

**BARTON CREEK BLVD & SOUTHWEST PARKWAY INTERSECTION
IMPROVEMENTS**

**TEXAS POLLUTANT DISCHARGE
ELIMINATION SYSTEM**

CONTRIBUTING ZONE PLAN EXCEPTION

April 27, 2023

Prepared for:

**THE SAINT JUNE, L.P.
212 LAVACA, SUITE 300
AUSTIN, TEXAS 78701**

Prepared by:

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



LJA PROJECT NO. A107-409.453



Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.
3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.
4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

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

5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.
6. If the geologic assessment was completed before October 1, 2004 and the site contains “possibly sensitive” features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.
2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

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

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

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: Barton Creek Blvd & Southwest Parkway Intersection Improvements					2. Regulated Entity No.:				
3. Customer Name: Saint June, L.P.					4. Customer No.: CN601160633				
5. Project Type: (Please circle/check one)	New		Modification			Extension		Exception	
6. Plan Type: (Please circle/check one)	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)	Residential		Non-residential			8. Site (acres):		5.614 (ROW Area within LOC)	
9. Application Fee:	\$500.00		10. Permanent BMP(s):			Vegetative Filter Strips			
11. SCS (Linear Ft.):	N/A		12. AST/UST (No. Tanks):			N/A			
13. County:	Travis		14. Watershed:			Barton Creek			

Application Distribution

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

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

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

Austin Region			
County:	Hays	Travis	Williamson
Original (1 req.)	—	X	—
Region (1 req.)	—	X	—
County(ies)	—	X	—
Groundwater Conservation District(s)	<input type="checkbox"/> Edwards Aquifer Authority <input type="checkbox"/> Barton Springs/ Edwards Aquifer <input type="checkbox"/> Hays Trinity <input type="checkbox"/> Plum Creek	X Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	<input type="checkbox"/> Austin <input type="checkbox"/> Buda <input type="checkbox"/> Dripping Springs <input type="checkbox"/> Kyle <input type="checkbox"/> Mountain City <input type="checkbox"/> San Marcos <input type="checkbox"/> Wimberley <input type="checkbox"/> Woodcreek	X Austin <input type="checkbox"/> Bee Cave <input type="checkbox"/> Pflugerville <input type="checkbox"/> Rollingwood <input type="checkbox"/> Round Rock <input type="checkbox"/> Sunset Valley <input type="checkbox"/> West Lake Hills	<input type="checkbox"/> Austin <input type="checkbox"/> Cedar Park <input type="checkbox"/> Florence <input type="checkbox"/> Georgetown <input type="checkbox"/> Jerrell <input type="checkbox"/> Leander <input type="checkbox"/> Liberty Hill <input type="checkbox"/> Pflugerville <input type="checkbox"/> Round Rock

San Antonio Region					
County:	Bexar	Comal	Kinney	Medina	Uvalde
Original (1 req.)	—	—	—	—	—
Region (1 req.)	—	—	—	—	—
County(ies)	—	—	—	—	—
Groundwater Conservation District(s)	<input type="checkbox"/> Edwards Aquifer Authority <input type="checkbox"/> Trinity-Glen Rose	<input type="checkbox"/> Edwards Aquifer Authority	<input type="checkbox"/> Kinney	<input type="checkbox"/> EAA <input type="checkbox"/> Medina	<input type="checkbox"/> EAA <input type="checkbox"/> Uvalde
City(ies) Jurisdiction	<input type="checkbox"/> Castle Hills <input type="checkbox"/> Fair Oaks Ranch <input type="checkbox"/> Helotes <input type="checkbox"/> Hill Country Village <input type="checkbox"/> Hollywood Park <input type="checkbox"/> San Antonio (SAWS) <input type="checkbox"/> Shavano Park	<input type="checkbox"/> Bulverde <input type="checkbox"/> Fair Oaks Ranch <input type="checkbox"/> Garden Ridge <input type="checkbox"/> New Braunfels <input type="checkbox"/> Schertz	NA	<input type="checkbox"/> San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.

S. Danny Miller, P.E.

Print Name of Customer/ Authorized Agent

Signature of Customer/ Authorized Agent

10-24-22

Date

****FOR TCEQ INTERNAL USE ONLY****

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

Contributing Zone Exception Request Form

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.

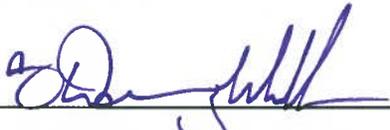
Signature

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 Exception Request Form** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: S. Danny Miller, P.E.

Date: 10-24-22

Signature of Customer/Agent:



Regulated Entity Name: Barton Creek Blvd & Southwest Parkway Intersection Improvements

Project Information

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

Contact Person: Erin D. Pickens

Entity: Saint June, L.P.

Mailing Address: 212 Lavaca St, Ste 300

City, State: Austin, TX

Telephone: (512) 478-5788

Email Address: kcleveland@stratusproperties.com

Zip: 78701

Fax: (512) 478-6340

5. Agent/Representative (If any):

Contact Person: S. Danny Miller, P.E.

Entity: LJA Engineering, Inc.

Mailing Address: 7500 Rialto Blvd, Bldg 2, Ste 100

City, State: Austin, TX

Zip: 78735

Telephone: (512) 439-4700

Fax: (512) 439-4716

Email Address: dmiller@LJA.com

6. Project Location

This project is inside the city limits of _____.

This project is outside the city limits but inside the ETJ (extra-territorial jurisdiction) of City of Austin.

This project is not located within any city limits or ETJ.

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

Right-of-way of Barton Creek Blvd and Southwest Pkwy as they intersect. Traffic improvements for the Amarra Apartments located at the NW corner of that intersection (5321 Barton Creek Blvd, Austin, TX 78735).

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

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

Project site boundaries.

USGS Quadrangle Name(s).

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

Area of the site

Offsite areas

Impervious cover

Permanent BMP(s)

Proposed site use

Site history

Previous development

Area(s) to be demolished

11. Existing project site conditions are noted below:

Existing commercial site

Existing industrial site

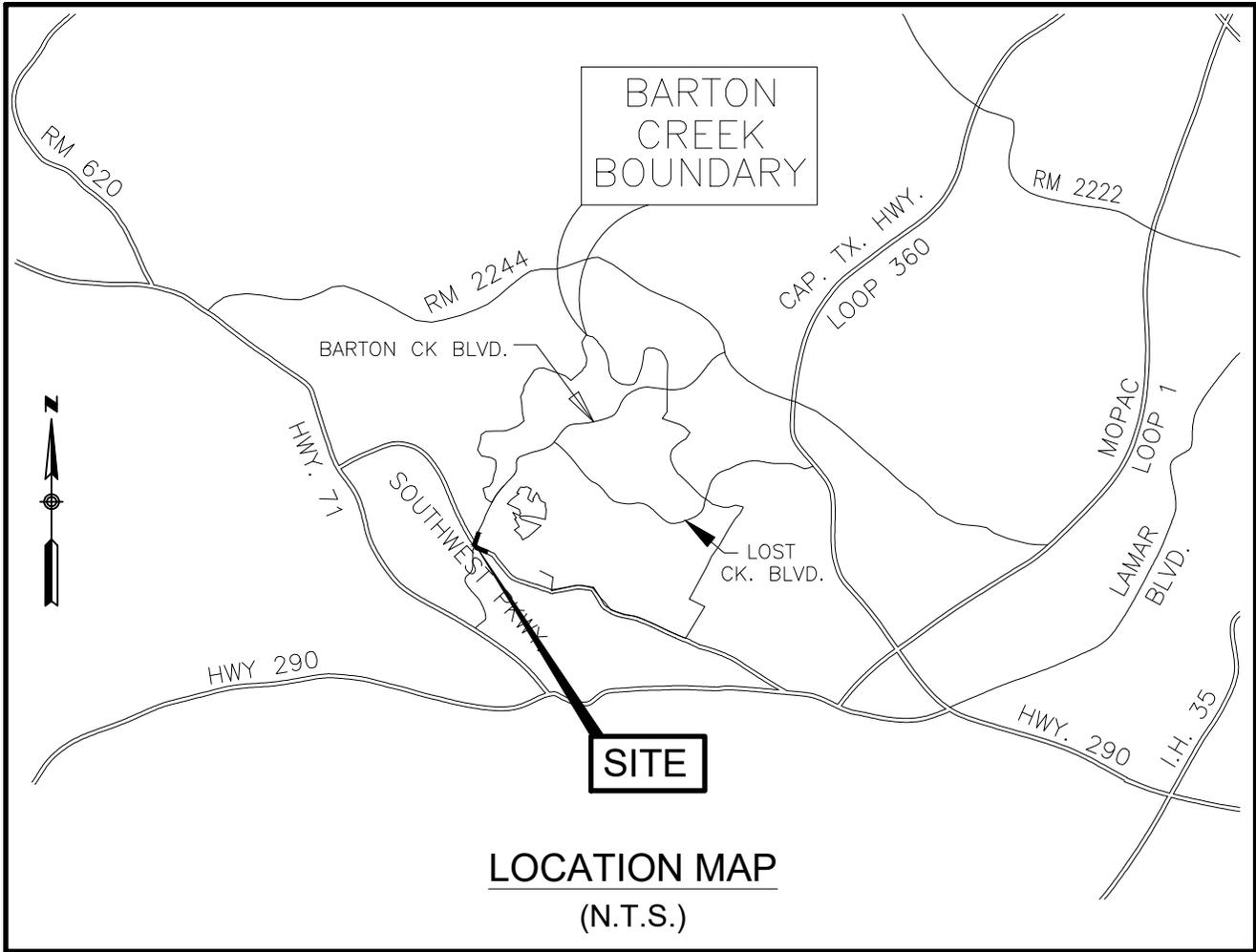
- Existing residential site
- Existing paved and/or unpaved roads
- Undeveloped (Cleared)
- Undeveloped (Undisturbed/Not cleared)
- Other: _____

12. **Attachment D - Nature Of Exception.** A narrative description of the nature of each exception requested is attached. All provisions of 30 TAC §213 Subchapter B for which an exception is being requested have been identified in the description.
13. **Attachment E - Equivalent Water Quality Protection.** Documentation demonstrating equivalent water quality protection for surface streams which enter the Edwards Aquifer is attached.

Administrative Information

14. 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.
15. The applicant understands that prior approval under this section must be obtained from the executive director for the exception to be authorized.

ATTACHMENT A – Road Map



LJA Engineering, Inc.

7500 Rialto Blvd
Bldg II Suite 100
Austin, Texas 78735



Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

**INTERSECTION IMPROVEMENTS
5321 BARTON CREEK BLVD
AUSTIN, TX.**

LOCATION MAP

ATTACHMENT B – USGS Quadrangle Map



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



BEE CAVE QUADRANGLE
TEXAS - TRAVIS COUNTY
7.5-MINUTE SERIES



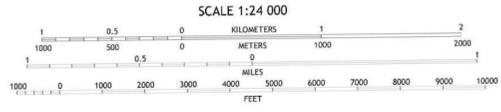
EDWARDS
AQUIFER
CONTRIBUTING
ZONE

AUSTIN
SUBJECT
SITE

Produced by the United States Geological Survey

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

Imagery.....NAP, September 2016 - November 2016
Roads.....U.S. Census Bureau, 2015
Names.....GNIS, 1979 - 2018
Hydrography.....National Hydrography Dataset, 2002 - 2018
Contours.....National Elevation Dataset, 2002
Boundaries.....Multiple sources; see metadata file 2016 - 2017
Wetlands.....FWS National Wetlands Inventory 1982

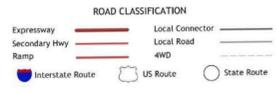


CONTOUR INTERVAL: 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.18

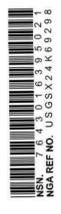


ADJOINING QUADRANGLES

1	2	3
4	5	6
7	8	9



BEE CAVE, TX
2019



ATTACHMENT C – Project Narrative

Barton Creek Blvd & Southwest Parkway Intersection Improvements is being constructed in support of the Amarra Apartments projects (TCEQ RN111120044) located at 5321 Barton Creek Blvd. The improvements include adding a dedicated right-turn lane from Southwest Pkwy onto Barton Creek Blvd; adding a dedicated right-turn lane from Barton Creek Blvd onto Southwest Pkwy; adding a dual left-turn lane from Barton Creek Blvd onto Southwest Pkwy; and adding a right-turn lane from Barton Creek Blvd onto the driveway into the Amarra Apartments.

In existing conditions, runoff drains via overland flow towards the west along Southwest Parkway and towards the north along Barton Creek Blvd. It is conveyed by roadside ditches and culverts. Ultimately, it crosses Barton Creek Blvd via culvert and is conveyed to a tributary to Barton Creek

The project area is located at the northwest corner of the intersection of Barton Creek Blvd and Southwest Pkwy. The existing use is paved roads/right-of-way of Barton Creek Blvd and Southwest Pkwy. The existing road will be sawcut and turn lanes will be constructed along the existing road. Drainage culverts will be removed and replaced where applicable. Grading is proposed to maintain vegetative filter strips adjacent to the pavement. The tract is situated within the Barton Creek Watershed and is classified as Barton Springs Zone of the Drinking Water Protection Zone. The site is within the Extraterritorial Jurisdiction of the City of Austin in Travis County, Texas.

ATTACHMENT D – Nature of Exception

The nature of this exception is to seek approval for compensatory treatment of 7,788 square feet of impervious cover. The impervious cover is for improvements to the intersection of Barton Creek Parkway and Southwest Parkway to add a dedicated right-turn lane from Southwest Pkwy onto Barton Creek Blvd; add a dedicated right-turn lane from Barton Creek Blvd onto Southwest Pkwy; add a dual left-turn lane from Barton Creek Blvd onto Southwest Pkwy; and add a right-turn lane from Barton Creek Blvd onto the driveway into the Amarra Apartments.

The 7,788 square feet of impervious cover is proposed to be treated by roadside vegetative filter strips. Due to the nature of the proposed improvements, and in accordance with email received from TCEQ on 10/20/2022, the proposed development was approved for review as an exception.

ATTACHMENT E – Equivalent Water Quality Protection

Equivalent water quality protection will be provided by vegetative filter strips designed in accordance with RG-348 alongside the proposed turn lanes. The required and provided components are noted below, and are noted on plan sheet 15-GP01 of the attached.

ENGINEERED FILTER STRIPS		
	<i>Req'd</i>	<i>Proposed</i>
Min. Dimension =	15 ft	15
Maximum Slope =	20%	15%
Cont. Area Max Width =	72 ft	52 ft
Minimum Veg. Cover =	80%	80%

Hannah Riemer

From: James Slone <james.slone@tceq.texas.gov>
Sent: Thursday, October 20, 2022 7:22 AM
To: Hannah Riemer
Subject: EAPP Question - Turn lane

[EXTERNAL EMAIL]

Hannah,
Zach forwarded your email; he is no longer in Edwards.

You can turn the application for the turn lane as an Exception plan. Please retain this email for your records.

Bo
James "Bo" Slone, P.G.
Geoscientist
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality
(512) 239-5711

From: Hannah Riemer <hriemer@lja.com>
Sent: Tuesday, October 18, 2022 5:11 PM
To: Zach Lanfear <Zach.Lanfear@tceq.texas.gov>
Subject: Exception Request Question

Good afternoon Zach,

Quick question for you regarding exception requests. We are working on construction plans for the addition of a turn lane in the Contributing Zone. We are proposing vegetative filter strips in accordance with TCEQ regulations for the added impervious cover, which is about 8000 sf. Would this qualify as an exception request?

Thanks,

Hannah Riemer-Rapesak, P.E.

LJA Engineering

● Austin, Texas

P: 512.439.4700

D: 512.439.4736

C: 512.740.4983

www.ljaengineering.com

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[EXTERNAL EMAIL] Exercise caution. Do not open attachments or click links from unknown senders or unexpected email

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: S. Danny Miller, P.E.

Date: 10-24-22

Signature of Customer/Agent:



Regulated Entity Name: Barton Creek Blvd & Southwest Parkway intersection Improvements

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. **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. **Attachment 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. **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. 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: Barton Creek

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. **Attachment 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. 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. **Attachment 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. **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. **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. 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. 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. 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. 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. **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. 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. Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

20. All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
21. 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. 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

The only possible source of a hydrocarbon or other hazardous substance spill would be from a construction vehicle leaking fuel, lubricants, coolants, etc. Any potential leakage is not likely to be significant and any soil that appears to be contaminated will be removed and disposed of in a TCEQ certified landfill. If it is determined that a reportable spill has occurred as defined in 30 TAC Chapter 327, the TCEQ shall be notified by phone at the regional office (512) 339-2929 or at the State Emergency Response Center (800) 832-8224 as soon as possible. Requirements under 30 TAC Chapter 327 will be followed to ensure that the spill is contained and disposed of in an expedient and thorough manner and that proper authorities are kept informed throughout the process.

ATTACHMENT B – Potential Sources of Contamination

Potential sources of sediment to stormwater runoff:

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

Potential sources other than sediment:

- Small fueling activities
- Minor equipment maintenance
- Solvents, adhesives, paints, etc.
- Paving materials

ATTACHMENT C – Sequence of Major Activities

The sequencing of construction will generally take place in the following manner:

1. Temporary erosion and sedimentation controls are to be installed as indicated on the approved site plan or subdivision construction plan and in accordance with the Stormwater Pollution Prevention Plan (SWPPP) that is required to be posted on the site. Install tree protection and initiate tree mitigation measures.
2. The environmental project manager or site supervisor must contact the Watershed Protection department, environmental inspection, at 512-974-2278, 72 hours prior to the scheduled date of the required on-site preconstruction meeting.
3. The environmental project manager, and/or site supervisor, and/or designated responsible party, and the general contractor will follow the Storm Water Pollution Prevention Plan (SWPPP) posted on the site. Temporary erosion and sedimentation controls will be revised, if needed, to comply with city inspectors' directives, and revised construction schedule relative to the water quality plan requirements and the erosion plan.
4. Temporary erosion and sedimentation controls will be inspected and maintained in accordance with the Storm Water pollution Prevention Plan (SWPPP) posted on the site.

5. Begin site clearing/construction (or demolition) activities.
6. In the Barton Springs Zone, the environmental project manager or site supervisor will schedule a mid-construction conference to coordinate changes in the construction schedule and evaluate effectiveness of the erosion control plan after possible construction alterations to the site. Participants shall include the city inspector, project engineer, general contractor and environmental project manager or site supervisor. The anticipated completion date and final construction sequence and inspection schedule will be coordinated with the appropriate city inspector.
7. Complete construction and start revegetation of the site.
8. Upon completion of the site construction and revegetation of a project site, the design engineer shall submit an engineer's letter of concurrence to the Watershed Protection and Development Review Department indicating that construction, including revegetation, is complete and in substantial conformity with the approved plans. After receiving this letter, a final inspection will be scheduled by the appropriate city inspector.
9. After a final inspection has been conducted by the city inspector and with approval from the city inspector, remove the temporary erosion and sedimentation controls and complete any necessary final revegetation resulting from removal of the controls. Conduct any maintenance and rehabilitation of the water quality ponds or controls.

ATTACHMENT D – Temporary Best Management Practices and Measures

1. Silt fence is used throughout the project to prevent pollution of runoff. Silt fence is used for areas with sheet flow. Before construction begins, all silt fence will be in place. The principal potential pollutant on site is sediment caused by disturbance during construction. The controls installed will be monitored on a regular basis and after any significant rainfall to ensure effective operation. Throughout construction, inspection forms will be used to record the condition of the controls after rainfall events.
2. The runoff leaving the site to enter creeks will have been treated through silt fence and rock berms.

ATTACHMENT E – Request to Temporarily Seal a Feature

Not applicable.

ATTACHMENT F – Structural Practices

Contractor will construct and maintain silt fence, rock berms, and other temporary and permanent erosion and sedimentation controls as appropriate to prevent pollutants from exiting the site during construction.

ATTACHMENT G – Drainage Area Map

The drainage area maps are included in the attached plan set.

ATTACHMENT H – Temporary Sediment Pond(s) Plans and Calculations

No temporary sediment ponds are proposed.

ATTACHMENT I – Inspection and Maintenance of BMPs

Inspection and maintenance for Best Management Practices is taken from the TCEQ Manual, "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices", dated July 2005.

Silt Fence:

1. Inspect all fencing weekly, and after any rainfall.
2. Remove sediment when buildup reaches 6 inches.
3. Replace any torn fabric or install a second line of fencing parallel to the torn section.
4. Replace or repair any section crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicular access points.
5. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

Rock Berms:

1. Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made.
2. Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.
3. Repair any loose wire sheathing.
4. The berm should be reshaped as needed during inspection.
5. The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.
6. The rock berm should be left in place until all upstream areas are stabilized and accumulated silt is removed.

Stabilized Construction Entrance:

1. The entrance should be maintained in a condition, which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.
2. All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.
3. When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.
4. When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.
5. All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

Concrete Washout Area:

1. Routine inspection in accordance with section 1.4.18 of TCEQ Manual: RG-348 of the area to insure that sufficient quantity and volume remain to contain all liquid and concrete waste generated by washout operations.
2. Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
3. Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
4. When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions, or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

ATTACHMENT J – Schedule of Interim and Permanent Soil Stabilization Practices

The following are the proposed stabilization (temporary and permanent) practices:

Temporary Vegetative Stabilization:

1. From September 15 to March 1, seeding shall be with cool season cover crops (Wheat at 0.5 pounds per 1000 SF, Oats at 0.5 pounds per 1000 SF, Cereal Rye Grain at 0.5 pounds per 1000 SF) with a total rate of 1.5 pounds per 1000 SF. Cool season cover crops are not permanent erosion control.
2. From March 2 through September 14, seeding shall be with hulled Bermuda at a rate of 1 pound per 1000 SF.

- A. Fertilizer shall be water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of 1/2 pound per 1000 SF.
- B. Hydromulch shall comply with Table 1, below.
- C. Temporary erosion control shall be acceptable when the grass has grown at least 1-1/2 inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.
- D. When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

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 2, below.
- 2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 1 pound per 1,000 square feet with a purity of 95% with 85% germination. Bermuda grass is a warm season grass and is considered permanent erosion control.
 - A. Fertilizer shall be water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of 1/2 pound per 1000 SF.
 - B. Hydromulch shall comply with Table 2, below.
 - C. The planted area shall be irrigated or sprinkled in a manner that will not erode the topsoil, but will sufficiently soak the soil to a depth of six inches. The irrigation shall occur at daily intervals (minimum) during the first two months. Rainfall occurrences of 1/2 inch or more shall postpone the watering schedule for one week.
 - D. Permanent erosion control shall be acceptable when the grass has grown at least 1-1/2 inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.
 - E. When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

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	2500 to 4000 lbs per acre (see manufacturers recommendations)
Fiber Reinforced Matrix (FRM)	65% Organic defibrated fibers 25% Reinforcing Fibers or less 10% Tackifier	Up to 12 months	On slopes up to 1:1 and erosive soil conditions	3000 to 4500 lbs per acre (see manufacturers recommendations)

3. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of the site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently cease is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I, Erin D. Pickens,
Print Name

Senior Vice President of Stratus Properties Inc, sole member of STRS L.L.C., General Partner
Title - Owner/President/Other

of The Saint June, L.P., a Texas limited partnership,
Corporation/Partnership/Entity Name

have authorized S. Danny Miller, P.E.
Print Name of Agent/Engineer

of LJA Engineering, Inc.
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.
4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

APPLICANT'S SIGNATURE PAGE:

The Saint June., L.P.,

a Texas limited partnership, formerly known as FM Properties Operating Co.,
a Delaware general partnership

By: **STRS L.L.C.**,
a Delaware limited liability company,
General Partner,

By: **Stratus Properties Inc.**,
a Delaware corporation,
sole member

By: Erin D Pickens
Name: Erin D. Pickens
Title: Senior Vice President

Date: 10/27/2022

THE STATE OF TEXAS §

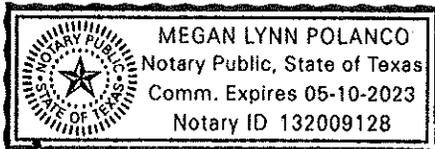
County of Travis §

BEFORE ME, the undersigned authority, on this day personally appeared Erin D. Pickens, Senior Vice President of Stratus Properties Inc., a Delaware corporation, sole member of STRS L.L.C., a Delaware limited liability company, General Partner of Stratus Properties Operating Co., L.P., a Delaware limited partnership, formerly known as FM Properties Operating Co, a Delaware general partnership, 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 27th day of October, 2022

Megan Lynn Polanco
NOTARY PUBLIC

Megan Lynn Polanco
Typed or Printed Name of Notary



MY COMMISSION EXPIRES: 05/10/23

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Barton Creek Blvd & Southwest Parkway Intersection Improvements

Regulated Entity Location: Right-of-way of Barton Creek Blvd & Southwest Pkwy at the NW intersection of Barton Creek Blvd & Southwest Pkwy

Name of Customer: The Saint June, L.P., a Texas limited partnership

Contact Person: Erin D. Pickens Phone: (512) 478-578

Customer Reference Number (if issued): CN 601160633

Regulated Entity Reference Number (if issued): RN _____

Austin Regional Office (3373)

Hays

Travis

Williamson

San Antonio Regional Office (3362)

Bexar

Medina

Uvalde

Comal

Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment.** This payment is being submitted to:

Austin Regional Office

San Antonio Regional Office

Mailed to: TCEQ - Cashier

Overnight Delivery to: TCEQ - Cashier

Revenues Section

Mail Code 214

P.O. Box 13088

Austin, TX 78711-3088

12100 Park 35 Circle

Building A, 3rd Floor

Austin, TX 78753

(512)239-0357

Site Location (Check All That Apply):

Recharge Zone

Contributing Zone

Transition Zone

<i>Type of Plan</i>	<i>Size</i>	<i>Fee Due</i>
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	\$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	\$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	\$
Sewage Collection System	L.F.	\$
Lift Stations without sewer lines	Acres	\$
Underground or Aboveground Storage Tank Facility	Tanks	\$
Piping System(s)(only)	Each	\$
Exception	1 Each	\$ 500.00
Extension of Time	Each	\$

Signature: Erin D Pickens

Date: 10/27/2022

Application Fee Schedule

Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Project	Project Area in Acres	Fee
One Single Family Residential Dwelling	< 5	\$650
Multiple Single Family Residential and Parks	< 5	\$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, multi-family residential, schools, and other sites where regulated activities will occur)	< 1	\$3,000
	1 < 5	\$4,000
	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

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

Exception Requests

Project	Fee
Exception Request	\$500

Extension of Time Requests

Project	Fee
Extension of Time Request	\$150



TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of 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.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> Other	
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN		RN

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)	
<input checked="" type="checkbox"/> New Customer		<input type="checkbox"/> Update to Customer Information	
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)		<input type="checkbox"/> Change in Regulated Entity Ownership	
The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).			
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)		If new Customer, enter previous Customer below:	
The Saint June, L.P., a Texas limited partnership			
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
803916991	32077600958	87-1559675	101522547
11. Type of Customer:	<input type="checkbox"/> Corporation	<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input checked="" type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other:
12. Number of Employees		13. Independently Owned and Operated?	
<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following			
<input type="checkbox"/> Owner		<input type="checkbox"/> Operator	
<input type="checkbox"/> Occupational Licensee		<input type="checkbox"/> Responsible Party	
<input checked="" type="checkbox"/> Owner & Operator		<input type="checkbox"/> Voluntary Cleanup Applicant	
		<input type="checkbox"/> Other:	
15. Mailing Address:	212 Lavaca St		
	Ste 300		
	City	Austin	State TX ZIP 78701 ZIP + 4 1656
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable)	
18. Telephone Number		19. Extension or Code	20. Fax Number (if applicable)
(512) 478-5788			(512) 478-6340

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)	
<input checked="" type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information	
The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).	
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)	
Barton Creek Blvd & Southwest Parkway Intersection Improvements	

23. Street Address of the Regulated Entity: (No PO Boxes)							
	City		State		ZIP		ZIP + 4
24. County	Travis						

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	Right-of-way of Barton Creek Blvd and Southwest Parkway along the northwest corner of the intersection of Barton Creek Blvd and Southwest Pkwy						
26. Nearest City	Austin			State	TX	Nearest ZIP Code	78735
27. Latitude (N) In Decimal:	30.262259		28. Longitude (W) In Decimal:	-97.888837			
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds		
30	15	44.1324	97	53	19.8096		
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)				
1522		236116					
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)							
Construction of turn lane with associated drainage and VFS							
34. Mailing Address:	212 Lavaca Street, Suite 300						
	City	Austin	State	TX	ZIP	78701	ZIP + 4 3955
35. E-Mail Address:	kcleveland@stratusproperties.com						
36. Telephone Number	37. Extension or Code		38. Fax Number (if applicable)				
(512) 478-5788			() -				

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

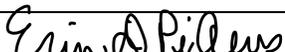
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input checked="" type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	S. Danny Miller, P.E.	41. Title:	Vice President
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 439-4700		(512) 439-4716	dmiller@LJA.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	The Saint June, L.P., a Texas limited partnership	Job Title:	Senior Vice President of Stratus Properties Inc., sole member of STRS L.L.C., Manager of The Saint June GP, L.L.C.
Name (In Print):	Erin D. Pickens	Phone:	(512) 478- 5788
Signature:		Date:	10/27/2022



MEMORANDUM

April 14, 2023

Edwards Aquifer Protection Program
Texas Commission on Environmental Quality
12100 Park 35 Circle, Bldg A, Rm 179
Austin, Texas 78753

RE: Barton Creek Blvd & Southwest Parkway Intersection Improvements
Contributing Zone Plan Exception – Travis County Permit Number 21-37092

To Whom It May Concern:

It is our understanding that a Contributing Zone Plan (CZP) Exception request has been submitted for the Barton Creek Blvd & Southwest Parkway Intersection Improvements project. The project is associated with the Amarra Multifamily Site Development Plans under development and maintenance by The Saint June, L.P., and the same developer has submitted the Exception request for the above-referenced project.

The right-of-way impacted by the construction plans includes public roads which Travis County maintains. Travis County hereby authorizes The Saint June, L.P. to submit the CZP Exception request on our behalf.

Sincerely,

David Greear

David Greear, P.E.
Public Works Director

CC: David Hunter
David Peyton
David Kemp
Robert Quinlan
Teresa Calkins

BARTON CREEK BLVD & SOUTHWEST PARKWAY INTERSECTION IMPROVEMENTS

8700-1/2 SOUTHWEST PARKWAY, AUSTIN, TX. 78723

SUBMITTED FOR APPROVAL BY:
LJA ENGINEERING, INC.



[Signature]
DANNY MILLER
REGISTERED PROFESSIONAL ENGINEER

04/27/2023
DATE

REVIEWED BY:

TRAVIS COUNTY MUD NO. 5

SP-2022-0125D
DEVELOPMENT PERMIT NUMBER

DEVELOPMENT SERVICES DEPARTMENT _____ DATE _____

AUSTIN FIRE DEPARTMENT _____ DATE _____

AUSTIN WATER UTILITY _____ DATE _____

REVIEWED BY:

TRAVIS COUNTY TRANSPORTATION AND NATURAL RESOURCES _____ DATE _____

1-37092
TNR DEVELOPMENT PERMIT NUMBER _____ DATE _____

BARTON SPRINGS ZONE PERMIT NUMBER _____

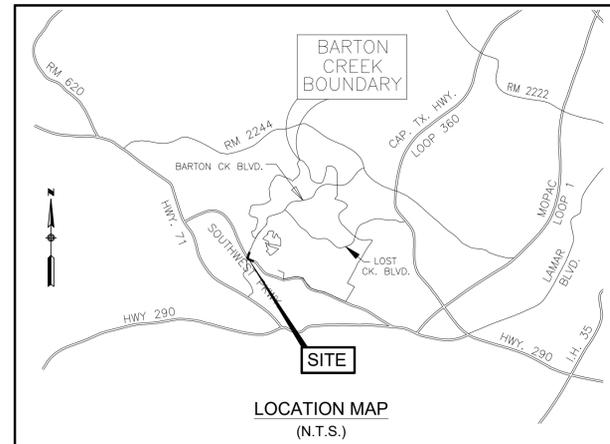
WATERSHED NOTE
THIS PROJECT IS LOCATED IN THE BARTON CREEK WATERSHED WHICH IS CLASSIFIED AS A BARTON SPRINGS ZONE WATERSHED.

