic hoist equipment or a portable "A-frame." A system must be provided to allow pump removal without entering the wet well. If rails are used they must be stainless steel.

**IRRIGATION TIMING** 

- 1. The retention basin must be emptied within 72-hours after a rain event ends.
- 2. Irrigation must be initiated no sooner than 12 hours after the rain event ceases.
- 3. The irrigation controller must be set to provide alternating, equivalent irrigation and rest periods until the basin is emptied.
- 4. The time of irrigation on any area must not exceed the rest time. Continuous application on any area must not exceed two hours.
- 5. An adjustable rain sensor must be provided which will normally be set to temporarily halt irrigation during rainfalls exceeding one half inch. The rain sensor must be able to interrupt irrigation (stop pumps) in the event of subsequent rain events prior to emptying basin. The 12 hour pump delay may initiate after the rain sensor senses the rain event has terminated.
- 6. Division of the irrigation area into two or more sections such that irrigation occurs alternately in each section is an acceptable way to meet the requirement for a rest period

# **2** <u>RE-IRRIGATION SYSTEM GUIDELINES</u>



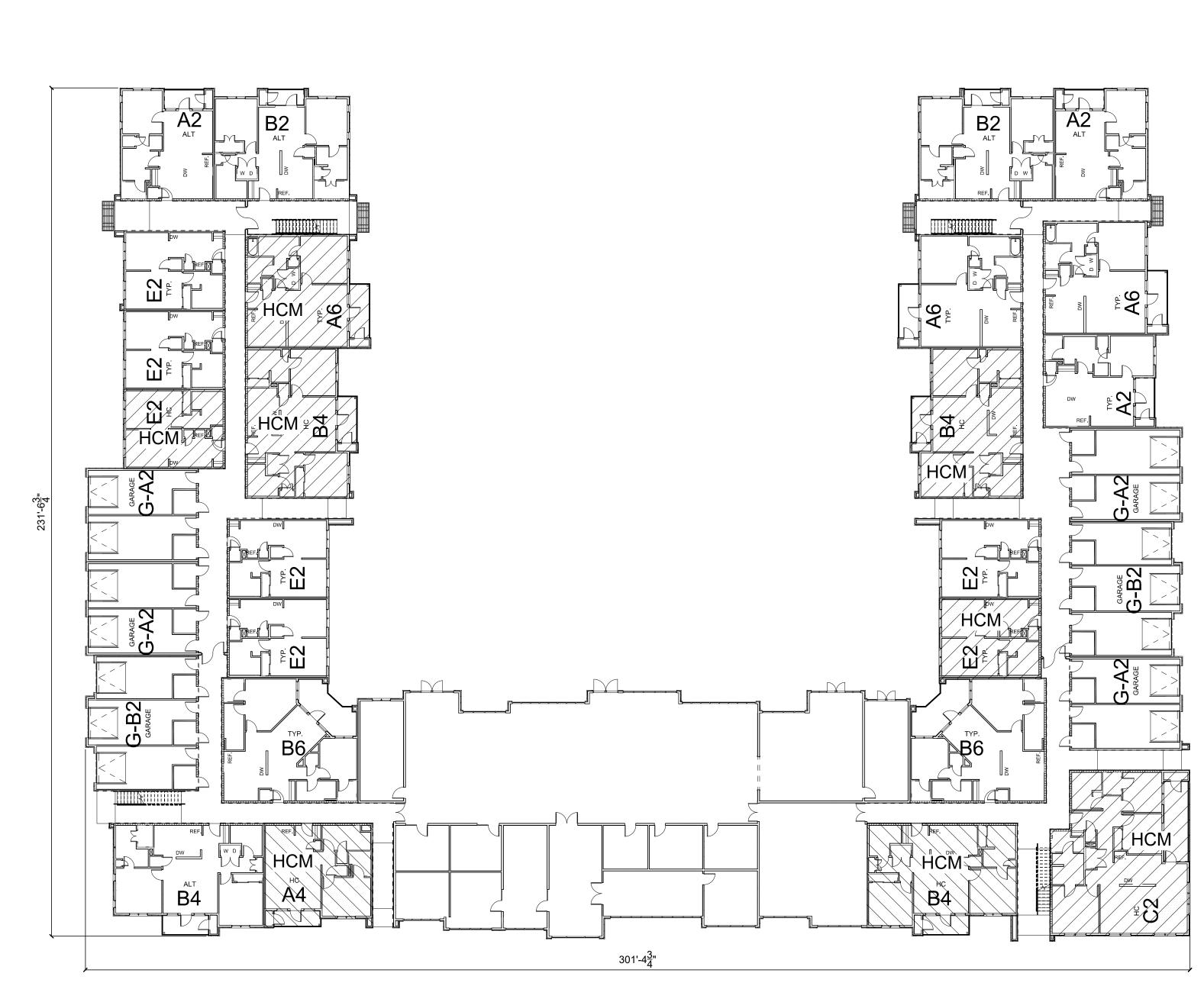


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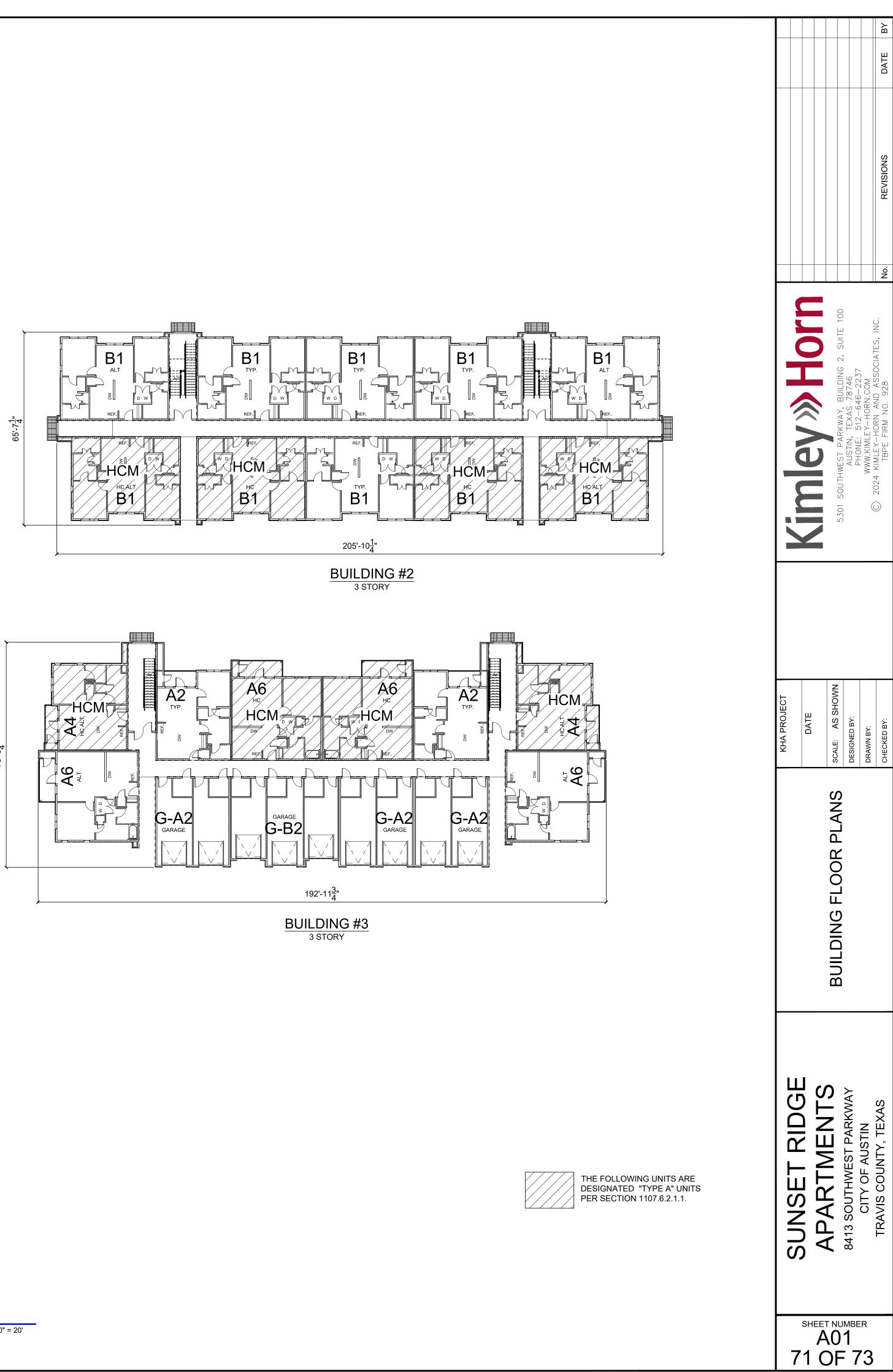
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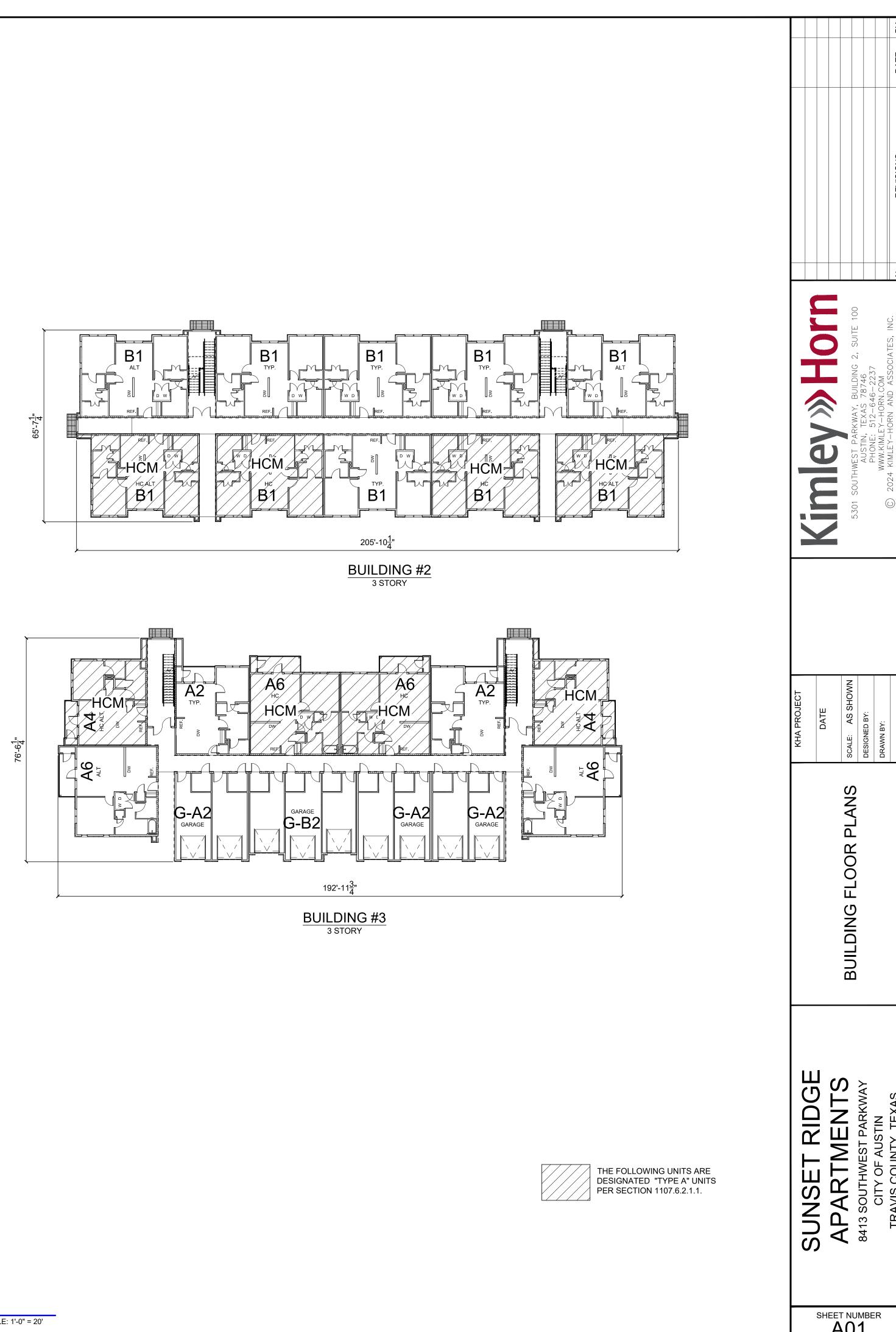
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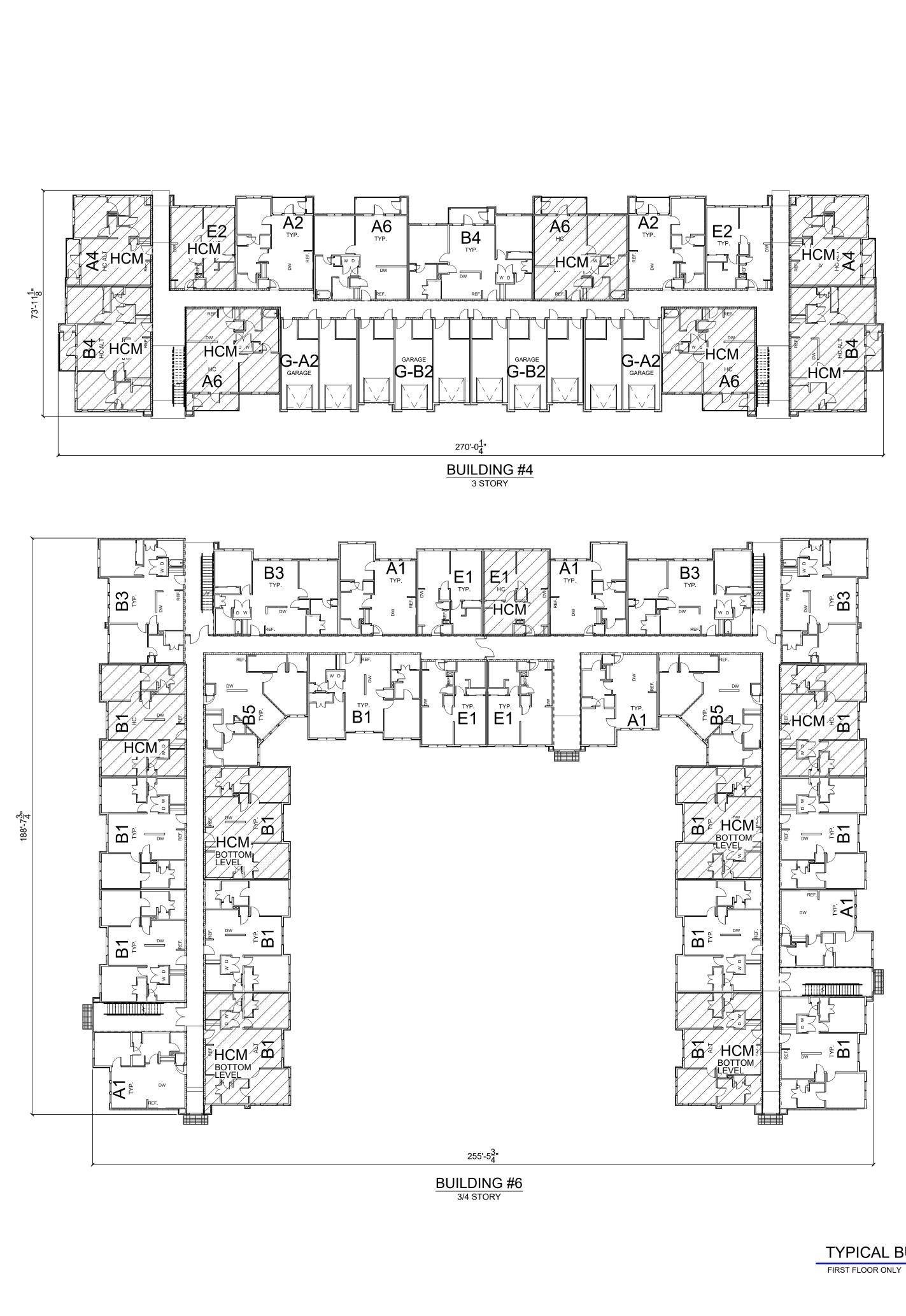


