Scott Shelburne, Chairman Anne Sundquist, Vice Chairman Josh Jakubik, Secretary Holly Knee Tom Mayhew Robert Barker III City Administrator/Interim City Secretary, Don Doering City Attorney, Leonard Schneider City Engineer, Mike Kurzy Planning Coordinator, Christian Gable



#### NOTICE OF PUBLIC MEETING PLANNING & ZONING COMMISSION

#### AGENDA REGULAR MEETING THURSDAY, MARCH 16, 2023 - 4:30 P.M. Sewall Smith Council Chambers

18111 Buddy Riley Blvd., Magnolia, Texas 77354

#### 1. CALL TO ORDER

- a. INVOCATION
- b. PLEDGE OF ALLEGIANCE
- c. ROLL CALL AND CERTIFICATION OF QUORUM

#### 2. CONSENT AGENDA

This portion of the agenda consists of items considered to be routine and will be enacted by one motion unless separate discussion is requested by a Commission member or a citizen.

#### a. CONSIDERATION – APPROVAL OF MINUTES

Consideration and possible action to approve the minutes of the meeting held February 16, 2023.

#### 3. CITIZENS COMMENTS, REQUESTS OR PETITIONS FROM THE PUBLIC

(This agenda item provides an opportunity for citizens to address the City Council on any matter not on the agenda).

Comments shall be limited to three (3) minutes per person. Comments by the governing body shall be limited to:

- a. Statements of specific factual information given in response to an inquiry;
- b. A recitation of existing policy in response to an inquiry;
- c. A proposal to place the subject on a future agenda.

#### 4. ANNOUNCEMENTS

(Hear announcements concerning items of community interest from the Board Members of the Planning Commission and City Staff for which no action will be taken or discussed.)

#### 5. UPDATE ON CITY OF MAGNOLIA DEVELOPMENTS (Staff)

### 6. CONSIDERATION AND POSSIBLE ACTION TO REVIEW AND APPROVE PARKSIDE MAGNOLIA WEST, PRELIMINARY PLAT, +/- 14.246 ACRES.

#### 7. FUTURE AGENDA ITEMS

#### 8. ADJOURN

The Planning & Zoning Commission of the City of Magnolia, Texas, reserves the right to adjourn into Closed Executive Session at any time during the course of this meeting to discuss any of the matters listed above as authorized by Title 5, Chapter 551, of the Texas Government Code. 551.071(Consultation with Attorney), 551.072 (Deliberations about Real Property), 551.073 (Deliberations about Gifts and Donations), 551.074 (Personnel Matters), 551.076 (Deliberations about Security Devices), 551.086 (Deliberations about competitive matters), and 551.087 (Deliberation about Economic Development Matters).

Persons with disabilities who plan to attend this meeting and who may need auxiliary aids or services are requested to contact the City Secretary's office at (281-305-0550), two working days prior to the meeting for appropriate arrangements.

#### CERTIFICATE

I certify that a copy of the *Notice of Meeting* was posted on the City Hall bulletin board, a place convenient and readily accessible to the general public at all times, and to the City's website, www.cityofmagnolia.com, in compliance with Chapter 551, Texas Government Code.

DATE TIME TAKEN DOWN

Christian Gable, Asst. Interim City Secretary



Scott Shelburne, Chairman Anne Sundquist, Vice Chairman Josh Jakubik, Secretary Holly Knee Tom Mayhew Robert Barker III



City Administrator/Interim City Secretary, Don Doering City Attorney, Leonard Schneider City Engineer, Mike Kurzy Planning Coordinator, Christian Gable

#### MINUTES OF PLANNING & ZONING COMMISSION FEBRUARY 16, 2023

A meeting of the Planning & Zoning Commission was held on February 16, 2023, beginning at 4:30 p.m. in the Sewall Smith City Council Chambers located at 18111 Buddy Riley Blvd., Magnolia, Texas 77354.

#### 1. CALL TO ORDER

Chairman Shelburne called the regular meeting to order at 4:30 pm.