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

- NOTE:
- 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.1
 - 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.
 - THIS SITE IS NOT LOCATED OVER THE EDWARDS AQUIFER RECHARGE ZONE
 - 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]
 - DETENTION POND WILL BE PRIVATELY MAINTAINED.

REVISIONS / CORRECTIONS

Number	Description	Revise (R) Add (A) Void (V) Sheet No.'s	C.O.A. Approval/ Date	TRAVIS CO. Approval/ Date	TRAVIS CO. MUD Nos. 4 & 5 Approval/ Date



GRID NUM. - B22
MAPSCO PAGE - 581Y, 582Z
ZONING: MF-1-CO
SITE AREA: 35.79 ACRES

SUBMITTAL DATE: MARCH 23, 2022

TRAVIS COUNTY PRE-CONSTRUCTION NOTES:

- PRIOR TO SCHEDULING THE PER-CONSTRUCTION MEETING ENSURE THAT ALL REQUIRED NOTICES AND PERMITS ARE POSTED AND THE CERTIFIED INSPECTOR FOR YOUR SITE HAS UPLOADED A SWP3 INSPECTION REPORT TO YOUR ACCOUNT THAT CONFIRMS THAT THE FIRST PHASE OF TEMPORARY ESC HAVE BEEN INSTALLED PER PLANS AND SPECIFICATIONS.
- ALONG WITH THE CITY OF AUSTIN, SCHEDULE YOUR PROJECT PRE-CONSTRUCTION MEETING THROUGH THE MYPERMITNOW.ORG ACCOUNT AFTER THE INITIAL 3RD PARTY SWP3 INSPECTION REPORT HAS BEEN UPLOADED AND ALL PERMITS AND NOTICES HAVE BEEN POSTED. THEN FOLLOW UP WITH AN EMAIL TO THE TRAVIS COUNTY DEVELOPMENT SERVICES ENGINEERING INSPECTOR, JOHNNY ANGLIN, AT JOHNNY.ANGLIN@TRAVISCOUNTYTX.GOV

DEVELOPER: THE SAINT JUNE, L.P., A TEXAS LIMITED PARTNERSHIP
212 LAVACA, SUITE 300
AUSTIN, TEXAS 78701
PH: (512) 478-5788 FAX: (512) 478-6340

ENGINEER: LJA ENGINEERING, INC.
7500 RIALTO BLVD. BLDG. II SUITE 100
AUSTIN TEXAS 78735
CONTACT PERSON : S. DANNY MILLER, P.E.
PHONE: (512) 439-4700
FAX: (512) 439-4716

SURVEYOR: RAMSEY LAND SURVEYING, L.L.C.
8718 SOUTHWEST PARKWAY
AUSTIN, TX 78709-2768
CONTACT: BILL RAMSEY, R.P.L.S.
PH: 512-301-9398, FAX: 512-301-9395

CONTOUR DATA: RAMSEY LAND SURVEYING, L.L.C.
8718 SOUTHWEST PARKWAY
AUSTIN, TX 78709-2768
CONTACT: BILL RAMSEY, R.P.L.S.
PH: 512-301-9398, FAX: 512-301-9395

SHEET NO.	DESCRIPTION
01	CV01 COVER PAGE
02	FP01 FINAL PLAT
03	FP02 FINAL PLAT
04	FP03 FINAL PLAT
05	FP04 FINAL PLAT
06	FP05 FINAL PLAT
07	FP06 FINAL PLAT
08	EX01 EXISTING CONDITIONS SURVEY
09	GN01 GENERAL NOTES
10	DM01 EXISTING CONDITIONS DRAINAGE AREA MAP
11	DM02 PROPOSED CONDITIONS DRAINAGE AREA MAP
12	EC01 EROSION AND SEDIMENTATION CONTROL PLAN
13	EC02 EROSION AND SEDIMENTATION CONTROL NOTES
14	EC03 EROSION AND SEDIMENTATION DETAILS
15	GP01 GRADING PLAN, POND PLAN AND PROFILE
16	SS01 CULVERT PLAN AND PROFILES
17	TYP01 TYPICAL SECTIONS
18	GN01 HORIZONTAL ALIGNMENT DATA
19	PLN01 ROADWAY PLAN LAYOUT
20	SPM01 TRAFFIC SIGNAL SIGNING & PAVEMENT MARKING LAYOUT
21	STD01 STANDARDS
22	STD02 STANDARDS
23	STD03 STANDARDS
24	STD04 STANDARDS
25	STD05 STANDARDS
26	STD06 STANDARDS
27	STD07 STANDARDS
28	STD08 STANDARDS
29	STD09 STANDARDS

SITE PLAN RELEASE NOTES

- 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.
- ALL SIGNS MUST COMPLY WITH REQUIREMENTS OF THE LAND DEVELOPMENT CODE (CHAPTER 25-10).
- ADDITIONAL ELECTRIC EASEMENTS MAY BE REQUIRED AT A LATER DATE.
- A DEVELOPMENT PERMIT MUST BE ISSUED PRIOR TO AN APPLICATION FOR BUILDING PERMIT FOR NON-CONSOLIDATED OR PLANNING COMMISSION APPROVED SITE PLANS.
- FOR DRIVEWAY CONSTRUCTION: THE OWNER IS RESPONSIBLE FOR ALL COSTS FOR RELOCATION OF, OR DAMAGE TO UTILITIES.
- FOR CONSTRUCTION WITHIN THE RIGHT-OF-WAY, A ROW EXCAVATION PERMIT IS REQUIRED.

LIMITS OF CONSTRUCTION AREA = 137,766 SF

IMPERVIOUS COVER SUMMARY
EXISTING IMPERVIOUS COVER = 98,881 SF / 71.8%
PROPOSED ADDITIONAL IMPERVIOUS COVER = 7,788 SF / 5.7%

TOTAL IMPERVIOUS COVER = 101,669 SF / 77.4%

LJA Engineering, Inc.

7500 Rialto Boulevard
Building II Suite 100
Austin, Texas 78735

Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386



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



Know what's below.
Call before you dig.

BARTON CREEK BLVD. & SOUTHWEST PARKWAY INTERSECTION IMPROVEMENTS AZ14-0409

20090074

20090074

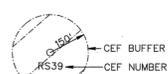
VEGA MULTI-FAMILY PLANS FOR SITE DEVELOPMENT FINAL PLAT

8700-172 SOUTHWEST PARKWAY, AUSTIN, TX. 78723

CRITICAL ENVIRONMENTAL FEATURE (CEF) LIST

- OR1 QUESTIONABLE RIMROCK, 4 FEET HIGH
OR2 QUESTIONABLE RIMROCK, 6 FEET HIGH
OS2 QUESTIONABLE SPRING, DISCRETE ORIFICE AT BASE OF 3.5 FEET BREAK IN CHANNEL
R36 RIMROCK, APPROXIMATELY 8 FEET HIGH
R37 RIMROCK, APPROXIMATELY 8 FEET HIGH ABOVE CHANNEL
R38 RIMROCK/CHANNEL SCARP, 5 FEET HIGH
R39 RIMROCK/CHANNEL SCARP UP TO 6 FEET HIGH
S29 SEEPAGE ZONE
S30 SPRING/SEEP PERSISTENT IF NOT PERENNIAL
R528 RIMROCK/SEEP COMPLEX, UP TO 6 FEET HIGH, EXTENSIVE AREA OF NEAR VERTICAL RIMS ABOUT 30 FEET ABOVE CHANNEL.

CRITICAL ENVIRONMENTAL FEATURE (CEF) LEGEND



BENCHMARKS:

Table with columns: BENCHMARK NO., DESCRIPTION. Includes entries for 341-09, 341-19, 341-21, 341-25, and 101170-38.

I, JOHN A. CLARK, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF ENGINEERING AND HEREBY CERTIFY THAT THIS PLAN IS FEASIBLE FROM AN ENGINEERING STANDPOINT AND COMPLIES WITH THE ENGINEERING RELATED PORTIONS OF TITLE 25 OF THE AUSTIN CITY CODE OF 1991, AND TITLE 30 OF THE AUSTIN CITY CODE OF 2003, AS AMENDED, IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

THE 100-YEAR FLOODPLAIN IS CONTAINED WITHIN THE DRAINAGE EASEMENT AS SHOWN HEREON. A PORTION OF THIS TRACT IS WITHIN THE DESIGNATED FLOOD HAZARD AREA AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) # 4845304200 AND #4845304004, TRAVIS COUNTY, TEXAS, BOTH DATED SEPTEMBER 26, 2008.

JOHN A. CLARK, P.E.
PROFESSIONAL ENGINEER NO. 81649
LJA ENGINEERING & SURVEYING, INC.
5316 HIGHWAY 290 WEST
SUITE 150
AUSTIN, TEXAS 78735
PHONE : (512) 439-4700 FAX : (512) 439-4716



I, WILLIAM H. RAMSEY, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF SURVEYING AND HEREBY CERTIFY THAT THIS PLAN COMPLIES WITH THE SURVEY RELATED PORTIONS OF TITLE 25 OF THE AUSTIN CITY CODE OF 1999, AND TITLE 30 OF THE AUSTIN CITY CODE OF 2003, AS AMENDED, IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND WAS PREPARED FROM AN ACTUAL SURVEY OF THE PROPERTY MADE UNDER MY SUPERVISION ON THE GROUND.

WILLIAM H. RAMSEY, R.P.L.S.
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 4532
RAMSEY LAND SURVEYING, L.L.C.
8718 SOUTHWEST PARKWAY
AUSTIN, TEXAS 78709-2768
PHONE : (512) 301-9396 FAX : (512) 301-9395



NOTES CONTINUED FROM SHEET 11

- 20. COMMERCIAL
THE OWNER OF THIS PROPERTY IS RESPONSIBLE FOR THE IMPLEMENTATION AND ON-GOING MAINTENANCE OF THE INTEGRATED PEST MANAGEMENT (IPM) PLAN FOR POLLUTION PREVENTION AND SOURCE CONTROL OF PESTICIDES AND HERBICIDES. THE IPM PLAN SHALL HAVE BEEN APPROVED BY THE WATERSHED PROTECTION AND DEVELOPMENT REPORT DEPARTMENT.
MULTI-FAMILY/CONDO
THE OWNER OF THIS PROPERTY IS RESPONSIBLE FOR IMPLEMENTATION AND ON-GOING MAINTENANCE OF THE INTEGRATED PEST MANAGEMENT (IPM) PLAN FOR POLLUTION PREVENTION AND SOURCE CONTROL OF PESTICIDES AND HERBICIDES. ADDITIONALLY THE OWNER SHALL PROVIDE TENANTS WITH THE IPM PLAN AND A PUBLIC EDUCATION PROGRAM DESCRIBING METHODS TO REDUCE NON-POINT SOURCE POLLUTION. THE IPM PLAN AND PUBLIC EDUCATION PROGRAM SHALL HAVE BEEN APPROVED BY THE WATERSHED PROTECTION AND DEVELOPMENT REPORT DEPARTMENT.
SINGLE FAMILY
THE SELLER IS REQUIRED TO PROVIDE THE OCCUPANT OF EACH LOT, AT THE TIME OF OCCUPANCY, A HOMEOWNER ENVIRONMENTAL EDUCATION PACKET THAT HAS BEEN APPROVED BY THE WATERSHED PROTECTION AND DEVELOPMENT REPORT DEPARTMENT. THIS PACKET SHALL INCLUDE AN INTEGRATED PEST MANAGEMENT PLAN (IPM) FOR POLLUTION PREVENTION AND SOURCE CONTROL OF PESTICIDES AND HERBICIDES AND A PUBLIC EDUCATION PROGRAM DESCRIBING METHODS TO REDUCE NON-POINT SOURCE POLLUTION.
21. FOR INTEGRATED PEST MANAGEMENT RESTRICTIVE COVENANTS PERTAINING TO THIS SUBDIVISION, SEE SEPARATE INSTRUMENT RECORDED IN DOCUMENT NO. 2009007467 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS.
22. NO DRIVEWAY SHALL BE CONSTRUCTED CLOSER THAN 150 FEET TO THE EDGE OF PAVEMENT OF AN INTERSECTING ARTERIAL STREET. NO DRIVEWAY SHALL BE CONSTRUCTED CLOSER THAN 50 FEET TO THE EDGE OF PAVEMENT OF AN INTERSECTING LOCAL OR COLLECTOR STREET.
23. WATER QUALITY CONTROLS ARE REQUIRED FOR ALL DEVELOPMENT PURSUANT TO SECTION 30-5-201 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.
24. DRAINAGE EASEMENTS OR STORM SEWER EASEMENTS THAT ARE 15 FEET IN WIDTH CAN ONLY BE USED FOR ENCLOSED CONDUIT STORM SEWER SYSTEM (L.E., P.P.E.S.).

25. PARKLAND REQUIREMENTS FOR THIS SUBDIVISION SHALL BE IN ACCORDANCE WITH SECTION 30-2-217 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.

26. DEVELOPMENT WITHIN THE WATER QUALITY TRANSITION ZONE IS ALLOWED ON LOT 14 OF BLOCK F AND LOTS 7 AND 33 OF BLOCK J IN ACCORDANCE WITH SEC. 30-5-483(B) OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.

27. THE FOLLOWING WATER QUALITY AND 2-YEAR DETENTION NOTE AS APPROVED WITH THE REVISED AMARRA DRIVE PRELIMINARY PLAN (CASE NO. CBJ-04-0172.00) APPLIES TO THIS PLAT AND ASSOCIATED DEVELOPMENT PERMITS.

THROUGH THE USE OF EXISTING IN-STREAM WATER QUALITY PONDS (POND NOS. 2, 9, AND 15) AND VEGETATED FILTER AREAS, WATER QUALITY AND 2-YEAR DETENTION PARAMETERS FOR THE OVERALL AMARRA DRIVE PRELIMINARY PLAN SATISFY CURRENT CITY OF AUSTIN ORDINANCE REQUIREMENTS BASED ON A "REGIONAL" APPROACH ACROSS THE MIXED USE PROJECT. AS SUCH, WATER QUALITY AND 2-YEAR DETENTION PARAMETERS FOR THE FIRST PLAT AND SUBSEQUENT PLATS AND SITE PLANS OUT OF THIS PRELIMINARY PLAN WILL ALSO BE DEEMED TO SATISFY CURRENT CITY OF AUSTIN ORDINANCE REQUIREMENTS BASED ON THIS "REGIONAL" APPROACH, INCLUDING THE USE OF THE VEGETATED FILTER AREAS DEPICTED ON THIS PRELIMINARY PLAN.

28. DEVELOPMENT WITHIN THE CRITICAL WATER QUALITY ZONE IS RESTRICTED PER SECTIONS 30-5-482 AND 30-5-281 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.

29. CONSTRUCTION ON SLOPES SHALL BE IN ACCORDANCE WITH SECTIONS 30-5-301 AND 30-5-302 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.

30. THE MAXIMUM NUMBER OF DWELLING UNITS FOR LOT 1, BLOCK A SHALL BE SIX UNITS PER ACRE.

31. FACILITIES FOR OFF-STREET LOADING AND UNLOADING SHALL BE PROVIDED FOR ALL NON-RESIDENTIAL SITES.

32. WITH THE EXCEPTION OF THE VARIANCES AND WAIVERS GRANTED WITH THIS PROJECT, THE STANDARDS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CITY OF AUSTIN STANDARDS.

33. A VARIANCE HAS BEEN GRANTED FROM SECTION 30-2-152 (DEAD END STREETS) OF THE LAND DEVELOPMENT CODE.

34. A VARIANCE HAS BEEN GRANTED PER SECTION 30-2-159(A) (PRIVATE STREETS) OF THE LAND DEVELOPMENT CODE.

35. AN ADMINISTRATIVE WAIVER HAS BEEN GRANTED FROM SECTION 30-2-34 (BALANCE OF THE TRACT) OF THE LAND DEVELOPMENT CODE.

36. AN ADMINISTRATIVE WAIVER HAS BEEN GRANTED FROM SECTION 30-2-153 (BLOCK LENGTH) OF THE LAND DEVELOPMENT CODE.

37. ADMINISTRATIVE WAIVERS HAVE BEEN GRANTED FROM SECTION 1.3.2.F, TABLE 1-6, AND TABLE 1-12 OF THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL (GEOMETRIC DESIGN CRITERIA).

38. AN ADMINISTRATIVE WAIVER HAS BEEN GRANTED FROM SECTION 1.3.2.A OF THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL (30MPH DESIGN SPEED FOR LOCAL STREETS).

39. THE FOLLOWING ADMINISTRATIVE WAIVERS HAVE BEEN GRANTED FROM THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL:

SECTION 1.2.2.B (25-YEAR FLOW CONTAINED WITHIN CURB AND GUTTER);

SECTION 1.2.2.C (100-YEAR FLOW CONTAINED WITHIN RIGHT-OF-WAY);

SECTION 1.2.3.B (FLOW CONTAINED WITHIN ROADSIDE DITCHES);

SECTION 6.4.1.D (MINIMUM SIDE SLOPE OF GRASS LINED SWALE OF 3:1);

SECTION 6.4.1.F (MINIMUM BOTTOM WIDTH OF GRASS LINED SWALE OF 3').

40. AN ADMINISTRATIVE WAIVER HAS BEEN GRANTED FROM STANDARD NO. 438S-1 TO ALLOW 4-INCH ROLL CURB IN LIEU OF 6-INCH STANDARD CURB FOR CARRANZO DRIVE.

41. THE MINIMUM FINISHED FLOOR ELEVATION ON LOTS 5 AND 6 OF BLOCK B, LOTS 12, 13, 14, AND 15 OF BLOCK H AND LOTS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34 AND 35 OF BLOCK J SHALL BE ONE FOOT ABOVE THE ADJACENT ESTABLISHED 100-YEAR FLOOD ELEVATION SHOWN HEREON.

42. THE FOLLOWING LOTS WILL BE DESIGNATED AS SPECIAL COMMON AREAS PURSUANT TO THE TERMS OF THAT CERTAIN MASTER DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS (BARTON CREEK SOUTHWEST) RECORDED IN DOCUMENT NO. 2002086391 OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS:

LOT 1, BLOCK B;

LOTS 9, 13, 16, AND 29, BLOCK F;

LOT 18, BLOCK I;

LOTS 38 AND 36, BLOCK J.

43. PUBLIC SIDEWALKS, BUILT TO CITY OF AUSTIN STANDARDS, INCLUDING ALTERNATIVE SIDEWALK DESIGNS APPROVED BY THE CITY, ARE REQUIRED ALONG ONE SIDE OF CARRANZO DRIVE AS DEPICTED ON THIS FINAL PLAT. THESE SIDEWALKS SHALL BE IN PLACE PRIOR TO THE LOT BEING OCCUPIED. FAILURE TO CONSTRUCT THE REQUIRED SIDEWALKS MAY RESULT IN THE WITHDRAWING OF CERTIFICATE OF OCCUPANCY, BUILDING PERMITS OR UTILITY CONNECTIONS BY THE GOVERNING BODY OR UTILITY COMPANY. IN ADDITION, 5' WIDE PUBLIC SIDEWALKS, BUILT TO CITY OF AUSTIN STANDARDS, INCLUDING ALTERNATIVE SIDEWALK DESIGNS APPROVED BY THE CITY, ARE REQUIRED ALONG THE SUBDIVISION SIDE OF SOUTHWEST PARKWAY AS DEPICTED ON THIS FINAL PLAT WHEN AND IF THE ADJUTING ROADWAY IS RECONSTRUCTED WITH CONCRETE CURB AND GUTTER.

44. BUILDING SETBACK LINES WITHIN THE CITY OF AUSTIN'S ZONING JURISDICTION SHALL BE IN CONFORMANCE WITH CITY OF AUSTIN ZONING ORDINANCE REQUIREMENTS.

45. THIS PROJECT IS NOT LOCATED OVER THE EDWARDS AQUIFER RECHARGE ZONE.

46. NO CONSTRUCTION OR PLACEMENT OF STRUCTURES INCLUDING BUILDINGS, SHEDS, POOLS, LANDSCAPING OR GARDENS IS ALLOWED WITHIN A CRITICAL ENVIRONMENTAL FEATURE BUFFER ZONE PER SECTION 30-5-281(C)(3).

47. ALL SINGLE FAMILY RESIDENTIAL LOTS WITHIN THIS SUBDIVISION EXCEPT LOTS 1, 17-26 BLOCK F, INCLUDE SLOPES WITH GRADIENTS EXCEEDING 15 PERCENT. WERPOUS COVER AND CONSTRUCTION REQUIREMENTS FOR LOTS ON A SLOPE WITH A GRADIENT OF MORE THAN 15 PERCENT SHALL BE IN CONFORMANCE WITH SECTIONS 30-5-301 AND 30-5-302 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.

48. FOR SINGLE FAMILY RESIDENTIAL LOTS, THE SELLER IS REQUIRED TO PROVIDE THE PURCHASER OF EACH LOT, PRIOR TO THE TIME OF OCCUPANCY, A COPY OF ANY RECORDED WATER QUALITY EASEMENT AND RESTRICTIVE COVENANT (WOC) ASSOCIATED WITH THE LOT. THE WOC WILL INCLUDE DESCRIPTIONS OF THE BOUNDARIES AND RESTRICTIONS.

49. DIRECT VEHICULAR ACCESS TO SOUTHWEST PARKWAY FROM LOT 1, BLOCK J IS PROHIBITED.

Table with columns: CURVE, LENGTH, DELTA, RADIUS, DIRECTION, CHORD. Contains curve data for the project.

Table with columns: LINE, DIRECTION, DISTANCE. Contains line data for the project.

Table with columns: LINE, DIRECTION, DISTANCE. Contains line data for the project.

Table with columns: NO., REVISIONS, DESCRIPTION, DATE. Contains revision history.

AMARRA DRIVE, PHASE 3
SUBMITTED: 11/04/08

RAMSEY LAND SURVEYING, L.L.C.
8718 SOUTHWEST PARKWAY
P.O. BOX 92768
AUSTIN, TEXAS 78709-2768
PHONE: (512) 301-9398
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bramsey@lsurveying.com

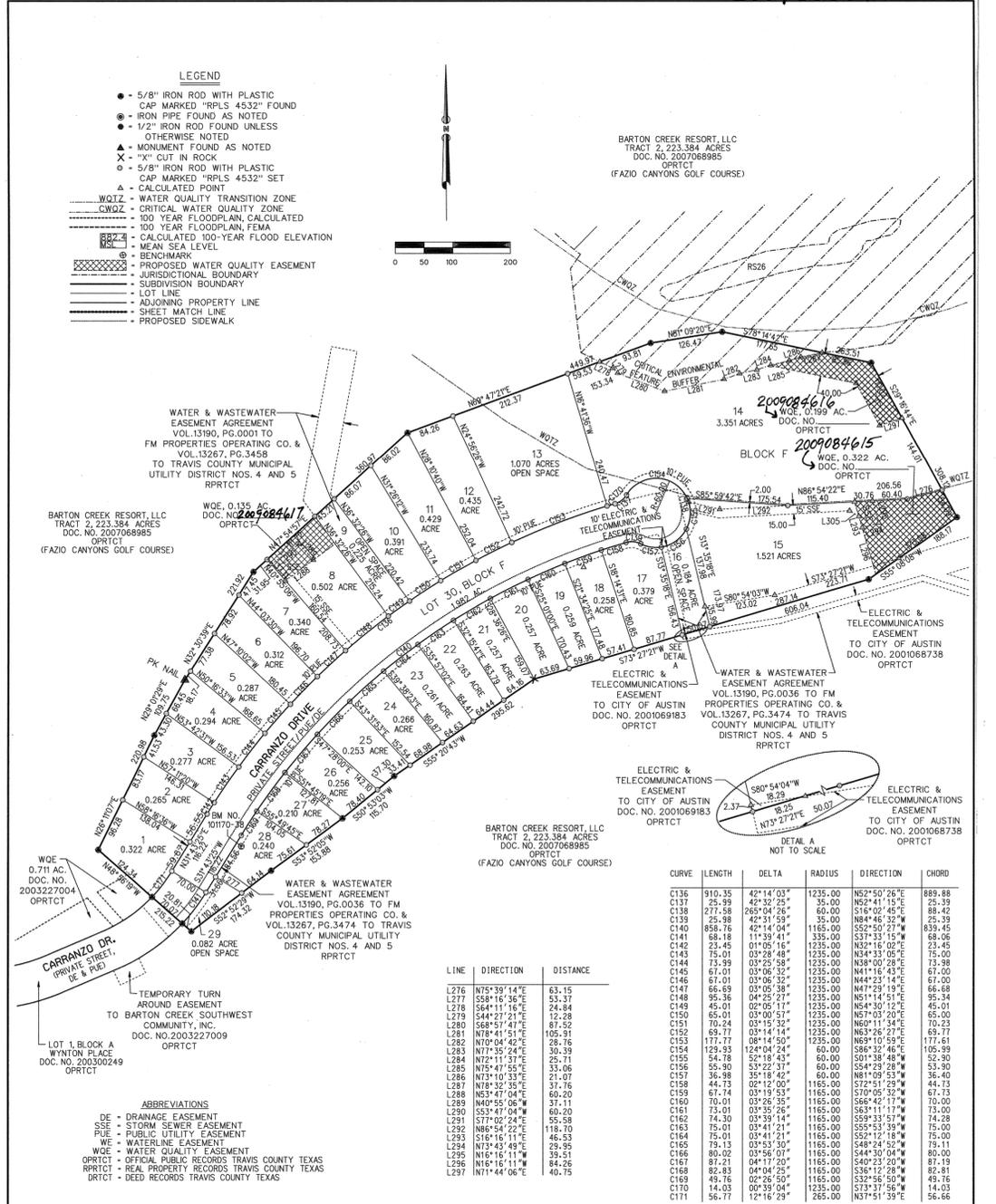
AMARRA DRIVE, PHASE 3
SUBMITTED: 11/04/08

RAMSEY LAND SURVEYING, L.L.C.
8718 SOUTHWEST PARKWAY
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AUSTIN, TEXAS 78709-2768
PHONE: (512) 301-9398
FAX: (512) 301-9395
bramsey@lsurveying.com

811 logo and text: LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR. Call what's below.