### TYPICAL BUILDING FLOOR PLANS

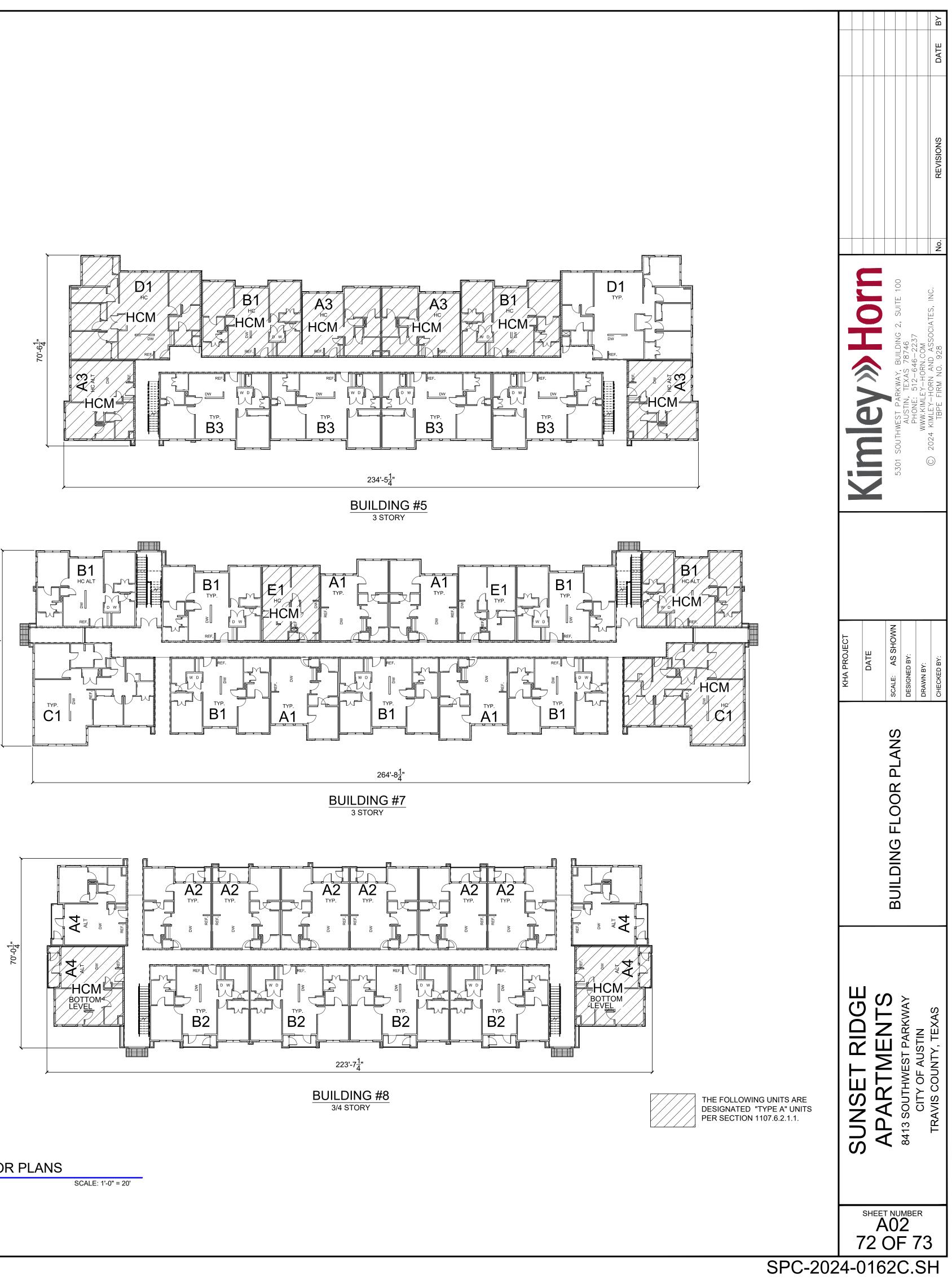
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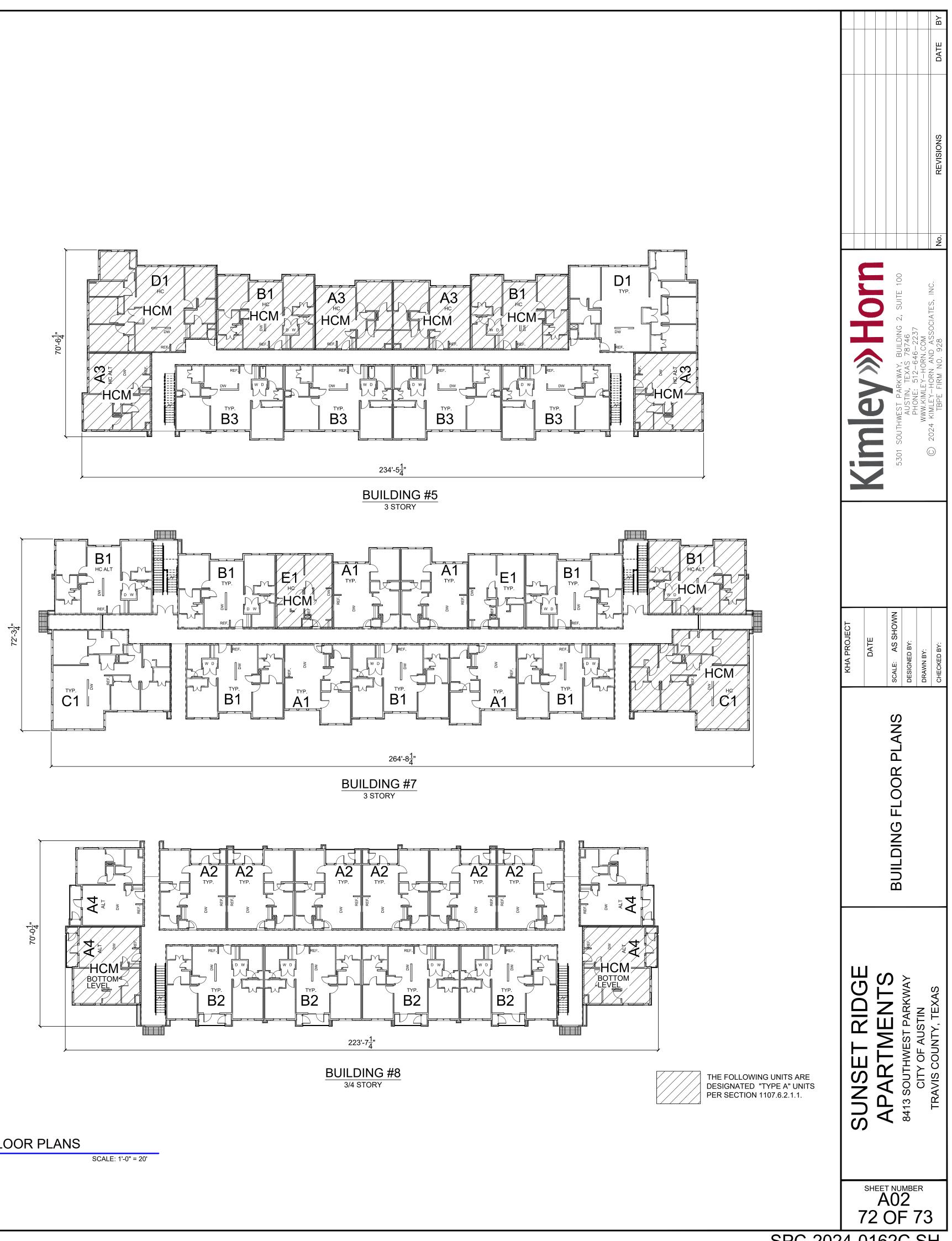
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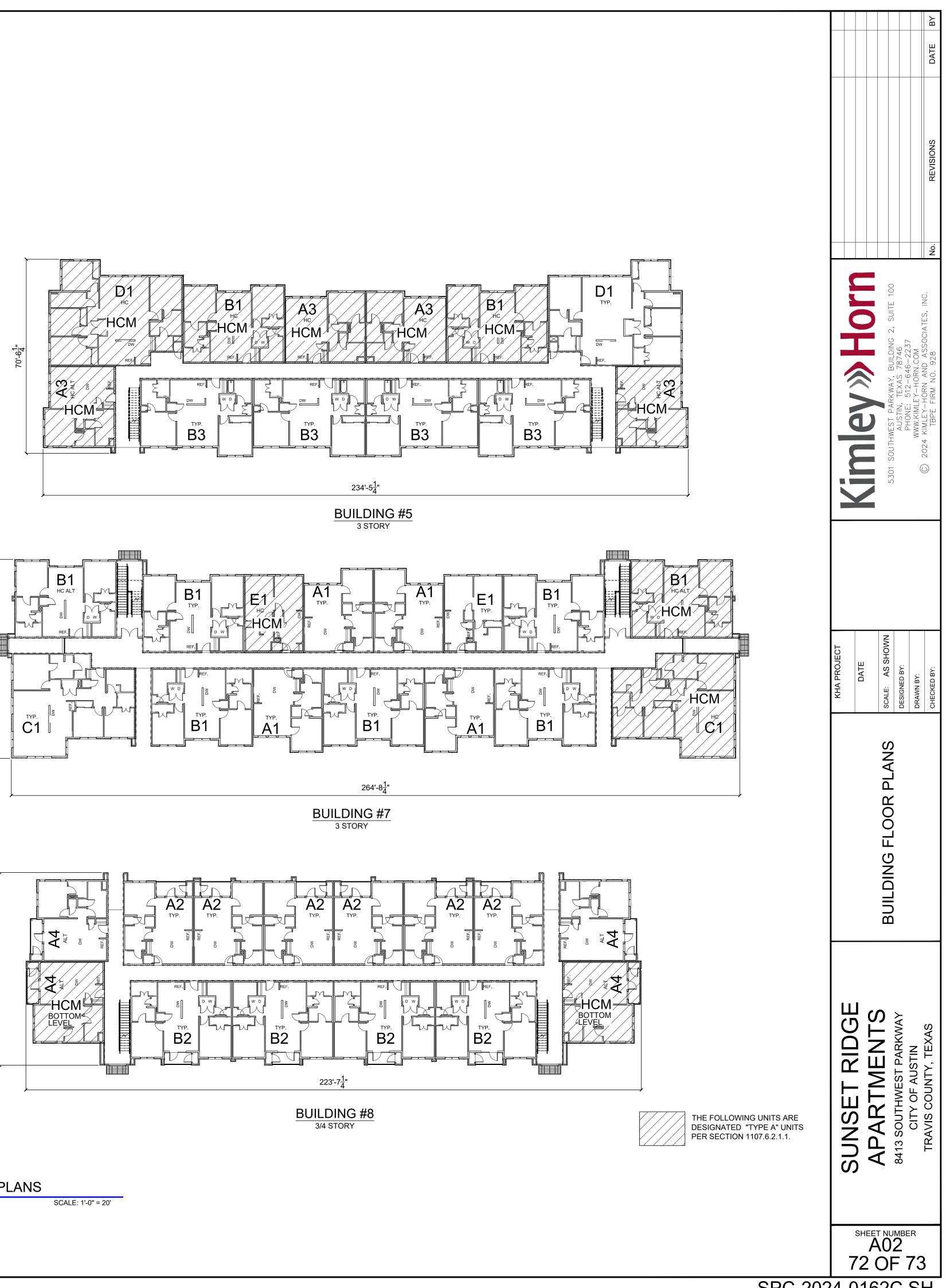
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## TYPICAL BUILDING FLOOR PLANS









