EXHIBIT tabbies 2

APPLICATION FOR LAND SUBDIVISION (PLAT)

DATE RECEIVED: 5/6/2021

CHECK ONE: ____ Preliminary Plat ✓ Final Plat ____ Replat ____ Amended ____ Cancellation

1. PROPOSED SUBDIVISION NAME: Beckham Estates UNIT NO. ____
   LOCATION DESCRIPTION/NEAREST COUNTY ROAD 4860
   ACREAGE 11.8 NO. OF LOTS: EXISTING 10 PROPOSED 10 11
   REASON(S) FOR PLATTING/REPLATTING New Subdivision
2. OWNER/APPLICANT*: Joe D. Jennings
   (*If applicant is person other than owner, a letter of authorization must be provided from owner)
   ADDRESS: 2139 County Road 4586 Sulphur Springs, TX 75482
   TELEPHONE: 903 439 2569 FAX: ____ MOBILE: ____
   EMAIL: ____
3. LICENSED ENGINEER/SURVEYOR: EST / Dynamic Engineering
   MAILING ADDRESS: 101 Bill Bradford Suite 13 Sulphur Springs TX
   TELEPHONE: 903.438.2420 FAX: 903.438.9955 MOBILE: ____
   EMAIL ADDRESS: Stephen.H@estinc.com
4. LIST ANY VARIANCES REQUESTED: ____
   REASON FOR REQUEST (LIST ANY HARDSHIPS): ____
5. PRESENT USE OF THE PROPERTY: Residential
   INTENDED USE OF LOTS: (CHECK ALL THOSE THAT APPLY)
   ✓ RESIDENTIAL (SINGLE FAMILY) ____ RESIDENTIAL (MULTI-FAMILY)
   ____ OTHER (SPECIFY) ____
6. PROPERTY LOCATED WITHIN CITY ETJ: ____ YES X NO
   If yes, Name of City: ____
7. IS ANY PART OF THE PROPERTY IN A FLOODPLAIN? ____ YES X NO

WATER SUPPLY: NHWS Corp ELECTRIC SERVICE: Oncore

SEWAGE DISPOSAL: Clear Water GAS SERVICE: Propane

8. Is the property subject to any liens, encumbrances, or judgments? If so, give details. (Provide separate sheet if needed) Permission from any lien holders and/or removal of any encumbrances or judgments will be necessary prior to filing of said plat with the County Clerk's Office.
9. See platting requirements. All necessary documents to reflect compliance must be complete before application will be deemed complete.
10. I agree to comply with all platting and subdivision requirements of Hopkins County, Texas. I understand that the plat will NOT be forwarded to the Commissioners' Court unless all documentation is satisfactorily filed with the County Clerk's Office correction due date.

Joe Jennings
Signature of Owner/Applicant

Joe Jennings Owner
Print Name & Title

**If applicant is person other than owner, a letter of authorization must be provided from owner. Signature indicates authorization for plat application and acceptance of waiver statement.

DATE: 5-6-2021

Appendix C

SUBDIVISION PLATTING CHECKLIST
SECOND (FINAL) READING

Subdivision name: Beckham Addition

YES	NO	N/A	
✓			All information required for preliminary plat.
✓			Lot and block numbers.
✓			Street names, *must be pre-approved by 9-1-1 Coordinator.*
✓			Acreage of each lot or parcel.
✓			Name and address of Surveyor/Engineer.
✓			Location and size of drainage structures.
✓			Location, size, and proposed use of easements.
		X	Incorporated City's Boundary/ETJ Note.
✓			Servicing Utilities Note.
✓			Certification from licensed professional engineer regarding utilities.
			Restrictive covenants.
			Tax certificates and rollback receipts if required.
			Home Owners' Association Incorporation articles and by-laws.
✓			Construction plans of roads and drainage improvements.
✓			Receipt showing payment of Final plat fees.
		X	Sign-off for TxDOT road access, if applicable.
			Appendix D (1) – Certificate of Dedication by Owner (when owner is an individual)
			Appendix D (2) – Certificate of Dedication by Owner (when owner is a corporation)

FINAL CHECKLIST

YES	NO	N/A	
___	___	___	Appendix D – Certificate of Recording (if applicable)
___	___	___	Appendix E – Water Supply Certificate
___	___	___	Appendix F – Certificate of Surveyor
___	___	___	Appendix G – Certificate of Engineer
___	___	___	Appendix H – Certificate of Road Maintenance (when roads are to be retained as private roads)
___	___	___	Appendix I – Certificate of County Approval (not applicable until the Court hears request to assume maintenance of roads)
___	___	___	Appendix J – Hopkins County Permit to Construct Access Driveway Facilities on County Road Right-of-Way
___	___	___	Appendix K – Lienholder's Acknowledgement
___	___	___	Appendix L – Revision to Plat
___	___	___	Appendix O - On-Site Sewage Facility Inspector's Approval
___	___	___	Appendix P - Utility Line Installation Permit
___	___	___	Appendix Q - Road Construction Specifications (Typical Section)
___	___	___	Appendix R - Cattle guard specification

_____ _____

Signature of Reviewer Date of Review

ADDITIONAL REQUIREMENTS:

ALL ITEMS ON THIS CHECKLIST MUST BE IN THE HANDS OF THE COUNTY CLERK'S OFFICE NO LESS THAN THIRTY (30) DAYS PRIOR TO THE COMMISSIONERS' COURT HEARING DATE.

DATE 05/06/2021 HOPKINS COUNTY CLERK RECEIPT # 207803

128 JEFFERSON STREET, SUITE C

TIME 11:18 SULPHUR SPRINGS TEXAS 75482 FILE # M29816

RECEIVED OF: JOE JENNINGS

FOR: BECKHAM ADDITION

DESCRIPTION: APPLICATION FEES PAID / PRELIMINARY W/10 LOTS & FINAL PLAT/TS/TS

AMOUNT PAID $1,450.00

****
* DUPLICATE RECEIPT *
****

PAYMENT TYPE K

CHECK NO 14664

COLLECTED BY TS

TAX CERTIFICATE

ACCT # 65-0351-000-004-02
DATE 05/06/2021
CC

HOPKINS COUNTY TAX OFFICE
PO BOX 481
SULPHUR SPRINGS, TX 75483
(903) 438-4063

Cert# 201636
FEE 10.00

Property Description

ABS: 351, TR: 4-02, SUR: GANT JOHN J

PROP TYPE-D1
PCT OWNER-100.000

TOWN -
ACRES - 35.700

LOCATION- N SH 19

Values

LAND MKT VALUE	74,970	IMPR/PERS MKT VAL	
LAND AGR VALUE	5,280	MKT. BEFORE EXEMP	5,280
		LIMITED TXBL. VAL	

EXEMPTIONS GRANTED: NONE

JENNINGS JOE & PATRICIA
2135 CR 4586

SULPHUR SPRINGS TX 75482-0835

hereby certify and otherwise guarantee that the tax levies, penalties, and attorney fees due in the current month for the above described property are as listed below.

	LEVY	P&I	ATTY FEES	AMT DUE
TAXES 2020	.00	.00	.00	.00
	.00	.00	.00	.00

TOTAL DUE 05/2021 **.00**
ACCT # 65-0351-000-004-02 TOTAL DUE 06/2021 .00

BREAKDOWN OF TAX DUE BY JURISDICTION

JURISDICTION	LEVY	P&I	ATT FEES	TOTAL
COUNTY	.00	.00	.00	.00
HOSPITAL	.00	.00	.00	.00

(CERTIFICATE MAY NOT INCLUDE ALL TAXING JURISDICTIONS)

TAX LEVY FOR THE CURRENT ROLL YEAR: COUN	32.99
TAX LEVY FOR THE CURRENT ROLL YEAR: HOSP	13.20
TOTAL TAX LEVY FOR THE CURRENT ROLL YEAR	46.19

****
* S U B J E C T T O R O L L B A C K *
* S U B J E C T T O R O L L B A C K *
****

REQUESTED BY:
JOE JENNINGS

Debbi Mitchell CC

Signature of authorized officer of collecting office

ND811-HCLR

NORTH HOPKINS WATER SUPPLY CORPORATION
9364 TEXAS HIGHWAY 19 N
SULPHUR SPRINGS, TX. 75482-1120

April 27, 2021

To whom it may concern:

North Hopkins Water Supply Corporation will supply water on County Road 4760 for Joe Jenning's proposed sub-division. He will pay for the upgrade necessary to supply this water, according to our Engineer's specifications.

Edgar Clements, Jr. Manager
903-945-2619

Edgar Clements

5 May 2021

Oncor Electric Delivery
111 Heritage Ct.
Sulphur Springs, TX 75482

Re: New Subdivision at CR 4760 & PR 4860 - Sulphur Springs, TX 75482

Please be advised that Oncor Electric Delivery Company LLC, a Delaware limited liability company, can provide electric service to the above referenced site. Service will be provided upon request in accordance with our tariffs and service regulations on file with the Public Utility Commission of Texas.

If you have questions or need additional information, please feel free to contact me.

Sincerely,

Ryan Young
Utility Designer

Appendix O

CERTIFICATE OF ON-SITE SEWAGE FACILITY INSPECTOR'S APPROVAL

THE STATE OF TEXAS §

COUNTY OF HOPKINS §

KNOW ALL MEN BY THESE PRESENTS, that I, the undersigned, a Licensed On-Site Sewage Facility Inspector in the State of Texas, hereby certify that I have inspected the On-Site Sewage Facilities for this plat, and the same complies with the related requirements of the Hopkins County Subdivision Regulations and the TCEQ.

Kristy Springfield
On Site Inspector

May 6, 2021
Date

License No. OS0034831

Seal:

[NOTE: *The inspector may be required to be present for questioning at the presentation of the plat to the Commissioners' Court.*]

APPLICATION FOR VARIANCE

Now comes Joe Jennings, Applicant, who requests permission from the Hopkins County Commissioners Court for a variance from the County Subdivision Rules and Regulations.

Applicant makes this Variance Application to resolve practical difficulties or unnecessary physical hardships that have resulted from the size, shape, dimensions, or other physical conditions of the location or in the immediate vicinity of the property described in the attached exhibit.

Specifically, Applicant requests the Variance for the following reasons:

A variance to the area regulation requirement of a minimum of one acre, free of easements; to allow for a request from ONCOR to place a ten foot easement across the front of the lots in the Beckham Addition for electric service. The variance, if granted, will require all OSSF spray heads to be located on the rear one half acre of each lot.

Joe Jennings
Signature of Applicant

Signed and sworn before Donna L. Goins, Notary Public, on the 9th day of October, 2020.

Donna L. Goins
Notary Public

DONNA L GOINS
Notary Public
STATE OF TEXAS
131371406
My Comm. Exp. Dec. 05, 2021

ORDER

The Hopkins County Commissioners Court, having reviewed the Application for Variance filed by

_____ hereby ☑ grants ☐ denies (check decision of the Court) the Application.

Filed this the 12 day of October, 2020.

County Judge


Untitled Map
Write a description for your map.
4760
LOT 11
1.00 ACRES
LOT 1
1.00 ACRES
LOT 10
1.00 ACRES
LOT 2
1.00 ACRES
LOT 9
1.00 ACRES
1.18 ACRES
PROPOSED R.O.W.
LOT 3
1.00 ACRES
LOT 8
1.00 ACRES
LOT 4
1.00 ACRES
LOT 7
1.00 ACRES
LOT 5
1.00 ACRES
LOT 6
2.84 ACRES
Legend
BOUNDARY
DEEDSKETCH
Google Earth
© 2020 Google
N
600 ft

GEOTECHNICAL INVESTIGATION

GEO-TECHNICAL INVESTIGATION
PROPOSED PAVING
FOR
JOE JENNINGS
COUNTY ROAD 4760
SULPHUR SPRINGS TEXAS
PROJECT # 7679

SUBMITTED BY:

DYNAMIC
Engineering
Consultants
PLLC

REPORT NUMBER:
DYNGEO-7679

August 18, 2020

DYNAMIC Engineering Consultants PLLC

From: J.W. Burnett
Dynamic Engineering
200 South Hillcrest Drive
Sulphur Springs, Texas 75482
903-513-3773

Date: August 18, 2020

To: Mr. Joe Jennings
County Road 4760 Sulphur Springs, Texas

Project Number: DYNGEO-7679

Subject: Geotechnical Investigation

Purpose:
The Purpose of this report is to present the results and recommendations of the geotechnical investigation performed for Mr. Joe Jennings sub-division located at County Road 4760 in Sulphur Springs Texas. This report includes the following information and recommendations:

- Field Observation and Boring Locations
- Soil Parameters Necessary for Paving Design Based Upon:
  - Visual Inspection and Onsite Testing
  - Laboratory Testing
- Site Preparation
- Pavement Design Recommendations

If additional services are needed, such as or construction materials testing, please contact us at the number listed above. Thank you for confiding in Dynamic Engineering for your consulting needs.

Sincerely,

James W. Burnett, PE
Project Engineer
Dynamic Engineering

Firm Registration # F-8215

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Introduction:

The purpose of this study was to explore the subsurface conditions at the site to enable an evaluation of an acceptable paving design for the proposed construction. Our scope of services included collecting continuous soil samples at three (3) locations inside the proposed paving footprint. The depth of the bore holes were approximately 4 feet. Select laboratory testing and preparation of this geotechnical report are also included in the scope of effort. This report briefly outlines the testing procedures, presents available project information, describes the site and subsurface conditions, and presents recommendations regarding the following:

- Grading procedures for site development
- Paving Design
- Comments regarding factors that will impact construction and performance of the proposed construction.

Project Description:

An agricultural tract is currently under construction to be a rural sub-division in Hopkins County. The construction consists of a sub-division access road that ends in a cul-de-sac located in near Sulphur Springs Texas.

Core samples were collected from three boreholes to a depth of 4' inside the footprint of the proposed paving. Authorization to conduct the geo-technical investigation was granted by Mr. Joe Jennings. Sampling and Field-testing was started and completed on Tuesday June 30th 2020.

Reference Figure 1 for a picture of the Geo Probe 540 MT during soil collection.