200900074

STATE OF TEXAS * KNOW ALL MEN BY THESE PRESENTS
 COUNTY OF TRAVIS *
 THAT STRATUS PROPERTIES OPERATING CO., L.P., A DELAWARE LIMITED PARTNERSHIP, BY ITS GENERAL PARTNER, STRS L.L.C., A DELAWARE LIMITED LIABILITY COMPANY, BY STRATUS PROPERTIES INC., A DELAWARE CORPORATION, SOLE MEMBER, BY AND THROUGH JOHN E. BAKER, SENIOR VICE PRESIDENT, BEING THE OWNER OF THAT CERTAIN 236.065 ACRES OF LAND SITUATED IN THE THOMAS H. JESTER SURVEY NO. 150, THE R.M. JOHNSON SURVEY NO. 14 AND THE J. HUDSON SURVEY NO. 530, TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT CERTAIN 36.95 ACRES OF LAND DESIGNATED PARCEL 2, A PORTION OF THAT CERTAIN 9.673 ACRES OF LAND DESIGNATED PARCEL 9, A PORTION OF THAT CERTAIN 9.584 ACRES OF LAND DESIGNATED PARCEL 10, A PORTION OF THAT CERTAIN 37.1105 ACRES OF LAND, DESIGNATED PARCEL 11, A PORTION OF THAT CERTAIN 37.601 ACRES OF LAND DESIGNATED PARCEL 15, A PORTION OF THAT CERTAIN 31.746 ACRES OF LAND, DESIGNATED PARCEL 24, ALL OF THAT CERTAIN 4.432 ACRES OF LAND, DESIGNATED PARCEL 2, A PORTION OF THAT CERTAIN 9.673 ACRES OF LAND, DESIGNATED PARCEL 11 AND ALL OF THAT CERTAIN 2.0432 ACRES OF LAND DESIGNATED PARCEL 20 CONVEYED TO STRATUS PROPERTIES OPERATING CO., L.P., BY DEEDS RECORDED IN VOLUME 11706, PAGE 447 AND VOLUME 13237, PAGE 79 OF THE REAL PROPERTY RECORDS OF SAID COUNTY, AND A PORTION OF THAT CERTAIN 250.82 ACRES OF LAND, DESIGNATED PARCEL C, A PORTION OF THAT CERTAIN 36.162 ACRES OF LAND, DESIGNATED PARCEL E AND A PORTION OF THAT CERTAIN 30.025 ACRES OF LAND, DESIGNATED PARCEL L, CONVEYED TO STRATUS PROPERTIES OPERATING CO., L.P., BY DEEDS RECORDED IN VOLUME 11706, PAGE 590 AND VOLUME 13237, PAGE 79 OF THE SAID REAL PROPERTY RECORDS, AND ALL OF THAT CERTAIN 0.2621 ACRES OF LAND CONVEYED TO STRATUS PROPERTIES OPERATING CO., L.P., BY DEED RECORDED IN DOCUMENT NO. 2004131177 OF THE OFFICIAL PUBLIC RECORDS OF SAID COUNTY, DO HEREBY SUBDIVIDE SAID 236.065 ACRES OF LAND IN ACCORDANCE WITH CHAPTER 212 OF THE TEXAS LOCAL GOVERNMENT CODE AND THIS PLAT, TO BE KNOWN AS "AMARRA DRIVE, PHASE 3" SUBDIVISION, SUBJECT TO THE COVENANTS AND RESTRICTIONS SHOWN HEREON, AND HEREBY DEDICATES TO THE OWNERS OF THE LOTS IN THE SUBDIVISION, PUBLIC UTILITIES SERVING THE SUBDIVISION, EMERGENCY SERVICES PROVIDERS WITH JURISDICTION, AND PUBLIC SERVICE AGENCIES THE USE OF ALL THE PRIVATE STREETS AND OTHER EASEMENTS SHOWN HEREON, SUBJECT TO ANY EASEMENTS AND/OR RESTRICTIONS HEREBY GRANTED AND NOT RELEASED, THE MAINTENANCE OF AND PAYMENT OF REAL PROPERTY TAXES ON SUCH PRIVATE STREETS ARE THE RESPONSIBILITY OF THE OWNER(S) OF THE SUBDIVISION OR ANY DULY CONSTITUTED PROPERTY OWNERS ASSOCIATION UNDER THAT CERTAIN INSTRUMENT OF RECORD UNDER DOCUMENT NO. 2009084615, OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS, AN EXPRESS EASEMENT IS HEREBY GRANTED ACROSS SAID PRIVATE STREETS AND ANY COMMON AREAS FOR THE USE OF THE SURFACE OF SAID GOVERNMENTAL FUNCTIONS, VEHICULAR AND NONVEHICULAR, INCLUDING FIRE AND POLICE PROTECTION, SOLID AND OTHER WASTE MATERIAL PICKUP AND ANY OTHER PURPOSE ANY GOVERNMENTAL AUTHORITY DEEMED NECESSARY, AND OWNER FURTHER AGREES THAT ALL GOVERNMENTAL ENTITIES, THEIR AGENTS OR EMPLOYEES, SHALL NOT BE RESPONSIBLE OR LIABLE FOR ANY DAMAGE OCCURRING TO THE SURFACE OF SAID PRIVATE STREETS AND ANY COMMON AREAS AS A RESULT OF ANY SUCH USE BY GOVERNMENTAL VEHICLES.
 ALL PRIVATE STREETS SHOWN HEREON (AMARRA DRIVE, VALERIO LANE, PERALTA LANE AND CARRANZO DRIVE) AND ANY SECURITY GATES OR DEVICES CONTROLLING ACCESS TO SUCH STREETS WILL BE OWNED AND MAINTAINED BY THE ESTABLISHED PROPERTY OWNERS ASSOCIATION FOR THIS SUBDIVISION AS REFERENCED IN PLAT NOTE 18.
 IN WITNESS WHEREOF, STRATUS PROPERTIES OPERATING CO., L.P., HAS CAUSED THESE PRESENTS TO BE EXECUTED BY THEIR GENERAL PARTNER, STRS L.L.C., BY STRATUS PROPERTIES INC., SOLE MEMBER, THIS 24 DAY OF February, 2009, A.D.
 BY: STRATUS PROPERTIES OPERATING CO., L.P., A DELAWARE LIMITED PARTNERSHIP
 GENERAL PARTNER
 BY: STRATUS PROPERTIES INC., A DELAWARE CORPORATION,
 SOLE MEMBER
 JOHN E. BAKER, SENIOR VICE PRESIDENT
 98 SAN JACINTO BLVD., SUITE 220
 AUSTIN, TEXAS 78701
 PHONE (512) 478-5788 FAX (512) 478-6340
 THE STATE OF TEXAS *
 COUNTY OF TRAVIS *
 THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THIS 24 DAY OF February, 2009, A.D., BY JOHN E. BAKER, SENIOR VICE PRESIDENT OF STRATUS PROPERTIES INC., A DELAWARE CORPORATION, SOLE MEMBER OF STRS L.L.C., A DELAWARE LIMITED LIABILITY COMPANY, GENERAL PARTNER OF STRATUS PROPERTIES OPERATING CO., L.P., A DELAWARE LIMITED PARTNERSHIP, ON BEHALF OF EACH SAID ENTITY.
 GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS 24 DAY OF February, 2009, A.D.
 NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS
 Carol Fahs
 (PRINT OR TYPE NOTARY'S NAME)
 9. THE OWNER OF THIS SUBDIVISION, AND HIS OR HER SUCCESSORS AND ASSIGNS, ASSUMES RESPONSIBILITY FOR THE PLANS FOR CONSTRUCTION OF SUBDIVISION IMPROVEMENTS WHICH COMPLY WITH APPLICABLE CODES AND REQUIREMENTS OF THE CITY OF AUSTIN. THE OWNER UNDERSTANDS AND ACKNOWLEDGES THAT PLAT VACATION OR REPLATING MAY BE REQUIRED, AT THE OWNER'S SOLE EXPENSE, IF PLANS TO CONSTRUCT THIS SUBDIVISION DO NOT COMPLY WITH SUCH CODES AND REQUIREMENTS.
 10. PRIOR TO CONSTRUCTION ON LOTS IN THIS SUBDIVISION, DRAINAGE PLANS WILL BE SUBMITTED TO THE CITY OF AUSTIN AND TRAVIS COUNTY (AS APPLICABLE) FOR REVIEW. RAINFALL RUN-OFF SHALL BE HELD TO THE AMOUNT ESTABLISHED FOR THE REGIONAL DETENTION PLANS APPROVED BY THE CITY OF AUSTIN, EXCEPT THAT RUN-OFF IN EXCESS OF THE AMOUNT ESTABLISHED FOR THE REGIONAL DETENTION SYSTEM SHALL BE DETAINED BY THE USE OF PONDING OR OTHER APPROVED METHODS.
 11. NO BUILDINGS, FENCES, LANDSCAPING OR OTHER STRUCTURES ARE PERMITTED IN DRAINAGE EASEMENTS EXCEPT AS APPROVED BY THE CITY OF AUSTIN AND TRAVIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 4 OR TRAVIS COUNTY AND TRAVIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 4.
 12. PROPERTY OWNER SHALL PROVIDE ACCESS TO DRAINAGE EASEMENTS, STORMSEWER EASEMENTS, AND WATER QUALITY EASEMENTS AS MAY BE APPLICABLE AND SHALL NOT PROHIBIT ACCESS BY GOVERNMENTAL AUTHORITIES HAVING JURISDICTION.
 13. ALL DRAINAGE EASEMENTS ON PRIVATE PROPERTY SHALL BE MAINTAINED BY THE OWNER(S) OR HIS/HER ASSIGNS.
 14. TRAVIS COUNTY DEVELOPMENT PERMIT IS REQUIRED PRIOR TO ANY SITE DEVELOPMENT.
 15. THIS SUBDIVISION PLAT WAS APPROVED AND RECORDED BEFORE THE CONSTRUCTION AND ACCEPTANCE OF STREETS AND OTHER SUBDIVISION IMPROVEMENTS, PURSUANT TO THE TERMS OF A SUBDIVISION CONSTRUCTION AGREEMENT BETWEEN THE SUBDIVIDER AND THE CITY OF AUSTIN DATED 10/27/09. THE SUBDIVIDER IS RESPONSIBLE FOR THE CONSTRUCTION OF ALL STREETS AND IMPROVEMENTS TO BE CONSTRUCTED ON THIS SUBDIVISION. THE RESPONSIBILITY MAY BE ASSIGNED IN ACCORDANCE WITH THE TERMS OF THAT AGREEMENT. FOR THE CONSTRUCTION AGREEMENT PERTAINING TO THIS SUBDIVISION, SEE SEPARATE INSTRUMENT RECORDED IN DOCUMENT NO. 2009084612 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS.
 16. ALL PRIVATE STREETS SHOWN HEREON (AMARRA DRIVE, VALERIO LANE, PERALTA LANE AND CARRANZO DRIVE) AND ANY SECURITY GATES OR DEVICES CONTROLLING ACCESS TO SUCH STREETS WILL BE OWNED AND MAINTAINED BY THE ESTABLISHED PROPERTY OWNERS ASSOCIATION FOR THIS SUBDIVISION. THE RESPONSIBILITY OF THE ESTABLISHED PROPERTY OWNERS ASSOCIATION FOR THIS SUBDIVISION SHALL BE TO PERFORM THE MAINTENANCE RESPONSIBILITIES, THEN THE MAINTENANCE WILL BECOME THE RESPONSIBILITY OF THE LOT OWNERS UTILIZING THE PRIVATE STREETS.
 17. STANDARD STREET NAME SIGNS WILL BE INSTALLED AT ALL PRIVATE STREET INTERSECTIONS. AN ADDITIONAL "PRIVATE STREET" SIGN WILL BE POSTED AT ALL INTERSECTIONS OF PRIVATE STREETS WITH PUBLIC STREETS.
 18. FOR PROPERTY OWNERS COVENANTS, CONDITIONS AND RESTRICTIONS PERTAINING TO THIS SUBDIVISION, SEE SEPARATE INSTRUMENT RECORDED IN DOC. NO. 2009084613 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS.
 19. THE MAXIMUM PORTION OF ANY COMMERCIAL, MULTI-FAMILY, OR SINGLE FAMILY/DOUPLE LOT, OR COMBINATION THEREOF THAT MAY BE ESTABLISHED AS TURF OR LANDSCAPED AREA IS 15 PERCENT, HOWEVER, NO LOT SHALL BE RESTRICTED TO LESS THAN 2000 SQUARE FEET OF TURF OR LANDSCAPED AREA. UNDISTURBED NATURAL AREAS AS RESTORED TO NATURAL CONDITIONS SHALL NOT BE CONSIDERED LANDSCAPING OR TURF. (SECTION 16.9.2.E OF ENVIRONMENTAL CRITERIA MANUAL).
 NOTES CONTINUED ON SHEET 11
 THIS SUBDIVISION PLAT IS WITHIN THE FULL PURPOSE JURISDICTION AND THE TWO (2) MILE ETJ OF THE CITY OF AUSTIN ON THIS 24 DAY OF April, 2009, A.D.
 ACCEPTED AND AUTHORIZED FOR RECORD BY THE DIRECTOR, WATERSHED PROTECTION & DEVELOPMENT REVIEW DEPARTMENT, CITY OF THE COUNTY OF TRAVIS, THIS 24 DAY OF April, 2009, A.D.
 Victoria L. DeBeauvoir, Director
 WATERSHED PROTECTION & DEVELOPMENT REVIEW DEPARTMENT
 ZONING AND PLATTING COMMISSION
 ACCEPTED AND AUTHORIZED FOR RECORD BY THE ZONING AND PLATTING COMMISSION OF THE CITY OF AUSTIN, TEXAS, THIS 24 DAY OF April, 2009, A.D.
 Betty Baker, Chairperson
 Clarke Hammond, Secretary
 COMMISSIONERS COURT RESOLUTION
 IN APPROVING THIS PLAT, THE COMMISSIONERS COURT OF TRAVIS COUNTY, TEXAS, ASSUMES NO OBLIGATION TO BUILD THE STREETS, ROADS, AND OTHER PUBLIC THOROUGHFARES SHOWN ON THIS PLAT OR ANY BRIDGES OR CULVERTS IN CONNECTION THEREWITH, THE BUILDING OF ALL STREETS, ROADS, AND OTHER PUBLIC THOROUGHFARES SHOWN ON THIS PLAT, AND ALL BRIDGES AND CULVERTS NECESSARY TO BE CONSTRUCTED OR PLACED IN SUCH STREETS, ROADS, OR OTHER PUBLIC THOROUGHFARES OR IN CONNECTION THEREWITH, IS THE RESPONSIBILITY OF THE OWNER AND/OR DEVELOPER OF THE TRACT OF LAND COVERED BY THIS PLAT IN ACCORDANCE WITH PLANS AND SPECIFICATIONS PRESCRIBED BY THE COMMISSIONERS COURT OF TRAVIS COUNTY, TEXAS.
 THE OWNER(S) OF THE SUBDIVISION SHALL CONSTRUCT THE SUBDIVISION'S STREET AND DRAINAGE IMPROVEMENTS (THE IMPROVEMENTS) TO COUNTY STANDARDS IN ORDER FOR THE COUNTY TO ACCEPT THE PUBLIC IMPROVEMENTS FOR MAINTENANCE OR TO RELEASE FISCAL SECURITY POSTED TO SECURE PRIVATE IMPROVEMENTS. TO SECURE THIS OBLIGATION, THE OWNER(S) MUST POST FISCAL SECURITY WITH THE COUNTY IN THE AMOUNT OF THE ESTIMATED COST OF THE IMPROVEMENTS. THE OWNER(S) OBLIGATION TO CONSTRUCT THE IMPROVEMENTS TO COUNTY STANDARDS AND TO POST FISCAL SECURITY TO SECURE SUCH CONSTRUCTION IS A CONTINUING OBLIGATION BINDING ON THE OWNER(S) AND THEIR SUCCESSORS AND ASSIGNS UNTIL THE PUBLIC IMPROVEMENTS HAVE BEEN ACCEPTED FOR MAINTENANCE BY THE COUNTY, OR THE PRIVATE IMPROVEMENTS HAVE BEEN CONSTRUCTED AND ARE PERFORMING TO COUNTY STANDARDS.
 THE AUTHORIZATION OF THIS PLAT BY THE COMMISSIONERS COURT FOR FILING OR THE SUBSEQUENT ACCEPTANCE FOR MAINTENANCE BY TRAVIS COUNTY, TEXAS, OF ROADS AND STREETS IN THE SUBDIVISION DOES NOT OBLIGATE THE COUNTY TO INSTALL STREET NAME SIGNS OR ERCT TRAFFIC CONTROL SIGNS SUCH AS SPEED LIMIT, STOP SIGNS, AND YIELD SIGNS, WHICH IS CONSIDERED TO BE PART OF THE DEVELOPER'S CONSTRUCTION.
 STATE OF TEXAS *
 COUNTY OF TRAVIS *
 I, DANA DEBEAUVOR, CLERK OF THE COUNTY COURT OF TRAVIS COUNTY, TEXAS, DO HEREBY CERTIFY THAT ON THE 24 DAY OF May, 2009, A.D., THE COMMISSIONERS COURT OF TRAVIS COUNTY, TEXAS PASSED AN ORDER AUTHORIZING THE FILING FOR RECORD OF THIS PLAT AND THAT SAID ORDER WAS DULY ENTERED IN THE MINUTES OF SAID COURT.
 WITNESS MY HAND AND SEAL OF OFFICE OF THE COUNTY COURT OF SAID COUNTY, THE 24 DAY OF May, 2009, A.D.
 DANA DEBEAUVOR, CLERK, COUNTY COURT, TRAVIS COUNTY, TEXAS.
 DEPUTY
 G. Porter
 STATE OF TEXAS *
 COUNTY OF TRAVIS *
 I, DANA DEBEAUVOR, CLERK OF TRAVIS COUNTY, TEXAS, DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT OF WRITING, WITH ITS CERTIFICATE OF AUTHENTICATION WAS FILED FOR RECORD IN MY OFFICE ON THE 26 DAY OF May, 2009, A.D. AT 10:29 AM CDT. I, AND DULY RECORDED ON THE 26 DAY OF May, 2009, A.D. IN THE OFFICIAL PUBLIC RECORDS OF SAID COUNTY AND STATE IN DOCUMENT NO. 2009084614.
 WITNESS MY HAND AND SEAL OF OFFICE OF THE COUNTY CLERK, THE 26 DAY OF May, 2009, A.D.
 DANA DEBEAUVOR, COUNTY CLERK, TRAVIS COUNTY, TEXAS.
 DEPUTY
 Michael P. Gonzales
 Michael P. Gonzales



NO.	REVISIONS	DRN	CHK	DATE
NO				

C8J-04-0172.01A

NO.	REVISIONS	DRN	CHK	DATE
NO				

C8J-04-0172.01A

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

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

LJA Engineering, Inc.
 7500 Riata Boulevard
 Building II, Suite 100
 Austin, Texas 78735
 Phone 512.438.4700
 Fax 512.438.4716
 FRN-F-1386

JOB NUMBER: A214-049
 PROJECT: FP06
 SHEET NO. 07 OF 29 SHEETS



TOPOGRAPHIC SURVEY
INTERSECTION AT SOUTHWEST PKWY. AND
BARTON CREEK BLVD.
TRAVIS COUNTY, TEXAS

R RAMSEY LAND SURVEYING
TBPCL FIRM LICENSE NO. 10033200
P.O. BOX 92768
AUSTIN, TEXAS 78709-2768
PHONE: (512) 301-9398
cseward@ramseyland.com

NO.	REVISIONS	DRN	CHK	DATE

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



JOB NUMBER:
A214-0409
EX01
SHEET NO.
08
OF 29 SHEETS

BARTON CREEK BLVD. &
SOUTHWEST PARKWAY
INTERSECTION IMPROVEMENTS
EXISTING CONDITIONS SURVEY

NO.	REVISIONS	DESCRIPTION	DATE

03/24/2023
S. DANNY MILLER
82725
REGISTERED
PROFESSIONAL ENGINEER

LJA Engineering, Inc.
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

DESIGNED BY: CDS
DRAWN BY: HR
CHECKED BY: HR
DRAWING NAME: A214-0409R1P.dwg

8700-112 SOUTHWEST PARKWAY, AUSTIN, TX. 78723

TRAVIS COUNTY NOTES

482.100 [EXHIBIT 482.2018 TRAVIS COUNTY STANDARD CONSTRUCTION NOTES FOR SITE DEVELOPMENT]

EXHIBIT 482.2018 TRAVIS COUNTY STANDARD CONSTRUCTION NOTES FOR SITE DEVELOPMENT

- 1. EACH DRIVEWAY MUST BE CONSTRUCTED IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.302(G) AND EACH DRAINAGE STRUCTURE OR SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL... 2. BEFORE BEGINNING ANY CONSTRUCTION, THE OWNER MUST OBTAIN A TRAVIS COUNTY DEVELOPMENT PERMIT AND POST THE DEVELOPMENT PERMIT, THE TCEQ SITE NOTICE, AND ANY OTHER REQUIRED PERMITS AT THE JOB SITE... 3. CONSTRUCTION MAY NOT TAKE PLACE WITHIN TRAVIS COUNTY RIGHT-OF-WAY UNTIL AFTER THE OWNER HAS SUBMITTED A TRAFFIC CONTROL PLAN TO TRAVIS COUNTY AND OBTAINED WRITTEN APPROVAL OF THE TRAFFIC CONTROL PLAN FROM TRAVIS COUNTY... 4. THE CONTRACTOR AND PRIMARY OPERATOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION AND THE SWP/S IN THESE APPROVED PLANS... 5. BEFORE BEGINNING ANY CONSTRUCTION, ALL STORM WATER POLLUTION PREVENTION PLAN (SWPP) REQUIREMENTS SHALL BE MET... 6. BEFORE STARTING CONSTRUCTION, THE OWNER OR CONTRACTOR OR THEIR DESIGNATED REPRESENTATIVES SHALL SUBMIT A REQUEST VIA THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY TO REQUEST AND SCHEDULE A MANDATORY PRE-CONSTRUCTION CONFERENCE AND ESC PLAN APPROVAL... 7. THE CONTRACTOR SHALL KEEP TRAVIS COUNTY TNR ASSIGNED INSPECTION STAFF CURRENT ON THE STATUS OF SITE DEVELOPMENT AND UTILITY INSTALLATION... 8. CONTOUR DATA SOURCE SURVEY BENCHMARKS SHALL BE SET, INCLUDING DESCRIPTION, LOCATION, AND ELEVATION... 9. FILL MATERIAL MUST BE MANAGED AND DISPOSED OF IN ACCORDANCE WITH ALL REQUIREMENTS SPECIFIED IN THE APPROVED PLANS, SWP/S, AND THE TRAVIS COUNTY CODE... 10. BEFORE DISPOSING ANY EXCESS FILL MATERIAL ON-SITE, THE CONTRACTOR OR PRIMARY OPERATOR MUST PROVIDE THE COUNTY INSPECTOR DOCUMENTATION THAT DEMONSTRATES THAT ALL REQUIRED PERMITS FOR THE PROPOSED DISPOSAL SITE LOCATION, INCLUDING TRAVIS COUNTY, TCEQ NOTICE, AND OTHER APPLICABLE DEVELOPMENT PERMITS, HAVE BEEN OBTAINED... 11. THE DESIGN ENGINEER IS RESPONSIBLE FOR THE ADEQUACY OF THE CONSTRUCTION PLANS... 12. IN THE EVENT OF ANY CONFLICTS BETWEEN THE CONTENT IN THE SWP/S SITE NOTEBOOK AND THE CONTENT IN THE CONSTRUCTION PLANS APPROVED BY TRAVIS COUNTY... 13. A MINIMUM OF TWO SURVEY BENCHMARKS SHALL BE SET... 14. ANY EXISTING PAVEMENT, CURBS, SIDEWALKS, OR DRAINAGE STRUCTURES WITHIN COUNTY RIGHT-OF-WAY WHICH ARE DAMAGED, REMOVED, OR SLOTTED WILL BE REPAIRED BY THE CONTRACTOR AT OWNER OR CONTRACTOR'S EXPENSE... 15. CALL THE TEXAS EXCAVATION SAFETY SYSTEM AT 8-1-1 AT LEAST 2 BUSINESS DAYS BEFORE BEGINNING EXCAVATION... 16. ALL STORM SEWER PIPES SHALL BE CLASS II RCP, UNLESS OTHERWISE NOTED... 17. CONTRACTOR IS REQUIRED TO OBTAIN A UTILITY INSTALLATION PERMIT IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.901(A)(3) BEFORE ANY CONSTRUCTION OF UTILITIES WITHIN ANY TRAVIS COUNTY RIGHT-OF-WAY... 18. THIS PROJECT IS LOCATED ON L.000D INSURANCE RATE MAP 49453 C0420L... 19. TEMPORARY STABILIZATION MUST BE PERFORMED IN ALL DISTURBED AREAS THAT HAVE CEASED CONSTRUCTION ACTIVITIES FOR 14 DAYS OR LONGER... 20. PERMANENT SITE STABILIZATION/RE-VEGETATION MUST BE PERFORMED IMMEDIATELY IN ALL SITE AREAS WHICH ARE AT FINAL PLANT GRADE AND IN ALL SITE AREAS SPECIFIED IN THE APPROVED PLANS FOR PHASED RE-VEGETATION... 21. ALL TREES WITHIN THE RIGHT-OF-WAY AND DRAINAGE EASEMENTS SHALL BE SAVED OR REMOVED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS... 22. AN ENGINEER'S CONCURRENCE LETTER IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.953 MUST BE SUBMITTED VIA THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY WHEN CONSTRUCTION IS SUBSTANTIALLY COMPLETE... 23. SITE IMPROVEMENTS MUST BE CONSTRUCTED IN CONFORMANCE WITH THE ENGINEER'S CONSTRUCTION PLANS APPROVED BY TRAVIS COUNTY... 24. FINAL SITE STABILIZATION, ALL AREAS DISTURBED BY THE CONSTRUCTION MUST BE PERMANENTLY REVEGETATED AND ALL TEMPORARY SEDIMENT CONTROL MEASURES, INCLUDING SEDIMENTATION BASIN MUST BE REMOVED BEFORE THE COUNTY WILL ISSUE A CERTIFICATE OF COMPLIANCE FOR FINAL SITE STABILIZATION AS PART OF FINAL INSPECTION AND PROJECT COMPLETION... 482.1009 [EXHIBIT 482.950 PRE-CONSTRUCTION AND CONFERENCE AGENDA FOR SWP/S AND ESC PLAN]

AUSTIN ENERGY NOTES

- 1. THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR MAINTAINING CLEARANCES REQUIRED BY THE NATIONAL ELECTRICAL 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... 2. AUSTIN ENERGY HAS THE RIGHT TO PRUNE AND/OR REMOVE TREES, SHRUBBERY AND OTHER OBSTRUCTIONS TO THE EXTENT NECESSARY TO KEEP EASEMENTS CLEAR... 3. THE OWNER/DEVELOPER OF THIS SUBDIVISION/LOT SHALL PROVIDE AUSTIN ENERGY WITH ANY EASEMENT AND/OR ACCESS REQUIRED... 4. THE OWNER SHALL BE RESPONSIBLE FOR INSTALLING TEMPORARY EROSION CONTROL, REVEGETATION AND TREE PROTECTION... 5. ANY RELOCATION OF ELECTRIC FACILITIES SHALL BE AT LANDOWNERS'/DEVELOPERS' EXPENSE.

482.1004 [EXHIBIT 482.3010 SEQUENCE OF CONSTRUCTION AND PRIORITY INSPECTIONS - SITE DEVELOPMENT]

THE OWNER AND PRIMARY OPERATOR MUST FOLLOW THIS BASIC SEQUENCE OF CONSTRUCTION FOR EACH SITE DEVELOPMENT, INCLUDING ALL NON-RESIDENTIAL SITE DEVELOPMENT PROJECTS. WITHIN THE FOLLOWING SEQUENCE OF CONSTRUCTION ARE LISTED PRIORITY INSPECTIONS THAT THE OWNER AND PRIMARY OPERATOR MUST REQUEST FROM A REPRESENTATIVE OF TRAVIS COUNTY'S STORM WATER MANAGEMENT PROGRAM INSPECTION TEAM...

THE SEQUENCE FOR ITEMS 1-4 AND ITEMS 9-12 MUST NOT BE ALTERED, BUT THE SEQUENCE FOR ITEMS 5-8 MAY BE MODIFIED WITH THE WRITTEN APPROVAL OF THE COUNTY.

- 1. ESC INSTALLATION. INSTALL ALL TEMPORARY EROSION AND SEDIMENT CONTROLS AND TREE PROTECTION MEASURES IN ACCORDANCE WITH THE APPROVED ESC PLAN SHEETS AND THE SWP/S... 2. PRE-CONSTRUCTION MEETING AND ESC INSPECTION. HOLD A MANDATORY PRE-CONSTRUCTION MEETING THAT ADDRESSES THE ITEMS IN EXHIBIT 482.950 AND THE ESC PRE-CONSTRUCTION INSPECTION BY THE COUNTY AND OBTAIN COUNTY APPROVAL TO START CONSTRUCTION... 3. INSPECT FOR COMPLIANCE WITH SWP/S AND ESC PLAN. MAINTAIN AND INSPECT THE SWP/S CONTROLS AND PREPARE AND UPLOAD A WEEKLY CERTIFIED SWP/S INSPECTION REPORT... 4. CONSTRUCT SEDIMENT BASIN(S). CONSTRUCT ANY STORM WATER POND(S) FIRST, WHENEVER APPLICABLE... 5. CONSTRUCT SITE IMPROVEMENTS. BEGIN THE PRIMARY SITE CLEARING, EXCAVATION, AND CONSTRUCTION ACTIVITIES AND CONTINUE THE SWP/S AND ESC PLAN IMPLEMENTATION AND MAINTENANCE PER THE APPROVED PLANS... 6. CONSTRUCT DRIVEWAY APPROACH AND RIGHT-OF-WAY IMPROVEMENTS. INSTALL DRIVEWAY APPROACH AND DRAINAGE AND ROAD IMPROVEMENTS IN THE COUNTY RIGHTS OF WAY... 7. PERFORM TEMPORARY STABILIZATION IN ALL DISTURBED AREAS THAT HAVE CEASED CONSTRUCTION ACTIVITIES FOR 14 DAYS OR LONGER... 8. PERFORM PERMANENT SITE STABILIZATION/RE-VEGETATION IMMEDIATELY IN ALL SITE AREAS AT FINAL PLANT GRADE AND IN ALL SITE AREAS SPECIFIED FOR PHASED REVEGETATION... 9. COMPLETE PERMANENT WATER QUALITY CONTROLS. BEGIN COMPLETION OF PERMANENT WATER QUALITY CONTROLS AND INSTALL THE UNDERDRAIN PER APPROVED PLANS... 10. COMPLETE CONSTRUCTION SITE IMPROVEMENTS AND FINAL STABILIZATION PER THE APPROVED PLANS... 11. PROVIDE ENGINEER'S CONCURRENCE LETTER THROUGH THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY WHEN CONSTRUCTION IS SUBSTANTIALLY COMPLETE... 12. OBTAIN A CERTIFICATE OF COMPLIANCE WHEN ALL FINAL INSPECTION PUNCH LIST ITEMS, INCLUDING FINAL SITE STABILIZATION AND REMOVAL OF TEMPORARY SEDIMENT CONTROLS... 13. AN ENGINEER'S CONCURRENCE LETTER IN ACCORDANCE WITH TRAVIS COUNTY CODE SECTION 482.953 MUST BE SUBMITTED VIA THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY WHEN CONSTRUCTION IS SUBSTANTIALLY COMPLETE... 14. PERMANENT SITE STABILIZATION/RE-VEGETATION APPROVED BY THE COUNTY UNTIL PLANT CONFORMANCE IS ACHIEVED OR ANY REQUIRED PLANT REVISIONS ARE APPROVED... 15. FINAL SITE STABILIZATION, ALL AREAS DISTURBED BY THE CONSTRUCTION MUST BE PERMANENTLY REVEGETATED AND ALL TEMPORARY SEDIMENT CONTROL MEASURES, INCLUDING SEDIMENTATION BASIN MUST BE REMOVED BEFORE THE COUNTY WILL ISSUE A CERTIFICATE OF COMPLIANCE FOR FINAL SITE STABILIZATION AS PART OF FINAL INSPECTION AND PROJECT COMPLETION... 482.1009 [EXHIBIT 482.950 PRE-CONSTRUCTION AND CONFERENCE AGENDA FOR SWP/S AND ESC PLAN]

PRE-CONSTRUCTION CONFERENCE PLANNING AND AGENDA FOR SWP/S AND ESC PLAN

BEFORE STARTING CONSTRUCTION, THE OWNER OR THEIR REPRESENTATIVE MUST SUBMIT A REQUEST, USING THE MYPERMITNOW.ORG CUSTOMER PORTAL FOR TRAVIS COUNTY, TO PARTICIPATE IN A PRE-CONSTRUCTION CONFERENCE WITH THE DESIGNATED COUNTY INSPECTOR PRIOR TO THE CONSTRUCTION OF ANY TEMPORARY EROSION AND SEDIMENTATION CONTROLS... 1. THE SWP/S SITE NOTEBOOK FOR THE PROJECT, INCLUDING REVIEW OF COMPLETENESS, SIGNATURES, CONSISTENCY WITH THE APPROVED CONSTRUCTION AND ESC PLANS... 2. THE SEQUENCE OF CONSTRUCTION AND ESC PLAN IMPLEMENTATION; SEDIMENT BASIN CONSTRUCTION SCOPE PRIOR TO FULL SITE GRADING... 3. SEDIMENT CONTROLS, PHASING OF PERIMETER AND INTERIOR SEDIMENT CONTROLS DURING CONSTRUCTION... 4. ADEQUACY OF THE FIRST ESC PHASE AND FUTURE ESC PHASES TO ADDRESS SPECIFIC SITE CONDITIONS... 5. TEMPORARY AND PERMANENT STABILIZATION AND RE-VEGETATION REQUIREMENTS, INCLUDING SCHEDULE, CRITICAL SITE IMPROVEMENTS AND PRIORITY REVEGETATION AREAS... 6. ON AND OFF-SITE TEMPORARY AND PERMANENT SPOIL AND FILL DISPOSAL AREAS, HAUL ROUTES, STAGING AREAS, AND STABILIZED CONSTRUCTION ENTRANCES... 7. PERMANENT WATER QUALITY CONTROLS CONSTRUCTION AND COUNTY INSPECTIONS, AND RELATED GRADING AND DRAINAGE CONSTRUCTION... 8. SUPERVISION OF THE SWP/S IMPLEMENTATION BY THE PRIMARY OPERATORS DESIGNATED PROJECT MANAGER, INCLUDING ROLES, RESPONSIBILITIES, AND COORDINATION WHEN MORE THAN ONE OPERATOR IS RESPONSIBLE FOR IMPLEMENTATION... 9. INSPECTION AND PREPARATION OF THE WEEKLY SWP/S INSPECTION REPORTS BY THE PRIMARY OPERATORS QUALIFIED INSPECTOR... 10. MONITORING INSPECTIONS CONDUCTED BY THE COUNTY INSPECTOR... 11. SPECIAL SITE CONDITIONS AND PLAN PROVISIONS, SUCH AS PROTECTION OF WATERWAYS, CRITICAL ENVIRONMENTAL FEATURES... 12. RAIN GAGE LOCATION OR RAINFALL INFORMATION SOURCE TO BE USED DURING CONSTRUCTION AND REPORTING... 13. FINAL INSPECTION AND ACCEPTANCE REQUIREMENTS... 14. EXCHANGE OF TELEPHONE NUMBERS AND CONTACT INFORMATION FOR THE PRIMARY PARTICIPANTS... 15. THE MINIMUM VERTICAL CLEARANCE REQUIRED FOR EMERGENCY VEHICLE ACCESS ROADS OR DRIVES IS 14 FEET FOR THE FULL WIDTH OF THE ROADWAY OR DRIVEWAY.