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### Kimley **Whorn** Attachment N

#### Inspection, Maintenance, Repair and Retrofit Plan

The inspection and maintenance plan outlines the procedures necessary to maintain the performance of the Permanent Best Management Practices for this project. It should be noted that the plan provides guidelines that may have to be adjusted dependent on site specific and weather related conditions.

It is the responsibility of the owner to provide the inspections and maintenance as outlined in the plan for the duration of the project. The owner will maintain this responsibility until it is assumed or transferred to another entity in writing. If the property is leased or sold, the responsibility for the maintenance will be required to be transferred through the lease agreement, binding covenants, closing documents, or other binding legal instrument.

Disposal of accumulated silt shall be accomplished following Texas Commission on Environmental Quality guidelines and specifications.

Maintenance records shall be kept on the installation, maintenance, or removal of items necessary for the proper operation of the facilities. All inspections shall be documented.

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:	Manifold Sunset Ridge Apartments, LLC		
Mailing Address:	1608 W 5th Street, Suite 230		
City, State:	Austin, Texas	Zip: <u>78703</u>	
Telephone:	(619) 818-0151	Fax: N/A	

I, the owner, have read and understand the requirements of the attached Inspection and Maintenance Plan for the proposed Permanent Best Management Practices for my project. I acknowledge that I will maintain responsibility for the implementation and execution of the plan until the responsibility is transferred to or assumed by another party in writing through a binding legal instrument.

Signature of Responsible Party	Tyle room (179, 9, 2024 14:43 CDT)	05/09/24 Date
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This Maintenance Plan is based on TCEQ Maintenance Guidelines.

By: \_\_\_\_\_\_Kendyk faul Kendyl Saul, P.E. Date <u>04/30/2023</u>

# Kimley **Horn** Water Quality Ponds

#### **Routine Maintenance**

<u>Mowing</u>: The side-slopes, embankment, and emergency spillway of the basin should be mowed at least twice a year to prevent woody growth and to control weeds.

<u>Inspections.</u> Water Quality Ponds should be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. When possible, inspections should be conducted during wet weather to determine if the basin is functioning properly. There are many functions and characteristics of these BMPs that should be inspected. The embankment should be checked for subsidence, erosion, leakage, cracking, and tree growth. The condition of the emergency spillway should be checked. The inlet, barrel, and outlet should be inspected for clogging. Stability of the side slopes should be checked. Modifications to the basin structure and contributing watershed should be evaluated. During semi-annual inspections replace any dead or displaced vegetation. Replanting of various species of wetland vegetation may be required at first, until a viable mix of species is established. Cracks, voids and undermining should be patched/filled to prevent additional structural damage. Trees and root systems should be removed to prevent growth in cracks and joints that can cause structural damage. The inspections should be carried out with As-built pond plans in hand.

<u>Debris and Litter Removal</u>: As part of periodic mowing operations and inspections, debris and litter should be removed from the surface of the basin. Attention should be paid to floatable debris, and the outlet should be checked for possible clogging.

<u>Sediment Removal</u>: Inspection of the forebay should be completed every three months for the first two years after construction completion, and during the three-month inspection cycle, if more than 15% of the forebay volume is lost, the sediment build-up should be removed. After the two-year period, the sediment forebay should be inspected every three years, and the sediment should be cleaned out if more than one-third of the forebay volume is lost. Every six years, the sediment build-up in the mail pool should be inspected and sediment should be removed if twenty percent of the main pool volume is lost.

*Erosion Control:* The basin side slopes, emergency spillway, and embankment all may periodically suffer from slumping and erosion. Corrective measures such as re-grading and re-vegetation may be necessary.

<u>Nuisance Control</u>: Most public agencies surveyed indicate that control of insects, weeds, odors, and algae may be needed in some ponds. Nuisance control is probably the most frequent maintenance item demanded by local residents. Twice a year, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.). Biological control of algae and mosquitoes using fish such as fathead minnows is preferable to chemical applications.

#### **Non-Routine Maintenance**

<u>Structural Repairs and Replacement:</u> The structural integrity of the embankment, outlet structure and retaining walls should be inspected during the required routine inspections. Leakage or seepage of water through the embankment must be avoided and any structural damage should be repaired immediately.

*Harvesting*: If vegetation is present on the fringes or in the pond, it can be periodically harvested and the clippings removed to provide export of nutrients and to prevent the basin from filling with decaying organic matter.

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.

<b>Responsible Party:</b>	Manifold Sunset Ridge Apartments, LLC
Mailing Address:	1608 W 5th Street, Suite 230
City, State:	Austin, Texas
Telephone:	(619) 818-0151

Zip: 78703

I, the owner, have read and understand the requirements of the attached Inspection and Maintenance Plan for the proposed Permanent Best Management Practices for my project. I acknowledge that I will maintain responsibility for the implementation and execution of the plan until the responsibility is transferred to or assumed by another party in writing through a binding legal instrument.

Signature of Responsible Party	Date 05/09/24
Signature of Responsible Farty	Date

# ATTACHMENT P: Measures for Minimizing Surface Stream Contamination

Surface streams do not exist on site. All disturbed areas wil be re-vegetated as soon as practical.