- a. INVOCATION Tom Mayhew delivered the invocation.
- b. PLEDGE OF ALLEGIANCE Chairman Shelburne led the Pledge of Allegiance.
- c. ROLL CALL AND CERTIFICATION OF QUORUM Chairman Shelburne called roll and certified a quorum present with the following Planning & Zoning Commission members in attendance: Scott Shelburne, Anne Sundquist, Josh Jakubik, Robert Barker III, Holly Knee, and Tom Mayhew.

Absent: none

Staff present: City Administrator Don Doering, Planning Coordinator Christian Gable.

#### 2. CONSENT AGENDA

This portion of the agenda consists of items considered to be routine and will be enacted by one motion unless separate discussion is requested by a Commission member or a citizen.

#### a. CONSIDERATION - APPROVAL OF MINUTES

Consideration and possible action to approve the minutes of the meeting held January 19, 2023.

- MOTION: Upon a motion to approve Consent Agenda made by Josh Jakubik and seconded by Anne Sundquist, the Commission members voted, and the motion carried unanimously, 5-0.
- 3. CITIZENS COMMENTS, REQUESTS OR PETITIONS FROM THE PUBLIC (This agenda item provides an opportunity for citizens to address the City Council on any matter not on the agenda).

Comments shall be limited to three (3) minutes per person. Comments by the governing body shall be limited to: a. Statements of specific factual information given in response to an inquiry;

- b. A recitation of existing policy in response to an inquiry;
  c. A proposal to place the subject on a future agenda.

None

#### 4. **ANNOUNCEMENTS**

(Hear announcements concerning items of community interest from the Board Members of the Planning Commission and City Staff for which no action will be taken or discussed.)

City Administrator Don Doering provided updates on water plant developments:

Well #7 - Screens are in, drilling rig is gone, new rig has been delivered and is set up to begin operating soon.

Well #8 - Had preconstruction meeting and construction will begin the first week of March.

Audubon well is being drilled.

City Council agreed to work with Stratus Properties to construct an additional well.

#### 5. UPDATE ON CITY OF MAGNOLIA DEVELOPMENTS (Staff)

Chairman Shelburne informed that Clearwater Express is planning to open February 20<sup>th</sup>.

#### 6. CONSIDERATION AND POSSIBLE ACTION TO REVIEW AND APPROVE WINDMILL ESTATES PARTIAL REPLAT, FINAL PLAT, +/- 8.164 ACRES.

Adam France, Land Planner with BGE, and Rick Van den Bosch, Davidson Homes representative, presented the item and answered engineering questions from Commission members to confirm adequate drainage.

#### MOTION: Upon a motion to approve made by Holly Knee and seconded by Robert Barker III, the Commission members voted, and the motion carried unanimously, 5-0.

#### 7. **FUTURE AGENDA ITEMS** None

#### 8. **ADJOURN**

MOTION: Upon a motion to adjourn made by Robert Barker III and seconded by Anne Sundquist, the Commission members voted and the motion carried unanimously, 5-0 and Chairman Shelburne adjourned the meeting at 4:43 pm.

Planning & Zoning Commission

Scott Shelburne, Chairman

#### CERTIFICATION

I certify this to be a true and correct copy of the minutes of the meeting of the City of Magnolia Planning and Zoning Commission held on January 16, 2023.

ATTEST:



Christian Gable, Asst. Interim City Secretary



March 3, 2023

Mr. Don Doering City Administrator City of Magnolia 18111 Buddy Riley Boulevard Magnolia, Texas 77354

#### Reference: Parkside Magnolia West – Preliminary Plat Review City of Magnolia AEI Job No. 230348.80-001

Dear Mr. Doering:

We received the preliminary plat for the proposed Parkside Magnolia West on February 22, 2023. On behalf of City of Magnolia (the "City"), we have reviewed the submitted documents and offer no objection to the approval of this project, subject to the following comments:

- 1. With the final plat submittal,
  - a. Provide evidence that the water, sanitary, drainage and pavement plans have been approved and provide easements on plat.
  - b. Per Sec. 1-1-2.02 and Table 11-2-1.03 in the Unified Development Code, provide a site plan for City review and approval for chapters four, five and six of the Unified Development Code for nonresidential development.
  - c. Provide street right of way dedications to the responsible owner.
  - d. Update the owner of the property to President.
- 2. If any portion of this development may change at a future date, the City reserves the right to review and approve the proposed changes before initiating the change.