GENERAL CONSTRUCTION NOTES

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS... 2. DESIGN PROCEDURES ARE IN COMPLETE COMPLIANCE WITH THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL... 3. BENCHMARKS FOR THE PROJECT ARE AS FOLLOWS: BEARING BASIS: THE TEXAS COORDINATE SYSTEM OF 1983 (NAD83), CENTRAL ZONE... 4. THE LOCATION OF ANY WATER AND/OR WASTEWATER LINES SHOWN ON THE PLANS MUST BE VERIFIED BY THE WATER AND WASTEWATER DEPARTMENT... 5. USE ONE CALL UTILITY SYSTEM. DIAL 472-2822, 48 HOURS BEFORE YOU DIG... 6. CONTRACTOR SHALL COORDINATE INSPECTION OF UTILITY AND STORM SEWER LINES WITH THE APPROPRIATE AUTHORITIES AND/OR UTILITY COMPANY PRIOR TO BACKFILLING TRENCHES... 7. ANY FITTINGS, VALVES, OR OTHER APPURTENANCES NECESSARY FOR TESTING OF UTILITY LINES SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER... 8. ALIGNMENT OF UTILITY AND STORM SEWER LINES SHOWN ON PLANS SHALL BE ACHIEVED BY DEFLECTION IN PIPE AND JOINTS NOT TO EXCEED MANUFACTURERS' RECOMMENDED MAXIMUM DEFLECTION... 9. THE LOCATION AND TYPE OF UTILITIES AND UNDERGROUND FACILITIES SHOWN ON THESE PLANS ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE... 10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, AT HIS EXPENSE, ALL UTILITIES, PAVEMENT CURBS, FENCES, AND ANY OTHER ITEMS DAMAGED DURING CONSTRUCTION... 11. WHENEVER EXISTING UTILITIES, INDICATED OR NOT ON PLANS, PRESENT OBSTRUCTIONS TO GRADE OR ALIGNMENT OF PROPOSED PIPE, CONTRACTOR IS TO IMMEDIATELY NOTIFY ENGINEER WHO WILL DETERMINE IF EXISTING IMPROVEMENTS ARE TO BE RELOCATED OR IF THE GRADE AND ALIGNMENT OF PROPOSED PIPE IS TO BE CHANGED... 12. DISPOSAL OF SOIL MATERIAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR... 13. DUST PREVENTION IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS... 14. CLEANUP - UPON COMPLETION AND BEFORE MAKING APPLICATION FOR ACCEPTANCE OF THE WORK... 15. DETERAVING, IF NECESSARY, SHALL BE CONSIDERED INCIDENTAL TO THE WORK... 16. THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE LIMITS OF CONSTRUCTION WHICH ARE GENERALLY DEFINED BY PROPERTY LINES OR SILT FENCE... 17. ALL REINFORCED STEEL SHALL BE ASTM A615M, GRADE 60, UNLESS OTHERWISE NOTED... 18. PLANS DO NOT CONTEMPERATE GROUNDWATER CONDITIONS... 19. REFER TO STRUCTURAL PLANS AND GEOTECHNICAL REPORT SECTION 4.5.2 GRADE-SUPPORTED FLOOR SLAB SYSTEM FOR INFORMATION RELATED TO BUILDING FOUNDATION DESIGN.

APPENDIX P-3 ADDITIONAL EROSION CONTROL NOTES FOR BARTON SPRINGS CONTRIBUTING ZONE

- 1. DESIGNATION OF AN ENVIRONMENTAL PROJECT MANAGER WHO IS ON SITE >90% OF THE TIME, WHO IS REQUIRED TO BE AT THE PRE-CONSTRUCTION AND MID-CONSTRUCTION MEETINGS... 2. THE MAXIMUM LENGTH OF TIME BETWEEN CLEARING AND FINAL REVEGETATION OF A PROJECT SHALL NOT EXCEED 18 MONTHS... 3. IT IS A VIOLATION OF THE CODE AND THIS DEVELOPMENT PERMIT TO ALLOW SEDIMENT FROM A CONSTRUCTION SITE TO ENTER A CLASSIFIED WATERWAY... 4. POROUS PAVEMENT IS LIMITED TO AREAS WHERE SUBGRADE SATURATED HYDRAULIC CONDUCTIVITY IS 0.2 INCHES PER HOUR OR GREATER... 5. PROVIDE THE EV INSP/VP WITH THE ADDRESS FOR A MINIMUM OF THREE (3) COMPLETED PROJECTS WITH SIMILAR GEOLOGY AND CLIMATE CONDITIONS AS THE PROPOSED SITE... 6. FOR POROUS CONCRETE AND POROUS ASPHALT SYSTEMS PROVIDED ADDITIONAL INFORMATION REGARDING THE PROCEDURES THAT WILL BE FOLLOWED TO MEET THE FOLLOWING: -MEASURE UNIT WEIGHT ACCEPTANCE DATA -CONDUCTING IN-SITU PAVEMENT TESTS INCLUDING VOID CONTENT AND UNIT WEIGHT -PREPARING PRODUCT SAMPLES... 7. MANHOLE FRAMES, COVERS, AND WATER VALVE COVERS WILL BE RAISED TO FINISHED PAVEMENT GRADE BY A QUALIFIED CONTRACTOR... 8. SEE ECM 1.6.7.5.E.5 FOR ADDITIONAL CONSTRUCTION INFORMATION.

FIRE DEPARTMENT NOTES

- 1. THE AUSTIN FIRE DEPARTMENT REQUIRES FINAL ASPHALT OR CONCRETE PAVEMENT ON REQUIRED ACCESS ROADS PRIOR TO THE START OF COMBUSTIBLE CONSTRUCTION... 2. FIRE HYDRANTS SHALL BE INSTALLED WITH THE CENTER OF THE FOUR (4) INCH OPENING (STEAMER) LOCATED AT LEAST 18 INCHES ABOVE FINISHED GRADE... 3. TIMING OF INSTALLATIONS: WHEN FIRE PROTECTION FACILITIES ARE INSTALLED BY THE CONTRACTOR... 4. ALL EMERGENCY ACCESS ROADWAYS AND FIRE LANES, INCLUDING PERVIOUS/DECORATIVE PAVING, SHALL BE ENGINEERED AND INSTALLED AS REQUIRED TO SUPPORT THE LOADS OF EMERGENCY VEHICLES... 5. FIRE LANES DESIGNATED ON SITE PLANS SHALL BE REGISTERED WITH THE 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.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY CONTRIBUTING ZONE PLAN GENERAL CONSTRUCTION NOTES

- 1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY GROUND DISTURBANCE OR CONSTRUCTION ACTIVITIES... 2. DESIGN PROCEDURES ARE IN COMPLETE COMPLIANCE WITH THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL... 3. BENCHMARKS FOR THE PROJECT ARE AS FOLLOWS: BEARING BASIS: THE TEXAS COORDINATE SYSTEM OF 1983 (NAD83), CENTRAL ZONE... 4. THE LOCATION OF ANY WATER AND/OR WASTEWATER LINES SHOWN ON THE PLANS MUST BE VERIFIED BY THE WATER AND WASTEWATER DEPARTMENT... 5. USE ONE CALL UTILITY SYSTEM. DIAL 472-2822, 48 HOURS BEFORE YOU DIG... 6. CONTRACTOR SHALL COORDINATE INSPECTION OF UTILITY AND STORM SEWER LINES WITH THE APPROPRIATE AUTHORITIES AND/OR UTILITY COMPANY PRIOR TO BACKFILLING TRENCHES... 7. ANY FITTINGS, VALVES, OR OTHER APPURTENANCES NECESSARY FOR TESTING OF UTILITY LINES SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER... 8. ALIGNMENT OF UTILITY AND STORM SEWER LINES SHOWN ON PLANS SHALL BE ACHIEVED BY DEFLECTION IN PIPE AND JOINTS NOT TO EXCEED MANUFACTURERS' RECOMMENDED MAXIMUM DEFLECTION... 9. THE LOCATION AND TYPE OF UTILITIES AND UNDERGROUND FACILITIES SHOWN ON THESE PLANS ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE... 10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, AT HIS EXPENSE, ALL UTILITIES, PAVEMENT CURBS, FENCES, AND ANY OTHER ITEMS DAMAGED DURING CONSTRUCTION... 11. WHENEVER EXISTING UTILITIES, INDICATED OR NOT ON PLANS, PRESENT OBSTRUCTIONS TO GRADE OR ALIGNMENT OF PROPOSED PIPE, CONTRACTOR IS TO IMMEDIATELY NOTIFY ENGINEER WHO WILL DETERMINE IF EXISTING IMPROVEMENTS ARE TO BE RELOCATED OR IF THE GRADE AND ALIGNMENT OF PROPOSED PIPE IS TO BE CHANGED... 12. DISPOSAL OF SOIL MATERIAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR... 13. DUST PREVENTION IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS... 14. CLEANUP - UPON COMPLETION AND BEFORE MAKING APPLICATION FOR ACCEPTANCE OF THE WORK... 15. DETERAVING, IF NECESSARY, SHALL BE CONSIDERED INCIDENTAL TO THE WORK... 16. THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE LIMITS OF CONSTRUCTION WHICH ARE GENERALLY DEFINED BY PROPERTY LINES OR SILT FENCE... 17. ALL REINFORCED STEEL SHALL BE ASTM A615M, GRADE 60, UNLESS OTHERWISE NOTED... 18. PLANS DO NOT CONTEMPERATE GROUNDWATER CONDITIONS... 19. REFER TO STRUCTURAL PLANS AND GEOTECHNICAL REPORT SECTION 4.5.2 GRADE-SUPPORTED FLOOR SLAB SYSTEM FOR INFORMATION RELATED TO BUILDING FOUNDATION DESIGN.

C.O.A. SPECIAL NOTES

- 1. PAVEMENT CONSTRUCTION SPECIFICATIONS PAVEMENT SHOULD BE CONSTRUCTED AND TESTED TO MEET THE FOLLOWING REQUIREMENTS: A. HOT MIX ASPHALTIC CONCRETE SURFACE... B. CRUSHED LIMESTONE BASE - THE CRUSHED LIMESTONE BASE SHALL CONFORM TO CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM 2105 AND SHALL BE OBTAINED FROM AN APPROVED SOURCE... C. COMPACTED SUBGRADE - THE EXPOSED SUBGRADE SHOULD BE PREPARED BY REMOVING ALL FILL MATERIAL AND THE TOP 8 INCHES OF BROWN SILTY CLAY, ROOTS, AND ORGANIC MATERIALS... D. DRAINAGE - THE STREET PAVEMENT SHALL BE SLOPED OR CROWNED FOR GOOD DRAINAGE... E. TESTING - ALL SUBGRADE PREPARATION AND BASE COMPACTION SHOULD BE INSPECTED AND TESTED BY AN ENGINEERING/TESTING LABORATORY... F. STREET EMBANKMENTS - STREET EMBANKMENTS SHOULD BE SLOPED AWAY FROM THE STREET... 2. PAVEMENT CONSTRUCTION CONSTRUCTION OF ROADWAYS SHOULD PROCEED IN ACCORDANCE WITH THE CITY OF AUSTIN SPECIFICATIONS: CLEARING AND GRUBBING; ITEM NO. 132S, EMBANKMENT (EARTH EMBANKMENT SECTION); ITEM NO. 201S, SUBGRADE PREPARATION; ITEM NO. 210S, FLEXIBLE BASE; ITEM NO. 236S, PROFILING; AND ITEM NO. 340, HOT MIX CONCRETE PAVEMENT... 3. MANHOLE FRAMES, COVERS, AND WATER VALVE COVERS WILL BE RAISED TO FINISHED PAVEMENT GRADE BY A QUALIFIED CONTRACTOR... 4. ALL COLLECTOR AND ARTERIAL STREETS SHALL HAVE AUTOMATIC SLOPE CONTROL ON ASPHALTIC CONCRETE PAVEMENT CONSTRUCTION... 5. AT INTERSECTIONS WHICH HAVE VALLEY DRAINAGE, THE CROWNS OF THE INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED... 6. AT THE INTERSECTIONS OF TWO 44' STREETS OR LARGER, THE CROWNS OF THE INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM INTERSECTING CURB LINE UNLESS OTHERWISE NOTED... 7. PRIOR TO FINAL ACCEPTANCE OF A STREET OUTSIDE THE CITY LIMITS, STREET NAME SIGNS CONFORMING TO FINAL COUNTY STANDARDS SHALL BE INSTALLED BY DEVELOPER... 8. WHEN USING LIME STABILIZATION OF SUBGRADE, IT SHALL BE PLACED IN SLURRY FORM... 9. INSIDE THE AUSTIN CITY LIMITS, SIDEWALKS SHALL BE COMPLETED PRIOR TO ACCEPTANCE OF ANY TYPE I OR TYPE II DRIVE WAY APPROACHES AND/OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY... 10. FINANCIAL ARRANGEMENTS MAY

APPENDIX P-4: - STANDARD SEQUENCE OF CONSTRUCTION

THE FOLLOWING SEQUENCE OF CONSTRUCTION SHALL BE USED FOR ALL DEVELOPMENT. THE APPLICANT IS ENCOURAGED TO PROVIDE ANY ADDITIONAL DETAILS APPROPRIATE FOR THE PARTICULAR DEVELOPMENT.

- 1. PRE-CONSTRUCTION - CONTRACTOR INSTALLATION QUALIFICATIONS REQUIRE THAT THE CONTRACTOR PROVIDE TO THE ENVIRONMENTAL INSPECTOR AT THE PRELIMINARY CONSTRUCTION MEETING A STATEMENT ATTESTING TO QUALIFICATIONS AND DEMONSTRATING EXPERIENCE... 2. SATURATED HYDRAULIC CONDUCTIVITY TESTING MUST TAKE PLACE TWICE: (A) PRIOR TO CONSTRUCTION, AND (B) PRIOR TO PLACEMENT OF THE GRAVEL BED... 3. THE ENVIRONMENTAL INSPECTOR MUST BE CONTACTED 48 HOURS PRIOR TO THE PLACEMENT OF THE GRAVEL BED SATURATED HYDRAULIC CONDUCTIVITY TEST BEING PERFORMED... 4. THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR MUST CONTACT THE DEVELOPMENT SERVICES DEPARTMENT, ENVIRONMENTAL INSPECTION, AT 512-974-2278, 72 HOURS PRIOR TO THE SCHEDULED DATE OF THE REQUIRED ON-SITE PRE-CONSTRUCTION MEETING... 5. THE ENVIRONMENTAL PROJECT MANAGER, AND/OR SITE SUPERVISOR, AND/OR DESIGNATED RESPONSIBLE PARTY, AND THE GENERAL CONTRACTOR WILL FOLLOW THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE... 6. ROUGH GRADE (THE PONDS) AT 100% PROPOSED CAPACITY, EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE COMPLETED PRIOR TO DEVELOPMENT OF EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS... 7. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE PRE-CONSTRUCTION CONTROL PLAN (PCCP), PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE... 8. BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES... 9. IN THE BARTON SPRINGS ZONE, THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR WILL SCHEDULE THE PRE-CONSTRUCTION CONFERENCE TO COORDINATE CHANGES IN THE CONSTRUCTION SCHEDULE AND EVALUATE EFFECTIVENESS OF THE EROSION CONTROL PLAN AFTER POSSIBLE CONSTRUCTION ALTERATIONS... 10. COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING... 11. UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF PROJECT SITE, THE DESIGN ENGINEER SHALL SUBMIT A FINAL INSPECTION REPORT TO THE ENVIRONMENTAL INSPECTOR, INCLUDING THE ENGINEER'S SEAL, SIGNATURE, AND DATE TO THE DEVELOPMENT SERVICES DEPARTMENT... 12. UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE DEVELOPMENT SERVICES DEPARTMENT... 13. NECESSARY FINAL REVEGETATION RESULTING FROM REMOVAL OF THE CONTROLS, CONDUCT ANY MAINTENANCE AND REHABILITATION OF THE WATER QUALITY PONDS OR CONTROLS.

SOURCE: RULE NO. 1816.1703, 9-2-2017.

TCEQ 217.53(d) SEPARATION DISTANCES

- (d) SEPARATION DISTANCES BETWEEN PUBLIC WATER SUPPLY PIPES AND WASTEWATER COLLECTION PIPES OR MANHOLES (1) COLLECTION SYSTEM PIPES MUST BE INSTALLED IN TRENCHES SEPARATE FROM PUBLIC WATER SUPPLY TRENCHES... (2) COLLECTION SYSTEM PIPES MUST BE NO CLOSER THAN NINE FEET IN ANY DIRECTION TO A PUBLIC WATER SUPPLY LINE... (3) IF A NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES WILL APPLY: (A) IF A COLLECTION SYSTEM PARALLELS A PUBLIC WATER SUPPLY PIPE THE FOLLOWING REQUIREMENTS APPLY: (i) A COLLECTION SYSTEM PIPE MUST BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC MEETING ASTM SPECIFICATIONS WITH AT LEAST 150 POUNDS PER SQUARE INCH (PSI) PRESSURE RATING FOR BOTH THE PIPE AND JOINTS... (ii) A HORIZONTAL SEPARATION MUST BE AT LEAST FOUR FEET BETWEEN OUTSIDE DIAMETERS OF THE PIPES... (iii) A COLLECTION SYSTEM PIPE MUST BE BELOW A PUBLIC WATER SUPPLY PIPE... (B) IF A COLLECTION SYSTEM PIPE CROSSES A PUBLIC WATER SUPPLY PIPE, THE FOLLOWING REQUIREMENTS APPLY: (i) IF A COLLECTION SYSTEM IS CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI, THE FOLLOWING REQUIREMENTS APPLY: (ii) A MINIMUM SEPARATION DISTANCE IS SIX INCHES BETWEEN OUTSIDE DIAMETERS OF PIPES... (iii) COLLECTION SYSTEM PIPE JOINTS MUST BE LOCATED AS FAR AS POSSIBLE FROM AN INTERSECTION WITH A PUBLIC WATER SUPPLY LINE... (iv) IF A COLLECTION SYSTEM PIPE CROSSES UNDER A PUBLIC WATER SUPPLY PIPE AND THE COLLECTION SYSTEM PIPE IS CONSTRUCTED OF ACRYLONITRILE BUTADIENE STYRENE (ABS), TRUSS PIPE, SIMILAR SEMI-RIGID POLYMER COMPOSITE PIPE, CLAY PIPE, OR CONCRETE PIPE WITH GASKETED JOINTS, THE FOLLOWING REQUIREMENTS APPLY: (i) A MINIMUM SEPARATION DISTANCE IS TWO FEET.

TCEQ NOTES

- 1. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST ACCORD TO AMERICAN NATIONAL STANDARDS INSTITUTENATIONAL SANITATION FOUNDATION (ANSI/NF) STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI... 2. ALL PLASTIC PIPE FOR USE IN PUBLIC WATER SYSTEMS MUST ALSO BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL (NSF-PW) AND HAVE AN ASTM DESIGN PRESSURE RATINGS OF AT LEAST 150 PSI OR A STANDARD DIMENSION RATIO OF 26 OR LESS... 3. NO PIPE WHICH HAS BEEN USED FOR ANY PURPOSE OTHER THAN THE CONVEYANCE OF DRINKING WATER SHALL BE ACCEPTED OR RELOCATED FOR USE IN ANY PUBLIC DRINKING WATER SUPPLY... 4. WATER TRANSMISSION AND DISTRIBUTION LINES MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS... 5. THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY AWWA FORMULAS... 6. ALL WATERLINES SHALL BE AWWA C605-94 FOR DUCTILE IRON PIPE AND AWWA C606-94 FOR PVC PIPE... 7. ALL WATERLINES SHALL BE DISINFECTED IN CONFORMANCE WITH AWWA C651-92.

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

BARTON CREEK BLVD. & SOUTHWEST PARKWAY INTERSECTION IMPROVEMENTS GENERAL NOTES

Table with columns: NO., DATE, DESIGNED BY, DRAWN BY, CHECKED BY, DRAWING NAME. Includes revision history.

03/24/2023 OF S. DANNY MILLER 82725 PROJECT ENGINEER

LJA Engineering, Inc. 7500 Rialto Boulevard Building II, Suite 100 Austin, Texas 78735 Phone 512.438.4700 Fax 512.438.4716 FRN#-1086

Table with columns: JOB NUMBER: A214-0409, SHEET NO. GN01, OF 29 SHEETS.



STUDY POINT #1
 Q2 = 35.50 CFS
 Q10 = 63.50 CFS
 Q25 = 82.60 CFS
 Q100 = 114.00 CFS

Drainage Area	SHEET					SCF			CHANNEL FLOW			STORM SEWER			Total Tc (Min.)	Lag Tc (Min.)	
	L(ft)	Slope	2-Year P	n	Tc (Min.)	L(ft)	Paved?	Slope	Tc (Min.)	L(ft)	Velocity	Tc (Min.)	L(ft)	Velocity			Tc (Min.)
A1	50	5.00%	4.14	0.015	0.5	103	YES	5.83%	0.3	467	6	1.3	61	8	0.1	5.0	3.0
A2	23	8.70%	4.14	0.015	0.2	151	NO	5.96%	0.6							5.0	3.0
B1	50	9.00%	4.14	0.24	3.9	433	NO	6.00%	1.8	1300	6	3.6				9.4	5.6
B2	50	4.00%	4.14	0.015	0.6	309	YES	4.85%	1.1							5.0	3.0
B3	50	4.00%	4.14	0.015	0.6	979	YES	4.60%	3.7							5.0	3.0
C1	100	12.00%	4.14	0.15	4.2	391	NO	12.28%	1.2	432	5	1.4				6.8	4.1

HEC-HMS
Drainage Area Calculations
 NOAA ATLAS 14 Type III 24Hr Rainfall Distribution Precipitation Data for Zone 1, City of Bee Cave, Texas

Existing Conditions Soils
 BID - Brackett-Rock outcrop complex, Type D
 BoF - Brackett-Rock outcrop-Real complex, Type D

Existing Ground Cover
 Open Space, Fair Condition (CN = 84)

Existing Conditions Drainage Calculations (Per HEC-HMS Existing Model)

AREA NAME	AREA AC.	AREA MI. ²	IMPERVIOUS COVER %	Type D Pasture (AC.)	Composite CN	Tc min.	Q2 CFS	Q10 CFS	Q25 CFS	Q100 CFS
A1	0.813	0.0013	36.61%	0.298	0.515	89	5.00	4.00	6.70	8.40
A2	0.156	0.0002	35.81%	0.056	0.100	89	5.00	0.60	1.00	1.30
B1	2.710	0.0042	47.20%	1.279	1.431	91	9.38	11.40	18.70	23.50
B2	0.424	0.0007	85.65%	0.363	0.061	96	5.00	2.50	3.90	4.80
B3	1.026	0.0016	36.91%	0.379	0.647	89	5.00	4.90	8.20	10.40
C1	4.340	0.0068	4.38%	0.190	4.150	75	6.76	12.90	26.70	36.50
STUDY POINT #1							35.50	63.50	82.60	114.00

SCALE IN FEET
 60 30 0 60 120

LEGEND

- 10 2.59 ACRES (Drainage Area Number and Acreage)
- 25 DRAINAGE AREA (Dashed line)
- 100 PROPERTY LINE (Dotted line)
- TC PATH (Dashed line with arrow)
- SF SHEET FLOW (Dashed line)
- SCF SHALLOW CONCENTRATED FLOW (Dashed line with arrow)
- Q25 = 16.64 cfs (Flow rate symbol)
- Q100 = 23.62 cfs (Flow rate symbol)
- Q FLOW DIRECTION ARROW (Arrow with 'Q')

NOTE: STUDY POINT #1 INCLUDES THE CONVERGENCE OF AREAS A, B, AND C, WHICH COMBINE TO DRAIN INTO A TRIBUTARY ON THE WEST SIDE OF BARTON CREEK BLVD.

BARTON CREEK BLVD. & SOUTHWEST PARKWAY INTERSECTION IMPROVEMENTS EXISTING CONDITIONS DRAINAGE AREA MAP
 8700-112 SOUTHWEST PARKWAY, AUSTIN, TX, 78723

NO.	DATE	DESCRIPTION	BY

DESIGNED BY: CDS
 DRAWN BY: HR
 CHECKED BY: HR
 DRAWING NAME: AUSTIN\DRG\DWG\DWG1001.dwg

03/24/2023
 S. DANNY MILLER
 82725
 REGISTERED PROFESSIONAL ENGINEER

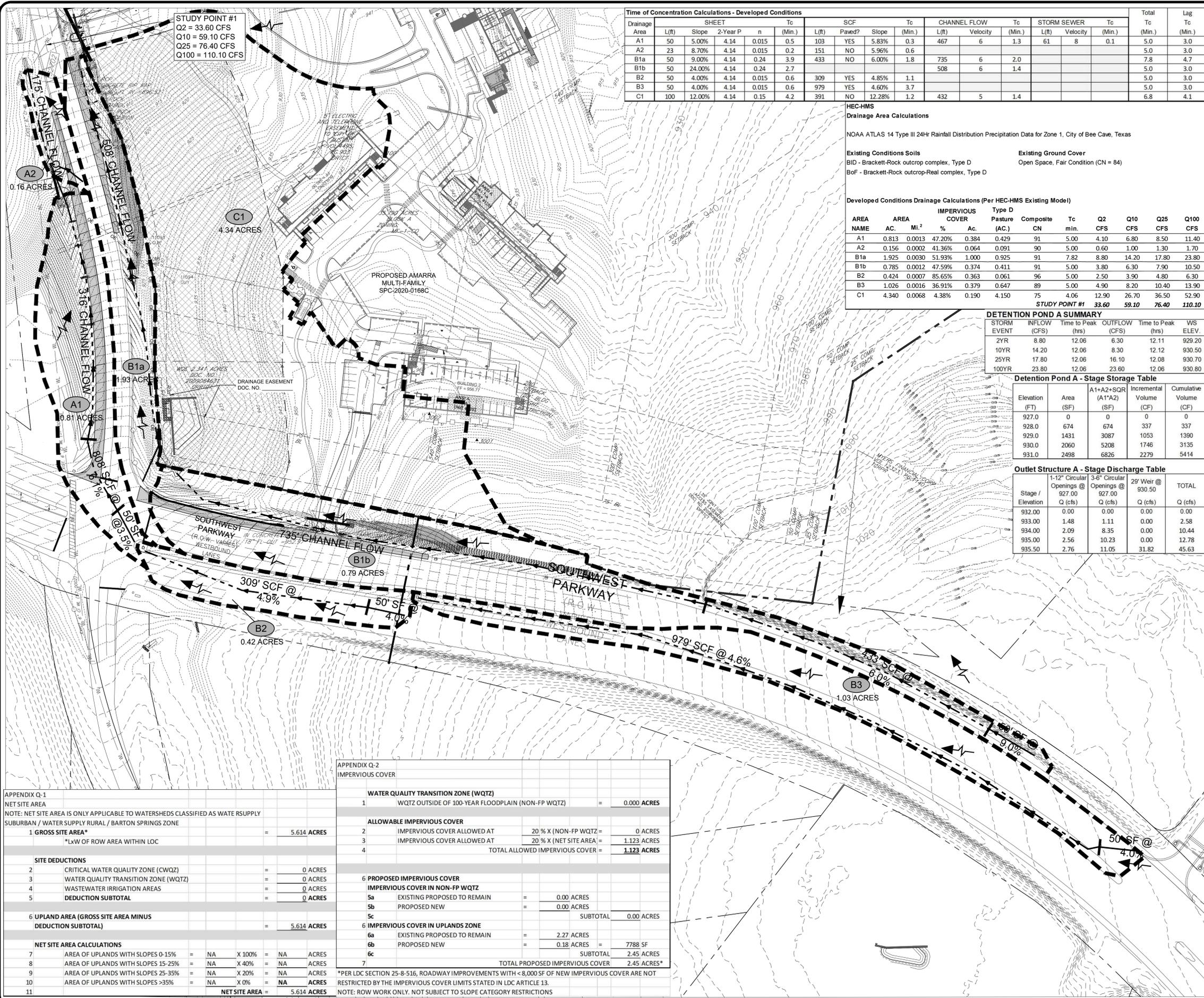
LJA Engineering, Inc.
 7500 Riata Boulevard
 Building II, Suite 100
 Austin, Texas 78735
 Phone 512.439.4700
 Fax 512.439.4716
 FRN-F-1386

JOB NUMBER: A214-049
 DM01
 SHEET NO. 10 OF 29 SHEETS

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

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

\\s1071609\arcgis\arcgis\multi-format\submit\sheet\drainage\area\107-409-erp-p-0001.dwg
 User: arcgis\arcgis
 Plot Date/Time: Mar 24, 23 - 09:36
 Plot Date/Time: Mar 24, 23 - 09:38:34



STUDY POINT #1
 Q2 = 33.60 CFS
 Q10 = 59.10 CFS
 Q25 = 76.40 CFS
 Q100 = 110.10 CFS

Drainage Area	SHEET				SCF			CHANNEL FLOW			STORM SEWER			Total Tc (Min.)	Lag Tc (Min.)		
	L(ft)	Slope	2-Year P	n	Tc (Min.)	L(ft)	Paved?	Slope	Tc (Min.)	L(ft)	Velocity	Tc (Min.)	L(ft)			Velocity	Tc (Min.)
A1	50	5.00%	4.14	0.015	0.5	103	YES	5.83%	0.3	467	6	1.3	61	8	0.1	5.0	3.0
A2	23	8.70%	4.14	0.015	0.2	151	NO	5.96%	0.6							5.0	3.0
B1a	50	9.00%	4.14	0.24	3.9	433	NO	6.00%	1.8	735	6	2.0				7.8	4.7
B1b	50	24.00%	4.14	0.24	2.7					508	6	1.4				5.0	3.0
B2	50	4.00%	4.14	0.015	0.6	309	YES	4.85%	1.1							5.0	3.0
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HEC-HMS
 Drainage Area Calculations
 NOAA ATLAS 14 Type III 24-Hr Rainfall Distribution Precipitation Data for Zone 1, City of Bee Cave, Texas

Existing Conditions Soils
 BID - Brackett-Rock outcrop complex, Type D
 Existing Ground Cover
 Open Space, Fair Condition (CN = 84)
 BoF - Brackett-Rock outcrop-Real complex, Type D

Developed Conditions Drainage Calculations (Per HEC-HMS Existing Model)

AREA NAME	AREA AC.	MI. ²	IMPERVIOUS COVER		Type D Pasture (AC.)	Composite CN	Tc min.	Q2 CFS	Q10 CFS	Q25 CFS	Q100 CFS
			%	Ac.							
A1	0.813	0.0013	47.20%	0.384	0.429	91	5.00	4.10	6.80	8.50	11.40
A2	0.156	0.0002	41.36%	0.064	0.091	90	5.00	0.60	1.00	1.30	1.70
B1a	1.925	0.0030	51.93%	1.000	0.925	91	7.82	8.80	14.20	17.80	23.80
B1b	0.785	0.0012	47.59%	0.374	0.411	91	5.00	3.80	6.30	7.90	10.50
B2	0.424	0.0007	85.65%	0.363	0.061	96	5.00	2.50	3.90	4.80	6.30
B3	1.026	0.0016	36.91%	0.379	0.647	89	5.00	4.90	8.20	10.40	13.90
C1	4.340	0.0068	4.38%	0.190	4.150	75	4.06	12.90	26.70	36.50	52.90
							STUDY POINT #1	33.60	59.10	76.40	110.10

DETENTION POND A SUMMARY

STORM EVENT	INFLOW (CFS)	Time to Peak (hrs)	OUTFLOW (CFS)	Time to Peak (hrs)	WS ELEV.
2YR	8.80	12.06	6.30	12.11	929.20
10YR	14.20	12.06	8.30	12.12	930.50
25YR	17.80	12.06	16.10	12.08	930.70
100YR	23.80	12.06	23.60	12.06	930.80

Detention Pond A - Stage Storage Table

Elevation (FT)	Area (SF)	A1+A2+SCF (A1'A2) (SF)	Incremental Volume (CF)	Cumulative Volume (CF)
927.0	0	0	0	0
928.0	674	674	337	337
929.0	1431	3087	1053	1390
930.0	2060	5208	1746	3135
931.0	2498	6826	2279	5414

Outlet Structure A - Stage Discharge Table

Stage / Elevation	1-12" Circular Openings @ 927.00	3-6" Circular Openings @ 927.00	29" Weir @ 930.50	TOTAL Q (cfs)
932.00	0.00	0.00	0.00	0.00
933.00	1.48	1.11	0.00	2.58
934.00	2.09	8.35	0.00	10.44
935.00	2.56	10.23	0.00	12.78
935.50	2.76	11.05	31.82	45.63

STUDY POINT SUMMARY

STORM	EXISTING	PROPOSED
Study Point #1		
Q2	35.50	33.60
Q10	63.50	59.10
Q25	82.60	76.40
Q100	114.00	110.10

NOTE: STUDY POINT #1 INCLUDES THE CONVERGENCE OF AREAS A, B, AND C, WHICH COMBINE TO DRAIN INTO A TRIBUTARY ON THE WEST SIDE OF BARTON CREEK BLVD.