# SECTION 3 : TEMPORARY STORMWATER SECTION

### **Temporary Stormwater Section**

**Texas Commission on Environmental Quality** 

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); 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 **Temporary Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Kendyl Saul

Date: <u>04/30/2024</u>

Signature of Customer/Agent:

Kendyk faul

Regulated Entity Name: Sunset Ridge Apartments

#### **Project Information**

#### Potential Sources of Contamination

*Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.* 

1. Fuels for construction equipment and hazardous substances which will be used during construction:

The following fuels and/or hazardous substances will be stored on the site: \_\_\_\_\_

These fuels and/or hazardous substances will be stored in:

Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.

Fuels and hazardous substances will not be stored on the site.

- 2. X Attachment A Spill Response Actions. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.
- 3. Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
- 4. **XAttachment B Potential Sources of Contamination**. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

#### Sequence of Construction

- 5. X Attachment C Sequence of Major Activities. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.
  - For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.
  - For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.
- 6. X Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: N/A

#### Temporary Best Management Practices (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

7. XAttachment D – Temporary Best Management Practices and Measures. TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached: A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. X The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

Attachment E - Request to Temporarily Seal a Feature. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. XAttachment F - Structural Practices. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.

10. 🔀	Attachment G - Drainage Area Map.	A drainage area map supporting the following
	requirements is attached:	

For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.

11. X Attachment H - Temporary Sediment Pond(s) Plans and Calculations. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.

🗌 N/A

- 12. X Attachment I Inspection and Maintenance for BMPs. A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
- 13. X All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
- 14. X If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
- 15. X Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
- 16. X Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

#### Soil Stabilization Practices

*Examples:* establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. X Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices. A schedule of the interim and permanent soil stabilization practices for the site is attached.

- 18. X Records must be kept at the site of 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.
- 19. X Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

#### Administrative Information

- 20. X All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
- 21. X If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
- 22. X Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

#### ATTACHMENT A: SPILL RESPONSE ACTIONS

If there is an accidental spill on site, the contractor shall respond with appropriate action. The contractor will be required to contact the owner and in turn the owner will contact the TCEQ in the event of a spill on site. In addition to the following guidance, reference the latest version of TCEQ's Technical Guidance Manual (TGM) RG-348 Section 1.4.16.

#### Cleanup

- Clean up leaks and spills immediately.
- Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.
- Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

#### **Minor Spills**

- Minot spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Absorbent materials should be promptly removed and disposed of properly.
- Follow the practice below for a minor spill:
  - $\circ$   $\,$  Contain the spread of the spill.
  - Recover spilled materials.
  - Clean the contaminated area and properly dispose of contaminated materials.

#### **Semi-Significant Spills**

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Spills should be cleaned up immediately:

- Contain spread of the spill.
- Notify the project foreman immediately.
- If the spill occurs on paved or impermeable surfaces, cleanup using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
- If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
- If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

#### Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

- Notify the TCRQ by telephone as soon as possible and within 24 hours at (512)339-2929
  - (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
  - For spills of federal reportable quantities, in conformance with requirements in 40 CFR parts 110,119 and 302, the contractor should notify the National Response Center at (800) 424-8802.
  - Notification should first be made by telephone and followed up with a written report.
  - The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
  - Other agencies which may need to be consulted include, but not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

#### ATTACHMENT B: Potential Source of Contamination

**Potential Source:** Oil, grease, fuel and hydraulic fluid contamination from construction equipment and vehicle dripping.

**Preventative Measures:** Vehicle maintenance will be performed within the construction staging area or a local maintenance shop.

Potential Source: Miscellaneous trash and litter from construction workers and material wrappings.

**Preventative Measures:** Trash containers will be placed throughout the sire to encourage proper disposal of trash.

Potential Source: Silt leaving the site.

**Preventative Measures:** Contractor will install all temporary best management practices prior to start of construction including the stabilized construction entrance to prevent tracking onto adjoiing streets.

Potential Source: Construction Debris

**Preventative Measures:** Construction debris will be monitored daily by contractor. Debris will be collected weekly and placed in disposal bins. Situations requiring immediate attention will be addressed on a case by case basis.

Potential Source: Soil and Mud from Construction Vehicle tires as they leave the site.

**Preventative Measures:** A stabilized construction exit shall be utilized as vehicles leave the site. Any soil, mud, etc. carried from the project onto public roads shall be cleaned up within 24 hours.

Potential Source: Sediment from soil, sandm gravel and excavated materials stock piled on site.

**Preventative Measures:** Silt fence shall be installed on the down gradient side of the stock piled materials. Reinforced rock berms shall be installed at all downstream discharge locations.

Potential Source: Portable toilet spill.

**Preventative Measures:** Toilets on the site will be emptied on a regular basis by the contracted toilet company.

### **ATTACHMENT C: Sequence Of Major Activities**

The installation of erosion and sedimentation controls shall occur prior to any excavation of materials or major disturbances on the site. The sequence of major construction activities will be as follows. Approximate acreage to be disturbed is listed in parentheses next to each activity.

#### Intended Schedule or Sequence of Major Activities:

- 1. Construct Access (0.07 Acres)
- 2. Installation of Temporary BMPs (1.32 Acres)
- 3. Initiate Grubbing and Topsoil Stripping of Site (19.62 Acres)
- 4. Rough Subgrade Preparation (earthwork, grading, street and drainage excavation and embankment) (<u>19.62</u> Acres)
- 5. Wet and Dry Utility Construction (1.95 Acres)
- 6. Final Subgrade Preparation (4.72 Acres)
- 7. Instillation of Base Materials (4.72 Acres)
- 8. Paving Activities (4.72 Acres)
- 9. Site cleanup and Removal of Temporary BMPs (<u>1.32</u> Acres) Maximum total construction time is not expected to exceed 12 months.

### ATTACHMENT D: Temporary Best Management Practices And Measures

- A. The stormwater originating upgradient from the site will surface flow to the existing storm sewer system and be conveyed to the rough cut wet pond area.
- B. Temporary BMPs will be installed prior to soil disturbing construction activity. Silt fencing will be placed along the down-gradient sides of the property to prevent silt form escaping the construction area. A temporary construction entrance will be placed on site to reduce vehicle "tracking" onto adjoining streets. A concrete washout pit will be used to collect all excess concrete during construction.

BMPs for this project will protect surface water or groundwater from turbid water, phosphorus, sediment, oil, and other contaminant, which may mobilize in stormwater flows by slowing the flow of runoff to allow sediment and suspended solids to settle out of the runoff.

Practices may also be implemented on site for interim and permanent stabilization. Stabilization practices may include but are not limited to" establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization vegetative buffer strips, protection of existing trees and vegetation, and other similar measures.

- C. There are no sensitive features or surface streams within the boundaries of the project. The temporary onsite BMPs will be used to treat stormwater runoff before it leaves the project and prevent pollutants from entering into surface streams or any sensitive features down gradient of the site.
- D. There were no sensitive features identified during the geologic assessment. However, the BMPs for this project are designed to allow water to pass through after sedimentation has occurred. Existing flow patterns will be maintained to any naturally-occurring sensitive features that are discovered during construction.

### ATTACHMENT E: Request to Temporarily Seal a Feature

This attachment is not applicable. No features will be sealed on this site.

kimley-horn.com 5301 Southwest Parkway, Building 2, Suite 100, Austin, TX 78735 512 646 2237

### **ATTACHMENT F: Structural Practices**

The plan for temporary structural controls on this site include placing silt fence at the down slope of the site that will collect sediment prior to entering a stream. This will allow for the sediment to be clean out for continued effective usage of the silt fence.

#### ATTACHMENT G: Drainage Area Map

Refer to Existing and Proposed Drainage Area Maps in Construction Plans.

# ATTACHMENT H: Temporary Sediment Pond(s) Plans and Calculations

Proposed ponds are to be rough graded and used for temporary sedimentation control. Refer to the table below and the erosion and sedimentation control sheet in the construction documents for temporary sedimentation control pond requirements and information.

TEMPORARY SEDIMENTATION CONTROL POND REQUIRMENTS						
POND MINIMUM STORAGE (Cu. Ft.) MINIMUM BERM ELEVATION (Ft.)						
1	175,156	1008				
2	33,953	1018.5				

\*MINIMUM STORAGE IS THE TEMPORARY POND STORAGE REQUIRED TO CONTAIN THE 24-HR, 2-YR STORM EVENT.