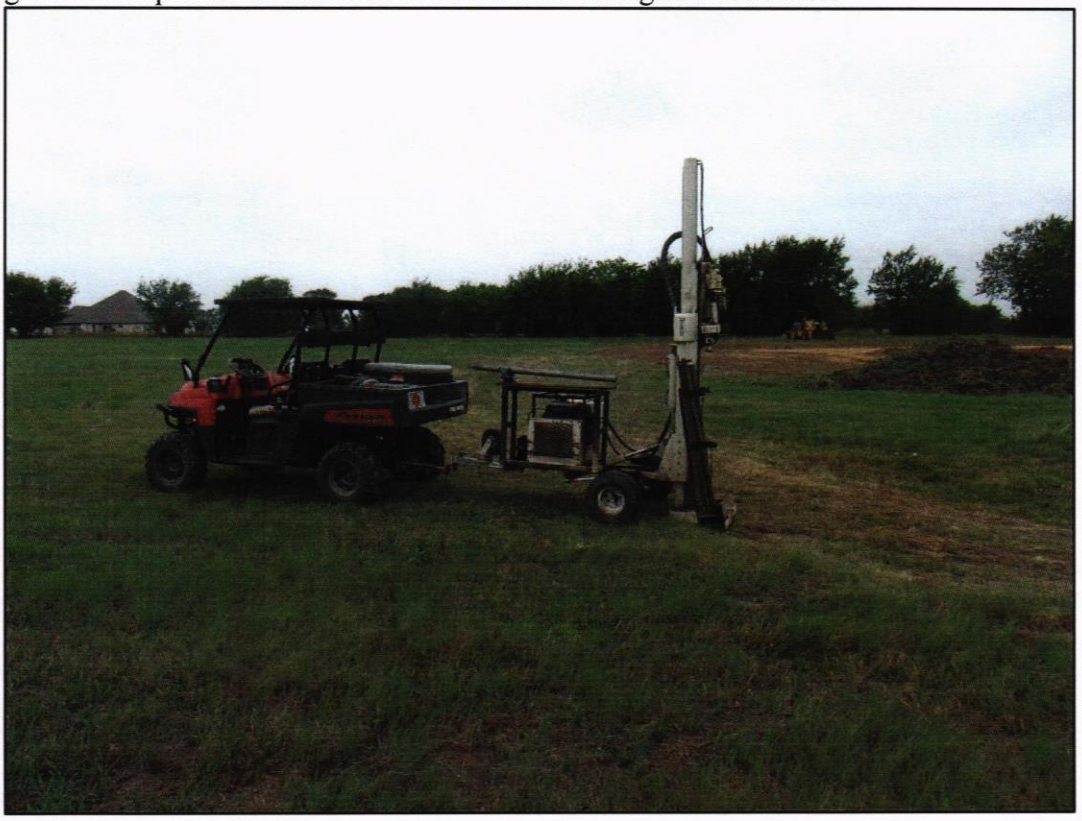


Figure 1: Picture of the Geo Probe During Soil Collection at Bore Hole 1.

Field Operations & Lab Testing:

The site subsurface conditions were explored with three (3) soil sample sets taken inside the proposed footprint of the property. Boring depth was approximately 4 feet below ground surface. The boring locations are identified on the Bore Hole Location and Vicinity Map (Figure A1) in Appendix A.

The borings were advanced using a GeoProbe direct push/hydraulic hammer system. Sample collection and field tests were performed in general accordance with ASTM procedures or other accepted methods.

Undisturbed samples of soils were obtained using a Macro Core sampling tube. The Macro Core sampling tube extrudes the sample into a clear PVC liner. The Liner is 1.5" in diameter and 48" in length. One (1) sample of approximately 48" in length is collected for each bore hole. The samples are identified on the liner according to boring number and depth. Dynamic Cone Penotrometer tests are performed at the depth of the bore hole following the removal of each sample. After logging and visual inspection of the sample, it is sealed for transport to the lab.

Selected soil samples were tested in the laboratory to determine material properties for our evaluation. These tests include: Moisture content, percent passing the #200 sieve (wet sieve), Atterberg limits, Hydrometer particle size analysis, Pocket Penotrometer, and unconfined compressive strength. The laboratory testing was performed in general accordance with the ASTM procedures. The bore logs are located in Appendix B.

Soil Characteristics:

The soils at the site consist of the following:

- The surface layer consists of approx. 4' of high to moderately expansive, black and brown, Fat Clay and Lean Clay soil. The Plasticity Index (PI) ranged from low 20's to low 40's. The USCS classifications are CH and CL. The soil is described as stiff. The allowable soil bearing capacity is approx. 1500 psf for this layer. The moisture content at the time of testing was moderate.

Groundwater Information:

Groundwater was not encountered during sample collection. If more detailed water level information is required, observation wells or piezometers could be installed at the site, and water levels could be monitored. It should be noted that groundwater level fluctuations may occur due to seasonal and climatic variations, alteration of drainage patterns, leaking utilities, land usage, and ground cover. We recommend that the contractor determine the actual groundwater levels at the site at the time of the construction activities.

Pavement Recommendations:

Portland Cement Concrete Paving:

The specifications for construction of roads and streets are based on the requirement that an asphalt pavement or a concrete pavement will be constructed. The materials, design, specifications, and procedure shall conform to requirements as described in this document and the Hopkins county Sub-division Regulations.

Design of the concrete pavements should specify a minimum 28-day concrete compressive strength of 3,500 psi with 4 percent to 6 percent entrained air .Hand-placed concrete should have Min. slump of 4 inches and a max slump of 6". A sand-leveling course should not be permitted beneath pavements. The concrete should be placed within one and one-half hours of batching. During hot weather, the concrete placement should follow ACI 305 Hot Weather concreting guidelines. In no case should concrete temperature exceed 95 ℉. Consideration should be given to limiting concrete placement to the time of day, which will minimize large differences in the ambient and concrete temperature. Use of superplasticizer should be considered to improve the concrete workability without increasing water cement ratio.

Sealed contraction joints shall be installed at 3X the pavement section thickness in feet (i.e. 5" x 3 = 15' spacing). The saw cut depth shall be one-quarter of the pavement thickness. This spacing has historically exhibited less uncontrolled, post-construction cracking than pavements with wider joint spacings. As a minimum, isolation

joints should be used wherever the pavement will abut a structural element subject to different movement levels, e.g., light poles, retaining walls, existing pavement, stairways, Entryway piers, building walls, or manholes. Contraction joints shall be installed at 90' max spacing. After construction, the isolation, construction, and contraction joints should be inspected periodically and resealed, as necessary. Reference Appendix O for joint details and specifications. The pavement should be nominally reinforced as follows:

- Light Duty: No. 3 bars, at 18 inches on center, each way.

Reference the table below for the PCCP section required for Sub-Division Development:

PCCP SECTION (CONCRETE PAVING)	
Layer Material	Thickness (in)
Portland Cement Concrete	5
Sub-Grade: Lime Stabilize @ 6% by wt. Per TxDOT Item 260 or Select Fill as a min. if PI>18 or Per Geo Report	6

Asphalt Hot Mix Base

The hot mix asphaltic concrete pavement coarse aggregate will be so crushed that a minimum of 80% of particles retained on #4 sieve will have more than one crushed face when tested in accordance with test method Tex.-413A (Particle Count). For Type "D" surface material, the asphaltic material will form from 5 to 8 percent of the mixture by weight. For Type "B" base material, the asphaltic material will form from 3.5 to 7 percent of the mixture by weight. For both surface and base material, the asphalt content used will be that percent required obtaining optimum density. This percent asphalt will be obtained from a mix design performed according to Texas Department of Transportation 1993 Standard Specifications. The mix design for base and surface material shall be reviewed and approved by the County Engineer. The actual asphaltic material contained in the delivered mix will be within a + 0.50% tolerance of the content specified in the mix design.

The HMAC will be installed at an application rate of 110/Lbs/SY/In of depth for both Type "D" and Type "B". At the seams where the new HMAC meets the existing HMAC, or concrete headers, or valley gutters, or curb and gutter, a tack coat (RC-250) will be applied to the seams at a rate of 0.05 Gal/SY.

When installing Type "D" HMAC on a Type "B" base, a tack coat (RC-250) will be applied on the base if the base if the base has been in place for more than three days, or if required by the Engineer. The tack coat will be applied at a rate not to exceed 0.50% Gal/SY and rolled with a pneumatic roller.

The Type "D" and Type "B" HMAC will be installed with an approved HMAC laying machine, unless otherwise approved by the County Engineer. A motor grader is not approved to install HMAC.

Laydown operations will be conducted in such sequence that vehicles transporting asphaltic concrete material to this project will not travel over the completed pavement until said pavement will have been in place for a minimum of twenty-four hours, unless otherwise directed by the County Engineer. Joints will be staggered so that they fall at least 12" from the previous joint.

Storage of the completed mix upon the ground will not be permitted at the mixing plant or the job site. Any mix that comes into contact with earth or other objectionable foreign matter will be rejected.

Hot mix asphaltic concrete will be accepted for density and depth on a lot basis. A lot will consist of one day's production or 600 tons, whichever is less, and shall be divided into four equal sublots. One test shall be made for each sublot, unless the County Engineer judges the lot too small to warrant testing.

Each lot of pavement will be accepted, with respect to density, when the average field density is equal to or greater than 90.0 percent of the average maximum theoretical density as determined in accordance with ASTM D2041, and when no individual determination is less than 86.0 percent of the average maximum theoretical density. Four field density determinations will be made for each lot. Cores or sawed samples taken from the pavement will be used to determine the field density. The density of the cored or sawed samples shall be determined in accordance with ASTM D2726.

The specimen used to determine the average maximum theoretical density for a lot may be sampled by any one of the following four methods:

(1) A sample may be removed from the truck delivering the HMAC for the lot being tested.

(2) A sample may be removed from the HMAC laying machine placing the lot being tested.

(3) A sample may be created by combining the material from the four individual core samples used for field densities.

(4) A sample may be created from each individual core sample used for field densities, with the results being averaged.

Specimens used for field density determination shall be carefully crumbled, using heat if necessary. If heating is necessary, the specimen shall be heated to the lowest temperature required for proper preparation of the sample.

The use of nuclear field density determinations shall not be used as the basis for acceptance with respect to density.

Each lot of pavement will be accepted, with respect to depth, when the average field depth deficiency is equal to or less than 0.25 inches for base courses and equal to or less than 0.13 inches for surface courses, and when no individual determination is deficient more than 1.00 inch for base courses and more than 0.50 inches for surface courses. Four field depth determinations will be made for each lot. Cores of sawed samples taken from the pavement will be used to determine the actual depth.

The surface course shall be a minimum of two inches (2") of HMAC meeting the specifications of Item 340, Type D, in the 1993 TX Dot Specifications.

Reference the table below for the (HMAC) section required for Sub-Division Development:

HMAC Section (Asphalt Paving)	
Layer Material	Thickness (in)
TxDot 340 Type D Surface Course	2
TxDOT 247 Type A or C Grade 2 Flex Base	6
Sub-Grade: Lime Stabilize @ 6% by wt. Per TxDOT Item 260 or Select Fill as a min. if PI>18 or Per Geo Report	6

All asphaltic mixtures shall be placed with an approved HMAC laying machine. The mix shall be compressed thoroughly and uniformly compacted immediately after placing to the required density. All compaction rolling shall be complete before the material cools below 175 degree F. The completed surface shall meet the approval of the County Engineer for riding surface, finish and appearance.

Subgrade Preparation:

The paving sub-grade shall be lime stabilized at a rate of 6% by dry weight to a depth of 6". The lime stabilization process shall conform to the specifications of TxDOT Item 260. In lieu of lime stabilization, 6" of properly compacted select fill can be installed below the paving section. Reference the "Select Fill" section of this document for material specifications and installation procedure.

The subgrade may be prepared and allowed to reach a Proctor Density of ninety-five percent (95%) at a min of -1 to +4% of the optimum moisture content through natural cycles of consolidation or may be rolled and watered where placement of the paving is to be done immediately. Testing shall be done at five hundred foot (500') intervals, with a minimum of two (2) tests, or wherever there is a change in the subgrade material. The subgrade must be inspected and approved by the Precinct Commissioner concerned or other person designated by the Commissioners' Court, in writing, prior to any application of base. Proctor Density test results must be presented

to the Precinct Commissioner concerned or other designated person, and all preparatory work must be inspected and approved, in writing by the Precinct Commissioner or other designated person before any topping may be done.

Select Fill:

Select fill shall consist of homogeneous soils free of organic matter and rocks larger than four inches in diameter and possess an Atterberg plasticity index of 5 to 18, with a liquid limit of 35 or less. No more than 75% is allowed to pass the #200 sieve. The material should be place in the following manner:

1. Prepare the subgrade in accordance with the recommendations discussed in a previous section of this report.

2. Place subsequent lifts of select fill in thin, loose layers not exceeding eight inches in thickness to the desired rough grade and compact to a minimum of 95 percent of the maximum density defined by ASTM D 698. Maintain moisture within -1% to +4% of theoretical optimum.

3. Conduct in-place field density tests at the following frequencies:

   - One test per 500 linear feet of road per lift or a minimum of 2 tests.

4. Prevent excessive loss of moisture during construction.

Note: Contact Dynamic Engineering Consultants to request a fee schedule for construction materials testing for this project.

ROAD SPECIFICATIONS

Rural Roadway Section:

(Minimum lot frontage, excluding cul-de-sacs, shall be 100 ft.)

Right-of-Way (minimum)	60’
Pavement Width	22’
Base Course Width (minimum)(if applicable)	24’
Subgrade Width	26’
Turnaround Right-of-Way	60’radius
Turnaround Pavement	41’ radius

Report Limitations:

The recommendations submitted in this report, are based on the available subsurface information obtained by Dynamic Engineering Consultants and design details furnished by Joe Jennings for the proposed project. If there are any revisions to the plans for this project, or if deviations from the subsurface conditions noted in this report are encountered during construction, Dynamic Engineering Consultants should be notified immediately to determine if changes in the foundation recommendations are required. If Dynamic Engineering Consultants are not notified of such changes, we will not be responsible for the impact of those changes on the project.

The professional engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional engineering practices in the local area. No other warranties are implied or expressed.

After the plans and specifications are more complete, the geotechnical engineer should be retained and provided the opportunity to review the final design plans and specifications to check that our engineering recommendations have been properly incorporated into the design documents. At this time, it may be necessary to submit supplementary recommendations. If Dynamic Engineering Consultants are not retained to perform these functions, we will not be responsible for the impact of those conditions on the project. This report has been prepared for the exclusive use of Mr. Joe Jennings.