SCALE IN FEET: 60 30 0 60 120

LEGEND

- 10 2.59 ACRES: DRAINAGE AREA NUMBER AND ACREAGE
- 25: DRAINAGE AREA
- 100: PROPERTY LINE
- TC PATH
- SF: SHEET FLOW
- SCF: SHALLOW CONCENTRATED FLOW
- Q25 = 16.64 cfs, Q100 = 23.62 cfs
- Q: FLOW DIRECTION ARROW

APPENDIX Q-1
 NET SITE AREA

NOTE: NET SITE AREA IS ONLY APPLICABLE TO WATERSHEDS CLASSIFIED AS WASTE SUPPLY SUBURBAN / WATER SUPPLY RURAL / BARTON SPRINGS ZONE

1 GROSS SITE AREA*	=	5.614 ACRES
*LxW OF ROW AREA WITHIN LOC		
SITE DEDUCTIONS		
2 CRITICAL WATER QUALITY ZONE (CWQZ)	=	0 ACRES
3 WATER QUALITY TRANSITION ZONE (WQTZ)	=	0 ACRES
4 WASTEWATER IRRIGATION AREAS	=	0 ACRES
5 DEDUCTION SUBTOTAL	=	0 ACRES
6 UPLAND AREA (GROSS SITE AREA MINUS DEDUCTION SUBTOTAL)	=	5.614 ACRES
NET SITE AREA CALCULATIONS		
7 AREA OF UPLANDS WITH SLOPES 0-15%	= NA X 100% = NA	ACRES
8 AREA OF UPLANDS WITH SLOPES 15-25%	= NA X 40% = NA	ACRES
9 AREA OF UPLANDS WITH SLOPES 25-35%	= NA X 20% = NA	ACRES
10 AREA OF UPLANDS WITH SLOPES >35%	= NA X 0% = NA	ACRES
11 NET SITE AREA	=	5.614 ACRES

APPENDIX Q-2
 IMPERVIOUS COVER

WATER QUALITY TRANSITION ZONE (WQTZ)		
1 WQTZ OUTSIDE OF 100-YEAR FLOODPLAIN (NON-FP WQTZ)	=	0.000 ACRES
ALLOWABLE IMPERVIOUS COVER		
2 IMPERVIOUS COVER ALLOWED AT 20% X (NON-FP WQTZ)	=	0 ACRES
3 IMPERVIOUS COVER ALLOWED AT 20% X (NET SITE AREA)	=	1.123 ACRES
4 TOTAL ALLOWED IMPERVIOUS COVER	=	1.123 ACRES
PROPOSED IMPERVIOUS COVER		
IMPERVIOUS COVER IN NON-FP WQTZ		
5a EXISTING PROPOSED TO REMAIN	=	0.00 ACRES
5b PROPOSED NEW	=	0.00 ACRES
5c SUBTOTAL	=	0.00 ACRES
IMPERVIOUS COVER IN UPLANDS ZONE		
6a EXISTING PROPOSED TO REMAIN	=	2.27 ACRES
6b PROPOSED NEW	=	0.18 ACRES
6c SUBTOTAL	=	2.45 ACRES
7 TOTAL PROPOSED IMPERVIOUS COVER	=	2.45 ACRES*

*PER LDC SECTION 25-8-516, ROADWAY IMPROVEMENTS WITH < 8,000 SF OF NEW IMPERVIOUS COVER ARE NOT RESTRICTED BY THE IMPERVIOUS COVER LIMITS STATED IN LDC ARTICLE 13.
 NOTE: ROW WORK ONLY. NOT SUBJECT TO SLOPE CATEGORY RESTRICTIONS

BARTON CREEK BLVD. & SOUTHWEST PARKWAY INTERSECTION IMPROVEMENTS
 PROPOSED CONDITIONS DRAINAGE AREA MAP
 8700-112 SOUTHWEST PARKWAY, AUSTIN, TX, 78723

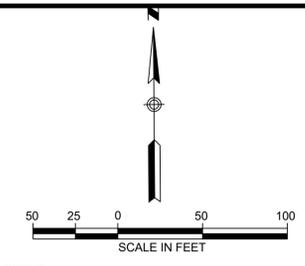
DATE: 10/29/2021
 DESIGNED BY: CDS
 DRAWN BY: HR
 CHECKED BY: HR
 DRAWING NAME: AUSTIN.DWG

03/24/2023
 S. DANNY MILLER
 82725
 REGISTERED PROFESSIONAL ENGINEER

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

JOB NUMBER: A214-049
 DM02
 SHEET NO. 11 OF 29 SHEETS





LEGEND

PROPOSED	EXISTING	DESCRIPTION
[Hatched pattern]	[Hatched pattern]	PROPOSED PAVEMENT
[Dotted pattern]	[Dotted pattern]	AREAS TO BE REVEGETATED
[Line with 'LOC']	[Line with 'LOC']	LIMITS OF CONSTRUCTION
[Line with 'SF']	[Line with 'SF']	SILT FENCE
[Line with 'LOC/SF']	[Line with 'LOC/SF']	LIMITS OF CONST./SILT FENCE
[Line with 'TP']	[Line with 'TP']	TREE PROTECTION
[Line with 'IP']	[Line with 'IP']	INLET PROTECTION
[Line with 'MS']	[Line with 'MS']	MULCH SOCK
[Line with 'RB']	[Line with 'RB']	ROCK BERM
[Line with 'SCE']	[Line with 'SCE']	STABILIZED CONSTRUCTION ENTRANCE
[Hatched pattern]	[Hatched pattern]	CONSTRUCTION STAGING / SPOILS / VEHICLE USE LOCATION
[Circle with 'TR']	[Circle with 'TR']	TREE TO REMAIN
[Circle with 'TR']	[Circle with 'TR']	TREE TO BE REMOVED
[Circle with 'HCRZ']	[Circle with 'HCRZ']	HALF CRITICAL ROOT ZONE (PROTECTED AND HERITAGE TREES)
[Dashed line]	[Dashed line]	CONTOURS
[Line with 'ST']	[Line with 'ST']	STORM SEWER LINE
[Line with 'WW']	[Line with 'WW']	WASTEWATER LINE
[Line with 'WL']	[Line with 'WL']	WATER LINE

- NOTES:**
- CONTRACTOR SHALL PROVIDE INLET PROTECTION AS EACH PROPOSED INLET IS INSTALLED.
 - CONTRACTOR TO INSTALL SILT FENCE AND ROCK BERM UNLESS DIRECTED OTHERWISE.
 - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT LIMBS AND ROOT SYSTEMS OF ALL TREES OUTSIDE LIMITS BY NOT PARKING UNDER TREES, NOT DRIVING EQUIPMENT OVER ROOT ZONES AND NOT STORING MATERIALS UNDER TREES. PROTECTION OF VEGETATION TO REMAIN SHALL INCLUDE NOT ONLY HARDWOODS, BUT CEDARS AND UNDERBRUSH.
 - ALL VEGETATION WITHIN LIMITS OF CONSTRUCTION AND NOT LOCATED WITHIN AREAS OF CUT/FILL SHALL BE PROTECTED TO THE EXTENT FEASIBLE.
 - TREES TO REMAIN THAT ARE LOCATED INSIDE THE SILT FENCE AND/OR ORANGE MESH FENCE SHALL HAVE TREE PROTECTION FENCING.
 - TEMPORARY STORAGE AND STOCKPILE AREAS SHALL BE USED DURING TIME OF CONSTRUCTION BUT SHALL BE RESTORED AND REVEGETATED.
 - ALL STORM DRAIN LINES ARE TO BE AT A MINIMUM OF FIVE FEET FROM CENTERLINE OF PIPE TO FACE OF TREE. ANY STORM DRAIN LINES TO BE PLACED WITHIN A TREE'S DRIP LINE MUST BE SAWCUT PRIOR TO TRENCHING.
 - PRIOR TO EXCAVATION WITHIN TREE DRIPLEINES, OR THE REMOVAL OF TREES ADJACENT TO OTHER TREES THAT ARE TO REMAIN, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE ROOT DAMAGE.
 - IN CRITICAL ROOT ZONE AREAS THAT CANNOT BE PROTECTED DURING CONSTRUCTION WITH FENCING AND WHERE HEAVY VEHICULAR TRAFFIC IS ANTICIPATED, COVER THESE AREAS WITH FOUR (4) INCHES OF ORGANIC MULCH TO BE PRODUCED ON SITE, TO MINIMIZE SOIL COMPACTION.
 - PERFORM ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE.
 - WATER ALL TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES DEEPLY AS NECESSARY DURING PERIODS OF HOT, DRY WEATHER. SPRAY TREE CROWNS WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
 - WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, USE A PLASTIC VAPOR BARRIER BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE SOIL.
 - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE SITE'S CONTROLS. SEDIMENT REMOVAL SHALL BE PROVIDED AS NOTED ON THE PLANS. REPAIR TO SILT FENCE AND ORANGE MESH FENCING/CHAINLINK FENCING SHALL BE PROVIDED TO INSURE: 1) ORANGE MESH FENCE / SILT FENCE REMAINS IN PLACE AND STANDING AT ALL TIMES; 2) SILT FENCING TO BE REPLACED / REPAIRED DUE TO CONTRACTOR DAMAGE OR ANY DAMAGE DUE TO STORM WATER DURING RAIN EVENTS.
 - DEWATERING OF THE TEMPORARY POND WILL BE PROVIDED TO ENSURE THERE IS ADEQUATE STORAGE FOR THE FOLLOWING RAIN EVENT. CONTRACTOR SHALL PROVIDE ADEQUATE FILTRATION DURING PUMPING TO ENSURE SEDIMENT Laden WATER DOES NOT LEAVE THE SITE.
 - THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD OR MODIFY EROSION / SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS.
 - CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECOM 1.4.5(D), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
 - SILT FENCE TYPE AND INSTALLATION SHALL COMPLY WITH ECOM 1.4.2(G).
 - IF DISTURBED AREA IS NOT TO BE WORKED FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING. (ECM 1.4.4.B.3, SECTION 5.1)
 - THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY. (ECM 1.4.4.D.4)
 - PERPENDICULAR EROSION CONTROLS MUST BE INSTALLED EVERY 30 FEET AS THE TRENCH IS BACKFILLED. (ECM 1.4.4.G)
 - THERE ARE NO TREES OVER 8" WITHIN THE LIMITS OF CONSTRUCTION.
 - A PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.
 - 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.
 - CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY SEDIMENT TRANSPORTED FROM THE LOC TO THE OFFSITE DETENTION / WATER QUALITY POND(S).

- DEWATERING SKIMMER KEYED NOTES**
- FLOATING INTAKE / DEWATERING SKIMMER. SEE DETAIL, SHEET EC02.
 - TEMPORARY PUMP TO DISCHARGE TO 3'X3' DESIGNATED ENCLOSED SILT FENCE AREA FOR DEWATERING DURING CONSTRUCTION FOLLOWED BY DOWNSTREAM SILT FENCE.
 - ENCLOSED SILT FENCE AREA, 5'X5' MINIMUM, FOR PUMP DISCHARGE.
 - DOWNSTREAM SILT FENCE

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

BARTON CREEK BLVD. & SOUTHWEST PARKWAY INTERSECTION IMPROVEMENTS
EROSION AND SEDIMENTATION CONTROL PLAN
 8700-112 SOUTHWEST PARKWAY, AUSTIN, TX. 78723

NO.	DATE	DESCRIPTION

DESIGNED BY: CDS
 DRAWN BY: HR
 CHECKED BY: HR
 DATE: 10/29/2021
 DRAWING NAME: AUSTIN030101A.ECDWG



LJA Engineering, Inc.
 Phone 512.438.4700
 Fax 512.438.4716
 FRN-F-1386

7500 Riatico Boulevard
 Building II, Suite 100
 Austin, Texas 78735

JOB NUMBER: A214-049
 EC01
 SHEET NO. 12 OF 29 SHEETS



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APPENDIX P-1 - EROSION CONTROL NOTES

- THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREENATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).
- THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN (ECP) AS THE BASIS FOR A TYPES 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 BY COA OR PLAN REVIEWERS AS WELL AS COA/EV INSPECTORS.
 - PLAN SHEETS SUBMITTED TO THE CITY OF AUSTIN MUST SHOW THE FOLLOWING:
 - DIRECTION OF FLOW DURING GRADING OPERATIONS.
 - LOCATION, DESCRIPTION, AND CALCULATIONS FOR OFF-SITE FLOW DIVERSION STRUCTURES.
 - AREAS THAT WILL NOT BE DISTURBED; NATURAL FEATURES TO BE PRESERVED.
 - DELINEATION OF CONTRIBUTING DRAINAGE AREA TO EACH PROPOSED BMP (E.G. SILT FENCE, SEDIMENT BASIN, ETC.).
 - LOCATION AND TYPE OF E&S BMPs FOR EACH PHASE OF DISTURBANCE.
 - CALCULATIONS FOR BMPs AS REQUIRED.
- LOCATION AND DESCRIPTION OF TEMPORARY STABILIZATION MEASURES.
 - LOCATION OF ON-SITE SPILLS, DESCRIPTION OF HANDLING AND DISPOSAL OF BORROW MATERIALS, AND DESCRIPTION OF TEMPORARY SPILLS DISPOSAL AREAS, INCLUDING SIZE, DEPTH OF FILL AND REVEGETATION PROCEDURES.
 - DESCRIBE SEQUENCE OF CONSTRUCTION AS IT PERTAINS TO ESC INCLUDING THE FOLLOWING ELEMENTS:
 - INSTALLATION SEQUENCE OF CONTROLS (E.G. PERMIT CONTROLS, THEN SEDIMENT BASINS, THEN TEMPORARY STABILIZATION, THEN PERMANENT, ETC.)
 - PROJECT PHASING IF REQUIRED (LOC GREATER THAN 25 ACRES)
 - SEQUENCE OF GRADING OPERATIONS AND NOTATION OF TEMPORARY STABILIZATION MEASURES TO BE USED
 - SCHEDULE FOR CONVERTING TEMPORARY BASINS TO PERMANENT WQ CONTROL
 - SCHEDULE FOR REMOVAL OF TEMPORARY CONTROLS
 - ANTICIPATED MAINTENANCE SCHEDULE FOR TEMPORARY CONTROLS
 - CATEGORIZE EACH BMP UNDER ONE OF THE FOLLOWING AREAS OF BMP ACTIVITY AS DESCRIBED BELOW:
 - MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES AND SOIL
 - CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT
 - STABILIZE SOILS
 - PROTECT SLOPES
 - PROTECT STORM DRAIN INLETS
 - ESTABLISH PERIMETER CONTROLS AND SEDIMENT BARRIERS
 - RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES
 - ESTABLISH STABILIZED CONSTRUCTION EXITS
 - ANY ADDITIONAL BMPs
 - NOTE THE LOCATION OF EACH BMP ON YOUR SITE MAP(S).
 - FOR AN STRUCTURAL BMPs, YOU SHOULD PROVIDE DESIGN SPECIFICATIONS AND DETAILS AND REFER TO THEM.
 - FOR MORE INFORMATION, SEE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL 1.4.
- THE PLACEMENT OF TREENATURAL 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.
- 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 AND TREENATURAL AREA PROTECTION MEASURES PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE OWNER OR OWNER'S REPRESENTATIVE SHALL NOTIFY THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT, 974-2278, AT LEAST THREE DAYS PRIOR TO THE MEETING. THE MEETING SHALL BE HELD IN THE CITY OF AUSTIN. IF (IF REQUIRED) SHOULD BE REVIEWED BY COA/EV INSPECTOR AT THIS TIME.
- 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. ANY CHANGES TO BE MADE AS FIELD REVISIONS MUST BE APPROVED BY AUTHORIZED COA STAFF. CORRECTIVE PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.
- THE CONTRACTOR IS REQUIRED TO PROVIDE A CERTIFIED INSPECTOR WITH EITHER A CERTIFIED PROFESSIONAL ENGINEER (PE), CERTIFIED EROSION, SEDIMENT, AND STORMWATER INSPECTOR (CESSWI) OR CERTIFIED INSPECTOR OF SEDIMENTATION AND EROSION CONTROLS (CISEC) INSPECTOR TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS. THE CONTRACTOR SHALL ADVISE THE CITY OF AUSTIN ENVIRONMENTAL INSPECTOR OF ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
- PRIOR TO FINAL ACCEPTANCE BY THE CITY, ALL ROAD AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONSTRUCTION SHALL 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 SPILL DISPOSAL AREAS.
- TEMPORARY AND PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.
 - ALL DISTURBED AREAS TO BE REVEGETATED ARE REQUIRED TO PLACE A MINIMUM OF SIX (6) INCHES OF TOPSOIL (SEE STANDARD SPECIFICATION ITEM NO. 6015.3[A]). DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES.
 - TOPSOIL SALVAGED FROM THE EXISTING SITE IS ENCOURAGED FOR USE, BUT IT SHOULD MEET THE STANDARDS SET FORTH IN 6015.
 - AN OWNER/ENGINEER MAY PROPOSE USE OF ON-SITE SALVAGED TOPSOIL WHICH DOES NOT MEET THE CRITERIA OF STANDARD SPECIFICATION 6015 BY PROVIDING A SOIL ANALYSIS AND A WRITTEN STATEMENT FROM A PROFESSIONAL IN SOILS, LANDSCAPE ARCHITECTURE, OR AGRONOMY INDICATING THE ON-SITE TOPSOIL WILL PROVIDE AN EQUIVALENT FLOW MEDIA AND SPECIFYING WHAT, IF ANY, SOIL AMENDMENTS ARE REQUIRED.
 - SOIL AMENDMENTS SHALL BE WORKED INTO THE EXISTING ON-SITE TOPSOIL WITH A DISC OR TILLER TO CREATE A WELL-BLENDED MATRIX.

TABLE 2: HYDROMULCHING FOR PERMANENT VEGETATIVE STABILIZATION

MATERIAL	DESCRIPTION	TYPICAL APPLICATIONS	APPLICATION RATES
BONDED FIBER MATRIX (BFM)	80% ORGANIC DEBRATED FIBERS	2,500 TO 4,000 LBS PER ACRE (SEE MANUFACTURER'S RECOMMENDATION)	10% TACKIFIER
FIBER REINFORCED MATRIX (FRM)	65% ORGANIC DEBRATED FIBERS 25% REINFORCING FIBERS OR LESS 10% TACKIFIER	ON SLOPES UP TO 1:1 AND EROSION SOIL CONDITIONS	3,000 TO 4,500 LBS PER ACRE (SEE MANUFACTURER'S RECOMMENDATIONS)

- INSTALLATION SEQUENCE OF CONTROLS (E.G. PERMIT CONTROLS, THEN SEDIMENT BASINS, THEN TEMPORARY STABILIZATION, THEN PERMANENT, ETC.)
- PROJECT PHASING IF REQUIRED (LOC GREATER THAN 25 ACRES)
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 - CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT
 - STABILIZE SOILS
 - PROTECT SLOPES
 - PROTECT STORM DRAIN INLETS
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- THE CONTRACTOR SHALL FOLLOW THE RECOMMENDATION OF A SOIL TEST. SEE ITEM 6065, FERTILIZER APPLICATIONS OF FERTILIZER (AND PESTICIDE) ON CITY-OWNED AND MANAGED PROPERTY REQUIRES THE YEARLY SUBMITTAL OF A PESTICIDE AND FERTILIZER APPLICATION RECORD, 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.
- HYDROMULCH SHALL COMPLY WITH TABLE 2, BELOW.
- 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.
- PERMANENT EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1 1/2 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 16 SQUARE FEET.
- WHEN REQUIRED, NATIVE PLANT SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL, ITEMS 6045 AND 6095.

- FERTILIZER USE SHALL FOLLOW THE RECOMMENDATION OF A SOIL TEST. SEE ITEM 6065, FERTILIZER APPLICATIONS OF FERTILIZER (AND PESTICIDE) ON CITY-OWNED AND MANAGED PROPERTY REQUIRES THE YEARLY SUBMITTAL OF A PESTICIDE AND FERTILIZER APPLICATION RECORD, 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.
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 - CATEGORIZE EACH BMP UNDER ONE OF THE FOLLOWING AREAS OF BMP ACTIVITY AS DESCRIBED BELOW:
 - MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES AND SOIL
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 - PROTECT SLOPES
 - PROTECT STORM DRAIN INLETS
 - ESTABLISH PERIMETER CONTROLS AND SEDIMENT BARRIERS
 - RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES
 - ESTABLISH STABILIZED CONSTRUCTION EXITS
 - ANY ADDITIONAL BMPs
 - NOTE THE LOCATION OF EACH BMP ON YOUR SITE MAP(S).
 - FOR AN STRUCTURAL BMPs, YOU SHOULD PROVIDE DESIGN SPECIFICATIONS AND DETAILS AND REFER TO THEM.
 - FOR MORE INFORMATION, SEE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL 1.4.

- THE PLACEMENT OF TREENATURAL 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.
- 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 AND TREENATURAL AREA PROTECTION MEASURES PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE OWNER OR OWNER'S REPRESENTATIVE SHALL NOTIFY THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT, 974-2278, AT LEAST THREE DAYS PRIOR TO THE MEETING. THE MEETING SHALL BE HELD IN THE CITY OF AUSTIN. IF (IF REQUIRED) SHOULD BE REVIEWED BY COA/EV INSPECTOR AT THIS TIME.
- 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. ANY CHANGES TO BE MADE AS FIELD REVISIONS MUST BE APPROVED BY AUTHORIZED COA STAFF. CORRECTIVE PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.
- THE CONTRACTOR IS REQUIRED TO PROVIDE A CERTIFIED INSPECTOR WITH EITHER A CERTIFIED PROFESSIONAL ENGINEER (PE), CERTIFIED EROSION, SEDIMENT, AND STORMWATER INSPECTOR (CESSWI) OR CERTIFIED INSPECTOR OF SEDIMENTATION AND EROSION CONTROLS (CISEC) INSPECTOR TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS. THE CONTRACTOR SHALL ADVISE THE CITY OF AUSTIN ENVIRONMENTAL INSPECTOR OF ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
- PRIOR TO FINAL ACCEPTANCE BY THE CITY, ALL ROAD AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONSTRUCTION SHALL 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 SPILL DISPOSAL AREAS.
- TEMPORARY AND PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.
 - ALL DISTURBED AREAS TO BE REVEGETATED ARE REQUIRED TO PLACE A MINIMUM OF SIX (6) INCHES OF TOPSOIL (SEE STANDARD SPECIFICATION ITEM NO. 6015.3[A]). DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES.
 - TOPSOIL SALVAGED FROM THE EXISTING SITE IS ENCOURAGED FOR USE, BUT IT SHOULD MEET THE STANDARDS SET FORTH IN 6015.
 - AN OWNER/ENGINEER MAY PROPOSE USE OF ON-SITE SALVAGED TOPSOIL WHICH DOES NOT MEET THE CRITERIA OF STANDARD SPECIFICATION 6015 BY PROVIDING A SOIL ANALYSIS AND A WRITTEN STATEMENT FROM A PROFESSIONAL IN SOILS, LANDSCAPE ARCHITECTURE, OR AGRONOMY INDICATING THE ON-SITE TOPSOIL WILL PROVIDE AN EQUIVALENT FLOW MEDIA AND SPECIFYING WHAT, IF ANY, SOIL AMENDMENTS ARE REQUIRED.
 - SOIL AMENDMENTS SHALL BE WORKED INTO THE EXISTING ON-SITE TOPSOIL WITH A DISC OR TILLER TO CREATE A WELL-BLENDED MATRIX.

- THE CONTRACTOR SHALL FOLLOW THE RECOMMENDATION OF A SOIL TEST. SEE ITEM 6065, FERTILIZER APPLICATIONS OF FERTILIZER (AND PESTICIDE) ON CITY-OWNED AND MANAGED PROPERTY REQUIRES THE YEARLY SUBMITTAL OF A PESTICIDE AND FERTILIZER APPLICATION RECORD, 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.
- HYDROMULCH SHALL COMPLY WITH TABLE 2, BELOW.
- 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.
- PERMANENT EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1 1/2 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 16 SQUARE FEET.
- WHEN REQUIRED, NATIVE PLANT SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL, ITEMS 6045 AND 6095.

- THE CONTRACTOR SHALL FOLLOW THE RECOMMENDATION OF A SOIL TEST. SEE ITEM 6065, FERTILIZER APPLICATIONS OF FERTILIZER (AND PESTICIDE) ON CITY-OWNED AND MANAGED PROPERTY REQUIRES THE YEARLY SUBMITTAL OF A PESTICIDE AND FERTILIZER APPLICATION RECORD, 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.
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- WHEN REQUIRED, NATIVE PLANT SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL, ITEMS 6045 AND 6095.

APPENDIX P-6 REMEDIAL TREE CARE NOTES

- AS A COMPONENT OF AN EFFECTIVE REMEDIAL TREE CARE PROGRAM PER ENVIRONMENTAL CRITERIA MANUAL SECTION 3.4, PRESERVE TREES WITHIN THE LIMITS OF CONSTRUCTION. REQUIRE PRE-CONSTRUCTION AND SUPPLEMENTAL NUTRIENTS, SOIL AND/OR FOLIAR ANALYSIS SHOULD BE USED TO DETERMINE THE NEED FOR SUPPLEMENTAL NUTRIENTS. THE CITY ARBORIST MAY REQUIRE THESE ANALYSES AS PART OF A COMPREHENSIVE TREE CARE PLAN. SOIL PH SHALL BE CONSIDERED WHEN DETERMINING THE FERTILIZATION COMPOSITION AS SOIL PH INFLUENCES THE TREE'S ABILITY TO UPTAKE NUTRIENTS FROM THE SOIL. IF ANALYSES INDICATE THE NEED FOR SUPPLEMENTAL NUTRIENTS, THEN HUMATE/NUTRIENT SOLUTIONS WITH MYCORRHIZAE COMPONENTS ARE HIGHLY RECOMMENDED. IN ADDITION, SOIL ANALYSIS MAY BE NEEDED TO DETERMINE IF ADDITION OF HEAVY METALS TO THE SOIL IS NECESSARY TO IMPROVE SOIL HEALTH. MATERIALS AND METHODS ARE TO BE APPROVED BY THE CITY ARBORIST (512-974-1876) PRIOR TO APPLICATION. THE OWNER OR GENERAL CONTRACTOR SHALL SELECT A FERTILIZATION CONTRACTOR AND ENSURE COORDINATION WITH THE CITY ARBORIST.
- PRE-CONSTRUCTION TREATMENT SHOULD BE APPLIED IN THE APPROPRIATE SEASON, IDEALLY THE SEASON PRECEDING THE PROPOSED CONSTRUCTION, MINIMALLY, AREAS TO BE TREATED INCLUDE THE ENTIRE CRITICAL ROOT ZONE OF TREES AS DEPICTED ON THE CITY APPROVED PLANS. TREATMENT SHOULD INCLUDE, BUT NOT LIMITED TO, FERTILIZATION, SOIL TREATMENT, MULCHING, AND PROPER PRUNING.
- POST-CONSTRUCTION TREATMENT SHOULD OCCUR DURING FINAL REVEGETATION OR AS DETERMINED BY A QUALIFIED ARBORIST AFTER CONSTRUCTION. PROTECTION OF TREES SHOULD RESULT IN A REDUCTION IN SOIL MACRO AND MICRO PORES AND AN INCREASE IN SOIL BULK DENSITY, TO AMELIORATE THE DEGRADED SOIL CONDITIONS, AERATION VIA WATER AND/OR AIR INJECTED INTO THE SOIL IS NEEDED OR BY OTHER METHODS AS APPROVED BY THE CITY ARBORIST. THE PROPOSED NUTRIENT AND SOIL AND/OR FOLIAR ANALYSIS RESULTS NEED TO BE PROVIDED TO AND APPROVED BY THE CITY ARBORIST PRIOR TO APPLICATION (FAX # 512-974-3010). CONSTRUCTION WHICH WILL BE COMPLETED IN LESS THAN 90 DAYS MAY USE MATERIALS AT % RECOMMENDED RATES. ALTERNATIVE ORGANIC FERTILIZER MATERIALS ARE ACCEPTABLE WHEN APPROVED BY THE CITY ARBORIST WITHIN 7 DAYS AFTER FERTILIZATION IS PERFORMED. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE WORK PERFORMED TO THE CITY ARBORIST, PLANNING AND DEVELOPMENT REVIEW DEPARTMENT, P.O. BOX 1088, AUSTIN, TX 78767. THIS NOTE SHOULD BE REFERENCED AS ITEM #1 IN THE SEQUENCE OF CONSTRUCTION.

- DESIGNATION OF AN ENVIRONMENTAL PROJECT MANAGER WHO IS ON SITE >90% OF THE TIME, WHO IS REQUIRED TO BE AT THE PRE-CONSTRUCTION AND MID-CONSTRUCTION MEETINGS, AND IS RESPONSIBLE FOR COMPLIANCE ON SITE OF THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS. THE ENVIRONMENTAL PROJECT MANAGER IS RESPONSIBLE FOR THE CONSTRUCTION OF THE CONTROLS. THE ENVIRONMENTAL PROJECT MANAGER SHALL BE ABSENT FROM THE SITE FOR AN EXTENDED PERIOD (IN EXCESS OF ONE WEEK), THE ENVIRONMENTAL INSPECTOR WITH THE WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT SHOULD BE INFORMED OF THE NAME OF A DESIGNATED REPLACEMENT, 2. THE MAXIMUM LENGTH OF TIME BETWEEN CLEARING AND FINAL REVEGETATION OF A PROJECT SHALL NOT EXCEED 18 MONTHS, UNLESS EXTENDED BY THE DIRECTOR OF THE WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT (THIS DOES NOT APPLY TO THE SITE PLAN OR BUILDING PERMIT, THIS REQUIREMENT APPLIES TO SITES THAT HAVE SUSPENDED WORK AND ARE EXPERIENCING EROSION CONTROL PROBLEMS DUE TO DISTURBED SOIL CONDITIONS.) DISTURBED AREAS MUST BE MAINTAINED TO PREVENT EROSION AND SEDIMENT LOADING OF ANY WATERWAYS OR DRAINAGE FACILITIES. 3. IT IS A VIOLATION OF THE CODE AND THIS DEVELOPMENT PERMIT TO ALLOW SEDIMENT FROM CONSTRUCTION TO ENTER A CLASSIFIED WATERWAY DUE TO A FAILURE TO MAINTAIN THE REQUIRED EROSION AND SEDIMENTATION CONTROLS OR TO FOLLOW THE APPROVED CONSTRUCTION SEQUENCE.