Please make all the revisions as requested and the applicable paperwork for this office for final approval. If you have any questions or require additional information, please contact the undersigned or Michael A. Kurzy, P.E. at (281) 350-7027.

Sincerely,

Cristin Emshoff

Cristin Emshoff, MUP, ENV SP Urban Planner

AEI Engineering, a Baxter & Woodman Company TBPELS Registration No. F-21783

Ms. Christian Gable – City of Magnolia - Planning Coordinator
 Ms. Carla Padilla – IDS Engineering
 Ms. Karleigh Brown – AEI Engineering, a Baxter & Woodman Company
 Mr. Tommy Cormier Jr, PE. – AEI Engineering, a Baxter & Woodman Company
 Mr. Michael A. Kurzy, P.E. – AEI Engineering, a Baxter & Woodman Company

11450 Compaq Center Drive, Suite 660 Houston, Texas 77070 • (281) 350-7027



February 22, 2023

City of Magnolia Permit Office 18111 Buddy Riley Blvd. Magnolia, Texas 77354

Reference: Parkside Magnolia West – Preliminary Plat Review City of Magnolia, Texas IDS Project No. 2024-014-07

#### Transmitted herewith please find:

- ✓ One (1) copy of Preliminary Plat Application
- ✓ One (1) copy of Parkside Magnolia West Preliminary Plat
- ✓ One (1) copy of the Meets and Bounds
- ✓ One (1) copy of FM 1774 & FM 1486 construction plans for reference
- ✓ One (1) copy of the City Planning Letter

To whom it may concern,

The above items are transmitted to you for plat review in response to your comment letter sent on February 9. 2023. Please contact me with any questions or comments at cstory@idseg.com.

Sincerely,

Carla A. Story, E.I.T. Design Engineer

Enclosures

\\idseg.com\fs\Projects\2000\202401407 FM1774-FM1486 Plat\Eng-PM\Corres\2023-02-22 CoM 2nd Submittal\Transmittal to CoM.docx



#### **Preliminary Plat Application Form**

This form shall be submitted with each application for a preliminary plat.

#### CONTACT INFORMATION

Applicant	Property Owner (if different)
Carla Padilla, IDS Engineering Group	Parkside 1774, LLC
Name	Name
13430 Northwest Fwy., Suite 700	3003 W. Alabama St.
Street Address	Street Address
Houston, Texas 77040	Houston, Texas 77098
City, State Zip	City, State Zip
832-590-7238	N/A
Phone	Phone
N/A	N/A
Fax	Fax
_cpadilla@idseg.com	<u>N/A</u>
E-mail	E-mail
Architect (if different)	Engineer/Land Surveyor (if different)
N/A	Same as applicant
Name	Name
Street Address	Street Address
City, State Zip	City, State Zip
Phone	Phone
Fax	Fax
E-mail	E-mail

#### **PROPERTY PROFILE**

Property ID #	R40284			
Legal Description	n 1 BLOCK &	2 RESERVE	(14.246 AC)	
0	(Subdivision)	(Lot)	(Block)	
Current Zoning	N/A			
Present Use of P VACANT, UN	Property DEVELOPED PASTURED	LAND		
Proposed Use of 	f the Property IIXED-USE COMMERCIAL	AND MULTI	-FAMILY	

Total Area of Site \_\_\_\_\_14.246 AC

I, <u>Carla Padilla</u> (print or type name), certify with my signature below that the information included in my submittal packet is complete, true, and correct, to the best of my knowledge.