#### **ATTACHMENT I: Inspection and Maintenance for BMPs**

#### A. Inspection Schedule

- 1. All disturbed areas, as well as all erosion and sediment control devices, will be inspected according to one of the following schedules:
  - a) at least every seven (7) calendar days and within 24 hours after a rainfall of 0.25" or greater, or
  - b) every seven (7) days on the same day of the week each week, regardless of whether or not there has been a rainfall event since the previous inspection.
- 2. Inspections will occur on the schedule provided in this plan and any changes made to the schedule must adhere to the following:
  - a) the schedule can change a maximum of one time each month,
  - b) the schedule change must be implemented at the beginning of a calendar month, and
  - c) the reason for the schedule change must be documented in this plan (an inspection schedule form is located below).

#### **B.** Inspection Reports

- 1. Completed inspection reports (see below) will include the following information:
  - a) scope of the inspection,
  - b) date of the inspection,
  - c) name(s) of personnel making the inspection,
  - d) reference to qualifications of inspection personnel,
  - e) observed major construction activities, and
  - f) actions taken as a result of the inspection.
- 2. All disturbed areas (on and off-site), areas for material storage locations where vehicles enter or exit the site, and all of the erosion and sediment controls that were identified as part this plan must be inspected. The inspection report must state whether the site was in compliance or identify any incidents of non-compliance. The report will be signed by the qualified inspector in accordance with the TPDES general permit and filed in this plan. A sample Inspection Report is included below along with an Inspector Qualification Form. All reports and inspections required by the general construction permit will be completed by a duly authorized representative.
- 3. The operator should correct any damage or deficiencies as soon as practicable after the inspection, but in no case later than seven (7) calendar days after the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in this plan, and wherever possible, those changes implemented before the next storm event or as soon as practicable. A list of maintenance guidelines are included below.

4. Inspection reports will be kept in the Operator's file, along with this plan, for at least three years from the date that the NOT is submitted to the TCEQ for the construction site.

#### C. Final Stabilization

Final stabilization of the construction site has been achieved when all soil disturbing activities at the site have been completed, and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures. If a vegetative cover cannot be established, equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) can be employed. When these conditions have been met, BMPs can be removed from the construction area.

#### **Inspector Qualifications\***

Inspector Name: Qualifications (Check as appropriate and provide description): Training Course Supervised Experience Other
Inspector Name:
Qualifications (Check as appropriate and provide description):
Supervised Experience
Other
Inspector Name:
Qualifications (Check as appropriate and provide description):
Supervised Experience
□ Other

\*Personnel conducting inspections must be knowledgeable of the general permit, familiar with the construction site, and knowledgeable of the SWP3 for the site.

#### **INSPECTION SCHEDULE**

Inspections must be conducted:

- Option 1 at least once every 7 calendar days and within 24 hours of the end of a storm event of 0.25 inch or greater
- **Option 2** at least once every 7 calendar days, regardless of whether or not there has been a rainfall event since the previous inspection.

Any changes to the schedule are conducted in accordance with the following:

- the schedule is changed a maximum of one time each month,
- the schedule change must be implemented at the beginning of a calendar month, and
- the reason for the schedule change must be documented below.

Date	Schedule Option	Reason for Schedule Change
	1	

#### Construction Site SWP3 Inspection Report

Warning No.		Complies	
ö⊓ Project Shutdown	atus	□ Warning	No.
	St	Project Shutdown	

	On-	Site	Up-to-date		
WP3	Yes No <sup>1</sup>		Yes	No <sup>2</sup>	
SV					

	Project:	Date:			
	a Address: Inspector:				
neral matio		Qualifications: see Appendix E of SWP3			
for		Weather Conditions:			
<u>n</u>	Owner:	Contractor:			

BMP	BN In U		Maint. Req'd		Comments
	Yes	No	Yes <sup>2</sup>	No	

<sup>1</sup>The SWP3 must be retained on-site at the construction site or, if the site is inactive or does not have an on-site location to store the plan, a notice must be posted describing the location of the SWP3.

<sup>2</sup>Items marked in this column need to be addressed in the Actions to be Taken table.

ACTIONS TO BE TAKEN	RESPONSIBLE PERSON(S)	DUE DATE	DATE COMPLETED	INITIALS

NOTE: These reports will be kept on file as part of the Storm Water Pollution Prevention Plan for at least three years. A copy of the SWP3 will be kept at the site at all times during construction.

CERTIFICATION STATEMENT: "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 gathered and evaluated 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 that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name:

Address:

Telephone:

Site Location:

kimley-horn.com

Inspector Signature:

Date:

#### MAINTENANCE GUIDELINES

- 1. Below are some maintenance practices to be used to maintain erosion and sediment controls:
  - All control measures will be inspected according to the schedule identified in Appendix E.
  - All measures will be maintained in good working order. The operator should correct any damage or deficiencies as soon as practicable after the inspection, but in no case later than seven (7) calendar days after the inspection.
  - BMP Maintenance (as applicable)
    - Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.
    - Silt fence will be inspected for depth of sediment, tears, to see of the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
    - Drainage swale will be inspected and repaired as necessary.
    - Inlet control will be inspected and repaired as necessary.
    - Check dam will be inspected and repaired as necessary.
    - Straw bale dike will be inspected and repaired as necessary.
    - Diversion dike will be inspected and any breaches promptly repaired.
    - Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
    - 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 permittee does not own or operate the off-site conveyance, then the permittee must to work with the owner or operator of the property to remove the sediment.
    - Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.
- 2. To maintain the above practices, the following will be performed:
  - Maintenance and repairs will be conducted before the next anticipated storm event or as necessary to maintain the continued effectiveness of storm water controls. Following an inspection, deficiencies should be corrected no later than seven (7) calendar days after the inspection.
  - Any necessary revisions to the SWP3 as a result of the inspection must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the SWP3 and wherever possible those changes implemented before the next storm event.
  - Personnel selected for inspection and maintenance responsibilities must be knowledgeable of the general permit, familiar with the construction site, and knowledgeable of the SWP3 for the site.

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# ATTACHMENT J: Schedule of Interim and Permanent Soil Stabilization

Construction practices shall disturb the minimal amount of existing ground cover as required for land clearing, grading, and construction activity for the shortest amount of time possible to minimize the potential of erosion and sedimentation from the site. Existing vegetation shall be maintained and left in place until it is necessary to disturb for construction activity. For this project the following stabilization practices will be implemented:

- 1. Seeding: Disturbed areas subject to erosion shall be stabilized by seeding and watering to provide interim stabilization. For areas that are not to be sodded as per the project landscaping plan, a minimum of 85% vegetative cover will be established to provide permanent stabilization.
- 2. Sodding and Wood Mulch: As per the project landscaping plan, Sodding and wood mulch will be applied to landscaped areas to provide permanent stabilization prior to project completion.

Records of the following shall be maintained:

- a. The dates when major grading activities occur;
- b. The dates when construction activities temporarily or permanently cease on a portion of the site; and
- c The dates when stabilization measures are initiated.

Stabilization measures must be initiated as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, and except as provided in the following, must be initiated no more that fourteen (14) days after the construction activity in that portion of the site has temporarily or permanently ceased:

- 1. Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practical.
- 2. Where construction activity on a portion of the site is temporarily ceased and earth disturbing activities will be resumed within twenty-one (21) days, temporary stabilization measures do not have to be initiated on that portion of the site.
- 3. In arid areas (areas with an average rainfall of 0-10 inches), semiarid areas (areas with an average annual rainfall of 10 to 20 inches), and areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonably arid conditions, stabilization measures must be initiated as soon as practical.

## Maintenance

Below are some maintenance practices to be used to maintain erosion and sediment controls:

- All measures will be maintained in good working order. The operator should correct any damage or deficiencies as soon as practicable after the inspection, but in no case later than seven (7) calendar days after the inspection.
- BMP Maintenance (as applicable)
- Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as

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silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.

- Silt fence will be inspected for depth of sediment, tears, to see of the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Drainage swale will be inspected and repaired as necessary.
- Inlet control will be inspected and repaired as necessary.
- Check dam will be inspected and repaired as necessary.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- 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 permittee does not own or operate the off-site conveyance, then the permittee must to work with the owner or operator of the property to remove the sediment.
- Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

To maintain the above practices, the following will be performed:

• Maintenance and repairs will be conducted before the next anticipated storm event or as necessary to maintain the continued effectiveness of stormwater controls. Following an inspection, deficiencies should be corrected no later than seven (7) calendar days after the inspection.