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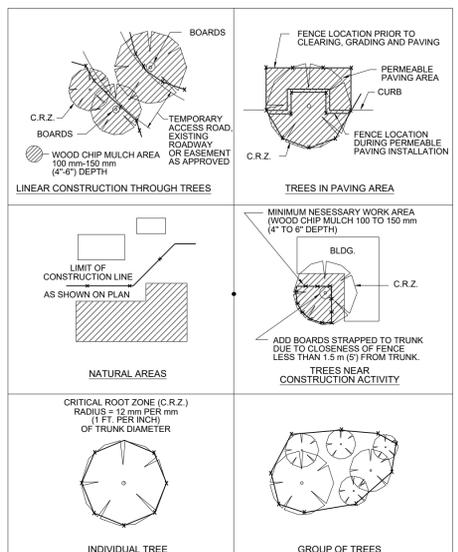
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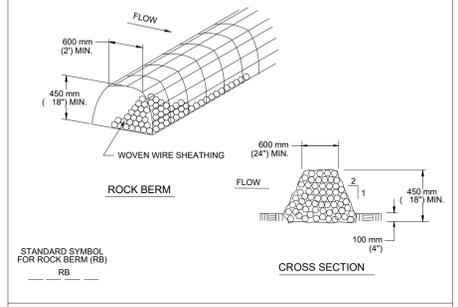
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CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROTECTION FENCE LOCATIONS	STANDARD NO.
RECORD COPY SIGNED BY J. PATRICK MURPHY	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	610S-1



- NOTES:**
- USE ONLY OPEN GRADED ROCK 75 TO 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
 - THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
 - THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
 - IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
 - WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM	STANDARD NO.
RECORD COPY SIGNED BY MORGAN BYARS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	639S-1

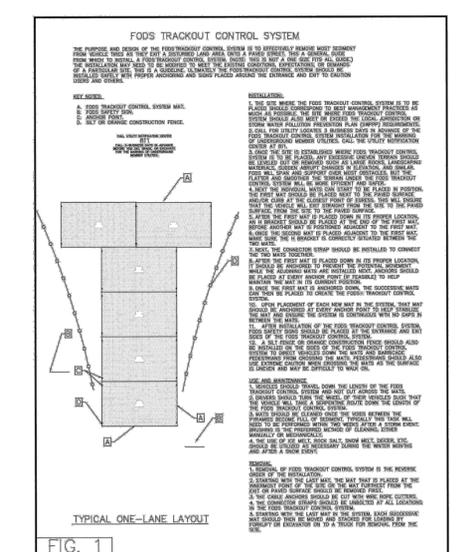
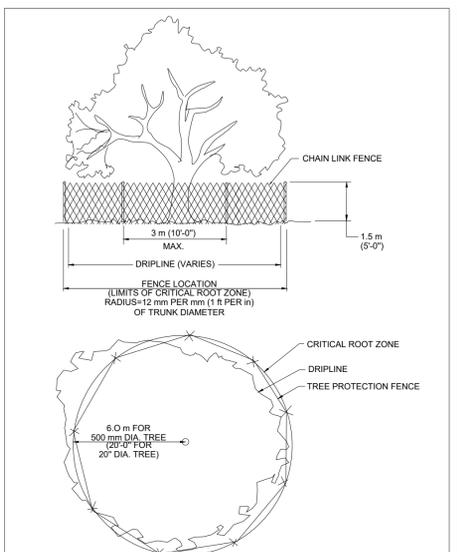
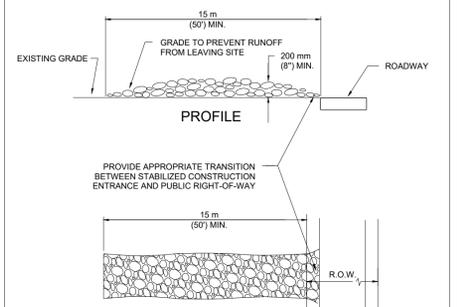


FIG. 1
SEDIMENT REMOVAL MAT DETAIL
NOT TO SCALE

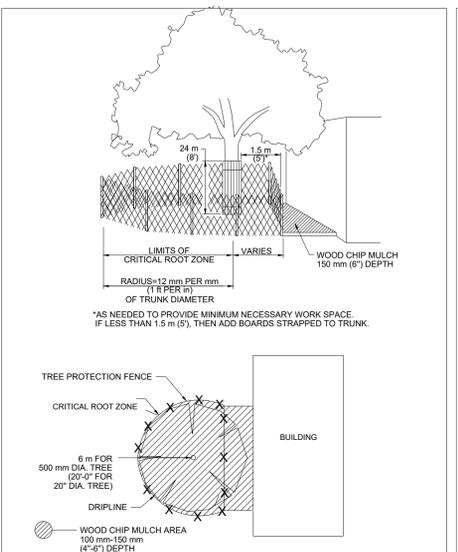


CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROTECTION FENCE TYPE A - CHAIN LINK	STANDARD NO.
RECORD COPY SIGNED BY J. PATRICK MURPHY	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	610S-2

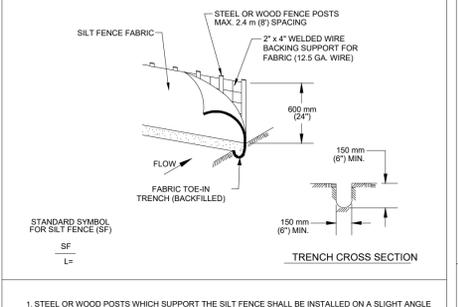


- NOTES:**
- STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
 - LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
 - THICKNESS: NOT LESS THAN 200 mm (8").
 - WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
 - WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY APPROVED STORM DRAIN, DITCH OR WATERCOURSE USING ACCEPTED METHODS.
 - MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
 - DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	STANDARD NO.
RECORD COPY SIGNED BY J. PATRICK MURPHY	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	641S-1



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	FILTER DIKE CURB INLET PROTECTION MODIFIED TYPE A - CHAIN LINK	STANDARD NO.
RECORD COPY SIGNED BY J. PATRICK MURPHY	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	610S-4

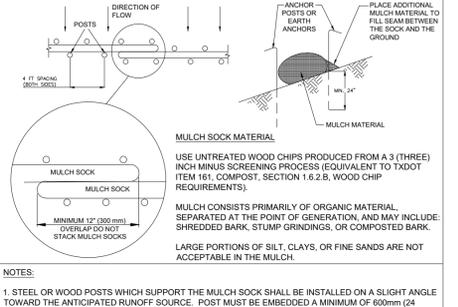


- NOTES:**
- STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
 - THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
 - THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
 - SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD POST.
 - INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 - SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
 - ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	STANDARD NO.
RECORD COPY SIGNED BY MORGAN BYARS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	642S-1

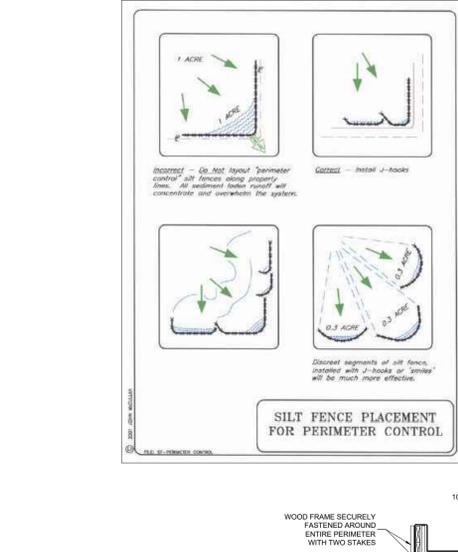
- NOTES:**
- MATERIAL - THE FABRIC MUST CORRESPOND TO THE FOLLOWING REQUIREMENTS:
PROPERTY: ASTM A518
FABRIC WEIGHT: D 3776
ULTRAVIOLET (UV) RADIATION STABILITY: D 4355
MULLEN BURST STRENGTH: D 3786
WATER FLOW RATE: D 4491
 - THIS MATERIAL SHOULD HAVE A MAXIMUM EXPECTED USEFUL LIFE OF APPROXIMATELY EIGHTEEN (18) MONTHS. THE INLET PROTECTION DEVICES SHOULD BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN OUT AND DISPOSAL OF TRAPPED SEDIMENT WHILE MINIMIZING INTERFERENCE WITH CONSTRUCTION ACTIVITIES. THEY SHOULD ALSO BE CONSTRUCTED SUCH THAT ANY PONDING OF STORM WATER WILL NOT CAUSE EXCESSIVE R.O.W. FLOODING (I.E. 4 INCHES OF STANDING WATER) OR DAMAGE TO THE STRUCTURE OR ADJACENT AREAS.
 - COVERAGE - THE FABRIC WIRE SHOULD COMPLETELY COVER THE OPENING OF THE INLET AND DEVICES SHOULD BE INSTALLED WITHOUT PROTRUDING PARTS THAT COULD BE A TRAFFIC, WORKER, OR PEDESTRIAN HAZARD. WHERE SECTIONS OF THE FABRIC OVERLAP, THEY SHALL OVERLAP AT LEAST THREE (3) INCHES.
 - THE INLET FILTER SHALL BE ATTACHED IN A WAY THAT THEY CAN EASILY BE REMOVED AND ARE NOT SECURED OR ATTACHED BY THE USE OF SAND BAGS. THE INLET FILTER MUST BE REMOVED UPON COMPLETION OF WORK. IF REMOVAL DAMAGES THE CONCRETE CURB, THE CURB MUST BE REPAIRED IMMEDIATELY.
 - DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN THE DEPTH REACHES 30 mm (2 INCHES) OR ONE-THIRD THE HEIGHT OF THE INLET THROAT, AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
 - CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORMWATER BEGINS TO OVERTOP THE CURB.
 - INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT HAS ACHIEVED FINAL STABILIZATION CONDITIONS.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	MULCH SOCK	STANDARD NO.
RECORD COPY SIGNED BY MORGAN BYARS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	648S-1

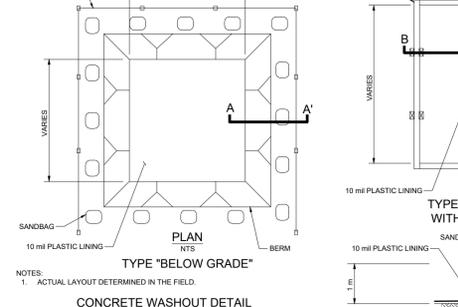


- NOTES:**
- STEEL OR WOOD POSTS WHICH SUPPORT THE MULCH SOCK SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 600 mm (24 INCHES). IF WOOD POSTS CANNOT ACHIEVE 600 mm (24 INCHES) DEPTH, USE STEEL POSTS. EARTH ANCHORS ARE ALSO ACCEPTABLE.
 - THE TOE OF THE MULCH SOCK SHALL BE PLACED SO THAT THE MULCH SOCK IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. IN ORDER TO PREVENT WATER FROM FLOWING BETWEEN THE JOINTS OF ADJACENT ENDS OF MULCH SOCKS, LAP THE ENDS OF ADJACENT MULCH SOCKS A MINIMUM OF 300 mm (12 INCHES).
 - MULCH MATERIAL MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. IT IS NOT ACCEPTABLE FOR THE MULCH MATERIAL TO CONTAIN GROUND CONSTRUCTION DEBRIS, BIOSOLIDS, OR MANURE.
 - SOCK MATERIAL WILL BE 100% BIODEGRADABLE, PHOTODEGRADABLE, OR RECYCLABLE SUCH AS BURLAP, TYNINE, UV PHOTOBIODEGRADABLE PLASTIC, POLYESTER, OR ANY OTHER ACCEPTABLE MATERIAL.
 - MULCH SOCKS SHOULD BE USED AT THE BASE OF SLOPES NO STEEPER THAN 2:1 AND SHOULD NOT EXCEED THE MAXIMUM SPACING CRITERIA PROVIDED IN CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL TABLE 1.4.5.F.1 FOR A GIVEN SLOPE CATEGORY.
 - ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	MULCH SOCK	STANDARD NO.
RECORD COPY SIGNED BY MORGAN BYARS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	648S-1



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	CONCRETE WASHOUT DETAIL	STANDARD NO.
RECORD COPY SIGNED BY MORGAN BYARS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	628S-2

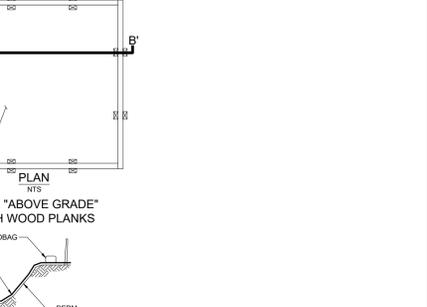


- NOTES:**
- ACTUAL LAYOUT DETERMINED IN THE FIELD.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	CONCRETE WASHOUT DETAIL	STANDARD NO.
RECORD COPY SIGNED BY MORGAN BYARS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	628S-2

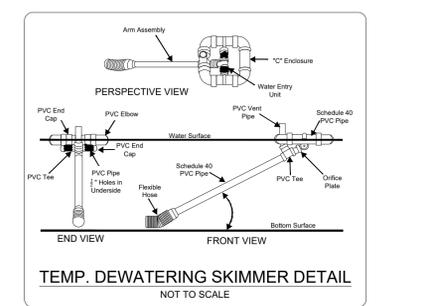
- § 25-8-004 - DEVELOPMENT APPLICATION REQUIREMENTS.**
- (A) AN APPLICATION FOR SITE PLAN APPROVAL MUST:
- INCLUDE A GRADING AND TREE PROTECTION PLAN, AS PRESCRIBED BY THE ADMINISTRATIVE MANUAL AND THE ENVIRONMENTAL CRITERIA MANUAL; AND
 - DEMONSTRATE THAT THE DESIGN WILL PRESERVE THE EXISTING NATURAL CHARACTER OF THE LANDSCAPE, INCLUDING THE RETENTION OF TREES EIGHT INCHES OR LARGER IN DIAMETER TO THE EXTENT FEASIBLE.
- (B) IF DEVELOPMENT UNDER A PROPOSED SITE PLAN WILL REMOVE A TREE EIGHT INCHES OR LARGER IN DIAMETER, THE CITY MAY REQUIRE MITIGATION, INCLUDING THE PLANTING OF REPLACEMENT TREES, AS A CONDITION OF SITE PLAN APPROVAL. THE DIRECTOR MAY NOT RELEASE THE SITE PLAN UNTIL THE APPLICANT SATISFIES THE CONDITION OR POSTS FISCAL SECURITY TO ENSURE PERFORMANCE OF THE CONDITION.
- (C) FOR AN APPLICATION FOR PRELIMINARY PLAN, FINAL PLAT, BUILDING PERMIT, OR SITE PLAN APPROVAL THAT PROPOSES THE REMOVAL OF A PROTECTED TREE, THE CITY ARBORIST MUST REVIEW THE APPLICATION AND MAKE A RECOMMENDATION BEFORE THE APPLICATION MAY BE ADMINISTRATIVELY APPROVED OR PRESENTED TO THE LAND USE COMMISSION OR CITY COUNCIL.
- (D) FOR AN APPLICATION FOR PRELIMINARY PLAN, FINAL PLAT, BUILDING PERMIT, OR SITE PLAN APPROVAL THAT PROPOSES THE REMOVAL OF A HERITAGE TREE, THE APPLICANT MUST FILE A REQUEST FOR A VARIANCE TO REMOVE THE HERITAGE TREE UNDER DIVISION 3 OF THIS ARTICLE BEFORE THE APPLICATION MAY BE ADMINISTRATIVELY APPROVED OR PRESENTED TO THE LAND USE COMMISSION OR CITY COUNCIL.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	CONCRETE WASHOUT DETAIL	STANDARD NO.
RECORD COPY SIGNED BY MORGAN BYARS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	628S-2

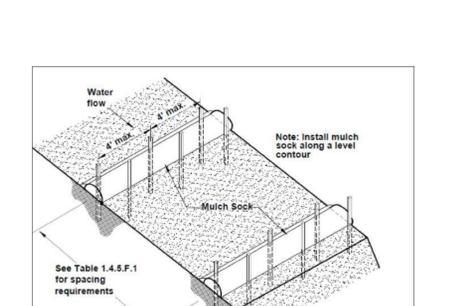


- NOTES:**
- ACTUAL LAYOUT DETERMINED IN THE FIELD.

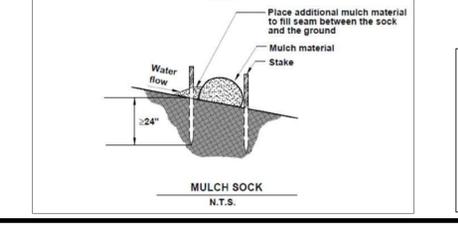
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	CONCRETE WASHOUT DETAIL	STANDARD NO.
RECORD COPY SIGNED BY MORGAN BYARS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	628S-2



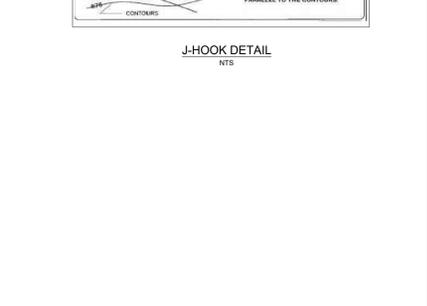
TEMP. DEWATERING SKIMMER DETAIL
NOT TO SCALE



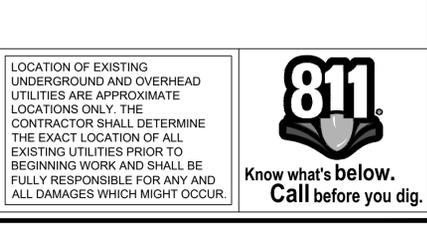
TYPICAL MULCH SOCK INSTALLATION
N.T.S.



MULCH SOCK
N.T.S.



J-HOOK DETAIL
N.T.S.



MULCH SOCK
N.T.S.

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

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

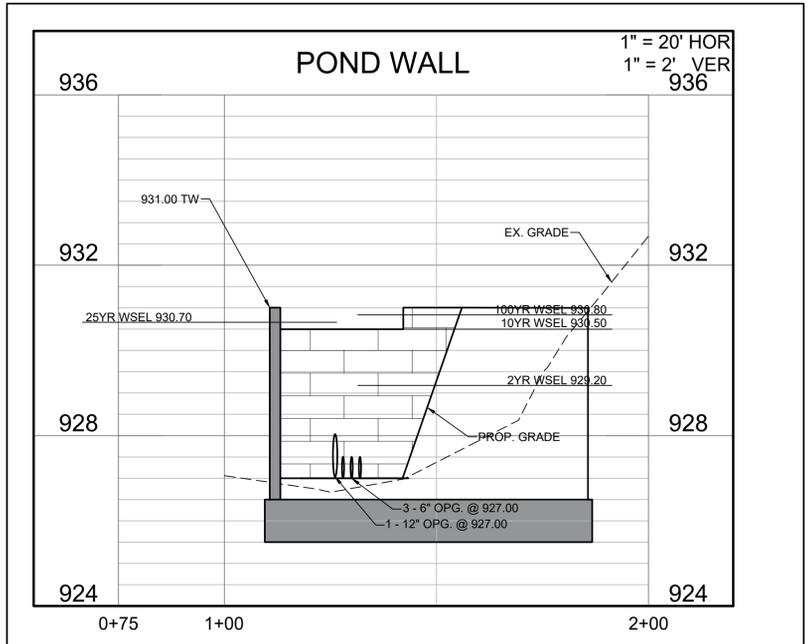
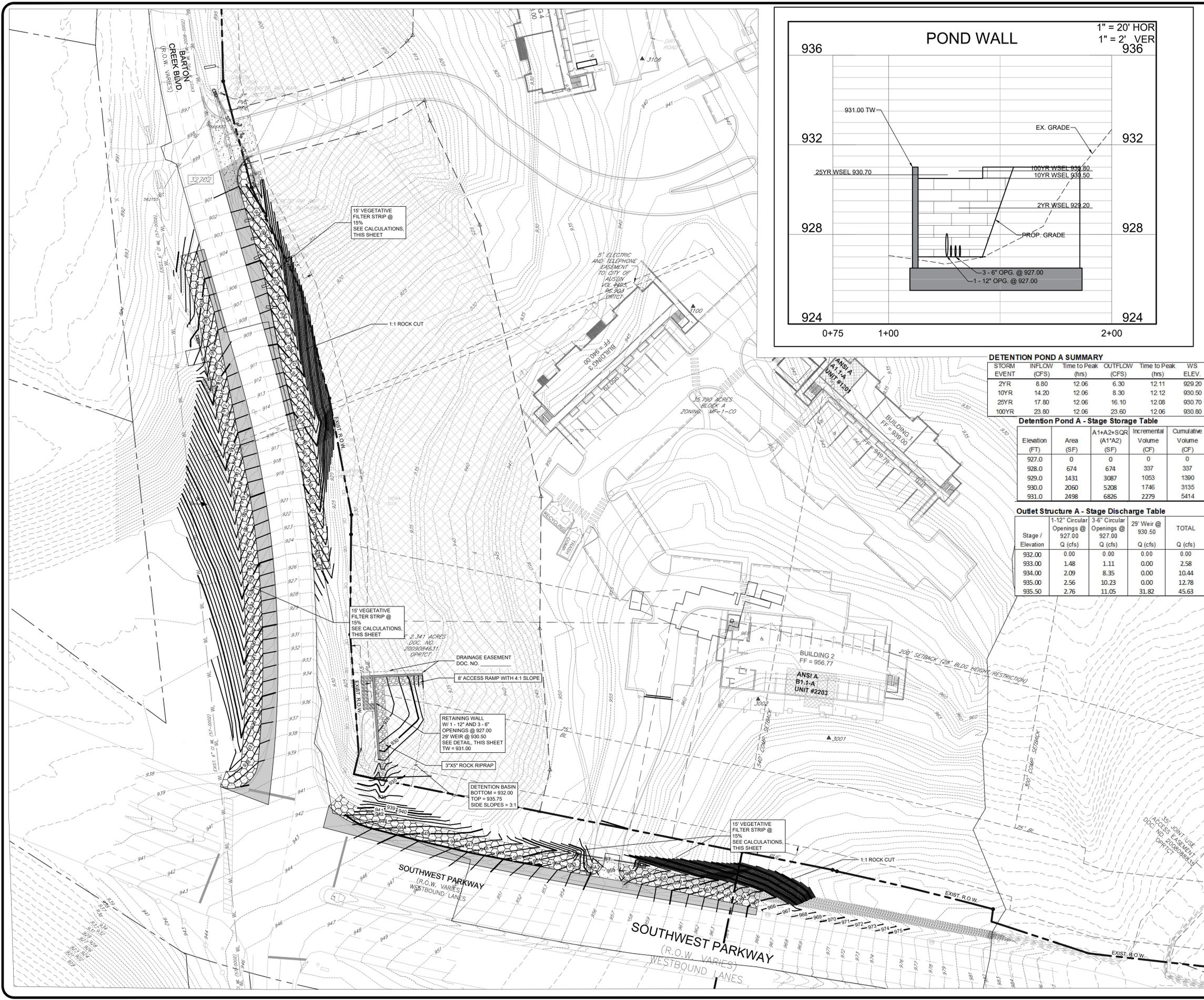
BARTON CREEK BLVD. & SOUTHWEST PARKWAY INTERSECTION IMPROVEMENTS
EROSION AND SEDIMENTATION DETAILS
8700-112 SOUTHWEST PARKWAY, AUSTIN, TX. 78723

NO.	REVISIONS	DESCRIPTION	DATE

DATE: 10/29/2021	DESIGNED BY: CDS	HR
DRAWN BY: HR	CHECKED BY: HR	

03/24/2023
S. DANNY MILLER
82725
Professional Engineer
LJA Engineering, Inc.
Phone 512.438.4700
Fax 512.438.4716
FRN-F-1386

JOB NUMBER:	A214-049
EC03	
SHEET NO.	14
OF 29 SHEETS	



DETENTION POND A SUMMARY

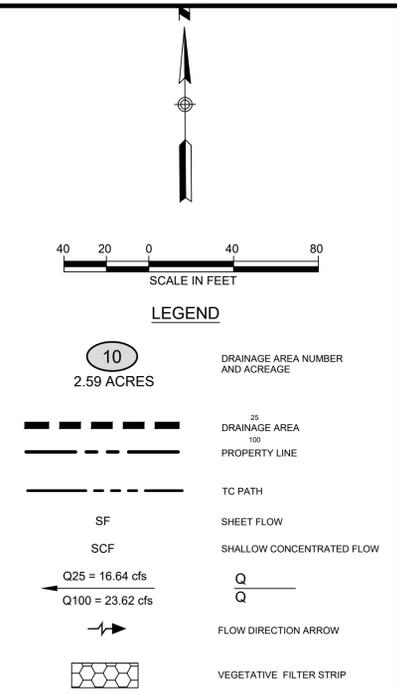
STORM EVENT	INFLOW (CFS)	Time to Peak (hrs)	OUTFLOW (CFS)	Time to Peak (hrs)	WS ELEV.
2YR	8.80	12.06	6.30	12.11	929.20
10YR	14.20	12.06	8.30	12.12	930.50
25YR	17.80	12.06	16.10	12.08	930.70
100YR	23.80	12.06	23.60	12.06	930.80

Detention Pond A - Stage Storage Table

Elevation (FT)	Area (SF)	A1+A2+SQR (SF)	Incremental Volume (CF)	Cumulative Volume (CF)
927.0	0	0	0	0
928.0	674	674	337	337
929.0	1431	3087	1053	1390
930.0	2060	5208	1746	3135
931.0	2498	6826	2279	5414

Outlet Structure A - Stage Discharge Table

Stage / Elevation	1-12" Circular Openings @ 927.00 Q (cfs)	3-6" Circular Openings @ 927.00 Q (cfs)	29" Weir @ 930.50 Q (cfs)	TOTAL Q (cfs)
932.00	0.00	0.00	0.00	0.00
933.00	1.48	1.11	0.00	2.58
934.00	2.09	8.35	0.00	10.44
935.00	2.56	10.23	0.00	12.78
935.50	2.76	11.05	31.82	45.63



NATURAL FILTER STRIPS

	Req'd	Proposed
Maximum Slope	= 10%	--
Min. Dimension	= 50 ft	--
Above 2yr, 3hr storm	--	--

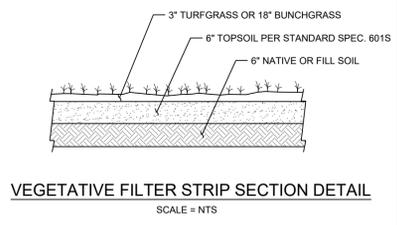
ENGINEERED FILTER STRIPS

	Req'd	Proposed
Min. Dimension	= 15 ft	15
Maximum Slope	= 20%	15%
Cont. Area Max Width	= 72 ft	52 ft
Minimum Veg. Cover	= 80%	80%

STUDY POINT SUMMARY

STORM	EXISTING	PROPOSED
Study Point #1		
Q2	35.50	33.60
Q10	63.50	59.10
Q25	82.60	76.40
Q100	114.00	110.10

NOTE: THE ENTIRE LIMITS OF CONSTRUCTION IS WITHIN THE HILL COUNTRY ROADWAY CORRIDOR.