Appendix A

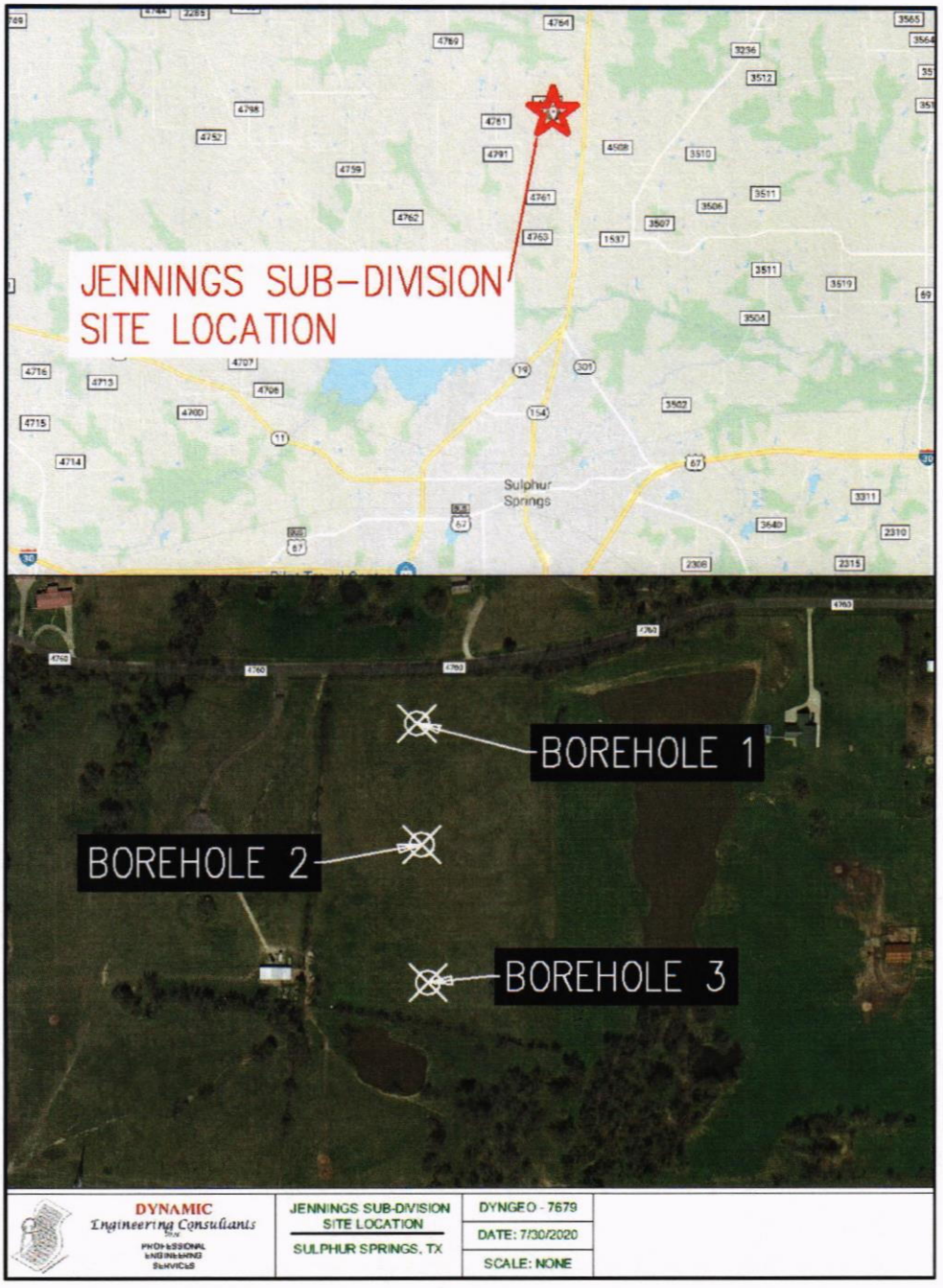


Figure A 1: Bore Hole Locations and Vicinity Map

Figure A 2: Picture of Opened Soil Samples

Unified Soil Classification System:

This soil system is based on the recognition of the type and predominance of the constituents, considering grain size, gradation, plasticity index, and liquid limit.

It contains three major divisions of soils:

- Coarse-grained
- Fine-grained
- Highly organic

The group symbols for each major soil division are located In Table A1. Some soils have characteristics of two groups because they are close to the borderline between the groups either in percentage of the various grain sizes or in plasticity characteristics. In cases like these, use the two group symbols, connected by a hyphen, which most nearly describe the soil. An example of this might be a SM-SC. This would be a sand, which has silt and clay binder. Those soils that are not readily identifiable in the field and the proper soil symbol designated necessitate sieve analysis and Atterberg limits tests. From these test results, the proper soil symbol can be determined.

Table A 1: Unified Soil Classification System

MAJOR DIVISIONS			GROUP SYMBOLS	DESCRIPTIONS
COARSE GRAINED SOILS More Than Half Retained on 200 Sieve	GRAVELS More Than Half Coarse Fraction Retained on No. 4 Sieve	Clean Gravels (Little or no Fines)	GW	Well Graded Gravels, Gravel - Sand Mixtures, Little or no Fines
			GP	Poorly Graded Gravels, Gravel - Sand Mixtures, Little or no Fines
		Gravels With Fines (Appreciable Fines)	GM	Silty Gravels, Gravel-Sand-Silt Mixtures
			GC	Clayey Gravels, Gravel-Sand-Clay Mixtures
	SANDS More Than Half Coarse Fraction Passes a No. 4 Sieve	Clean Sands (Little or no Fines)	SW	Well Graded Sands, Gravelly Sands, Little or no Fines
			SP	Poorly Graded Sands, Gravelly Sands, Little or no Fines
		Sands With Fines (Appreciable Fines)	SM	Silty Sands, Sand - Silt Mixtures
			SC	Clayey Sands, Sand - Clay Mixtures
FINE GRAINED SOILS More Than Half Passes 200 Sieve	SILTS and CLAYS Liquid Limit Less Than 50		ML	Inorganic Silts & Very Fine Sands, Silty or Clayey Fine Sands, Clayey Silts
			CL	Inorganic Clays of Low to Medium Plasticity, Lean Clays
			OL	Organic Silts & Organic Silty Clays of Low Plasticity
	SILTS and CLAYS Liquid Limit Greater Than 50		MH	Inorganic Silts, Fine Sand or Silty Soils, Elastic Silts
			CH	Inorganic Clays of High Plasticity, Fat Clays
			OH	Organic Clays of Medium to High Plasticity, Organic Silts
Highly Organic Soils			PT	Peat and Other Highly Organic Soils

Table A2 shows the relationship between particle size and soil classification. Sieve and Hydrometer analysis can be used to determine the percentage of different particle sizes that exist in a sample.

Table A 2: USCS Particle Size and Classification

Unified Soil Size Classification			
Millimeters	**Inches**	**U.S. Standard Sieve Size**	**Particle Size**
256 and above	12 and above		Boulder
72-256	3-12		Cobble
19-75	¾-3		Coarse Gravel
4.75-19	3/16-3/4	3/16"=4	Fine Gravel
2.4-4.75	3/32-3/16	3/32"=10	Coarse Sand
.42-2.4		.42mm=40	Medium Sand
.074-.42		.074mm=200	Fine Sand
.005-.074			Silt
.005 and below			Clay

Tables A3 and A4 use measurable attributes of soil such as Standard Penetration Test, Un-confined Compression Test results, and simple field tests to determine the descriptive terms for the soil sampled.

Table A 3: Terms for Soil Consistency

Soil Consistency Terms				
Coarse Grained Soils		Fine Grained Soils		
Descriptive Terms	No. Blows/ft (SPT)	Descriptive Terms	No. Blows/ft (SPT)	Unconfined Compression Tons/ft^2
Very Loose	0-4	Very Soft	<2	<.25
Loose	4-10	Soft	2-4	.25-.50
Medium Dense	10-30	Medium Stiff	4-8	.50-1.0
Dense	30-50	Stiff	8-15	1.0-2.0
Very Dense	>50	Very Stiff	15-30	2.0-4.0
		Hard	>30	>4

Table A 4: Thumb Penetration Resistance for Determining Soil Consistency Terms.

Penetration Resistance and Unconfined Compression Strength

Consistency	Field Identification	Unconfined Compressive Strength tons/ft²
Very soft	Easily penetrated several inches by fist	Less than 0.25
Soft	Easily penetrated several inches by thumb	0.25–0.5
Medium	Can be penetrated several inches by thumb with moderate effort	0.5–1.0
Stiff	Readily indented by thumb, but penetrated only with great effort	1.0–2.0
Very stiff	Readily indented by thumbnail	2.0–4.0
Hard	Indented with difficulty by thumbnail	over 4.0

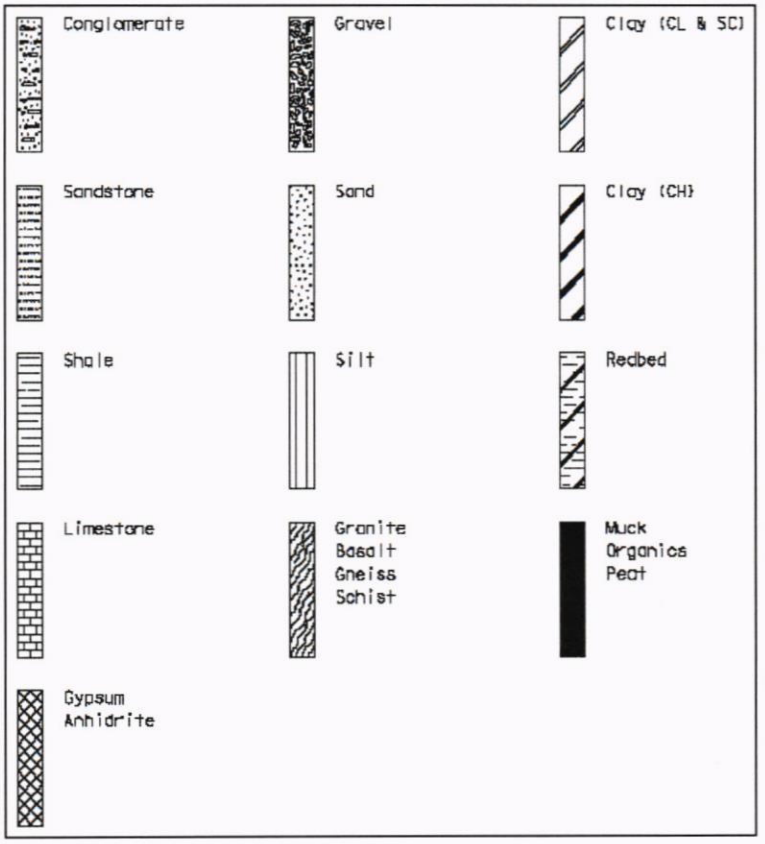


Figure A 3: Symbol for USCS Soil Classifications.

Table A 5: Terms Characterizing Soil Structure.

Slickensided	Having inclined planes of weakness that are slick and glossy in appearance.
Fissured	Containing shrinkage cracks, frequently filled with fine sand or silt. Usually vertical.
Laminated	Composed of thin layers of varying color and texture, usually grading from sand or silt at the bottom to clay at the top.
Crumbly	Cohesive soils which break into small crumbs upon drying.
Calcareous	Containing appreciable quantities of calcium carbonate. Usually nodular.
Well Graded	Having wide range in grain sizes and substantial amounts of all intermediate particle sizes.
Poorly Graded	Predominantly of one grain size (uniformly graded) or having a range of sizes with some intermediate size missing (gap or skip graded).

Appendix B

PROJECT # 7679	SAMPLES	USC	WATER LEVEL	DYNAMIC Engineering Consultants PLLC	DATE: 7/30/2020 PROJECT: JENNINGS LOG # B1 FIELD STRENGTH DATA	SOIL BEARING (LB/SQ FT)	MOISTURE CONTENT (%)	ATTENBURG LIMITS (%) LIQUID LIMIT LL	PLASTIC LIMIT PL	PLASTICITY INDEX PI	% MINUS #200	% MINUS .002 MM (FINE CLAY)
1		CH		FAT CLAY, black & brown, hard	P= 4.5	9000	18	52	18	34	91	22
		CH		FAT CLAY, brown, hard	P= 4.5	9000	17	52	15	37	92	33
5												
10												
15												
20												

WATER LEVEL:	NONE	KEY TO ABBREVIATIONS	NOTES: Boring terminated @ 4'
ESTIMATED		N=SPT DATA (BLOWS/FT)	
MEASURED		P=POCKET PENOTROMETER (TSF)	
PERCHED		D=DYNAMIC PENOTROMETER (BLOWS/1.75")	
		T=TORVANE (TSF)	

DYNAMIC Engineering Consultants PLLC

PROJECT # 7679	SAMPLES	USC	WATER LEVEL	DYNAMIC Engineering Consultants PLLC	DATE: 7/30/2020 PROJECT: JENNINGS LOG # B2 FIELD STRENGTH DATA	SOIL BEARING (LB/SQ FT)	MOISTURE CONTENT (%)	ATTENBURG LIMITS (%) LIQUID LIMIT LL	PLASTIC LIMIT PL	PLASTICITY INDEX PI	% MINUS #200	% MINUS .002 MM (FINE CLAY)
1		CH		**FAT CLAY,** black, very stiff	P= 3	6000	21	61	18	43	85	22
		CL		**LEAN CLAY,** brown, very stiff	P= 2.5	5000	16	40	21	19	77	23
5												
10												
15												
20												

WATER LEVEL:	NONE	KEY TO ABBREVIATIONS	NOTES: Boring terminated @ 4'
ESTIMATED		N=SPT DATA (BLOWS/FT)	
MEASURED		P=POCKET PENOTROMETER (TSF)	
PERCHED		D=DYNAMIC PENOTROMETER (BLOWS/1.75")	
		T=TORVANE (TSF)	