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# **SECTION 4: ADDITIONAL FORMS**

# **Application Fee Form**

Texas Commission on Environmental Quality						
Name of Proposed Regulated Entity: <u>Sunset Ridge Apartments</u>						
Regulated Entity Location: 8413 Southwest Pkwy, Austin, TX 78735						
Name of Customer: Manifold Sun	set Ridge Apartments, I	LC				
Contact Person: <u>Tyler Grooms</u>	Phon	e: <u>619-818-0151</u>				
Customer Reference Number (if is	ssued):CN					
Regulated Entity Reference Number (if issued):RN						
Austin Regional Office (3373)						
Hays	🔀 Travis	Πw	illiamson			
San Antonio Regional Office (336	2)					
Bexar	Medina		valde			
Comal	Kinney					
Application fees must be paid by	check, certified check, c	or money order, payab	le to the <b>Texas</b>			
<b>Commission on Environmental Q</b>	uality. Your canceled c	heck will serve as you	r receipt. <b>This</b>			
form must be submitted with you	<b>ur fee payment</b> . This pa	ayment is being submi	tted to:			
🔀 Austin Regional Office		an Antonio Regional Office				
Mailed to: TCEQ - Cashier	o	Overnight Delivery to: TCEQ - Cashier				
Revenues Section	1	12100 Park 35 Circle				
Mail Code 214	В	Building A, 3rd Floor				
P.O. Box 13088	A	Austin, TX 78753				
Austin, TX 78711-3088	.(1	512)239-0357				
Site Location (Check All That App	ly):					
Recharge Zone	Contributing Zone	🗌 Transi	tion Zone			
Type of Pla	n	Size	Fee Due			
Water Pollution Abatement Plan,	Contributing Zone					
Plan: One Single Family Residentia	al Dwelling	Acres	\$			
Water Pollution Abatement Plan,	•					
Plan: Multiple Single Family Resid	ential and Parks	19.6 Acres	\$ 6,500			
Water Pollution Abatement Plan,	Contributing Zone					
Plan: Non-residential	Acres	\$				
Sewage Collection System	L.F.	\$				
Lift Stations without sewer lines		Acres	\$			
Underground or Aboveground Sto	orage Tank Facility	Tanks	\$			
Piping System(s)(only)		Each	\$			
Exception		Each	\$			
Extension of Time		Each	\$			
		Edeli	Ŷ			

Signature: \_\_\_\_

Kendye fame

Date: 04/30/2024

# **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 Area in	
Project	Acres	Fee
One Single Family Residential Dwelling	< 5	\$650
Multiple Single Family Residential and Parks	< 5	\$1,500
	5 < 10	\$3,000
	10 < 40	\$4,000
	40 < 100	\$6,500
	100 < 500	\$8,000
	≥ 500	\$10,000
Non-residential (Commercial, industrial, institutional,	< 1	\$3,000
multi-family residential, schools, and other sites	1 < 5	\$4,000
where regulated activities will occur)	5 < 10	\$5,000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$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

	Cost per Tank or	Minimum Fee-
Project	Piping System	Maximum Fee
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

### Exception Requests

	Project	Fee
Exception Reques	t	\$500

## **Extension of Time Requests**

Project	Fee
Extension of Time Request	\$150



# **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 ( <i>Core Data Form should be submitted with the program application.</i> )						
Renewal (Core Data Form should be submitted with the	e renewal form)	Other				
2. Customer Reference Number ( <i>if issued</i> ) Follow this link to search for Chica Dil numbers in S. Regulated Entity Reference Number ( <i>if issued</i> )						
CN CN Cn Central Registry** RN						

# **SECTION II: Customer Information**

4. General Cu	4. General Customer Information 5. Effective Date for Customer Information Updates (mm/dd/yyyy)								03/11/2024				
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 Texa	ıs Comptı	roller of	Public Accou	ınts (CPA).									
6. Customer	Legal Nan	ne (If an l	individual, pri	nt last name fir.	st: eg: Doe, J	Iohn)			<u>lf nev</u>	v Customer,	enter pro	evious Custom	er below:
Manifold Sunse	et Ridge Ap	artments	, LLC						Manifo	old Sunset Ri	dge Apai	rtments, LLC	
7. TX SOS/CP	A Filing N	lumber		8. TX State	<b>Tax ID</b> (11 d	ligits)			9. Fe	deral Tax I	D	10. DUNS	Number (if
05484563				32094429	340				(9 dig	its)		applicable)	
									99-	2586333			
11. Type of C	ustomer:		Corpora	tion				🗌 Individ	dual Partnership: 🗌 General 🗌 Limi		eral 🗌 Limited		
Government:	🗌 City 🗌	County [	Federal	Local 🗌 State	e 🗌 Other			🗌 Sole P	roprieto	orship	🔀 Otl	her: LLC	;
12. Number	of Employ	/ees							13. I	ndepender	ntly Ow	ned and Ope	erated?
<b>⊠</b> 0-20 □ :	21-100 [	] 101-2	50 🗌 251-	500 🗌 501	and higher				□ Ye	es	🗌 No		
14. Customer	r <b>Role</b> (Pro	oposed or	Actual) – as i	t relates to the	Regulated E	ntity lis	ted o	on this form.	Please	check one of	the follo	owing	
Owner	al Licensee		erator esponsible Pa		vner & Opera VCP/BSA App					Other:			
15. Mailing	1608 W !	5 <sup>th</sup> Street	, Suite 230										
Address:		-											
	City	Austin			State	тх		ZIP	7870	3		ZIP + 4	
16. Country I	Mailing In	formatio	<b>on</b> (if outside	USA)			17	7. E-Mail A	ddress	(if applicabl	e)		
							tgrooms@manifoldre.com						
18. Telephone Number 19. Extension or					on or C	Code     20. Fax Number (if applicable)							

(619)818-03	151
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( )

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SECTION III:									
21. General Regulated Er	itity Informa	ation (If 'New Regul	lated Entity" is sele	cted, a new p	ermit applica	ition is also	required.)		
🔀 New Regulated Entity	Update to	Regulated Entity Na	ame 🗌 Update	to Regulated	Entity Inform	nation			
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 Nam	<b>ne</b> (Enter nam	ne of the site where t	the regulated actio	n is taking pl	ace.)				
Sunset Ridge Apartments									
23. Street Address of the Regulated Entity:	8413 South	west Parkway							
(No PO Boxes)	City	Austin	State	ТХ	ZIP	78735		ZIP + 4	
24. County	Travis			_		-1			
		If no Street	Address is provi	ded, fields 2	25-28 are re	quired.			
25. Description to									
Physical Location:			Physical Location:						
26. Nearest City State Nearest ZIP Code									
26. Nearest City						State		Nea	rest ZIP Code
26. Nearest City Austin						State TX		<b>Nea</b> 7873	
	-				Data Stando	ТХ	coding of th	7873	5
Austin Latitude/Longitude are n	es where no		vided or to gain	accuracy).	Data Stando ongitude (V	TX ards. (Geoc		7873	5 Address may be
Austin Latitude/Longitude are n used to supply coordinate	es where no	ne have been pro 30.25872222	vided or to gain	accuracy).	ongitude (V	TX Irds. (Geoc V) In Decin		7873 e Physical	5 Address may be
Austin Latitude/Longitude are re- used to supply coordinate 27. Latitude (N) In Decime Degrees	es where no al: Minutes	ne have been pro 30.25872222 Se	vided or to gain	accuracy). 28. L	ongitude (V	TX Irds. (Geoc V) In Decin	nal: inutes	7873 e Physical 97.885	5 Address may be 05556 Seconds
Austin Latitude/Longitude are n used to supply coordinate 27. Latitude (N) In Decim	es where no al: Minutes 30.	ne have been pro 30.25872222	vided or to gain	accuracy). 28. L Degre	ongitude (V ees ry NAICS Co	TX urds. (Geoc V) In Decin	nal: inutes	97.885	5 Address may be 05556 Seconds
Austin Latitude/Longitude are re- used to supply coordinate 27. Latitude (N) In Decime Degrees 29. Primary SIC Code	es where no al: Minutes 30.	ne have been pro 30.25872222 Secondary SIC Co	vided or to gain	accuracy).	ongitude (V ees ry NAICS Co	TX urds. (Geoc V) In Decin	nal: inutes 32. Secor	97.885	5 Address may be 05556 Seconds
Austin Latitude/Longitude are no used to supply coordinate 27. Latitude (N) In Decime Degrees 29. Primary SIC Code (4 digits)	Minutes 30. (4 d	ne have been pro 30.25872222 Secondary SIC Co igits)	vided or to gain 2 econds ode	accuracy).	ongitude (V ees ry NAICS Co ts) 236116	TX urds. (Geoc V) In Decin	nal: inutes 32. Secor	97.885	5 Address may be 05556 Seconds
Austin Latitude/Longitude are re- used to supply coordinate 27. Latitude (N) In Decima Degrees 29. Primary SIC Code (4 digits) 1522	Minutes 30.	ne have been pro 30.25872222 Secondary SIC Co igits)	vided or to gain 2 econds ode	accuracy).	ongitude (V ees ry NAICS Co ts) 236116	TX urds. (Geoc V) In Decin	nal: inutes 32. Secor	97.885	5 Address may be 05556 Seconds
Austin Latitude/Longitude are re- used to supply coordinate 27. Latitude (N) In Decime Degrees 29. Primary SIC Code (4 digits) 1522 33. What is the Primary B	Al: Minutes 30. (4 d Business of t	ne have been pro 30.25872222 Secondary SIC Co igits)	vided or to gain 2 econds ode ot repeat the SIC o	accuracy).	ongitude (V ees ry NAICS Co ts) 236116	TX urds. (Geoc V) In Decin	nal: inutes 32. Secor	97.885	5 Address may be 05556 Seconds
Austin Latitude/Longitude are re- used to supply coordinate 27. Latitude (N) In Decima Degrees 29. Primary SIC Code (4 digits) 1522	Al: Minutes 30. (4 d Business of t	ne have been pro 30.25872222 Secondary SIC Co igits) this entity? (Do n	vided or to gain 2 econds ode ot repeat the SIC o	accuracy).	ongitude (V ees ry NAICS Co ts) 236116	TX urds. (Geoc V) In Decin	nal: inutes 32. Secor	97.885	5 Address may be 05556 Seconds