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BARTON CREEK BLVD. & SOUTHWEST PARKWAY INTERSECTION IMPROVEMENTS GRADING PLAN, POND PLAN AND PROFILE
8700-112 SOUTHWEST PARKWAY, AUSTIN, TX. 78723

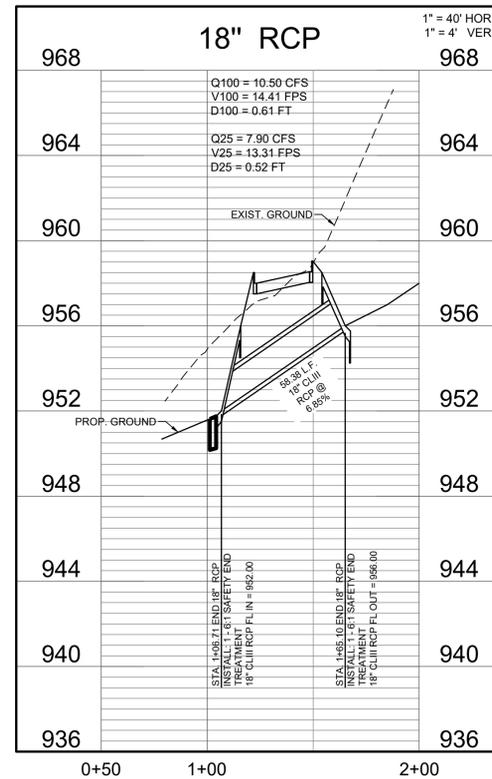
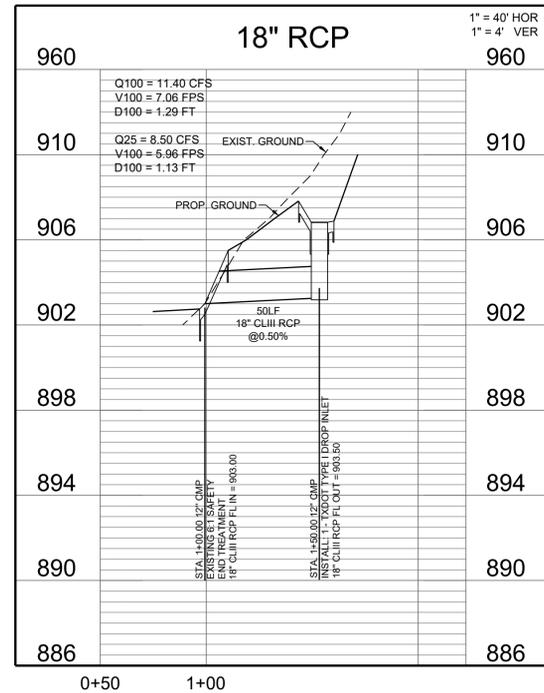
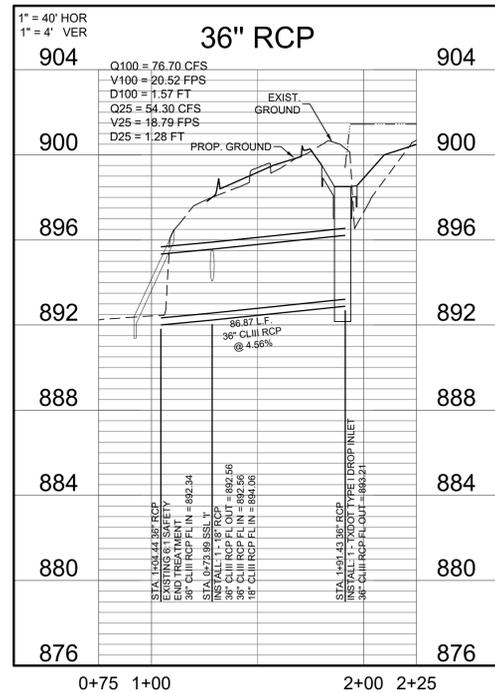
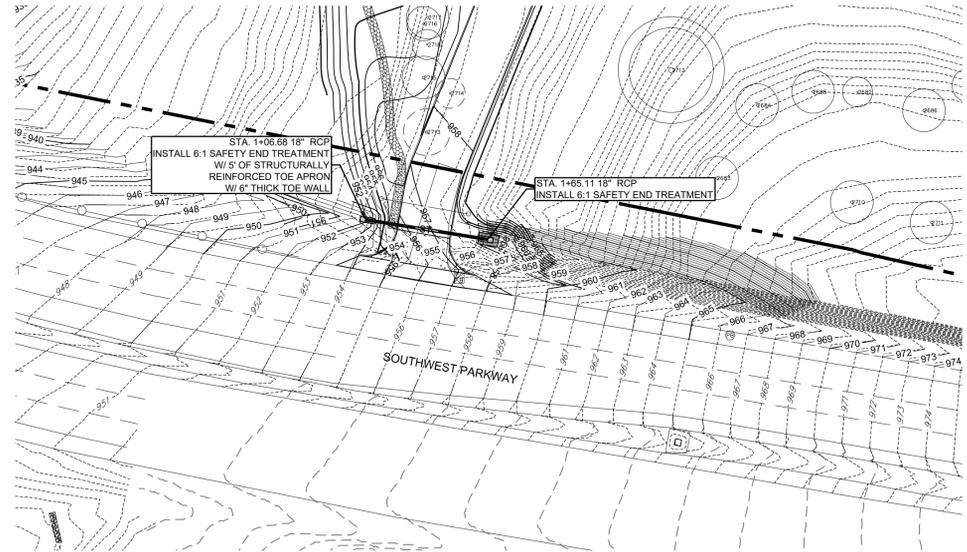
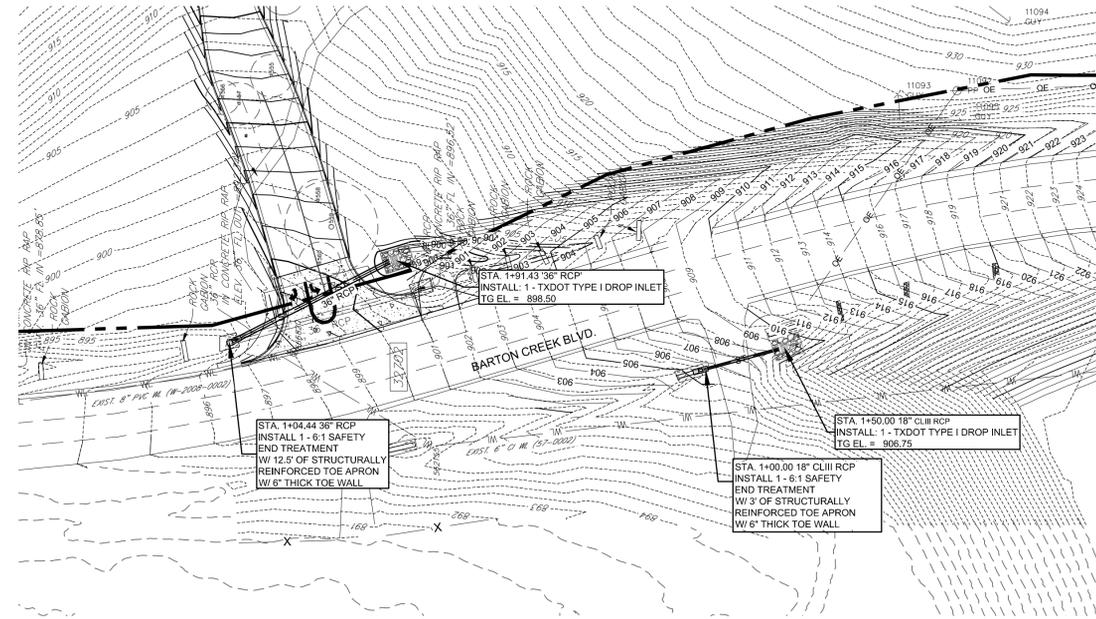
DATE: 4/26/2023
DESIGNED BY: CDS
DRAWN BY: HR
CHECKED BY: HR
DRAWING NAME: AUT14050RCPANDPOND

REVISIONS
NO. DESCRIPTION

DATE: 04/27/2023
OF
S. DANNY MILLER
REGISTERED PROFESSIONAL ENGINEER
82725

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

JOB NUMBER: A214-049
GP01
SHEET NO. 15 OF 29 SHEETS



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



BARTON CREEK BLVD. & SOUTHWEST PARKWAY INTERSECTION IMPROVEMENTS
CULVERT PLAN AND PROFILES

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: 10/27/2021
DESIGNED BY: CDS
DRAWN BY: HR
CHECKED BY: HR
DRAWING NAME: 807015.DWG



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

JOB NUMBER: A214-049
SS01
SHEET NO. 16 OF 29 SHEETS

\\LJA\GIS\Users\Matt\Projects\BartonCreek\Sheet\Change\plan\01-400-017-PROFILES.dwg
User: jmcintosh Aug 28, 2021 11:54 AM
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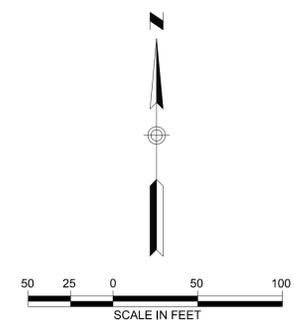
10/29/2021
 11:43:00 AM
 11/2/2021

MATCHLINE STA 6+75.00

POLE & EQUIPMENT INFORMATION

ID	DESCRIPTION/ATTACHMENTS
(A)	EXISTING 20 FT SMA-80 ON EXISTING FOUNDATION WITH 40 FT MAST ARM, ONE STREET NAME SIGN, ONE PEDESTRIAN SIGNAL HEAD WITH PUSH BUTTON AND SIGN, AND THREE VEHICLE SIGNAL HEADS AS ILLUSTRATED. SHIFT TWO OF THE EXISTING SIGNAL HEADS TO BE CENTERED OVER THE SOUTHBOUND APPROACHES (100 LF OF 7 COND #12 AWG TYPE "A", STRANDED).

TRAFFIC SIGNS



LEGEND

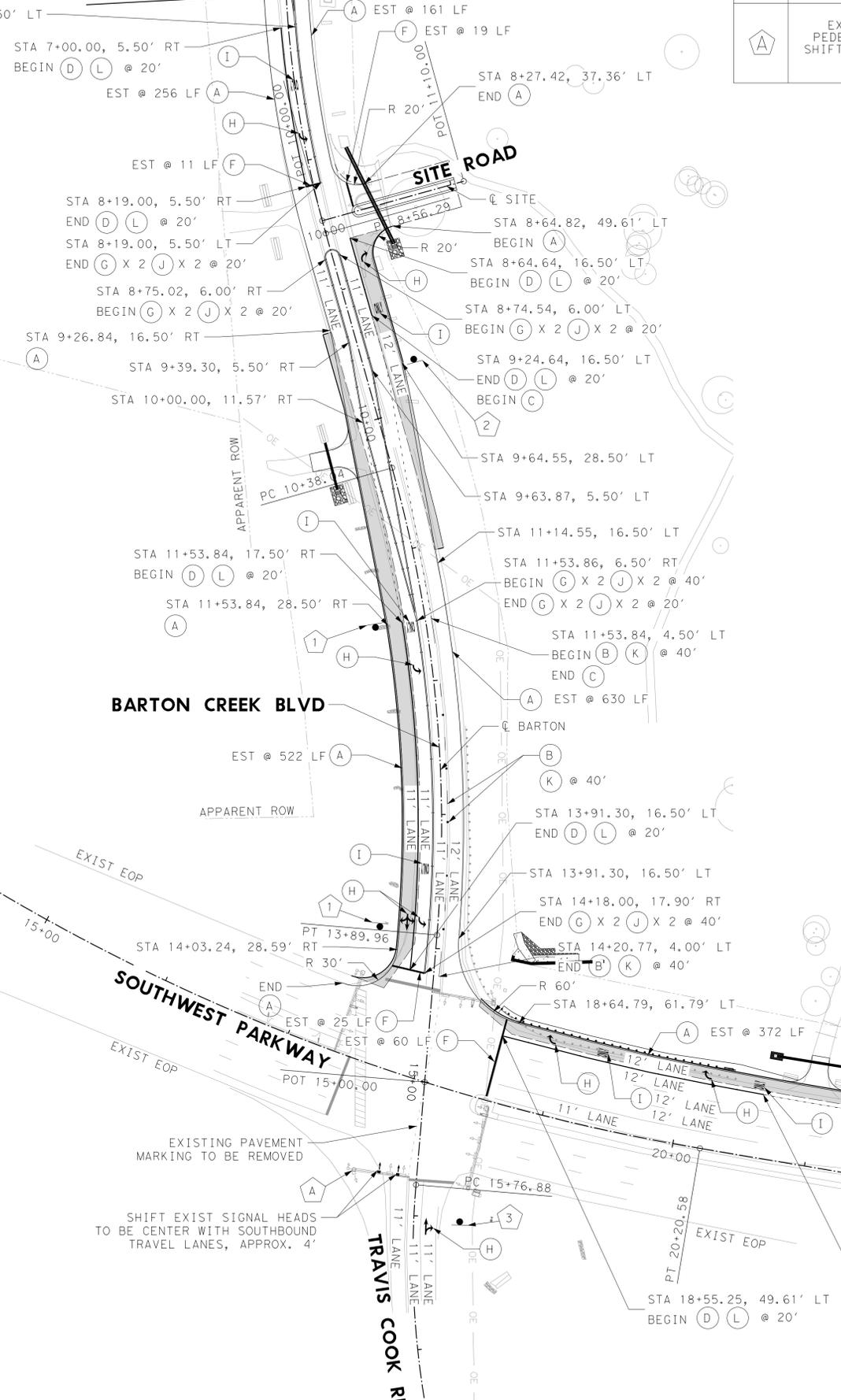
- (A) REFL PAV MRK TY I(W)4"(SLD)(100 MIL)
- (B) REFL PAV MRK TY I(W)4"(BRK)(100 MIL)
- (C) REFL PAV MRK TY I(W)8"(DOT)(100 MIL)
- (D) REFL PAV MRK TY I(W)8"(SLD)(100 MIL)
- (E) REFL PAV MRK TY I(W)12"(SLD)(100 MIL)
- (F) REFL PAV MRK TY I(W)24"(SLD)(100 MIL)
- (G) REFL PAV MRK TY I(Y)4"(SLD)(100 MIL)
- (H) REFL PAV MRK TY I(W)(ARROW)(100 MIL)
- (I) REFL PAV MRK TY I(W)(WORD)(100 MIL)
- (J) REFL PAV MRKR TY II-A-A
- (K) REFL PAV MRKR TY II-C-R
- (L) REFL PAV MRKR TY I-C
- (M) REFL PAV MRK TY I(W)(BIKE ARW)(100 MIL)
- (N) REFL PAV MRK TY I(W)(BIKE SYML)(100 MIL)
- (O) REFL PAV MRK TY I(W)(BIKE DOT)(100 MIL)
- # PROPOSED SMALL SIGN
- SMALL SIGN ASSEMBLY
- OBJECT MARKER TY 3

BARTON CREEK BLVD

MATCHLINE STA 6+75.00

SOUTHWEST PARKWAY

TRAVIS COOK RD



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



BARTON CREEK BLVD. & SOUTHWEST PARKWAY
 INTERSECTION IMPROVEMENTS
 TRAFFIC SIGNAL, SIGNING AND PAVEMENT MARKING PLAN LAYOUT
 -AUSTIN, TX. 78723

NO.	DATE	DESCRIPTION



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 Phone 512.439.4700
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 FRNF-1386
 7500 Riatico Boulevard
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 Austin, Texas 78735

JOB NUMBER: A107-409
SPM01
 SHEET NO. **20**
 OF 29 SHEETS

BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:

- The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples of placement of temporary traffic control devices, construction pavement markings, and typical work zone signs. The information contained in these sheets meet or exceed the requirements shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
- The development and design of the Traffic Control Plan (TCP) is the responsibility of the Engineer.
- The Contractor may propose changes to the TCP that are signed and sealed by a licensed professional engineer for approval. The Engineer may develop, sign and seal Contractor proposed changes.
- The Contractor is responsible for installing and maintaining the traffic control devices as shown in the plans. The Contractor may not move or change the approximate location of any device without the approval of the Engineer.
- Geometric design of lane shifts and detours should, when possible, meet the applicable design criteria contained in manuals such as the American Association of State Highway and Transportation Officials (AASHTO), "A Policy on Geometric Design of Highways and Streets," the "Texas Roadway Design Manual" or engineering judgment.
- When projects start, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES DOUBLE, and other advance warning signs if the signing would be redundant and the work areas appear continuous to the motorists. If the adjacent project is completed first, the Contractor shall erect the necessary warning signs as shown on these sheets, the TCP sheets or as directed by the Engineer. The BEGIN ROAD WORK NEXT X MILES sign shall be revised to show appropriate work zone distance.
- The Engineer may require duplicate warning signs on the median side of divided highways where median width will permit and traffic volumes justify the signing.
- All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.
- The temporary traffic control devices shown in the illustrations of the BC sheets are examples. As necessary, the Engineer will determine the most appropriate traffic control devices to be used.
- Where highway construction or maintenance work is being undertaken, other than mobile operations as defined by the Texas Manual on Uniform Traffic Control Devices, CSJ limit signs are required. CSJ limit signs are shown on BC(2). The OBEY WARNING SIGNS STATE LAW SIGN, STAY ALERT TALK OR TEXT LATER and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits. For mobile operations, CSJ limit signs are not required.
- Traffic control devices should be in place only while work is actually in progress or a definite need exists.
- The Engineer has the final decision on the location of all traffic control devices.
- Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

WORKER SAFETY NOTES:

- Workers on foot who are exposed to traffic or to construction equipment within the right-of-way shall wear high-visibility safety apparel meeting the requirements of ISEA "American National Standard for High-Visibility Apparel," or equivalent revisions, and labeled as ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.
- Except in emergency situations, flagger stations shall be illuminated when flagging is used at night.

COMPLIANT WORKZONE TRAFFIC CONTROL DEVICES

- Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources.
- Work zone traffic control devices shall be compliant with the Manual for Assessing safety Hardware (MASH).

THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT <http://www.txdot.gov>

COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICES LIST (CWZTCD)
DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS)
MATERIAL PRODUCER LIST (MPL)
ROADWAY DESIGN MANUAL - SEE "MANUALS (ONLINE MANUALS)"
STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD)
TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)
TRAFFIC ENGINEERING STANDARD SHEETS

DATE: 10/29/2021

TYPICAL LOCATION OF CROSSROAD SIGNS

T-INTERSECTION

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING

Sign Number or Series	Conventional Road	Expressway/Freeway	Posted Speed	Sign Spacing "X"
CW20 ⁴	48" x 48"	48" x 48"	30	120'
CW21	48" x 48"	48" x 48"	40	240'
CW22	36" x 36"	48" x 48"	45	320'
CW23	48" x 48"	48" x 48"	50	400'
CW25	48" x 48"	48" x 48"	55	500'
CW1, CW2, CW7, CW8, CW9, CW11, CW14	48" x 48"	48" x 48"	60	600'
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12	48" x 48"	48" x 48"	65	700'
			70	800'
			75	900'
			80	1000'
			*	*

CSJ LIMITS AT T-INTERSECTION

- The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
- If construction closes the road at a T-Intersection, the Contractor shall place the "CONTRACTOR NAME (G20-61) sign behind the Type 3 Barricade for the road closure (see BC(10) also). The "ROAD WORK NEXT X MILES" left arrow (G20-10L) and "ROAD WORK NEXT X MILES" right arrow (G20-10R) signs shall be replaced by the detour signing called for in the plans.

WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING AT THE CSJ LIMITS

NOTES

- The Contractor shall determine the appropriate distance to be placed on the G20-10L and G20-10R signs and "BEGIN ROAD WORK NEXT X MILES" (G20-51) sign for each specific project. This distance shall be rounded to the nearest whole mile with the approval of the Engineer. No specific signs shall be used.
- The "BEGIN WORK ZONE" (G20-91P) and "END WORK ZONE" (G20-20T) shall be used as shown on the sample layout when advance of the work zone is required outside the CSJ Limit. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ limits where traffic fines may double.
- CSJ limit signing is required for highway construction and maintenance work, with the exception of mobile operations.
- Area for placement of "ROAD WORK AHEAD" (CW20-10) sign and other signs or devices as called for on the Traffic Control Plan.
- Contractor will install a regulatory speed limit sign at the end of the work zone.

LEGEND

○	Type 3 Barricade
○	Channelizing Devices
▲	Sign
X	See Typical Construction Warning Sign Size and Spacing Chart of the TMUTCD for sign spacing requirements.

DATE: 10/29/2021

TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the "Procedures for Establishing Speed Zones," and approved by the Texas Transportation Commission, or by City Ordinance when within Incorporated City Limits.

Reduced speeds should only be posted in the vicinity of work activity and not throughout the entire project. Regulatory work zone speed signs (R2-1) shall be removed or covered during periods when they are not needed.

GUIDANCE FOR USE:

LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit should be included on the design of the traffic control plans when restricted geometrics with a lower design speed are present in the work zone and modification of the geometrics to a higher design speed is not feasible.

Long/intermediate term Work Zone Speed Limit signs, when approved as described above, should be posted and visible to the motorist when work activity is present. Work activity may also be defined as a change in the roadway that requires a reduced speed for motorists to safely negotiate the work area, including: a) rough road or damaged pavement surface; b) substantial alteration of roadway geometrics (adversions); c) construction detours; d) grade; e) earth; f) other conditions readily apparent to the driver.

As long as any of these conditions exist, the work zone speed limit signs should remain in place.

SHORT TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit may be included on the design of the traffic control plans when workers or equipment are not behind concrete barriers, when work activity is visible to the motorist when work activity is present, signs shall be removed or covered.

(See Removing or Covering on BC(4)).

GENERAL NOTES

- Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
- Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
- Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
- Frequency of work zone speed limit signs should be:
 - 40 mph and greater 0.2 to 2 miles
 - 35 mph and less 0.2 to 1 mile
- Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
- Fabrication, erection and maintenance of the "ADVANCE SPEED LIMIT" (CW3-5) sign, "WORK ZONE" (G20-50P) plaque and the "SPEED LIMIT" (R2-1) signs shall be paid for directly, but shall be considered subsidiary to Item 502.
- Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
- Techniques that may help reduce traffic speeds include but are not limited to:
 - A. Low enforcement.
 - B. Flagger stationed next to sign.
 - C. Portable changeable message sign (PCMS).
 - D. Lowpower (torque) rotor transmitter.
 - E. Speed monitor trailers or signs.
- Speeds shown on details above are for illustration only. Work Zone Speed Limits should only be posted as approved for each project.
- For more specific guidance concerning the type of work, work zone conditions and factors impacting allowable regulatory construction speed zone reduction see TxDOT form #2024 in the TxDOT e-form system.

DATE: 10/29/2021

TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS

ATTACHMENT FOR SIGN SUPPORTS

GENERAL NOTES FOR WORK ZONE SIGNS

- Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
- Wooden sign posts shall be painted white.
- Signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and advise the traveling public of work zone conditions.
- All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and advise the traveling public of work zone conditions. The Engineer/Inspector shall require the Contractor to furnish other work zone signs that are shown in the TMUTCD but have not been listed from the signs. Any variation in the signs shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This includes documenting the changes in the Inspector's LOG/IT diary and having both the Inspector and Contractor initial and date the agreement on changes.
- The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD) for all roadside signs. Supports for temporary large roadside signs shall meet the requirements detailed on the Temporary Large Roadside Signs (TLRS) standard sheets. The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding the correct procedure, the Contractor shall consult with the Engineer. The Contractor shall verify the correct procedure are being followed.
- Long-term stationary - work that occupies a location more than 3 days.
- Intermediate-term stationary - work that occupies a location more than one day/night period up to 3 days, or nighttime work lasting more than one day.
- Short-term stationary - daytime work that occupies a location for more than 1 hour in a single day/night period.
- Mobile - work that moves continuously or intermittently (stop/stop for up to approximately 15 minutes).

QUALITY OF WORK (OR COVERING) ON UNIFORM TRAFFIC CONTROL DEVICES: Part 61

- The types of sign supports, sign mounting height, the size of signs, and the type of sign substrates can vary based on the type of work being performed. The Engineer shall require the Contractor to select the appropriate sign type for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
- Long-term stationary - work that occupies a location more than 3 days.
- Intermediate-term stationary - work that occupies a location more than one day/night period up to 3 days, or nighttime work lasting more than one day.
- Short-term stationary - daytime work that occupies a location for more than 1 hour in a single day/night period.
- Mobile - work that moves continuously or intermittently (stop/stop for up to approximately 15 minutes).

SIGN MOUNTING HEIGHT

- The height of long-term/intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
- Signs shall be mounted on a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground.
- Intermediate-term signs may be used in lieu of Short-term/Short Duration signing.
- Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the workday or raised to operate in Long-term/intermediate sign mode.
- Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

SIZE OF SIGNS

- The Contractor shall furnish the sign sizes shown on BC(12) unless otherwise shown in the plans or as directed by the Engineer.
- Sign substrates
- The Contractor shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types of sign supports.
- "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
- All wooden individual sign posts fabricated from 2" or more diameter shall have one or more precast cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign faces.

REFLECTIVE SHEETING

- All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of M5-8300 for rigid signs or M5-8310 for roll-up signs. The web address for M5 specifications is shown on BC(11).
- White sheeting, meeting the requirements of M5-8300 Type A, shall be used for signs with a white background.
- Orange sheeting, meeting the requirements of M5-8300 Type B₁ or Type C₁, shall be used for rigid signs with orange backgrounds.

SIGN LETTERS AND NUMBERS SHALL BE CLEAR, AND UNPAINTED TYPE APPROXIMATE ALPHABET LETTERS AS APPROVED BY THE ARRAH HIGHWAY ADMINISTRATION (ARH&A) AND AS PUBLISHED IN THE "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class materials workmanship in accordance with Department Standards and Specifications.

REMOVING OR COVERING

- When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
- Long-term stationary or intermediate-term signs installed on support material may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any work activity where the sign may be seen from opposing traffic.
- Signs installed on wooden skids shall not be turned 90 degrees into the roadway. These signs should be removed or completely covered.
- When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the sign and not penetrate the face of the sign panel. The signs shall be removed and replaced with the original sign sheeting.
- Barriers shall not be used to cover signs.
- Sign type or other markings on sign material shall NOT be affixed to a sign face.
- Signs and other signs shall be removed and not backfilled upon completion of work.

SIGN SUPPORT WEIGHTS

- When a sign support requires the use of weights to keep from turning over, the use of sandbags with dry, coneless sand shall be used.
- The sandbags shall be tied shut to keep the sand from spilling and to maintain a constant weight.
- For use on sign supports, weights shall be made of solid lead or other solid objects shall not be permitted.
- Weights shall be made of a durable material that tears upon vehicular impact.
- Sandbags shall be made of a durable material that tears upon vehicular impact.
- Rubber ballasts designed for channelizing devices shall not be used for sign supports.
- Sign supports shall be placed on a level surface. The base supports of the traffic control device and shall not be supported above ground level or on any other support. The base supports shall be placed on a level surface. The length of the signs to weigh down the sign support.
- Sandbags shall not be used to support the sign and shall not be used to level sign supports placed on slopes.

FLAGS ON SIGNS

- Flags may be used to draw attention to warning signs. When used, the flag shall be 16 inches square or larger and shall be orange or fluorescent retro-reflective in color. Flags shall not be allowed to cover any portion of the sign face.

CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

- Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, specific service (10000), or cultural information. Or when proceeding through a work zone need the same. If not better route guidance as normally installed on a roadway without construction.
- If permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition. For details for covering large guide signs see the IS-10 standards.
- When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
- If existing signs are to be relocated on their original supports, they shall be installed on contractor bases as shown on the SMD Standard sheets. The signs shall be the required mounting heights shown on the BC sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
- If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use contractor supports as shown on the BC Standard sheets. The signs shall be the required mounting heights shown on the BC sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
- Any sign or traffic control device that is struck or damaged by the Contractor or other construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to Item 502.

SHEETING REQUIREMENTS (WHEN USED AT NIGHT)

USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	RED	TYPE B OR C SHEETING
BACKGROUND	ORANGE	TYPE B ₁ OR C ₁ SHEETING
LEGEND & BORDER	WHITE	TYPE B OR C SHEETING
LEGEND & BORDER	BLACK	ACRYLIC NON-REFLECTIVE FILM

DATE: 10/29/2021

BARTON CREEK BLVD. & SOUTHWEST PARKWAY INTERSECTION IMPROVEMENTS STANDARDS

DESIGNED BY: MHI
DRAWN BY: MHI
CHECKED BY: BE
DRAWING NAME: STAN12102K

10/29/2021

DATE: 10/29/2021

DESIGNED BY: MHI

DRAWN BY: MHI

CHECKED BY: BE

DRAWING NAME: STAN12102K

10/29/2021

ALLI MOZDAR 65430

10/29/2021

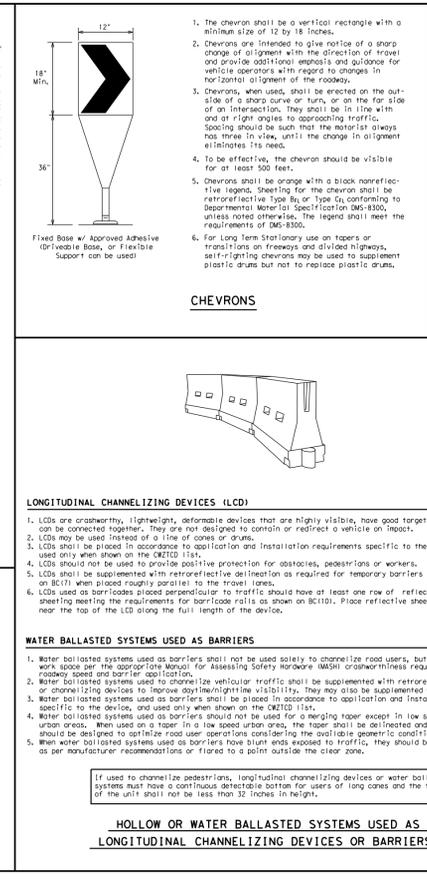
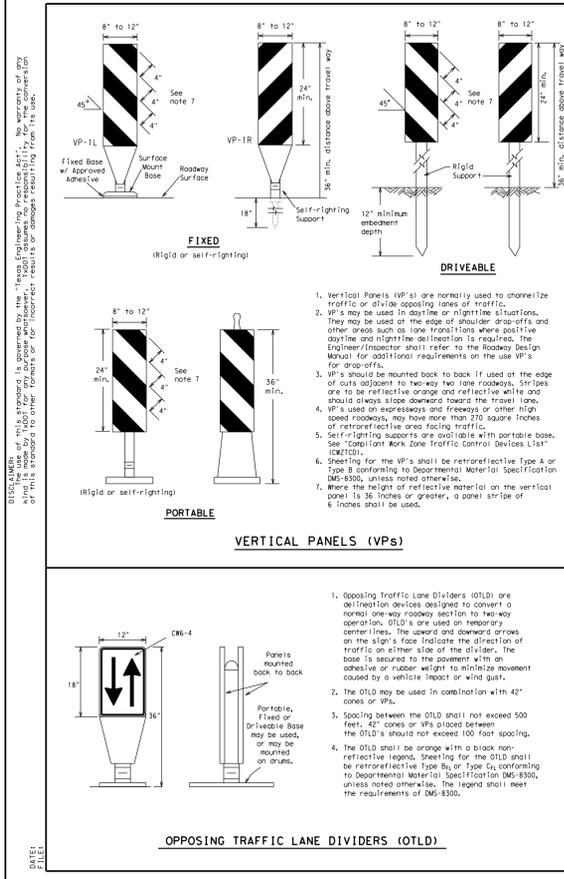
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FRAN-1386

JOB NUMBER: A107-409

STD01

SHEET NO. 21

OF 29 SHEETS



GENERAL NOTES

- Work Zone Channelizing Devices illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement is uniform and in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUDCD).
- Channelizing devices shown on this sheet may have a drivable, fixed or portable base. The requirement for self-righting channelizing devices must be specified in the General Notes or other plan sheets.
- Channelizing devices on self-righting supports should be used in work zone areas where channelizing devices are frequently knocked by errant vehicles or vehicle related wind gusts making alignment of the channelizing devices difficult to maintain. Locations of these devices shall be detailed elsewhere in the plans. These devices shall conform to the TMUDCD and the "Compliant Work Zone Traffic Control Devices List" (CWZCLD).
- The Contractor shall maintain devices in a clean condition and replace damaged, non-reflective, faded, or broken devices and bases as required by the Engineer/Inspector. The Contractor shall be required to maintain proper device spacing and alignment.
- Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
- Power surfaces shall be prepared in a manner that ensures proper bonding between the adhesives, the fixed mounts and the pavement surface. Adhesives shall be prepared and applied according to the manufacturer's recommendations.
- The installation and removal of channelizing devices shall not cause detrimental effects to the final pavement surfaces. Including pavement surface abrasion or surface integrity. Drivable bases shall not be permitted on final pavement surfaces. The Engineer/Inspector shall approve all application and removal procedures of fixed bases.

LONGITUDINAL CHANNELIZING DEVICES (LCD)

Posted Speed	Formula	Minimum Spacing of Taper Lengths (ft.)	Suggested Maximum Spacing of Channelizing Devices (ft.)
30	$100 \sqrt{S}$	10' - 11' - 12'	30' - 40'
35	$140 \sqrt{S}$	145' - 155' - 165'	35' - 40'
40	$180 \sqrt{S}$	205' - 225' - 245'	40' - 50'
45	$220 \sqrt{S}$	265' - 295' - 320'	40' - 60'
50	$260 \sqrt{S}$	330' - 365' - 400'	50' - 60'
55	$300 \sqrt{S}$	405' - 450' - 500'	55' - 100'
60	$340 \sqrt{S}$	480' - 535' - 600'	60' - 120'
65	$380 \sqrt{S}$	560' - 625' - 700'	65' - 130'
70	$420 \sqrt{S}$	650' - 725' - 810'	70' - 140'
75	$460 \sqrt{S}$	750' - 825' - 930'	75' - 150'
80	$500 \sqrt{S}$	860' - 950' - 1060'	80' - 160'

WATER BALLASTED SYSTEMS USED AS BARRIERS

- Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate Manual for Assessing Safety Hardware (ASH) or other safety requirements based on roadway speed and barrier application.
- Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve day/nighttime visibility. They may also be supplemented with pavement markings.
- Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZCLD list.
- Water ballasted systems used as barriers for a merging ramp except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length shall be designed to optimize road user conditions based on available geometric conditions.
- When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or fixed to a point outside the clear zone.