adilla\_\_\_\_

Signature of Applicant

1/26/2023

Date

#### STATE OF TEXAS COUNTY **OF MONTGOMERY**

I, BRETT F. WALKER, PRESIDENT of PARKSIDE CAPITAL, LLC, a Texas limited liability company, being manager of PARKSIDE 1774, LLC, a Texas limited liability company, hereinafter referred to as "Owner" of the property subdivided in the above and foregoing map of PARKSIDE MAGNOLIA WEST, do hereby make subdivision of said property for and on behalf of said PARKSIDE 1774, LLC, according to the lines, streets, lots, alleys, parks, building lines, and easements thereon shown and designate said subdivision as PARKSIDE MAGNOLIA WEST. Located in the WILLIAM T. DUNLAVY, A-168, in Montgomery County, Texas and on behalf of said PARKSIDE 1774, LLC; and dedicate to public use, as such, the streets, alleys, parks and easements shown thereon forever; and do hereby waive any claims for damages occasioned by the establishing of grades as approved for the streets and alleys dedicated, or occasioned by the alteration of the surface of any portion of streets or alleys to conform to such grades; and do hereby bind ourselves, our successors and assigns to warrant and forever defend the title to the land so dedicated.

THIS is to certify that I, BRETT F. WALKER, PRESIDENT of PARKSIDE 1774, LLC, Owner of the property subdivided in the above foregoing map of PARKSIDE MAGNOLIA WEST, have complied or will comply with all regulations heretofore on file with the Montgomery County Engineer and adopted by the Commissioner's Court of Montgomery County, Texas.

FURTHER, Owner has dedicated and by these presents does dedicate to the use of the public for public utility purposes forever unobstructed aerial easements. The aerial easements shall extend horizontally an additional eleven feet, six inches (11'-6") for ten feet (10'-0") perimeter ground easements, seven feet, six inches (7'-6") for fourteen feet (14'-0") perimeter ground easements, or five feet six inches (5'-6") for sixteen feet (16'-0") perimeter ground easements, from a plane sixteen feet (16'-0") above ground level upward, located adjacent to and adjoining said public utility easements that are designated with aerial easements (U.E. & A.E.) as indicated and depicted hereon, whereby the aerial easement totals twenty one feet, six inches (21'-6") in width.

FURTHER, Owner has dedicated and by these presents does dedicate to the use of the public for public utility purposes forever unobstructed aerial easements. The aerial easements shall extend horizontally an additional ten feet (10'-0") for ten feet (10'-0") back-to-back ground easements, eight feet (8'-0") for fourteen feet (14'-0") back-to-back ground easements, or seven feet (7'-0") for sixteen feet (16'-0") back-to-back ground easements, from a plane sixteen feet (16'-0") above ground level upward, located adjacent to both sides and adjoining said public utility easements that are designated with aerial easements (U.E. & A.E.) as indicated and depicted hereon, whereby the aerial easement totals thirty feet (30'-0") in width.

FURTHER, Owner hereby dedicates forever to the public a strip of land, a minimum fifteen feet (15'-0") wide on each side of the centerline of any and all gullies, ravines, draws, sloughs, or other natural drainage courses located in the said subdivision, as easements for drainage purposes, giving Montgomery County and/or any other public agency the right to enter upon said easements at any and all times for the purpose of constructing and/or maintaining drainage work and/or structures.

FURTHER, all of the property subdivided in the above and foregoing map shall be restricted in its use, which restrictions shall run with the title to the property, and shall be enforceable at the option of Montgomery County, by Montgomery County or any citizen thereof, by injunction as follows:

- 1) That drainage of septic tanks into any road, street, alley or other public ditches, either directly or indirectly, is strictly prohibited.
- 2) Drainage structures under private driveways shall have a net drainage opening area of sufficient size to permit the free flow of water without backwater, and shall be a minimum of one and three quarters (1-3/4) square feet (18" diameter pipe culvert).

We have also complied with applicable regulations hereto before adopted by the city council of the city of Magnolia, located in Montgomery County, Texas.

IN TESTIMONY WHEREOF, PARKSIDE 1774, LLC, a Texas limited liability company, has caused these presents to be signed by BRETT F. WALKER, PRESIDENT, thereunto authorized, this the \_\_\_\_\_\_ day of \_\_\_\_\_

**Its Manager** 

PARKSIDE 1774, LLC, a Texas limited liability company **BY: PARKSIDE CAPITAL, LLC,** a Texas limited liability company

**BRETT F. WALKER, PRESIDENT** 

This is to certify that the Planning and Zoning Commission of the City of Magnolia, Texas, has approved this plat and subdivision of PARKSIDE MAGNOLIA WEST as shown herein.