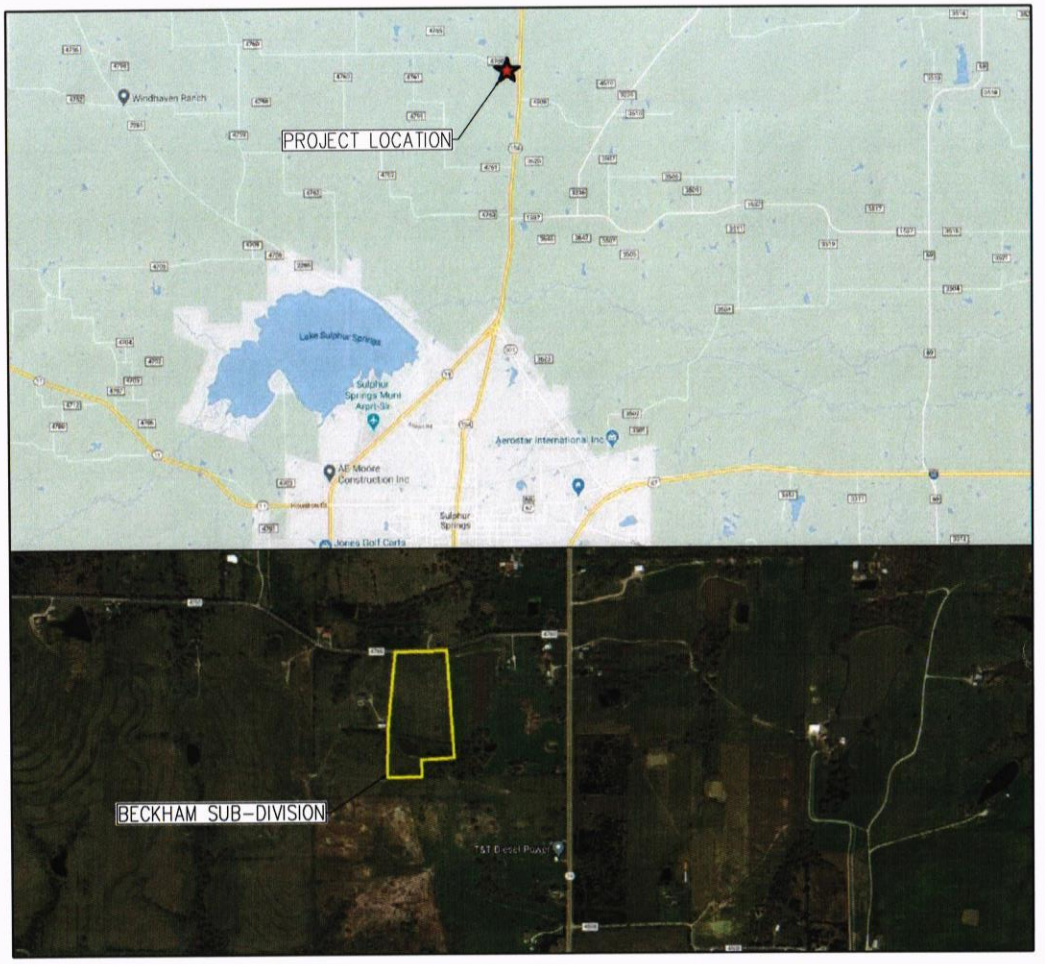
DYNAMIC Engineering Consultants PLLC

PROJECT # 7679	SAMPLES	USC	WATER LEVEL	DYNAMIC Engineering Consultants PLLC	DATE: 7/30/2020 PROJECT: JENNINGS LOG # B3 FIELD STRENGTH DATA	SOIL BEARING (LB/SQ FT)	MOISTURE CONTENT (%)	ATTENBURG LIMITS (%) LIQUID LIMIT LL	PLASTIC LIMIT PL	PLASTICITY INDEX PI	% MINUS #200	% MINUS .002 MM (FINE CLAY)
1		CH		FAT CLAY, black, hard	P= 4	8000	20	56	28	28	94	26
		CH		FAT CLAY, brown, very stiff	P= 2.75	5500	26	52	15	36	91	33
5												
10												
15												
20												

WATER LEVEL:	NONE	KEY TO ABBREVIATIONS	NOTES: Boring terminated @ 4'
ESTIMATED		N=SPT DATA (BLOWS/FT)	
MEASURED		P=POCKET PENOTROMETER (TSF)	
PERCHED		D=DYNAMIC PENOTROMETER (BLOWS/1.75")	
		T=TORVANE (TSF)	

BECKHAM SUB-DIVISION

Sulphur Springs, Texas



VICINITY MAP

SHEET INDEX

SHEET NO.	DESCRIPTION
T1.0	TITLE PAGE
C1.0	SITE PLAN
C1.1	PAVING DETAILS
C2.0	EROSION CONTROL NOTES
C2.1	EROSION CONTROL PLAN
C2.2	EROSION CONTROL DETAILS
C3.0	GRADING PLAN
C3.1	PROPOSED ROAD PLAN & PROFILE
C3.2	PRE-CONSTRUCTION DRAINAGE PLAN
C3.3	POST-CONSTRUCTION DRAINAGE PLAN
C3.4	PRE & POST DEVELOPMENT CALCULATIONS

ENGINEER:

DYNAMIC ENGINEERING CONSULTANTS, PLLC
200 SOUTH HILLCREST DRIVE SUITE C
SULPHUR SPRINGS, TX 75482
CONTACT: JAMES W. BURNETT
PH# 903-513-3773

PERMIT: 11/6/2020
ISSUED FOR: DATE:

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SULPHUR SPRINGS, TX

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JAMES W. BURNETT
93832
LICENSED PROFESSIONAL ENGINEER
ENGINEERING SEAL

	NAME	DATE
DRAWN	ALEX SANCHEZ	11/6/2020
CHECKED		
ENG APPR.	JW BURNETT	11/6/2020
Q.A.		

TITLE PAGE
PROJECT # 7079
SHEET NUMBER T1.0

LEGEND

- GAS LINE
- PROPOSED OVERHEAD ELECTRICAL LINE
- EXISTING OVERHEAD ELECTRICAL LINE
- UNDERGROUND ELECTRICAL LINE
- PROPOSED WATER SERVICE LINE
- EXISTING WATER LINE
- FIBER OPTIC CABLE W/ ELECTRIC
- PROPOSED SANITARY SEWER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING UTILITY EASEMENT
- PROPOSED UTILITY EASEMENT
- EXISTING FENCE
- EXISTING FIRE LINE
- PROPOSED FIRE LINE

- PROPOSED GAS METER
- EXISTING GAS METER
- PROPOSED WATER METER
- EXISTING WATER METER
- PROPOSED UTILITY POLE
- EXISTING UTILITY POLE
- PROPOSED FIRE HYDRANT
- EXISTING FIRE HYDRANT
- ELECTRIC METER
- WATER VALVE
- STORM SEWER MANHOLE
- SANITARY SEWER MANHOLE
- SEWER CLEANOUT
- GUY ANCHOR
- FIBER OPTIC CABLE MARKER
- PAD MOUNTED TRANSFORMER
- CATCH BASIN
- SECONDARY PEDESTAL

PROPOSED ASPHALT

GENERAL NOTES:

1. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS AND FIELD CONDITIONS WHEN POSSIBLE, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSING WELL IN ADVANCE OF TRENCHING. IF THE CLEARANCES ARE LESS THAN SPECIFIED ON THE PLANS OR 12", WHICHEVER IS LESS, CONTACT DYNAMIC ENGINEERING CONSULTANTS, PLLC. AT 903-382-3444.
2. THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE THE REMOVAL AND DISPOSAL OF ANY EXCESS TOPSOIL THAT IS NOT REQUIRED TO PERFORM THE FINAL GRADING AND LANDSCAPING OPERATIONS.
3. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL REQUIRED/NECESSARY SHEETING, SHORING, AND SPECIAL EXCAVATION MEASURED REQUIRED ON THE PROJECT TO MEET OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THE DRAWINGS. SU CHEN RETAIL CENTER, INCEPTIVE, AND DYNAMIC ENGINEERING CONSULTANTS, PLLC. ACCEPT NO RESPONSIBILITY FOR THE DESIGN TO INSTALL SAID ITEMS.
4. CALL BEFORE YOU DIG TEXAS ONE-CALL 811.
5. ALL WORK SHALL CONFORM TO FEDERAL, STATE, PARISH, AND/OR LOCAL STANDARDS, WHICHEVER IS MORE RESTRICTIVE.
6. ALL CURB/HANDICAP RAMP DESIGNS SHALL CONFORM TO THE TEXAS ACCESSIBILITY STANDARDS, TXDOT OR CITY STANDARDS, WHICHEVER IS MORE RESTRICTIVE.
7. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT LOCATION OF THE UTILITY ENTRANCE POINTS, TRANSFORMER, SLOPED PAVING, TRUCK DOCKS RAMPS, SITE LIGHTING PANELS, EXIT PORCHES, VESTIBULE, PRECISE BUILDING DIMENSIONS, ETC.
8. THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE DAILY RECORD KEEPING OF THE AS-BUILT CONDITIONS OF ALL OF THE UNDERGROUND UTILITIES, STORM DRAIN AND CONSTRUCTION STAKEOUTS ASSOCIATED WITH THE PROJECT. THE CONTRACTOR SHALL HAVE A LICENSED SURVEYOR PREPARE THE REQUIRED AS-BUILT INFORMATION FOR SUBMITTAL TO GOVERNING AGENCIES AND ALL OTHER INFORMATION REQUIRED IN CONNECTION WITH RELEASE OF BONDS.
9. THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ALL MATERIAL AND LABOR ASSOCIATED WITH THE TESTING OF THE WATER AND SEWER LINES AS REQUIRED.
10. THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE OF ANY DE-WATERING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THESE PLANS.
11. THE CONTRACT SHALL INCLUDE IN THE PRICE ANY AND ALL COSTS ASSOCIATED WITH PROVIDING PROFESSIONAL ENGINEER ON SITE IF REQUIRED, DURING THE CONSTRUCTION OF THE STORM WATER MANAGEMENT FACILITY, UNDERGROUND UTILITIES. ETC. AS REQUIRED FOR AS-BULIT CERTIFICATION.

SITE NOTES:

1. PROPERTY BOUNDARY INFORMATION SHOWN HERON IS TAKEN FROM A ALTA/ACSM LAND TITLE SURVEY AND TOPOGRAPHIC SURVEY PREPARED FOR BECKHAM SUB-DIVISION BY EST, INC. SURVEYING. SULPHUR SPRINGS, TX. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS.
2. CONTRACTOR SHALL MATCH PROPOSED CURB AND GUTTER, CONCRETE, AND PAVEMENT TO EXISTING GRADE AND ALIGNMENT.
3. CONTRACTOR SHALL REMOVE PAVEMENT & CONCRETE IN ACCORDANCE WITH SPECIFICATION OF ALL GOVERNING AGENCIES.
4. GENERAL CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTIONS, ADJUSTMENT, OR RELOCATION OF EXISTING UTILITIES AS DESIGNATED ON PLANS.
5. CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE DONE TO ANY EXISTING ITEMS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB ETC. REPAIRS SHALL BE EQUAL TO, OR BETTER THAN, EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND NOTIFY CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION STARTS.
6. CONTRACTOR TO REMOVE OR RELOCATE, WHEN APPLICABLE, ALL EXISTING DRAIN PIPES, SANITARY SEWER PIPES, POWER POLES, AND GUY WIRES, WATER METER AND WATER LINES, WELL, SIDEWALKS, SIGN POLES, UNDERGROUND GAS, AND CONCRETE PAVING, SHOWN AND NOT SHOWN, WITHIN CONSTRUCTION LIMITS AND WHERE NEEDED, TO ALLOW FOR NEW CONSTRUCTION AS SHOWN.
7. CONTRACTOR SHALL FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS IN DISPOSING OF DEMOLISHED MATERIALS REMOVED FROM THIS SITE.
8. DIMENSIONS SHOWN ARE TO FACE OF CURB, FACE OF BUILDING, OR CENTERLINE OF PARKING BAY UNLESS NOTE OTHERWISE.
9. SEE PAVING PLAN SHEETS FOR PAVEMENT SPECS.
10. BUILDING AND CANOPY EXCAVATION AND FOUNDATIONS, BUILDING ENTRANCE PLATFORMS, PORCHES, PADS, BUILDING DIMENSIONS, UTILITY ENTRY/EXIT POINTS, SIDEWALK, ADJACENT TO THE BUILDING, AND LOADING DOCK RAMP/CURBS/RETAINING WALLS ARE DETAILED AND SPECIFIED ON THE ARCHITECTURAL DRAWINGS.
11. PROVIDE EXPANSION JOINTS AT ALL RADIUS POINTS IN CONCRETE CURB AND GUTTER AND AS SHOWN ON THE DETAILS, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
12. THE CONTRACTOR IS TO PROVIDE TRASH RECEPTACLES FOR USE OF SUBCONTRACTORS AND THEIR EMPLOYEES, ALL DUMPSTER SHOULD BE LOCATED OFF STREETS AND RIGHT OF WAYS. BLOCKING PERMITS ARE REQUIRED FOR ANY USE OF THE STREET RIGHT OF WAYS.
13. PROVIDE CONTAINERS FOR GARBAGE AND MINOR TRASH IN EATING AREAS, IN PARKING LOTS, AND ALONG WALKWAYS.
14. SERVICE TRASH CONTAINERS ADEQUATELY.
15. KEEP STREETS AND AREAS ADJACENT TO THE JOB SITE CLEAN AND FREE OF TRASH AND MUD ORIGINATING FROM THE SITE.
16. REQUIRE ALL WASTE HAULERS TO COVER TRUCKS BEFORE LEAVING SITE.
17. CONTRACTOR IS RESPONSIBLE TO ANY DAMAGE TO STREETS, SIDEWALKS, CURB AND GUTTERS OR ANY OTHER PUBLIC PROPERTY. DAMAGE MUST BE REPAIRED OR REPLACED PRIOR TO FINAL INSPECTIONS.

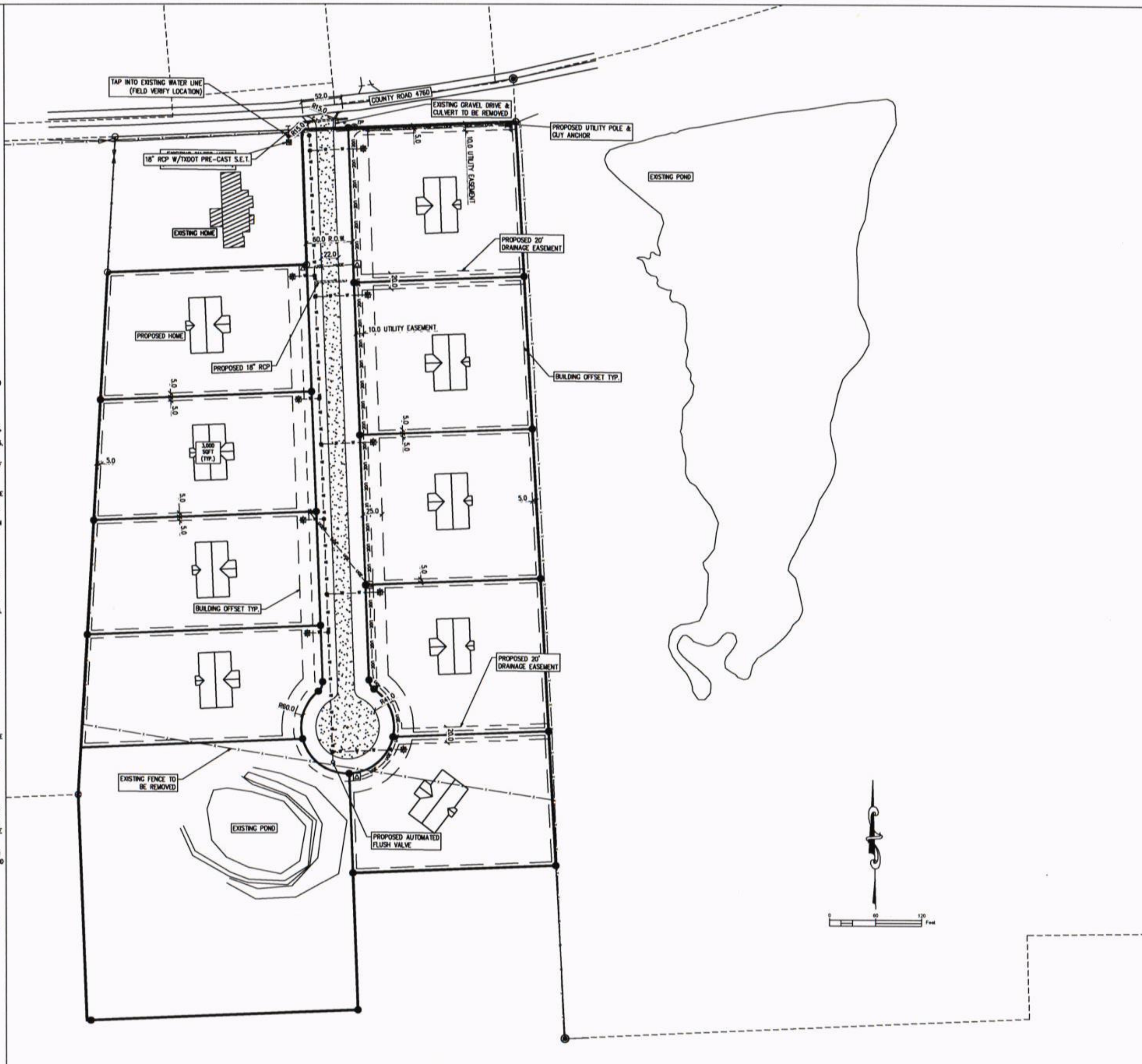
AUTHORITY AND RESPONSIBILITY:

THE ENGINEER, AS REPRESENTATIVE OF THE OWNER, SHALL NOT GUARANTEE THE WORK OF ANY CONTRACTOR OR SUBCONTRACTOR, SHALL HAVE NO AUTHORITY TO STOP WORK, SHALL HAVE NO SUPERVISION OR CONTROL AS TO THE WORK OR PERSONS DOING THE WORK, SHALL NOT HAVE CHARGE OF THE WORK, SHALL NOT BE RESPONSIBLE FOR SAFETY IN, ON, OR ABOUT THE JOB SITE OR HAVE ANY CONTROL OF THE SAFETY OF ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENT, SCAFFOLDING, SUPPORTS, FORMS, OR OTHER WORK AIDS, AND SHALL HAVE NO DUTIES OR RESPONSIBILITIES IMPOSED BY THE STRUCTURAL WORK ACT.

PERMITS, BONDS, AND INSPECTIONS:

THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO THE ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES. THIS SHALL INCLUDE THE HIRING OF A PROFESSIONAL ENGINEER TO CONDUCT INSPECTIONS AND PROVIDE CERTIFICATIONS, AS MAY BE REQUIRED.

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



PERMIT:	11/6/2020
ISSUED FOR:	DATE:

BECKHAM SUB-DIVISION

SULPHUR SPRINGS, TX

DYNAMIC *Engineering Consultants* PLLC

PROFESSIONAL ENGINEERING SERVICES

200 S. HILLCREST, SUITE C
SULPHUR SPRINGS, TX
75482

STATE OF TEXAS
93832
LICENSED PROFESSIONAL ENGINEER

ENGINEERING SEAL

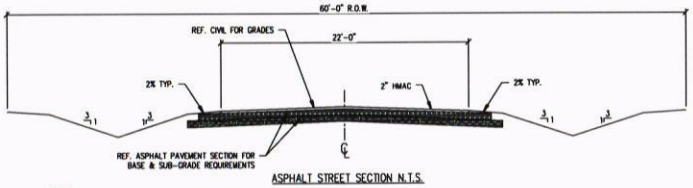
	NAME	DATE
DRAWN	ALEX SANCHEZ	11/6/2020
CHECKED		
ENG APPR.	JW BURNETT	11/6/2020
Q.A.		

PROPRIETARY AND CONFIDENTIAL

SITE PLAN

PROJECT # 7679

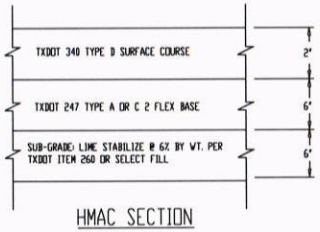
SHEET NUMBER C1.0



ASPHALT STREET SECTION N.T.S.

NOTES:
1. A SOIL INVESTIGATION FOR SUB-GRADE DESIGN SHALL BE CONDUCTED FOR ALL SUB-DIVISIONS.
2. BASE COURSE WIDTH (MINIMUM)(IF APPLICABLE): 24'
3. SUB-GRADE WIDTH: 28'

HOT MIX ASPHALTIC CONCRETE PAVEMENT



HMAC SECTION

SCALE: NONE

ASPHALT PAVEMENT SECTION

PERMIT:	11/6/2020
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SULPHUR SPRINGS, TX

DYNAMIC
Engineering
Consultants
PLLC
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JAMES W. BURNETT
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LICENSED
PROFESSIONAL ENGINEER

ENGINEERING SEAL

	NAME	DATE
DRAWN	ALEX SANCHEZ	11/6/2020
CHECKED		
ENG APPR.	JW BURNETT	11/6/2020
Q.A.		

PAVING DETAILS

PROJECT # 7979

SHEET NUMBER C1.1

EROSION CONTROL NOTES

1. CONTRACTOR MUST COMPLETE A CONSTRUCTION SITE NOTICE, OBTAIN SIGNED COPIES OF NOTICE FROM BOTH OWNER AND CONTRACTOR (IF APPLICABLE TO THIS SITE). AND POST THEM AT THE CONSTRUCTION SITE, IN ACCORDANCE WITH THE Texas POLLUTANT DISCHARGE ELIMINATION SYSTEM (TPDES) GENERAL PERMIT FOR CONSTRUCTION ACTIVES (TX150000). THE GENERAL CONTRACTOR, (AND ALL SUBCONTRACTORS INVOLVED WITH ANY CONSTRUCTION ACTIVITY RELATED TO EARTHWORK, EROSION CONTROL, ETC., OR WHICH UTILIZE POSSIBLE POLLUTANTS AS DEFINED IN THE TPDES GENERAL PERMIT) MUST BE FAMILIAR WITH THE CONTENTS OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS WELL AS ALL THE REQUIREMENTS SET FORTH IN THE TPDES GENERAL PERMIT AND ANY APPLICABLE LOCAL PERMIT REQUIREMENTS. AND SHALL COMPLY WITH ALL SUCH REQUIREMENTS DURING ALL CONSTRUCTION ACTIVITIES.

2. THE CONTRACTOR SHALL ADHERE TO THE SEQUENCE OF OPERATIONS FOR EROSION CONTROL IMPLEMENTATION SHOWN HEREIN. ANY DEVIATION FROM THIS SEQUENCE DEEMED NECESSARY BY THE CONTRACTOR MAY REQUIRE THAT THE STORM WATER POLLUTION PREVENTION PLAN BE MODIFIED IN ACCORDANCE WITH THE TPDES GENERAL PERMIT GUIDELINES AND SECTION 1.01 OF THE STORM WATER POLLUTION PREVENTION PLAN.

3. THE CONTRACTOR SHALL MODIFY THIS PLAN TO SHOW LOCATIONS OF TEMPORARY WASH DOWN AREAS, PORTABLE TOILETS, EQUIPMENT MAINTANCE/REPAIR AREAS, STOCKPILE AREAS, FUEL STORAGE AREAS, AND POLLUTANT CONTROLS FOR EACH, AS SOON AS POSSIBLE.

4. THE GENERAL CONTRACTOR SHALL PERFORM ALL REQUIRED INSPECTIONS OF STORM WATER CONTROLS AND PRACTICES AT FREQUENCIES GIVEN IN THE TPDES GENERAL PERMIT, AND SHALL COMPLETE AND SIGN APPROPRIATE INSPECTION FORMS (AS PROVIDED IN THE STORM WATER POLLUTION PREVENTION PLAN).

5. OIL AND GREASE ABSORBING MATERIALS SHALL BE READILY AVAILABLE ON-SITE AND SHALL BE PROMPTLY USED TO CONTAIN AND/OR CLEAN UP ALL FUEL OR CHEMICAL SPILLS OR LEAKS.

6. DUST CONTROL SHALL BE ACCOMPLISHED BY WATERING DRY, EXPOSED AREAS ON A REGULAR BASIS. SPRAYING OF PETROLEUM BASED OR TOXIC LIQUIDS FOR THIS PURPOSE IS PROHIBITED.

7. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVATES HAVE CEASED FOR AT LEAST FOURTEEN DAYS SHALL BE TEMPORARILY STABILIZED WITH VEGETATION AND MULCH.

8. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVATES HAVE PERMANENTLY CEASED SHALL BE PERMANENTLY SEEDED WITHIN FOURTEEN DAYS PER LANDSCAPING SPECIFICATIONS.

9. ALL VEHICLES SHALL BE CLEANED AT THE CONSTRUCTION SITE EXIT POINTS ACCORDING TO NOTES SHOWN ON THE DETAIL THEREOF. IF THE MAJORITY OF MUD OR DIRT IS NOT REMOVED FROM EXITING TRAFFIC, HOSE BIBS SHALL BE PROVIDED AT CONSTRUCTION TRAFFIC EXIT POINTS, AND VEHICLE TIRES SHALL BE WASHED BEFORE EXITING ONTO PUBLIC ROADS. SILT FROM THIS WASHING OPERATION SHALL BE INTERCEPTED AND TRAPPED BEFORE WASH WATER IS ALLOWED TO BE DISCHARGED OFF-SITE.

10. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ONTO ADJACENT ROADWAYS BY VEHICLES EXITING THE SITE SHALL BE CLEANED OR REMOVED IMMEDIATELY.

11. CONTRACTOR SHALL PREVENT ANY SILTATION FROM ENTERING THE STORM SEWER SYSTEM. ALL INLETS AND INLET OPENINGS SHALL BE FULLY ENCIRCLED WITH APPROPRIATE INLET PROTECTION DEVICES.

12. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SILT IN ANY TEMPORARY OR PERMANENT DETENTION PONDS, STORM SEWER INLETS AND PIPES, AND ALONG SILT FENCES, WITHIN 48 HOURS AFTER INSPECTION OF DEVICES REVEALS THE PRESENCE OF EXCESSIVE SILTATION (AS SPECIFIED IN SECTION 5.02 OF THE STORM WATER POLLUTION PREVENTION PLAN).

13. SILT FENCES SHALL BE PLACED AROUND ANY STOCKPILES USED ON THIS SITE.

14. THE CONTRACTOR IS ADVISED TO CONSTRUCT TEMPORARY OR PERMANENT FENCING AROUND DETENTION PONDS AND SEDIMENT BASINS AT THE EARLIEST POSSIBLE TIME TO PREVENT ACCIDENTAL ACCESS BY PERSONS OR ANIMALS.

15. ANY ADDITIONAL EROSION CONTROL MEASURES REQUIRED TO ENSURE COMPLIANCE WITH THE TPDES GENERAL PERMIT OR LOCAL PERMIT REQUIREMENTS SHALL BE IMPLEMENTED BY THE CONTRACTOR, AT NO ADDITIONAL EXPENSE TO THE OWNER.

16. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND PROPERLY DISPOSED OF OFF-SITE WITHIN THIRTY DAYS AFTER STABILIZATION OF ALL SURFACES.

17. THE CONTRACTOR SHALL ASSUME LIABILITY FOR DAMAGE TO ADJACENT PROPERTIES AND/OR PUBLIC RIGHT-OF-WAY RESULTING FROM FAILURE TO FULLY IMPLEMENT AND EXECUTE ALL EROSION CONTROL PROCEDURES SHOWN AND NOTED IN THESE PLANS.

18. WHENEVER DIRT, ROCK, OR OTHER MATERIALS ARE EXPORTED FOR USE OFF OF THE PRIMARY CONSTRUCTION SITE, CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR COMPLIANCE WITH ALL TCEQ STORMWATER REQUIREMENTS FOR REMOTE SITE. CONTRACTOR SHALL FURNISH THE ENGINEER AND THE OWNER'S CONSTRUCTION MANAGER WITH DOCUMENTATION OF COVERAGE FOR THE BORROW OF FILL SITE UNDER A TPDES PERMIT FOR STORMWATER DISCHARGES AND OF A WRITTEN AGREEMENT WITH THE LANDOWNER OF THE REMOTE SITE INDICATING EROSION CONTROL MEASURES HAVE BEEN IMPLEMENTED THERON. AT A MINIMUM, EROSION CONTROL MEASURES MUST CONSIST OF PERIMETER CONTROLS (SILT FENCES) ON ALL DOWN SLOPES AND SAID SLOPE BOUNDARIES OF ANY DISTURBED AREA, PLUS PROVISIONS FOR RE-VEGETATION AFTER THE FILL MATERIALS ARE IN PLACE.

19. ALL SLOPES ON SITE WHICH ARE 3:1 OR STEEPER SHALL BE STABILIZED BY TRACK WALKING (TRAVERSING UP AND DOWN THE SLOPE WITH A TRACKED VEHICLE) FOLLOWED BY INSTALLATION OF EROSION CONTROL BLANKET INSTALLED IN ACCORDANCE WITH MANUFACTURE'S INSTRUCTIONS. EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN S150 OR APPROVED EQUAL.

SWPPP MAINTENANCE NOTES

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE IF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BA A QUALIFIED PERSON ON A SCHEDULE WHICH COMPLIES WITH THE GENERAL PERMIT REQUIREMENTS AND CLEANED AND REPAIRED WITHIN 48 HOURS OF THE INSPECTION IN ACCORDANCE WITH THE FOLLOWING;

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THE SHOW SIGNS OF UNDERMINING, OR DETERIORATION

2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED, AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.

3. SILT FENCES SHALL BE REPAIRED TO THERE ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCED.

4. THE TEMPORARY PARKING AND STORAGE AREA (IF PRESENT) SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE PARKING AS CONDITIONS DEMAND.

5. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS OR SEDIMENT TRAPS (IF PRESENT) SHALL BE MAINTAINED IN OPERATIONAL CONDITION AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%

6. MAINTENANCE PROCEDURES FOR THE EROSION AND SEDIMENTATION CONTROL SYSTEMS ARE SPECIFIED IN THE STORM WATER POLLUTION PLAN.