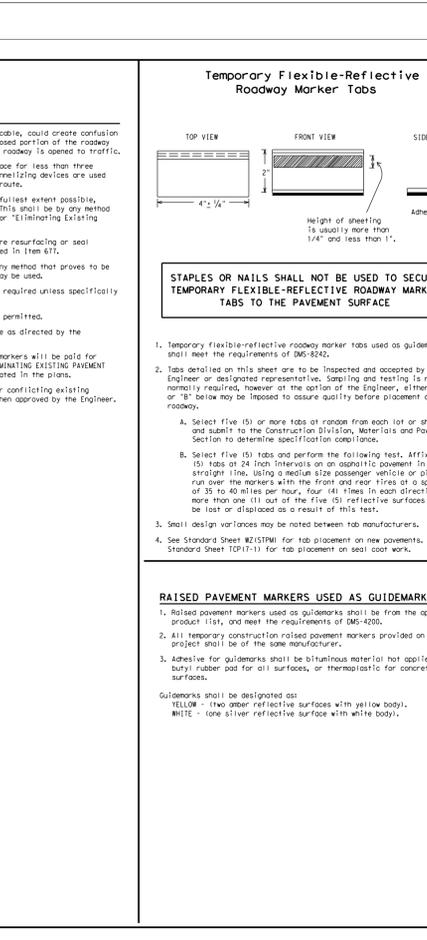
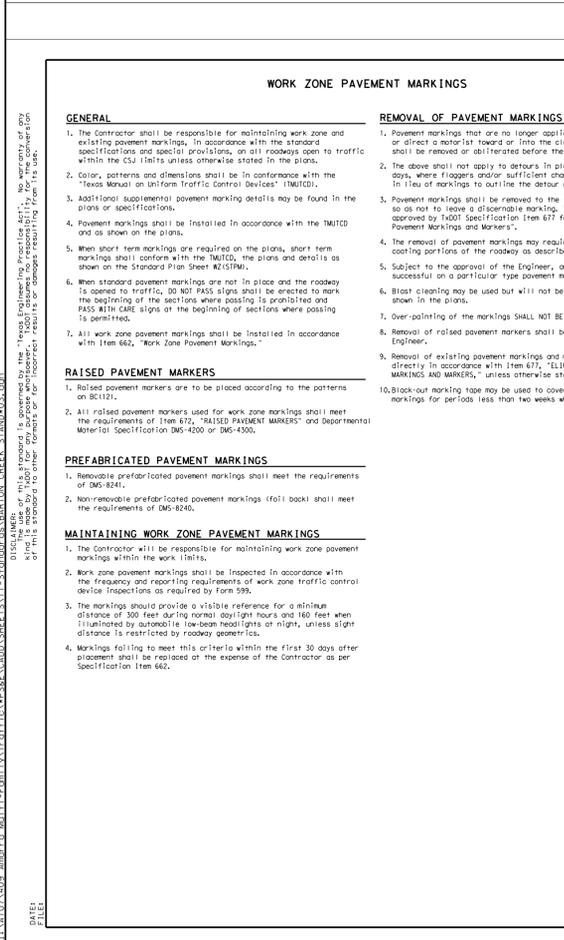
WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS

- Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate Manual for Assessing Safety Hardware (ASH) or other safety requirements based on roadway speed and barrier application.
- Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve day/nighttime visibility. They may also be supplemented with pavement markings.
- Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZCLD list.
- Water ballasted systems used as barriers for a merging ramp except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length shall be designed to optimize road user conditions based on available geometric conditions.
- When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or fixed to a point outside the clear zone.

SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS

SHEET 9 OF 12

BC (9) - 21



DEPARTMENTAL MATERIAL SPECIFICATIONS

PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
EPOXY AND ADHESIVE	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

STAPLES OR NAILS SHALL NOT BE USED TO SECURE TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER TABS TO THE PAVEMENT SURFACE

- Temporary flexible-reflective roadway marker tabs used as guideposts shall meet the requirements of DMS-8242.
- Tags detailed on this sheet are to be inspected and accepted by the Engineer or designated representative. Sampling and testing is not normally required, however at the option of the Engineer, either "1" or "B" below may be imposed to assure quality before placement on the roadway.
 - Select five (5) or more tabs at random from each lot or shipment and submit to the Construction Division, Materials and Pavement Section to determine specification compliance.
 - Select five (5) tabs and perform the following test. Affix five (5) tabs of 24 inch intervals on an asphalt pavement in a straight line. Using a medium size passenger vehicle or pickup, run over the markers with the front and rear tires at a speed of 35 to 40 miles per hour. Four (4) times in each direction. No more than one (1) out of the five (5) reflective surfaces shall be lost or displaced as a result of this test.
- Small design variances may be noted between tab manufacturers.
- See Standard Sheet #21PM for tab placement on seal coat work.

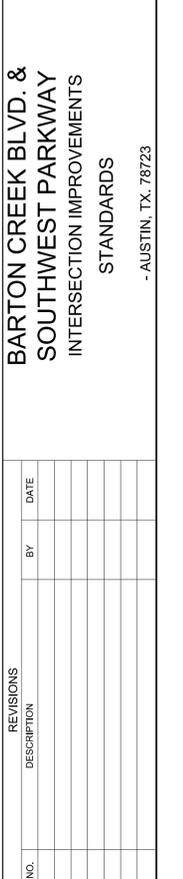
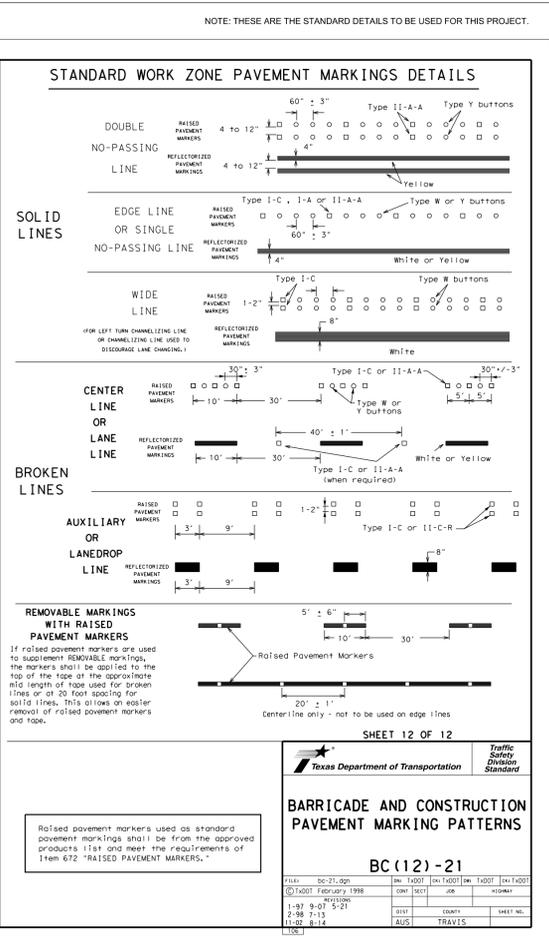
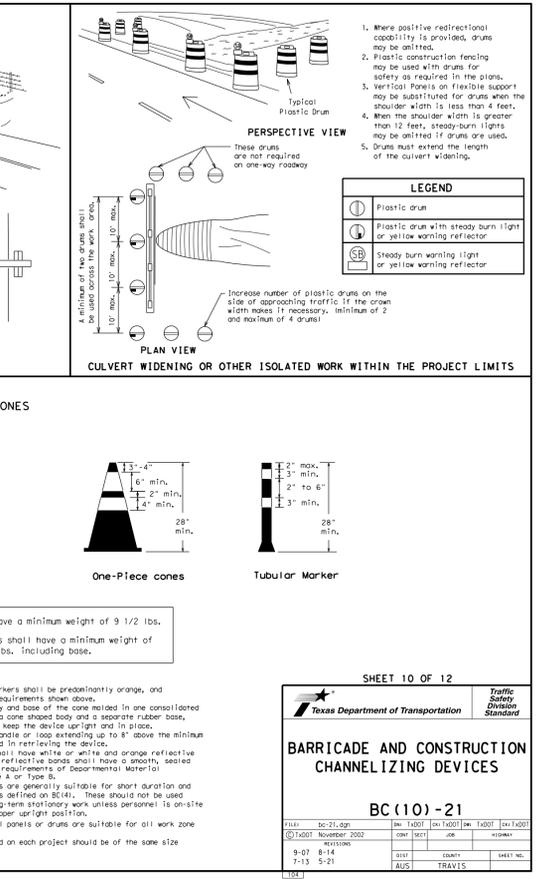
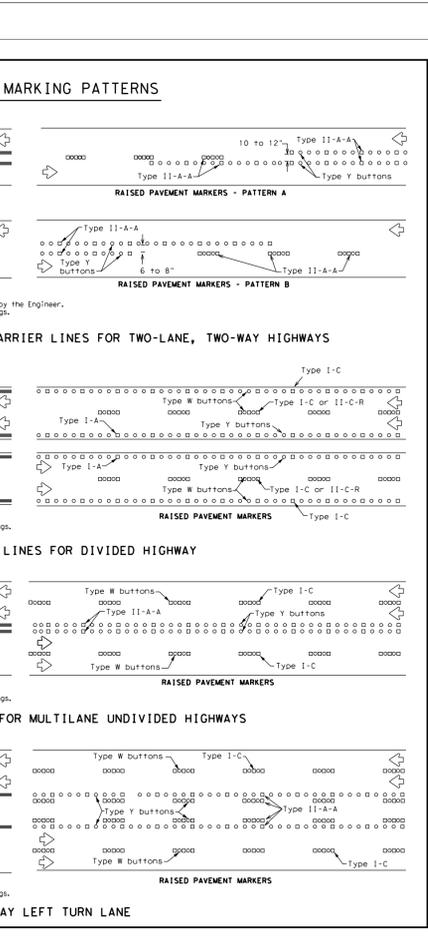
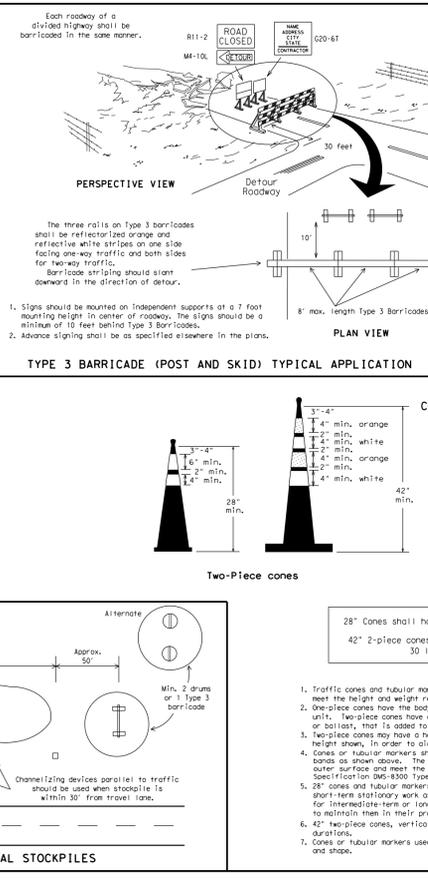
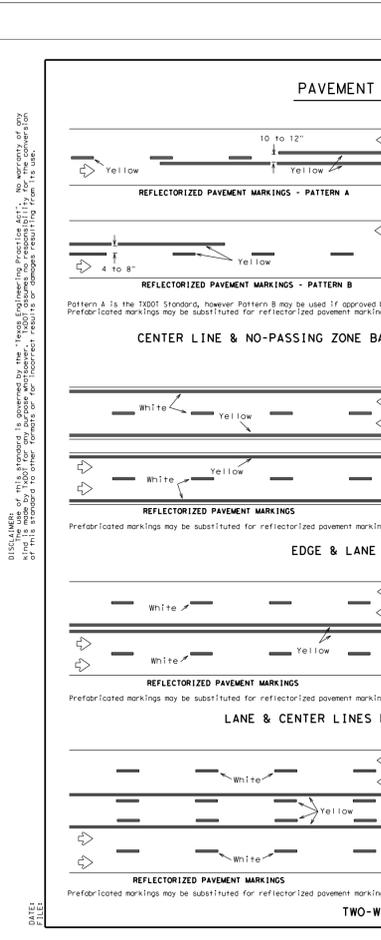
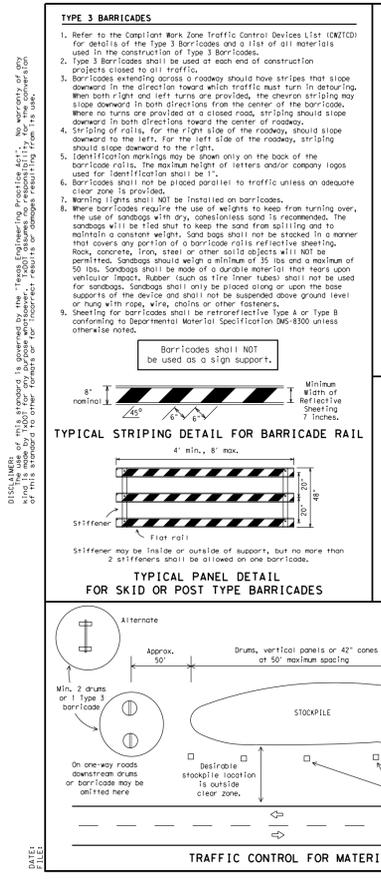
RAISED PAVEMENT MARKERS USED AS GUIDEPPOSTS

- Raised pavement markers used as guideposts shall be from the approved product list, and meet the requirements of DMS-4200.
- All temporary construction raised pavement markers provided on a project shall be from the approved product list, and meet the requirements of DMS-4200.
- Adhesive for guideposts shall be bituminous material not applied or butyl rubber pad for all surfaces, or thermoplastic for concrete surfaces.

Guideposts shall be designated as:
 YELLOW - Two color reflective surfaces with yellow body.
 WHITE - One color reflective surface with white body.

SHEET 11 OF 12

BC (11) - 21



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CHECKED BY: BE
DRAWING NAME: STD03

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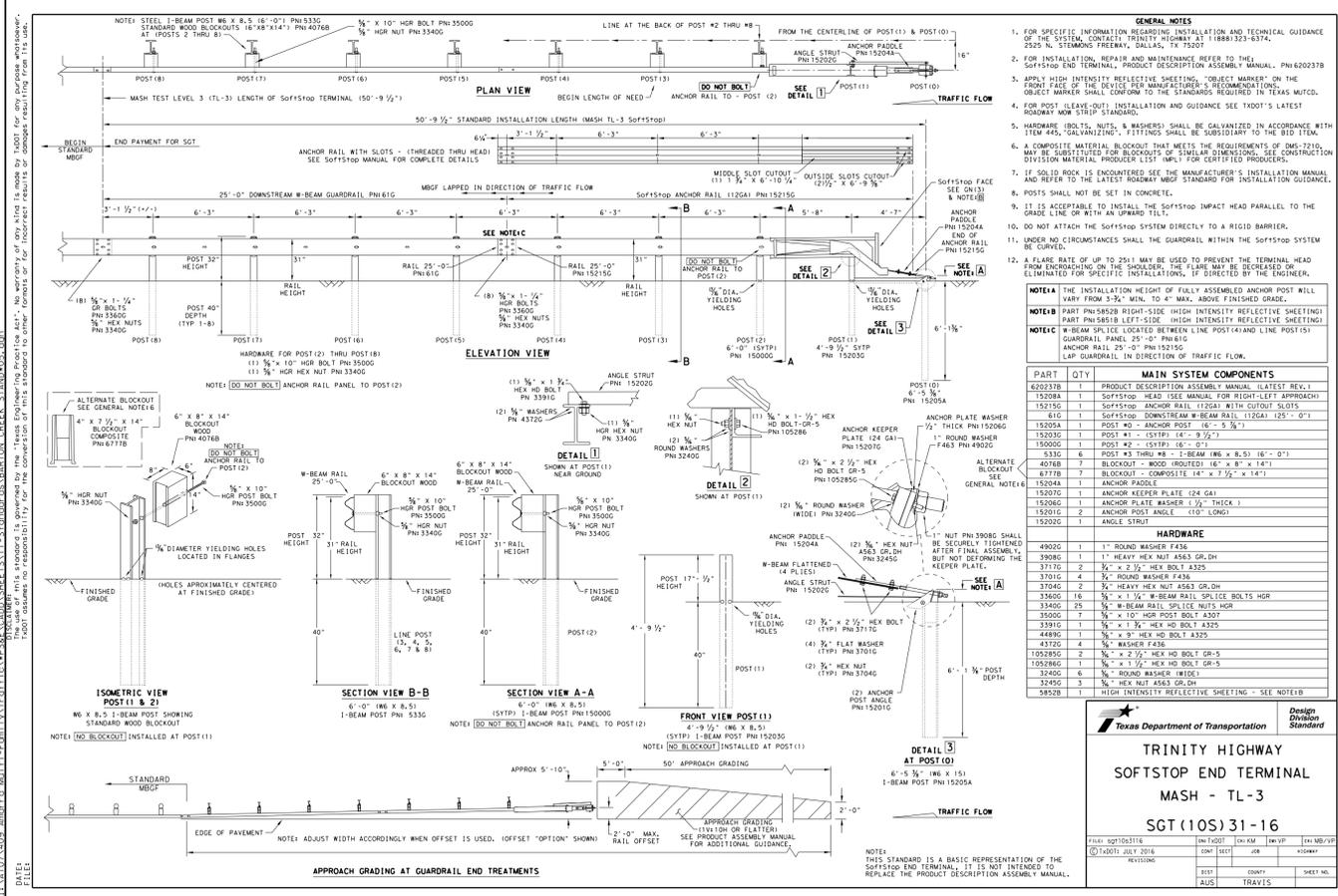
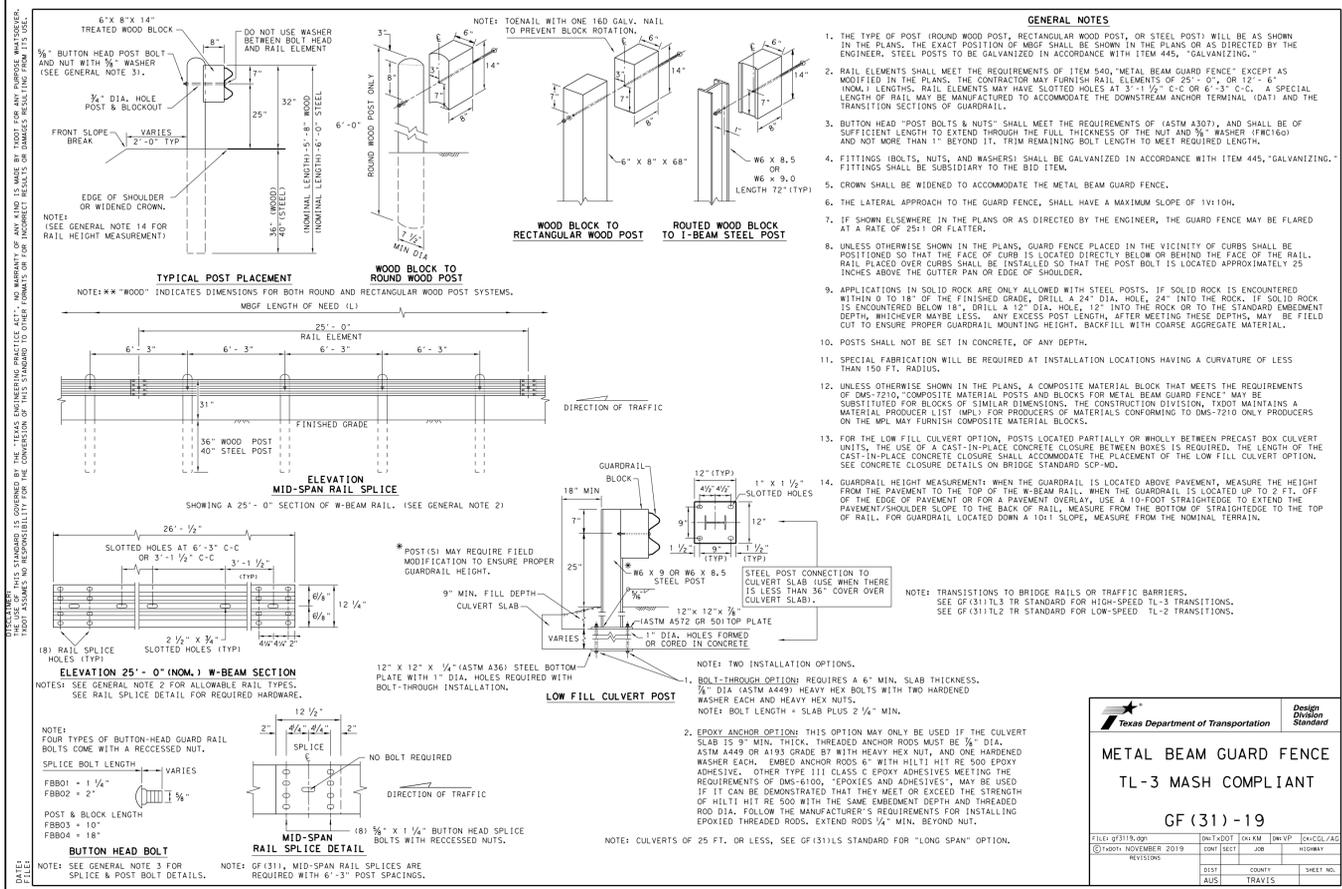
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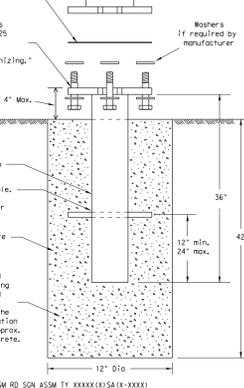
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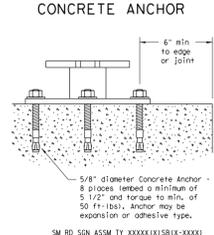
TRIANGULAR SLIPBASE INSTALLATION GENERAL REQUIREMENTS

NOTE

There are various devices approved for the Triangular Slipbase System. Please reference the Material Producer List for approved slip base systems. Installation procedures shall be provided to the Engineer by Contractor.



CONCRETE ANCHOR



GENERAL NOTES

- Slip base shall be permanently marked to indicate manufacturer, Method, design, and location of marking are subject to approval of the TxDOT Traffic Signage Engineer.
- Material used on post with this system shall conform to the following specifications: 10 B&G tubing (2.875" outside diameter), Seamless or electric-resistance welded steel tubing or pipe. Steel shall be A545 or 50 per ASTM A1011 or ASTM A1098. Other steels may be used if they meet the following: 55,000 PSI minimum yield strength, 10,000 PSI minimum tensile strength, 20% minimum elongation in 2". Wall thickness (uncoated) shall be within the range of 0.122" to 0.138". Outside diameter (uncoated) shall be within the range of 2.867" to 2.883". Galvanization per ASTM A123 or ASTM A653 D210. For precast steel tubing (ASTM A653), recast tube outside diameter, weld seam by metalizing with zinc wire per ASTM B833. Schedule 80 Pipe (2.875" outside diameter) 0.296 nominal wall thickness. Steel tubing per ASTM A500 Gr. C. Other seamless or electric-resistance welded steel tubing or pipe with equivalent outside diameter and wall thickness may be used if they meet the following: 46,000 PSI minimum yield strength, 69,000 PSI minimum tensile strength, 21% minimum elongation in 2". Wall thickness (uncoated) shall be within the range of 0.248" to 0.304". Outside diameter (uncoated) shall be within the range of 2.855" to 2.885". Galvanization per ASTM A123.
- See the Traffic Operations Division website for detailed drawings of sign clamps and Texas Universal Triangular Slipbase System components. The website address is: <https://www.txdot.gov/publications/traffic.htm>
- Sign supports shall not be saliced except where shown. Sign support posts shall not be saliced.

FOUNDATION

- Prepare 12-inch diameter by 42-inch deep hole. If solid rock is encountered, the depth of the foundation may be reduced such that it is embedded a minimum of 18 inches into the solid rock.
- The Engineer may permit batches of concrete less than 2 cubic yards to be mixed with a portable, motor-driven concrete mixer. For small placements, less than 0.5 cubic yards, pour mixing in a suitable container may be allowed by Engineer. Concrete shall be Class A.
- Push the pipe end of the slip base stub into the center of the concrete. Rotate the stub back and forth while pushing it down into the concrete to assure good contact between the concrete and stub. Continue to work the stub into the concrete until it is 4 inches above the ground.
- Plumb the stub. Allow a minimum of 4 days to set, unless otherwise directed by the Engineer.
- The triangular slipbase system is multi-directional and is designed to release when struck from any direction.

SUPPORT

- Cut support so that the bottom of the sign will be 7 to 7.5 feet above the edge of the travelway (i.e., edge of the slip plate) when slip plate is below the edge of pavement or 7 to 7.5 feet above slip plate when the slip plate is above the edge of the travelway. The cut shall be plumb and straight.
- Attach sign to support using connections shown. When multiple signs are installed on the same support, ensure the minimum clearance between each sign is maintained. See SMD(SLP-2) for clearances based on sign types.



SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM

SMD (SLIP-1) -08

REV	DATE	BY	CHKD	APP	DESCRIPTION
1	07/01/2002	SM	SM	SM	ISSUED FOR CONSTRUCTION
2	09/08/2008	REVISION	SM	SM	REVISED TO REFLECT CHANGES TO THE SIGN SUPPORT SYSTEM

GENERAL NOTES

- Slip base shall be permanently marked to indicate manufacturer, Method, design, and location of marking are subject to approval of the TxDOT Traffic Signage Engineer.
- Material used on post with this system shall conform to the following specifications: 10 B&G tubing (2.875" outside diameter), Seamless or electric-resistance welded steel tubing or pipe. Steel shall be A545 or 50 per ASTM A1011 or ASTM A1098. Other steels may be used if they meet the following: 55,000 PSI minimum yield strength, 10,000 PSI minimum tensile strength, 20% minimum elongation in 2". Wall thickness (uncoated) shall be within the range of 0.122" to 0.138". Outside diameter (uncoated) shall be within the range of 2.867" to 2.883". Galvanization per ASTM A123 or ASTM A653 D210. For precast steel tubing (ASTM A653), recast tube outside diameter, weld seam by metalizing with zinc wire per ASTM B833. Schedule 80 Pipe (2.875" outside diameter) 0.296 nominal wall thickness. Steel tubing per ASTM A500 Gr. C. Other seamless or electric-resistance welded steel tubing or pipe with equivalent outside diameter and wall thickness may be used if they meet the following: 46,000 PSI minimum yield strength, 69,000 PSI minimum tensile strength, 21% minimum elongation in 2". Wall thickness (uncoated) shall be within the range of 0.248" to 0.304". Outside diameter (uncoated) shall be within the range of 2.855" to 2.885". Galvanization per ASTM A123.
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- Sign supports shall not be saliced except where shown. Sign support posts shall not be saliced.

FOUNDATION

- Prepare 12-inch diameter by 42-inch deep hole. If solid rock is encountered, the depth of the foundation may be reduced such that it is embedded a minimum of 18 inches into the solid rock.
- The Engineer may permit batches of concrete less than 2 cubic yards to be mixed with a portable, motor-driven concrete mixer. For small placements, less than 0.5 cubic yards, pour mixing in a suitable container may be allowed by Engineer. Concrete shall be Class A.
- Push the pipe end of the slip base stub into the center of the concrete. Rotate the stub back and forth while pushing it down into the concrete to assure good contact between the concrete and stub. Continue to work the stub into the concrete until it is 4 inches above the ground.
- Plumb the stub. Allow a minimum of 4 days to set, unless otherwise directed by the Engineer.
- The triangular slipbase system is multi-directional and is designed to release when struck from any direction.

SUPPORT

- Cut support so that the bottom of the sign will be 7 to 7.5 feet above the edge of the travelway (i.e., edge of the slip plate) when slip plate is below the edge of pavement or 7 to 7.5 feet above slip plate when the slip plate is above the edge of the travelway. The cut shall be plumb and straight.
- Attach sign to support using connections shown. When multiple signs are installed on the same support, ensure the minimum clearance between each sign is maintained. See SMD(SLP-2) for clearances based on sign types.

REQUIRED SUPPORT

REQUIREMENT	SIGN DESCRIPTION	SUPPORT
10 B&G	48-inch STOP sign (R1-1)	TY 10B6G(1)XXX(T)
10 B&G	60-inch YIELD sign (R1-2)	TY 10B6G(1)XXX(T)
Sch 80	48x48-inch ONE-WAY sign (R6-1)	TY 10B6G(1)XXX(T)
Sch 80	36x48, 48x36, and 48x48-inch signs	TY 10B6G(1)XXX(T)
Sch 80	48x60-inch signs	TY 580(1)XXX(T)
Sch 80	48x48-inch signs (diamond or square)	TY 10B6G(1)XXX(T)
Sch 80	48x60-inch signs	TY 580(1)XXX(T)
Sch 80	48-inch Advance School X-ing sign (S1-1)	TY 10B6G(1)XXX(T)
Sch 80	48-inch School X-ing sign (S2-1)	TY 10B6G(1)XXX(T)
Sch 80	Large Arrow sign (W1-6 & W1-7)	TY 10B6G(1)XXX(T)

FRICION CAP DETAIL

Friction caps may be manufactured from hot rolled or cold rolled steel sheets. The minimum sheet metal thickness shall be 24 gauge for all cap sizes. The rim edges shall be reasonably straight and smooth. Caps shall be sized and formed in such a manner as to produce a low-friction fit and have no tendency to rock when seated on the pipe. The depth shall be sufficient to give positive protection against entrance of rainwater. They shall be free of sharp creases or indentations and show no evidence of metal fracture. Caps shall have an electroplated coating of zinc in accordance with the requirements of ASTM B633 Class FE/Zn 8.

GENERAL NOTES

- Slip base shall be permanently marked to indicate manufacturer, Method, design, and location of marking are subject to approval of the TxDOT Traffic Signage Engineer.
- Material used on post with this system shall conform to the following specifications: 10 B&G tubing (2.875" outside diameter), Seamless or electric-resistance welded steel tubing or pipe. Steel shall be A545 or 50 per ASTM A1011 or ASTM A1098. Other steels may be used if they meet the following: 55,000 PSI minimum yield strength, 10,000 PSI minimum tensile strength, 20% minimum elongation in 2". Wall thickness (uncoated) shall be within the range of 0.122" to 0.138". Outside diameter (uncoated) shall be within the range of 2.867" to 2.883". Galvanization per ASTM A123 or ASTM A653 D210. For precast steel tubing (ASTM A653), recast tube outside diameter, weld seam by metalizing with zinc wire per ASTM B833. Schedule 80 Pipe (2.875" outside diameter) 0.296 nominal wall thickness. Steel tubing per ASTM A500 Gr. C. Other seamless or electric-resistance welded steel tubing or pipe with equivalent outside diameter and wall thickness may be used if they meet the following: 46,000 PSI minimum yield strength, 69,000 PSI minimum tensile strength, 21% minimum elongation in 2". Wall thickness (uncoated) shall be within the range of 0.248" to 0.304". Outside diameter (uncoated) shall be within the range of 2.855" to 2.885". Galvanization per ASTM A123.
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- The Engineer may permit batches of concrete less than 2 cubic yards to be mixed with a portable, motor-driven concrete mixer. For small placements, less than 0.5 cubic yards, pour mixing in a suitable container may be allowed by Engineer. Concrete shall be Class A.
- Push the pipe end of the slip base stub into the center of the concrete. Rotate the stub back and forth while pushing it down into the concrete to assure good contact between the concrete and stub. Continue to work the stub into the concrete until it is 4 inches above the ground.
- Plumb the stub. Allow a minimum of 4 days to set, unless otherwise directed by the Engineer.
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SUPPORT

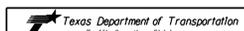
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Sch 80	48x48-inch signs (diamond or square)	TY 10B6G(1)XXX(T)
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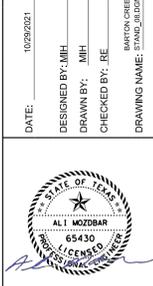
SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM

SMD (SLIP-3) -08

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1	07/01/2002	SM	SM	SM	ISSUED FOR CONSTRUCTION
2	09/08/2008	REVISION	SM	SM	REVISED TO REFLECT CHANGES TO THE SIGN SUPPORT SYSTEM

BARTON CREEK BLVD. & SOUTHWEST PARKWAY INTERSECTION IMPROVEMENTS STANDARDS

NO.	DATE	BY	REVISIONS
10/29/2021	DESIGNED BY: MHL	DRAWN BY: MHL	CHECKED BY: BE
			DRAWING NAME: STD01000A



10/29/2021
 Phone 512.438.4700
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 FRNF-1366

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 Building II, Suite 150
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JOB NUMBER: A107-409
STD08
 SHEET NO. **28**
 OF 29 SHEETS