IN TESTIMONY WHEREOF, in witness of the official signatures of the Planning and Zoning Chairperson, and the City Secretary of the City of Magnolia, Texas, this the \_\_\_\_\_ day of \_\_\_\_\_ recorded in the official record at the Montgomery County Clerk's Office. \_, 2023, do approve this plat to be

> Scott A. Shelburne Chairperson

Don Doering **Interim City Secretary** 

This is to certify that the City Council of the City of Magnolia, Texas, has approved this plat and subdivision of PARKSIDE MAGNOLIA WEST as shown herein.

IN TESTIMONY WHEREOF, in witness of the official signatures of the Mayor, and the City Secretary of the City of Magnolia, Texas, this the \_\_\_\_\_ day of \_ , 2023, do approve this plat to be recorded in the official record at the Montgomery County Clerk's Office.

> Todd Kana Mayor

**Don Doering Interim City Secretary** 

I, Jeff Johnson, P.E., County Engineer of Montgomery County, Texas, do hereby certify that the plat of this subdivision complies with all of the existing rules and regulations of this office as adopted by the Montgomery County Commissioners' Court.

I further certify that the plat of this subdivision complies with requirements for internal subdivision drainage as adopted by the Commissioners' Court; however, no certification is hereby given as to the effect of drainage from this subdivision on the intercepting drainage artery or parent stream or on any other area of subdivision within the watershed.

APPROVED by the Commissioners Court of Montgomery County, Texas, this \_\_\_\_ , 2023. day of

> Robert C. Walker **Commissioner, Precinct I**

**Charlie Riley** 

Mark J. Keough **County Judge** 

James Noack **Commissioner, Precinct 3**  Matt Gray **Commissioner, Precinct 4** 

I, L. Brandon Steinmann, Clerk of the County Court of Montgomery County, do hereby certify that the within instrument with its certificate of authentication was filed for registration in my office on \_ \_, 2023, at \_ o'clock \_\_.M., and duly recorded on 2023, at \_\_\_\_\_o'clock \_\_.M., in Cabinet \_\_ , of record of for said County.

WITNESS MY HAND AND SEAL OF OFFICE, at Conroe, Montgomery County, Texas, the day and date last above written.

L. Brandon Steinmann, Clerk of the County Court Montgomery County, Texas.

By: \_\_\_\_\_ Deputy Issued

STATE OF TEXAS COUNTY **OF MONTGOMERY** 

BEFORE ME, the undersigned authority, on this day personally appeared BRETT F. WALKER, PRESIDENT of PARKSIDE 1774, LLC, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and considerations therein expressed, and in the capacity therein and herein set out and as the act and deed of said entity.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this\_\_\_\_\_ day of \_\_\_\_\_, 2023.

Notary Public in and for the State of Texas.

My Commission expires: \_\_\_\_

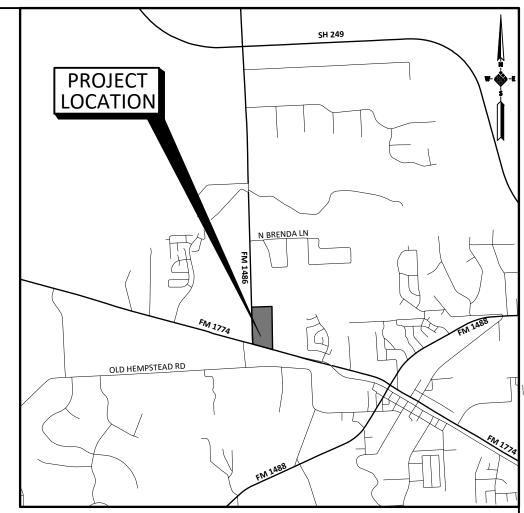
I, Michael L. Swan, am registered under the laws of the State of Texas to practice the profession of surveying and hereby certify that the above subdivision is true and correct; was prepared from an actual survey of the property made under my supervision on the ground; that the elevation benchmark reflected on the face of the plat was established as required by regulation; that all corners and angle points of the boundaries of the original tract to be subdivided of reference have been marked with iron pipe or rods having a diameter of not less than five-eighths of an inch (5/8") and a length of not less than three feet (3'); and that the plat boundary corners have been tied to the nearest survey corner and NAD83 state plane projections.

"PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED, VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT."

**MICHAEL L. SWAN Registered Professional Land Surveyor Texas Registration No. 5551** 

Jeff Johnson, P.E. Montgomery County Engineer

**Commissioner, Precinct 2** 



LOCATION MAP

N.T.S. (KEY MAP # 211 G, H, L & M )

NOTES:

- 1. M.R.M.C.T. indicates Map Records Montgomery County Texas B.L. indicates a building line U.E. indicates a utility easement A.E. indicates a aerial easement STM. S.E. indicates a storm sewer easement W.L.E. indicates a water line easement S.S.E. indicates a sanitary sewer easement VOL, PG indicates Volume, Page M.C.M.R. indicates Montgomery County Map Records M.C.R.P.R. indicates Montgomery County Real Property Records M.C.O.P.R.R.P. indicates Montgomery County Official Public Records of Real Property **ESMT.** indicates easement F.H.E. indicates a fire hydrant easement R.O.S.R. indicates a Restricted Open Space Reserve R.C.O.S.R. indicates a Restricted Compensating Open Space Reserve D.E. indicates a drainage easement **ETJ indicates Extraterritorial jurisdiction** IR indicates Iron Rod **FND IR indicates Found Iron Rod** PAE indicates Permanent Access Easement PUE indicates Public Utility Easement (PVT) indicates Private Street D.R.M.C.T. indicates Deed Records Montgomery County Texas. R.P.R.M.C. indicates Real Property Records Montgomery County • indicates found 5/8" iron rod (unless otherwise noted) • indicates set 5/8" iron rod with plastic cap stamped "IDS" (unless otherwise noted)
  - The coordinates shown hereon are Texas South Central Zone No. 4204 State Plane Surface 2. Coordinates (NAD83) and may be brought to grid by applying the combined scale factor of 0.99997000.
  - 3. All bearings based on the the Texas Coordinate System of 1983, Central Zone.