EROSION CONTROL SEQUENCE

1. CONSTRUCT TEMPORARY CONSTRUCTION EXIT.
2. INSTALL PERIMETER SILT FENCE AS SHOWN.
3. COMMENCE GRUBBING AND REMOVAL OF VEGETATION IN AREAS TO RECEIVE CUT OR FILL.
4. CONSTRUCT DETENTION POND (IF APPLICABLE) WITH PERMANENT OUTLET STRUCTURE, TO BE USED AS TEMPORARY SEDIMENT BASIN, WITH TEMPORARY OUTLET CONTROL (SEE DETAILS).
5. COMMENCE GRADING OPERATION FOR BUILDING PADS PREPARATION (SEE GRADING PLAN).
6. INSTALL ALL UNDERGROUND UTILITIES.
7. INSTALL INLET PROTECTION AROUND NEWLY CONSTRUCTED INLETS
8. FINALIZE PAVEMENT SUB-GRADE.
9. INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT, CURB, AND GUTTER.
10. INSTALL ALL PAVING, CURB AND GUTTER.
11. COMPLETE PLANTING AND/OR SEEDING OF VEGETATED AREAS TO ACCOMPLISH STABILIZATION, IN ACCORDANCE WITH THE LANDSCAPING PLAN.
12. CONVERT SEDIMENT BASIN TO DETENTION POND, REMOVE TEMPORARY OUTLET STRUCTURE, AND EXCAVATE ACCUMULATED SEDIMENT TO RETURN BASIN TO ORIGINAL DESIGN DEPTH.
13. REMOVE ALL TEMPORARY SEDIMENT CONTROL MEASURES AND CONSTRUCTION EXIT.

** NOTICE TO CONTRACTORS **

TOPOGRAPHIC INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY PERFORMED BY EST, INC. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, IN WRITING, OF ANY DISCREPANCIES OR OMISSIONS TO THE TOPOGRAPHIC INFORMATION. THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION (HORIZONTAL/VERTICAL) OF ANY BURIED CABLES, CONDUITS, PIPES, AND STRUCTURES (STORM SEWERS, SANITARY SEWER, WATER, GAS, TELEPHONE, ETC.) WHICH IMPACT THE CONSTRUCTION SITE. THE CONTRACTOR(S) SHALL NOTIFY THE OWNER AND ENGINEER IF ANY DISCREPANCIES ARE FOUND BETWEEN THE ACTUAL CONDITIONS VERSUS THE DATA CONTAINED IN THE CONSTRUCTION PLANS. ANY COSTS INCURRED AS THE RESULT OF NOT CONFIRMING THE ACTUAL LOCATION (HORIZONAL/VERTICAL) OF SAID CABLES, CONDUITS, PIPES, AND STRUCTURES SHALL BE BORN BY THE CONTRACTOR. ADDITIONALLY, THE CONTRACTOR(S) SHALL NOTIFY THE OWNER AND ENGINEER IF ANY ERRORS OR DISCREPANCIES ARE FOUND ON THE CONSTRUCTION DOCUMENTS WHICH NEGATIVELY IMPACT THE PROJECT. ENGINEER AND OWNER SHALL BE INDEMNIFIED OF PROBLEMS AND/OR COST WHICH MAY RESULT FROM CONTRACTOR'S FAILURE TO NOTIFY ENGINEER AND OWNER.

PERMIT: 11/6/2020
ISSUED FOR: DATE:

BECKHAM SUB-DIVISION
SULPHUR SPRINGS, TX

DYNAMIC Engineering Consultants PLLC
PROFESSIONAL ENGINEERING SERVICES
200 S. HILLCREST, SUITE C
SULPHUR SPRINGS, TX 75482

STATE OF TEXAS
93832
LICENSED PROFESSIONAL ENGINEER
ENGINEERING SEAL

	NAME	DATE
DRAWN	ALEX SANCHEZ	
CHECKED		
ENG APPR.	JW BURNETT	
Q.A.		

EROSION CONTROL NOTES
PROJECT # 7879
SHEET NUMBER C2.0

LEGEND

— ·· — ·· —	PRE-CONSTRUCTION DRAINAGE
— · — · —	POST-CONSTRUCTION DRAINAGE
—479.00—	EXISTING CONTOUR LINES
—479.00—	PROPOSED CONTOUR LINES
	AREA DESIGNATOR
	FLOW RATE Q (CFS)
	DIRECTION OF FLOW
— LD — LD —	LIMITS OF GRADING DISTURBANCE
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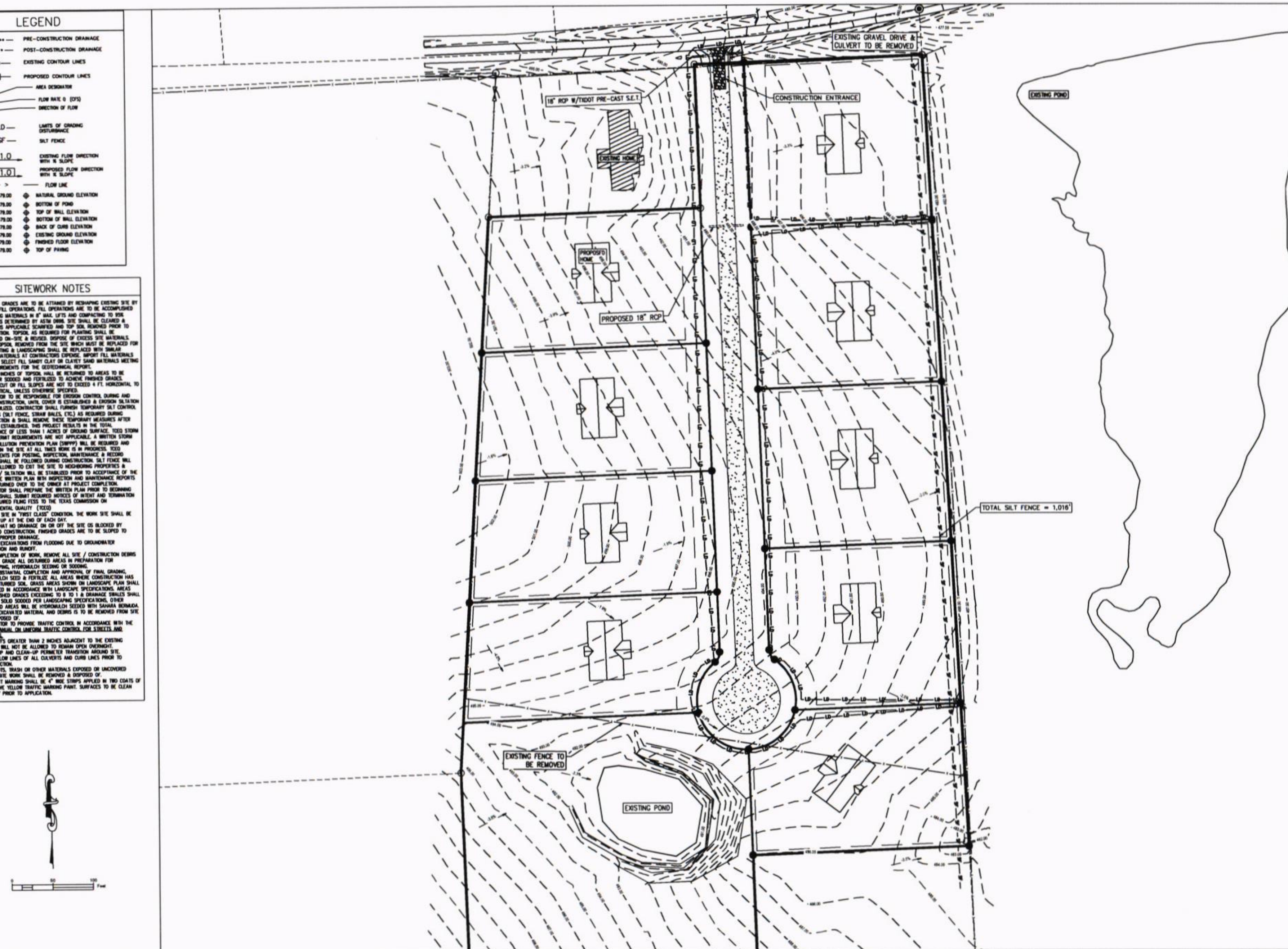

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PROFESSIONAL ENGINEERING SERVICES

200 S. HILLCREST, SUITE C
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75482

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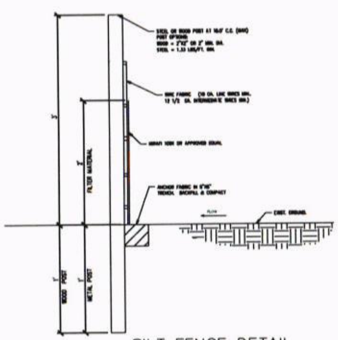
LICENSED PROFESSIONAL ENGINEER

ENGINEERING SEAL

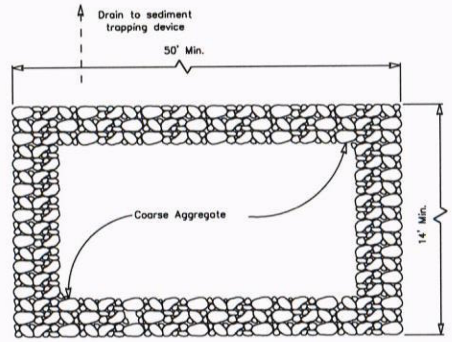
	NAME	DATE
DRAWN	ALEX SANCHEZ	
CHECKED		
ENG APPR.	JIM BURNETT	
Q.A.		

EROSION CONTROL PLAN
PROJECT # 7679
SHEET NUMBER C2.1

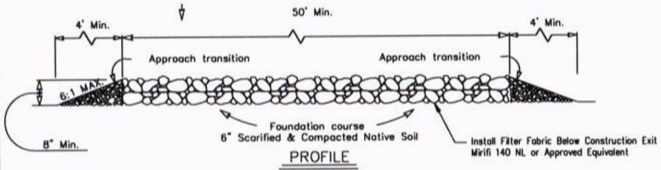


SILT FENCE DETAIL
N.T.S.

NOTE: STRAW BALES MAY BE USED IN LIEU OF FABRIC AROUND CATCH BASINS. BALES SHALL BE EMBEDDED 4" INTO GROUND AND SECURELY STAKED IN PLACE.



PLAN



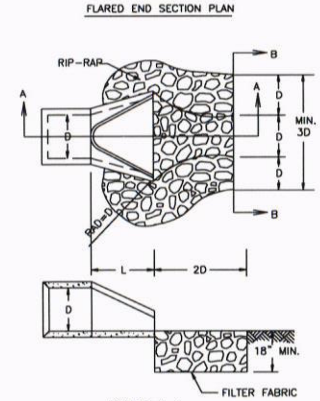
PROFILE

CONSTRUCTION EXIT
N.T.S.

GENERAL NOTES

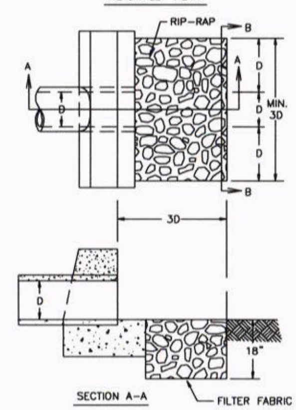
1. The length of the type 1 construction exit shall be as indicated on the plans, but not less than 50'.
2. The coarse aggregate should be open graded with a size of 4" to 8".
3. The approach transitions should be no steeper than 6:1
4. The construction exit shall be graded to allow drainage to a sediment trapping device.

FLARED END SECTION PLAN

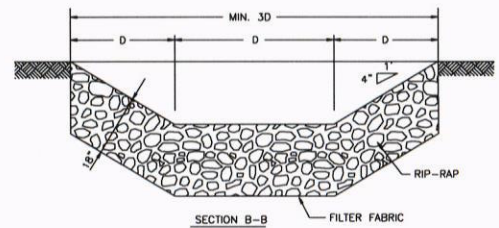


SECTION A–A

HEADWALL PLAN

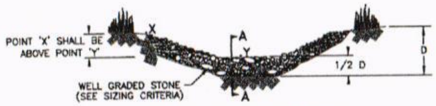


SECTION A–A

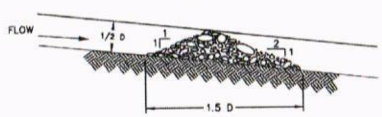


SECTION B–B

DISCHARGE AREA EROSION CONTROL DETAIL
N.T.S.

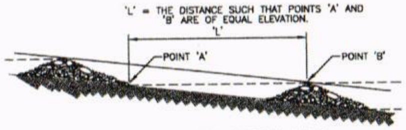


VIEW LOOKING UPSTREAM



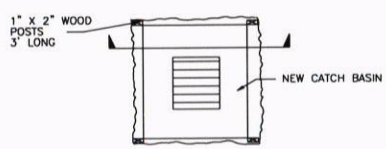
SECTION A – A

'L' = THE DISTANCE SUCH THAT POINTS 'A' AND 'B' ARE OF EQUAL ELEVATION.

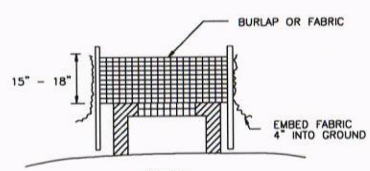


SPACING BETWEEN CHECK DAMS

ROCK BERM DETAIL
N.T.S.

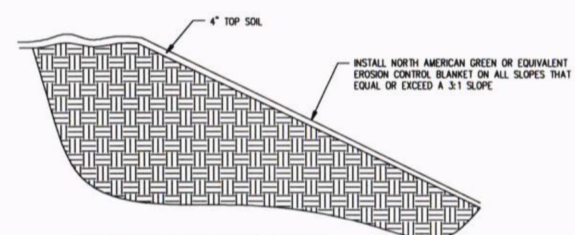


PLAN



SECTION

CATCH BASIN PROTECTION
N.T.S.



NOTE: PROVIDE AS SOON AS FINAL GRADE IS ACHIEVED FOR SLOPES TO REMAIN EXPOSED FOR 30 DAYS OR MORE.

SLOPE PROTECTION (SP)
N.T.S.

PERMIT: 11/6/2020
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SULPHUR SPRINGS, TX

DYNAMIC Engineering Consultants PLLC
PROFESSIONAL ENGINEERING SERVICES
200 S. HILLCREST, SUITE C
SULPHUR SPRINGS, TX 75482

ENGINEERING SEAL

	NAME	DATE
DRAWN	ALEX SANCHEZ	
CHECKED		
ENG APPR.	JW BURNETT	
Q.A.		