	(619)818-0151		( ) -
3	9. TCEO Programs and ID Numbers Check all Programs a	nd write in the permits/registration num	nhers that will be affected by the undates submitted on this

38. Fax Number (if applicable)

Z. s/reg ıγ Jp form. See the Core Data Form instructions for additional guidance.

37. Extension or Code

tgrooms@manifoldre.com

35. E-Mail Address:

36. Telephone Number

Dam Safety	Districts	Edwards Aquifer	Emissions Inventory Air	Industrial Hazardous Waste
Municipal Solid Waste	Review Air		Petroleum Storage Tank	D PWS
Sludge	Storm Water	Title V Air		Used Oil
Voluntary Cleanup	Wastewater	Wastewater Agriculture	Water Rights	Other:

# **SECTION IV: Preparer Information**

40. Name:	Kendyl Saul			41. Title:	Engineer	
42. Telephone Number		43. Ext./Code	44. Fax Number	45. E-Mail Address		
( 512 ) 271-6315			( ) -	Kendyl.Bisse	y@kimley-horn.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:	Manifold Sunset Ridge Apartments, LLC	Job Title:	Manager		
Name (In Print):	Tyler Grooms			ne:	(619)818-0151
Signature:	Transon 17. 8. 2014 14 43 (CDT)		Date	:	05/09/24

# **Owner Authorization Form**

## **Texas Commission on Environmental Quality**

for Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999

# Land Owner Authorization

I, <u>Tim Jamail</u> of

Land Owner Signatory Name

Los Indios Venture, Inc & Tim Jamail (Individual) Land Owner Name (Legal Entity or Individual)

am the owner of the property located at

### Tract 1:

9.606 acres of land, more or less, out of the Josiah Hudson Survey No. 530, Abstract No. 410, in Travis County, Texas and being the same land conveyed to Los Indios Ventures, Inc. in deeds recorded in Document No.(s) 2001073406 and corrected in 2003083110, Official Public Records, Travis County

### Tract 2:

9.9692 acres of land, more or less, out of the Josiah Hudson Survey No. 530, Abstract No. 410, in Travis County, Texas and being the same land conveyed to Tim Jamail in deed recorded in Volume 12005, Page 2200, Real Property Records, Travis County, Texas

Legal description of the property referenced in the application

and am duly authorized in accordance with §213.4(c)(2) and §213.4(d)(1) or §213.23(c)(2) and §213.23(d) relating to the right to submit an application, signatory authority, and proof of authorized signatory.

I do hereby authorize <u>Manifold Sunset Ridge Apartments, LLC</u>

Applicant Name (Legal Entity or Individual)

to conduct <u>Sunset Ridge Apartments Improvements (roadway, utilities, drainage facilities, etc.)</u> Description of the proposed regulated activities

At 8413 Southwest Parkway and 8509 Southwest Parkway, Austin TX 78735

Precise location of the authorized regulated activities

# Land Owner Acknowledgement

I understand that <u>Los Indios Venture, Inc & Tim Jamail (Individual)</u> Land Owner Name (Legal Entity or Individual)

Is ultimately responsible for compliance with the approved or conditionally approved Edwards Aquifer protection plan and any special conditions of the approved plan through all phases of plan implementation even if the responsibility for compliance and the right to possess and control the property referenced in the application has been contractually assumed by another legal entity. I further understand that any failure to comply with any condition of the executive director's approval is a violation is subject to administrative rule or orders and penalties as provided under §213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

## Land Owner Signature

Land Owner Signature

THE STATE OF § TEXAS

County of § TEAVIS

1/2024

BEFORE ME, the undersigned authority, on this day personally appeared  $\underline{TM}$   $\overline{TM}$   $\overline{TM}$ 

GIVEN under my hand and seal of office on this <u>9</u> da	y of MAY, 2024
JACQUELYNE HAYES TATE My Notary ID # 2920085 Expires April 10, 2026	TA CQUELYNE HAJES - TATE
	Typed or Printed Name of Notary
	MY COMMISSION EXPIRES: 4/10/26

Attached: (Mark all that apply)

Lease Agreement

Signed Contract

Deed Recorded Easement

Other legally binding document

# Applicant Acknowledgement

I, <u>Tyler Grooms</u> of Applicant Signatory Name <u>Manifold Sunset Ridge Apartments, LLC</u> Applicant Name (Legal Entity or Individual)

acknowledge that <u>Los Indios Venture, Inc & Tim Jamail (Ind.)</u> Land Owner Name (Legal Entity or Individual)

has provided \_ <u>Manifold Sunset Ridge Apartments, LLC</u> Applicant Name (Legal Entity or Individual)

with the right to possess and control the property referenced in the Edwards Aquifer protection plan.

I understand that <u>Manifold Sunset Ridge Apartments, LLC</u> Applicant Name (Legal Entity or Individual)

is contractually responsible for compliance with the approved or conditionally approved Edwards Aquifer protection plan and any special conditions of the approved plan through all phases of plan implementation. I further understand that failure to comply with any condition of the executive director's approval is a violation is subject to administrative rule or orders and penalties as provided under §213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

# Applicant Signature

Applicant Signature

THE STATE OF § TEXAS

County of § Travis

BEFORE ME, the undersigned authority, on this day personally appeared <u>Tyler Grooms</u> 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 9th day of May, 2024

BRADLEY TAYLOR HOLLAND Notary Public, State of Texas Comm. Expires 01-06-2025 Notary ID 132930293

MY COMMISSION EXPIRES: 01-06-2025

TCEQ-XXXXX

## Agent Authorization Form For Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999 TYLER GROOMS Print Name PRESIDENT Title - Owner/President/Other MANIFOLD SUNSET RIDGE APARTMENTS, LLC of Corporation/Partnership/Entity Name **KENDYL SAUL & SARA DINCHER** have authorized Print Name of Agent/Engineer KIMLEY-HORN AND ASSOCIATES, INC of \_\_\_\_\_ 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.

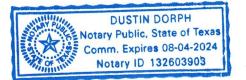
### SIGNATURE PAGE:

Applicant's Signature

THE STATE OF JEXAS § County of LEANIC S

BEFORE ME, the undersigned authority, on this day personally appeared <u>1 use (access</u> 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 3th day of \_\_\_\_\_\_, 2024.



NOTARY PUBLIC

DUSTIN DOEPH Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 08 04 2024