EROSION CONTROL DETAILS
PROJECT # 7079
SHEET NUMBER C2.2

9/16/2020 Beckham Sub-Division Paving Plan 10-26-20.dwg

LEGEND

Symbol	Description
— ** — ** — ** —	PRE-CONSTRUCTION DRAINAGE
— — * — — * —	POST-CONSTRUCTION DRAINAGE
—479.00—	EXISTING CONTOUR LINES
—[479.00]—	PROPOSED CONTOUR LINES
(circle symbol)	AREA DESIGNATOR; FLOW RATE Q (CFS); DIRECTION OF FLOW
— LD — LD —	LIMITS OF GRADING DISTURBANCE
— SF — SF —	SILT FENCE
−1.0 →	EXISTING FLOW DIRECTION WITH % SLOPE
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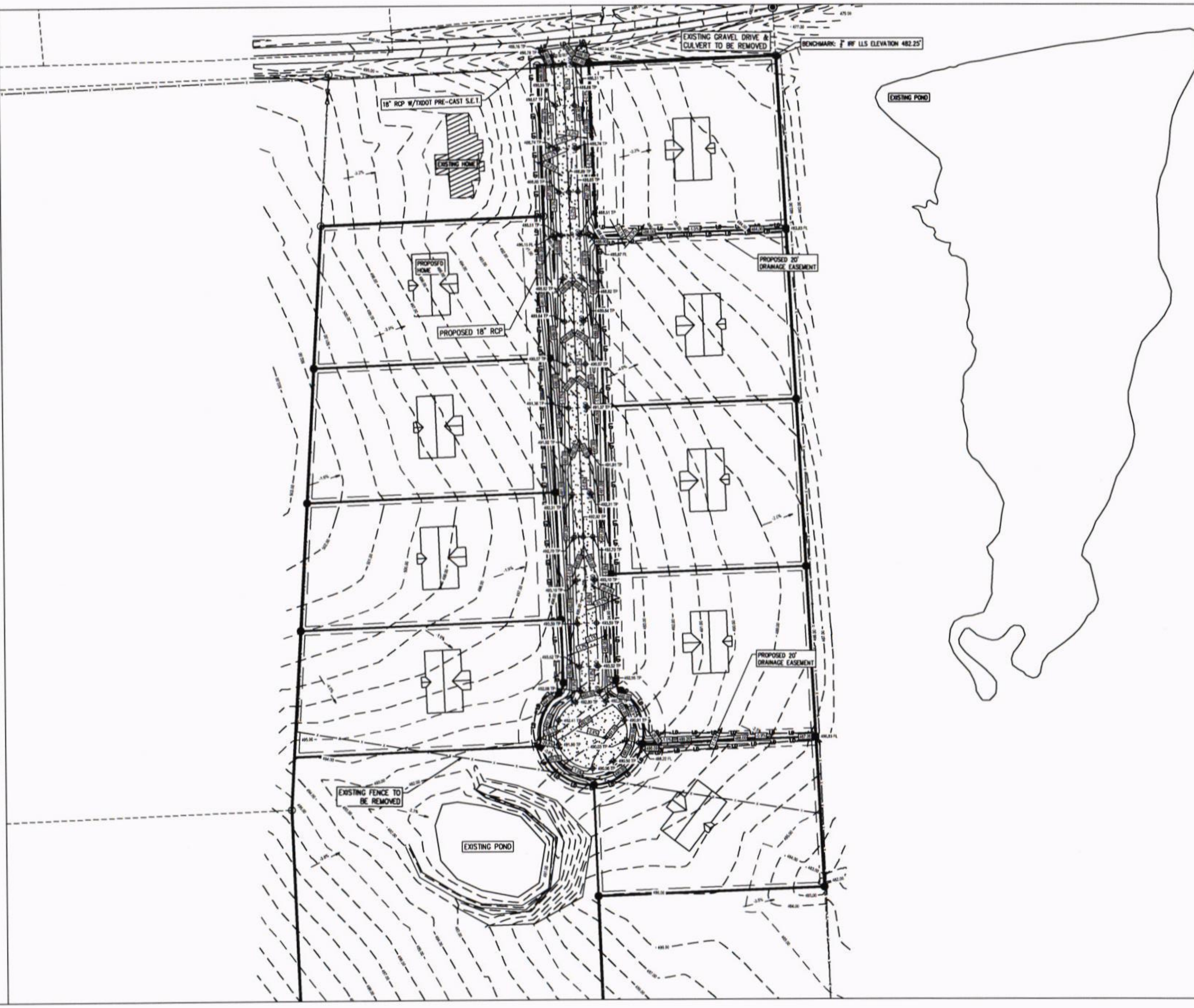
0 50 100 Feet



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SULPHUR SPRINGS, TX

DYNAMIC
Engineering Consultants
PLLC

PROFESSIONAL ENGINEERING SERVICES

200 S. HILLCREST, SUITE C
SULPHUR SPRINGS, TX
75482

STATE OF TEXAS
93832
LICENSED PROFESSIONAL ENGINEER

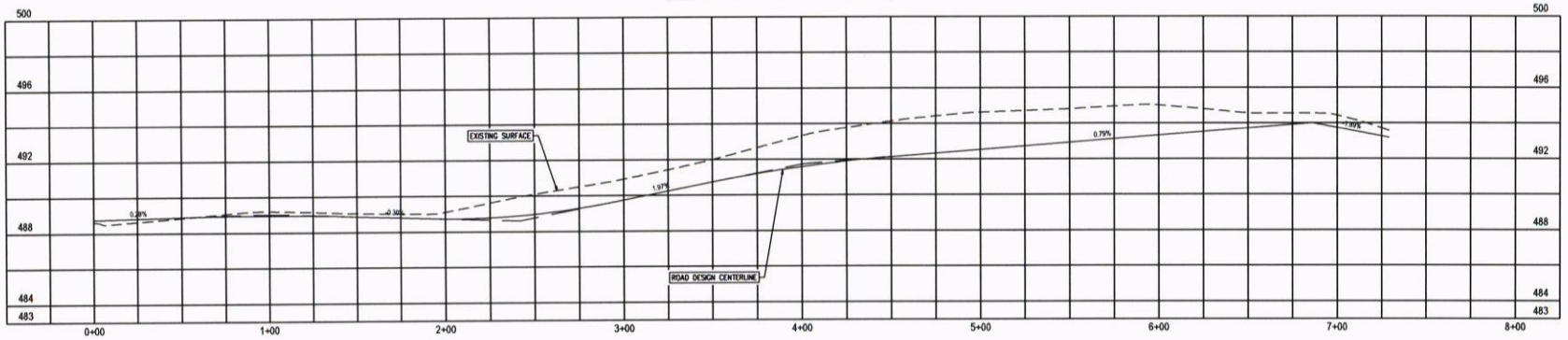
ENGINEERING SEAL

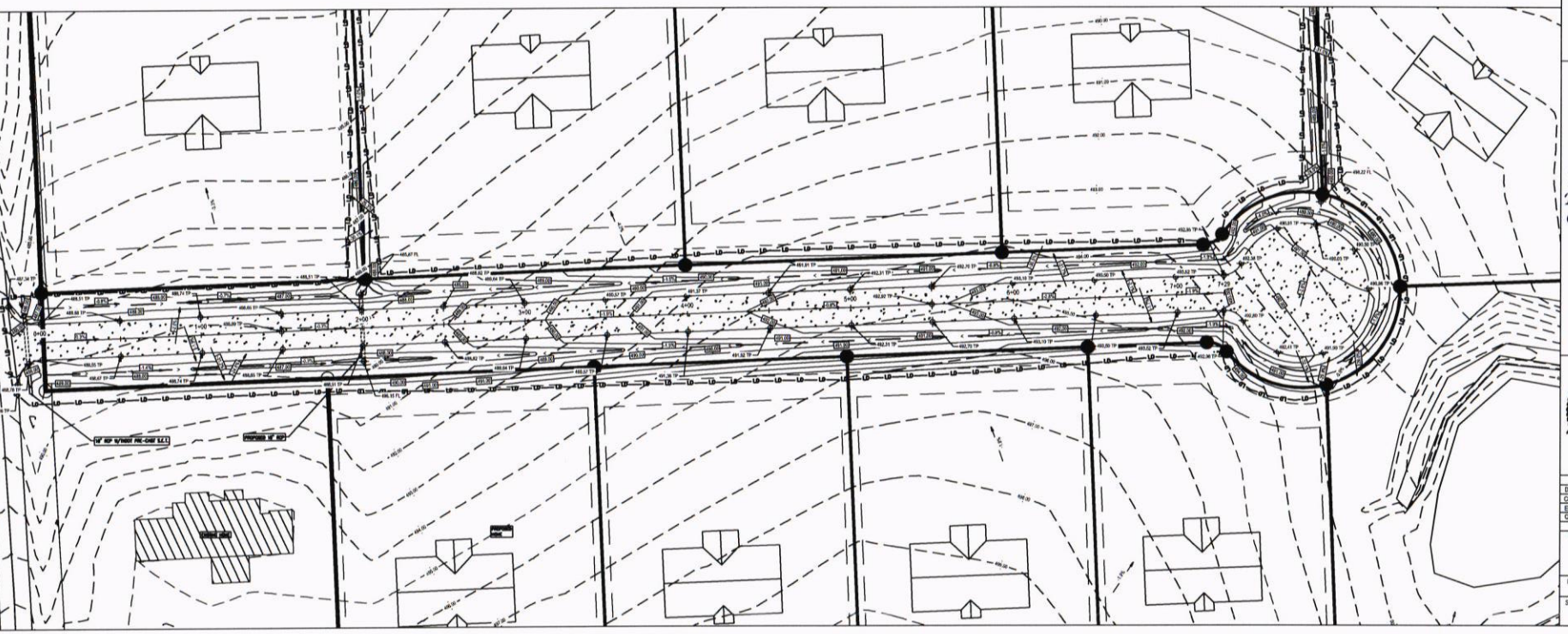
	NAME	DATE
DRAWN		
CHECKED		
ENG APPR.		
Q.A.		

PROPRIETARY AND CONFIDENTIAL

GRADING PLAN
PROJECT # 7579
SHEET NUMBER C3.0

PROPOSED ROAD PROFILE





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75482

STATE OF TEXAS
DANIEL V. SANCHEZ
93832
LICENSED
PROFESSIONAL ENGINEER

ENGINEERING SEAL

	NAME	DATE
DRAWN	ALEX SANCHEZ	11/6/2020
CHECKED		
ENG APPR.	JW BURNETT	11/6/2020
Q.A.		

PROPOSED ROAD PLAN & PROFILE

PROJECT #: 7079

SHEET NUMBER: C3.1

LEGEND

— ·· — ·· — ·· —	PRE-CONSTRUCTION DRAINAGE
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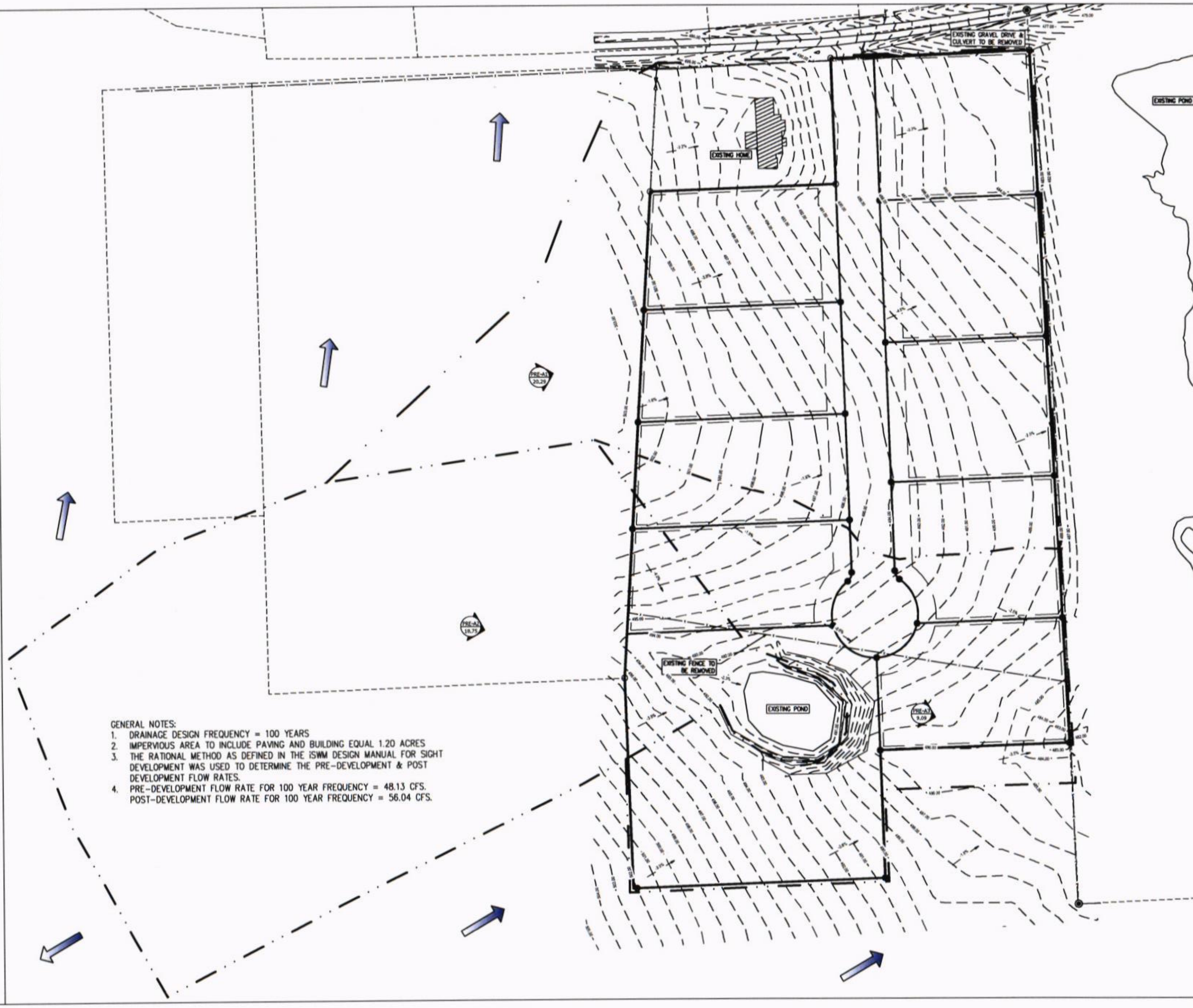
3. MAXIMUM CUT OR FILL SLOPES ARE NOT TO EXCEED 4 FT. HORIZONTAL TO 1 FT. VERTICAL, UNLESS OTHERWISE SPECIFIED.
4. CONTRACTOR TO BE RESPONSIBLE FOR EROSION CONTROL DURING AND AFTER CONSTRUCTION, UNTIL COVER IS ESTABLISHED & EROSION SILTATION HAS STABILIZED. CONTRACTOR SHALL FURNISH TEMPORARY SILT CONTROL MEASURES (SILT FENCE, STRAW BALES, ETC.) AS REQUIRED DURING CONSTRUCTION & SHALL REMOVE THESE TEMPORARY MEASURES AFTER COVER IS ESTABLISHED. THIS PROJECT RESULTS IN THE TOTAL DISTURBANCE OF LESS THAN 1 ACRES OF GROUND SURFACE. TCEQ STORM WATER PERMIT REQUIREMENTS ARE NOT APPLICABLE. A WRITTEN STORM WATER POLLUTION PREVENTION PLAN (SWPPP) WILL BE REQUIRED AND WILL BE ON THE SITE AT ALL TIMES WORK IS IN PROGRESS. TCEQ REQUIREMENTS FOR POSTING, INSPECTION, MAINTENANCE & RECORD KEEPING SHALL BE FOLLOWED DURING CONSTRUCTION. SILT FENCE WILL NOT BE ALLOWED TO EXIT THE SITE TO NEIGHBORING PROPERTIES & EROSION / SILTATION WILL BE STABILIZED PRIOR TO ACCEPTANCE OF THE WORK. THE WRITTEN PLAN WITH INSPECTION AND MAINTENANCE REPORTS WILL BE TURNED OVER TO THE OWNER AT PROJECT COMPLETION. CONTRACTOR SHALL PREPARE THE WRITTEN PLAN PRIOR TO BEGINNING WORK & SHALL SUBMIT REQUIRED NOTICES OF INTENT AND TERMINATION WITH REQUIRED FILING FESS TO THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ)
5. MAINTAIN SITE IN "FIRST CLASS" CONDITION. THE WORK SITE SHALL BE CLEANED UP AT THE END OF EACH DAY.
6. INSURE THAT NO DRAINAGE ON OR OFF THE SITE OS BLOCKED BY PROPOSED CONSTRUCTION. FINISHED GRADES ARE TO BE SLOPED TO PROVIDE PROPER DRAINAGE.
7. PROTECT EXCAVATIONS FROM FLOODING DUE TO GROUNDWATER INFILTRATION AND RUNOFF.
8. NEAR COMPLETION OF WORK, REMOVE ALL SITE / CONSTRUCTION DEBRIS AND FINE GRADE ALL DISTURBED AREAS IN PREPARATION FOR LANDSCAPING, HYDROMULCH SEEDING OR SODDING.
9. UPON SUBSTANTIAL COMPLETION AND APPROVAL OF FINAL GRADING, HYDROMULCH SEED & FERTILIZE ALL AREAS WHERE CONSTRUCTION HAS BEEN DISTURBED SOIL. GRASS AREAS SHOWN ON LANDSCAPE PLAN SHALL BE SODDED IN ACCORDANCE WITH LANDSCAPE SPECIFICATIONS. AREAS WITH FINISHED GRADES EXCEEDING TO 6 TO 1 & DRAINAGE SWALES SHALL ALSO BE SOLID SODDED PER LANDSCAPING SPECIFICATIONS. OTHER DISTURBED AREAS WILL BE HYDROMULCH SEEDED WITH SAHARA BERMUDA.
10. EXCESS EXCAVATED MATERIAL AND DEBRIS IS TO BE REMOVED FROM SITE AND DISPOSED OF.
11. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL FOR STREETS AND HIGHWAYS.
12. DROP-OFFS GREATER THAN 2 INCHES ADJACENT TO THE EXISTING STREETS WILL NOT BE ALLOWED TO REMAIN OPEN OVERNIGHT.
13. DRESS-UP AND CLEAN-UP PERIMETER TRANSITION AROUND SITE.
14. VERIFY FLOW LINES OF ALL CULVERTS AND CURB LINES PRIOR TO CONSTRUCTION.
15. ANY ROOTS, TRASH OR OTHER MATERIALS EXPOSED OR UNCOVERED DURING SITE WORK SHALL BE REMOVED & DISPOSED OF.
16. PAVEMENT MARKING SHALL BE 4" WIDE STRIPS APPLIED IN TWO COATS OF REFLECTIVE YELLOW TRAFFIC MARKING PAINT. SURFACES TO BE CLEAN AND DRY PRIOR TO APPLICATION.

0 60 120 Feet



GENERAL NOTES:
1. DRAINAGE DESIGN FREQUENCY = 100 YEARS
2. IMPERVIOUS AREA TO INCLUDE PAVING AND BUILDING EQUAL 1.20 ACRES
3. THE RATIONAL METHOD AS DEFINED IN THE ISWM DESIGN MANUAL FOR SIGHT DEVELOPMENT WAS USED TO DETERMINE THE PRE-DEVELOPMENT & POST DEVELOPMENT FLOW RATES.
4. PRE-DEVELOPMENT FLOW RATE FOR 100 YEAR FREQUENCY = 48.13 CFS. POST-DEVELOPMENT FLOW RATE FOR 100 YEAR FREQUENCY = 56.04 CFS.

PERMIT:	11/6/2020
ISSUED FOR:	DATE:

BECKHAM SUB-DIVISION

SULPHUR SPRINGS, TX

DYNAMIC
Engineering Consultants
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PROFESSIONAL ENGINEERING SERVICES
200 S. HILLCREST, SUITE C
SULPHUR SPRINGS, TX
75482

STATE OF TEXAS
JAMES W. BURNETT
93832
LICENSED
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ENGINEERING SEAL

	NAME	DATE
DRAWN	ALEX SANCHEZ	[illegible]
CHECKED		
ENG APPR.	JW BURNETT	[illegible]
Q.A.		

PROPRIETARY AND CONFIDENTIAL

PRE-CONSTRUCTION DRAINAGE PLAN
PROJECT # 7679
SHEET NUMBER C3.2

LEGEND

— •• — •• — •• —	PRE-CONSTRUCTION DRAINAGE
— — • — — • —	POST-CONSTRUCTION DRAINAGE
—479.00—	EXISTING CONTOUR LINES
—[479.00]—	PROPOSED CONTOUR LINES
(symbol)	AREA DESIGNATOR; FLOW RATE Q (CFS); DIRECTION OF FLOW
— LD — LD —	LIMITS OF GRADING DISTURBANCE
— SF — SF —	SILT FENCE
−1.0 →	EXISTING FLOW DIRECTION WITH % SLOPE
[−1.0] →	PROPOSED FLOW DIRECTION WITH % SLOPE
—— > ——	FLOW LINE
NG 479.00	NATURAL GROUND ELEVATION
BP 479.00	BOTTOM OF POND
TW 479.00	TOP OF WALL ELEVATION
BW 479.00	BOTTOM OF WALL ELEVATION
BC 479.00	BACK OF CURB ELEVATION
EG 479.00	EXISTING GROUND ELEVATION
FF 479.00	FINISHED FLOOR ELEVATION
TP 479.00	TOP OF PAVING

SITEWORK NOTES

1. PROPOSED GRADES ARE TO BE ATTAINED BY RESHAPING EXISTING SITE BY CUT AND FILL OPERATIONS. FILL OPERATIONS ARE TO BE ACCOMPLISHED BY PLACING MATERIALS IN 8" MAX. LIFTS AND COMPACTING TO 95% DENSITY AS DETERMINED BY ASTM D698. SITE SHALL BE CLEARED & GRUBBED IS APPLICABLE SCARIFIED AND TOP SOIL REMOVED PRIOR TO CONSTRUCTION. TOPSOIL AS REQUIRED FOR PLANTING SHALL BE STOCKPILED ON-SITE & REUSED. DISPOSE OF EXCESS SITE MATERIALS. EXCESS TOPSOIL REMOVED FROM THE SITE WHICH MUST BE REPLACED FOR SITE PLANTING & LANDSCAPING SHALL BE REPLACED WITH SIMILAR QUALITY MATERIALS AT CONTRACTORS EXPENSE. IMPORT FILL MATERIALS SHALL BE SELECT FILL, SANDY CLAY OR CLAYEY SAND MATERIALS MEETING THE REQUIREMENTS FOR THE GEOTECHNICAL REPORT.
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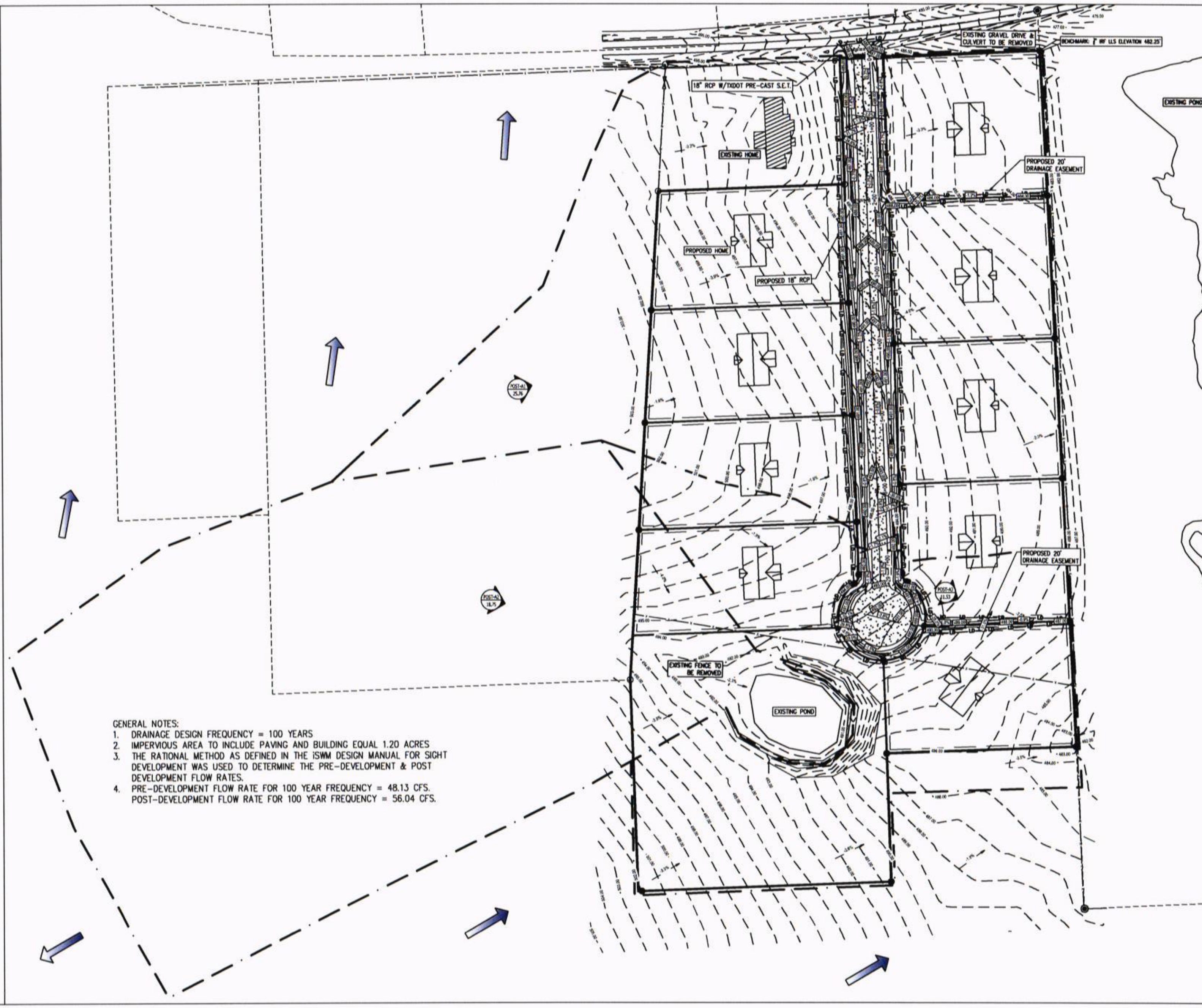

GENERAL NOTES:

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2. IMPERVIOUS AREA TO INCLUDE PAVING AND BUILDING EQUAL 1.20 ACRES
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ENGINEERING SEAL

	NAME	DATE
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CHECKED		
ENG APPR.	JW BURNETT	[illegible]
Q.A.		

POST-CONSTRUCTION DRAINAGE PLAN
PROJECT # 7679
SHEET NUMBER C3.3

Beckham Sub-Division Pre-Development Flow (Rational Method)

Drainage Divide	Area (Acre)	Time of Conc. t (min)	Composite Runoff	Average Slope S (%)	Overland Flow	1 yr Qa(CFS)	2 yr Qa(CFS)	5 yr Qa(CFS)	10 yr Qa(CFS)	25 yr Qa(CFS)	50 yr Qa(CFS)	100 yr Qa(CFS)
Pre-A1	11.17	30	0.26	3.5	250	6.88	8.04	10.05	11.36	14.50	17.60	20.29
Pre-A2	10.32	30	0.26	3.5	250	6.36	7.43	9.28	10.49	13.40	16.26	18.75
Pre-A3	5.00	30	0.26	3.5	250	3.08	3.60	4.50	5.09	6.50	7.88	9.09
					TOTAL:	**16.32**	**19.08**	**23.83**	**26.93**	**34.40**	**41.74**	**48.13**

Beckham Sub-Division Post-Development Flow (Rational Method)

Drainage Divide	Area (Acre)	Time of Conc. t (min)	Composite Runoff	Average Slope S (%)	Overland Flow	1 yr Qa(CFS)	2 yr Qa(CFS)	5 yr Qa(CFS)	10 yr Qa(CFS)	25 yr Qa(CFS)	50 yr Qa(CFS)	100 yr Qa(CFS)
Post-A1	11.17	25	0.30	4	100	8.88	10.35	12.80	14.48	18.47	22.36	25.76
Post-A2	10.32	30	0.26	4	100	6.36	7.43	9.28	10.49	13.40	16.26	18.75
Post-A3	5.00	25	0.30	4	100	3.98	4.64	5.73	6.48	8.27	10.01	11.53
					TOTAL:	**19.21**	**22.42**	**27.81**	**31.45**	**40.13**	**48.63**	**56.04**

GENERAL NOTES:
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2. THE RATIONAL METHOD AS DEFINED IN THE ISWM DESIGN MANUAL FOR SIGHT DEVELOPMENT WAS USED TO DETERMINE THE PRE-DEVELOPMENT & POST DEVELOPMENT FLOW RATES.

Pre-Dev. Rainfall Intensity @ 30 min (Hopkins County)		
Return Period (Yr)	Rainfall Intensity @ tc (in/hr)	Frequency Factor C
1	2.37	1
2	2.77	1
5	3.46	1
10	3.91	1
25	4.54	1.1
50	5.05	1.2
100	5.59	1.25

Post-Dev. Rainfall Intensity @ 25 min (Hopkins County)		
Return Period (Yr)	Rainfall Intensity @ tc (in/hr)	Frequency Factor C
1	2.65	1
2	3.09	1
5	3.82	1
10	4.32	1
25	5.01	1.1
50	5.56	1.2
100	6.15	1.25

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	NAME	DATE
DRAWN	ALEX SANCHEZ	11/6/2020
CHECKED		
ENG APPR.	JIM BURDETT	11/6/2020
Q.A.		

PRE & POST DEV. CALCULATIONS
PROJECT # 7679
SHEET NUMBER C3.4