## PARKSIDE MAGNOLIA WEST

A SUBDIVISION OF

**14.246 ACRES** 

OUT OF WILLIAM T. DUNLAVY SURVEY, A-168 **MONTGOMERY COUNTY, TEXAS** 

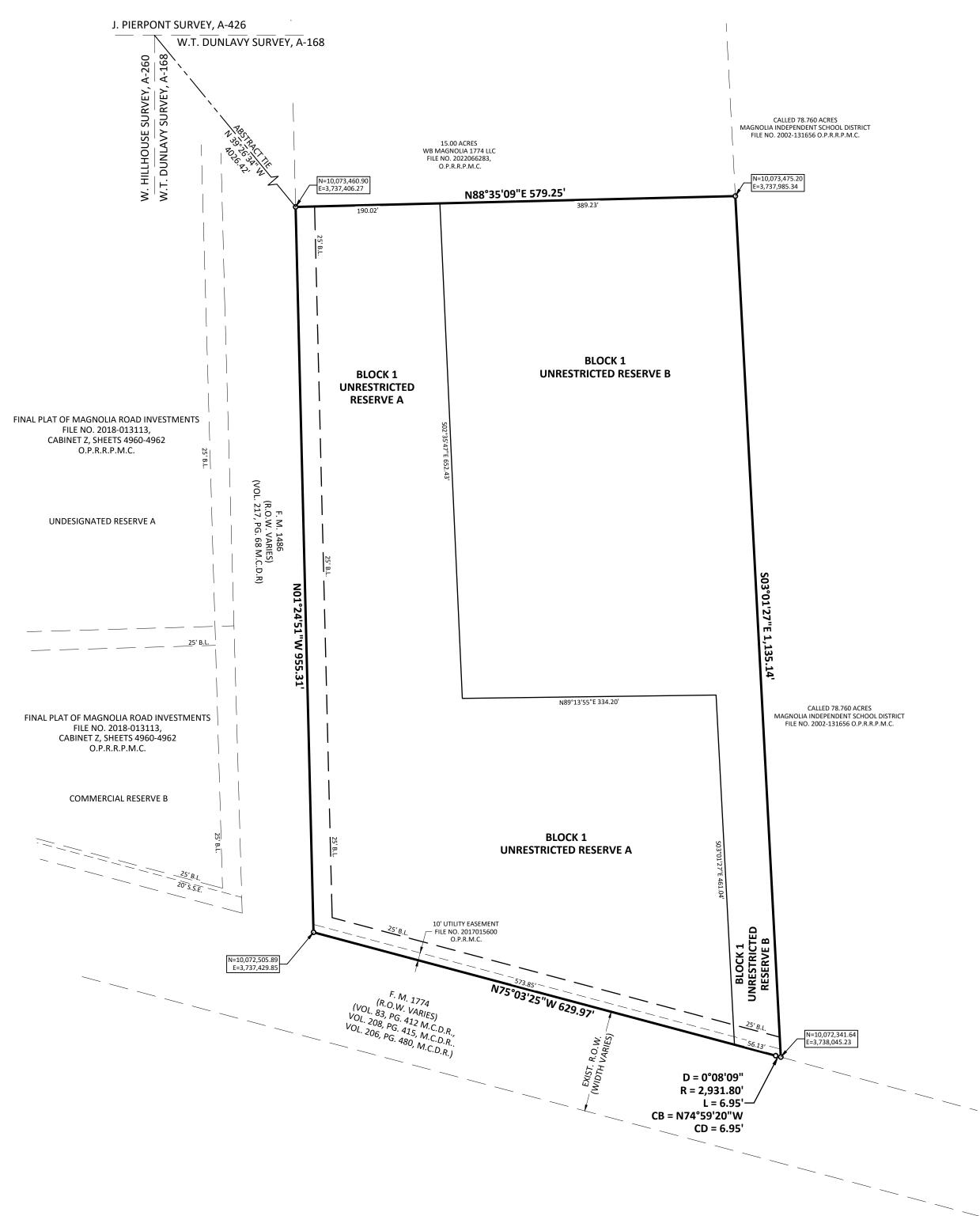
## 1 BLOCK & 2 RESERVES (14.246 AC.)

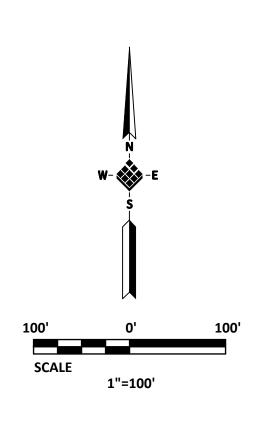
**OWNER: PARKSIDE 1774, LLC** 

A TEXAS LIMITED LIABILITY COMPANY 3003 W. ALABAMA ST. HOUSTON, TEXAS 77098

**ENGINEER:** Engineering Group 13430 NW. Freeway Suite 700 Houston, Tx, 77040 713.462.3178 TxEng Firm 2726 TxSurv Firm 1011070

January 26, 2023 PROJECT No. 2024-014-07 SHEET 1 OF 2





RESERVE TABLE				
	RESERVE NAME	RESTRICTION	SQ. FT.	ACRES
	RESERVE A	UNRESTRICTED	336,016	7.714
B	RESERVE B	UNRESTRICTED	284,531	6.532

PARKSIDE MAGNOLIA WEST SHEET 2 OF 2

#### PARKSIDE MAGNOLIA WEST

#### METES AND BOUNDS DESCRIPTION OF 14.246 ACRES (620,547 SQUARE FEET) OF LAND IN THE WILLIAM T. DUNLAVY SURVEY, A-168 MONTGOMERY COUNTY, TEXAS

Being 14.246 acres (620,547 square feet) of land in the William T. Dunlavy Survey, Abstract 168, Montgomery County, Texas, and being a portion of the 29.246 acre tract described in the deed from TODD MISSION CORNER, LLC to PARKSIDE 1774, LLC recorded in File Number 2021043746 of the Official Public Records of Real Property of Montgomery County, Texas, and more particularly described by metes and bounds as follows with bearings based on the Texas Coordinate System of 1983, Central Zone:

**BEGINNING** at a 5/8-inch iron rod with cap stamped "IDS" found for the southwest corner of said 29.246 acre tract and the southwest corner of the herein described tract and being on the east right-of-way line of F. M. 1486 (width varies) as described in Volume 217, Page 68 of the Montgomery County Deed Records;

**THENCE** North 01° 24' 51" West - 955.31 feet, with the east right-of-way line of F. M. 1486 and the west line of the herein described tract, to a 5/8-inch iron rod with cap stamped "IDS" found for the northwest corner of the herein described tract;

**THENCE** North 88° 35' 09" East – 579.25 feet to a 5/8-inch iron rod with cap stamped "IDS" set for the northeast corner of the herein described tract and being on the westerly line of the called 78.760 acre tract of the deed from JAMES EDWARD WARE & JUANITA VIRGINIA WARE, to MAGNOLIA INDEPENDENT SCHOOL DISTRICT, recorded in File Number 2002-131656 of the Official Public Records of Real Property of Montgomery County, Texas;

**THENCE** South 03° 01' 27" East – 1135.14 feet to a 5/8-inch iron rod with cap stamped "IDS" found for the southeast corner of the herein described tract and being on the northeasterly line of the called 0.8833 acre tract of land described in the Agreed Judgment to THE STATE OF TEXAS recorded in Document Number 2012030757 of the Official Public Records of Real Property of Montgomery County, Texas and being at the beginning of a non-tangent curve to the left;

**THENCE** in a northwesterly direction, with said curve to the left and with the northeasterly line of said 0.8833 acre tract, having a radius of 2931.80 feet, a central angle of 00° 08' 09", a chord bearing and distance of North 74° 59' 20" West - 6.95 feet, and an arc distance of 6.95 feet to a 5/8-inch iron rod with cap stamped "IDS" found for the end of said curve;

**THENCE** North 75° 03' 25" West – 629.97 feet, with the northeasterly line of said 0.8833 acre tract, to the **POINT OF BEGINNING** and containing 14.246 acres (620,547 square feet) of land.

Prepared by: IDS Engineering Group Job No. 2024-014-07-550 January 23, 2023

Michael Suan

Michael L. Swan Registered Professional Land Surveyor Texas Registration Number 5551



#### **CITY PLANNING LETTER**

February 22, 2023 Effective Date: February 13, 2023

Job No. 2341158A Ref: Parkside Magnolia West

STATE OF TEXAS: COUNTY OF MONTGOMERY:

THIS IS TO CERTIFY: That after a careful examination of the records in the offices of the Clerk of this County (excluding U. C. C. Records), as to the property described as follows:

Being 14.246 acres (620,547 square feet) of land in the William T. Dunlavy Survey, Abstract 168, Montgomery County, Texas, and being a portion of the 29.246 acre tract described in the deed from TODD MISSION CORNER, LLC to PARKSIDE 1774, LLC recorded in File Number 2021043746 of the Official Public Records of Real Property of Montgomery County, Texas, and more particularly described by metes and bounds as follows with bearings based on the Texas Coordinate System of 1983, Central Zone:

**BEGINNING** at a 5/8-inch iron rod with cap stamped "IDS" found for the southwest corner of said 29.246 acre tract and the southwest corner of the herein described tract and being on the east right-of-way line of F. M. 1486 (width varies) as described in Volume 217, Page 68 of the Montgomery County Deed Records;

**THENCE** North 01° 24' 51" West - 955.31 feet, with the east right-of-way line of F. M. 1486 and the west line of the herein described tract, to a 5/8-inch iron rod with cap stamped "IDS" found for the northwest corner of the herein described tract;

**THENCE** North 88° 35' 09" East – 579.25 feet to a 5/8-inch iron rod with cap stamped "IDS" set for the northeast corner of the herein described tract and being on the westerly line of the called 78.760 acre tract of the deed from JAMES EDWARD WARE & JUANITA VIRGINIA WARE, to MAGNOLIA INDEPENDENT SCHOOL DISTRICT, recorded in File Number 2002-131656 of the Official Public Records of Real Property of Montgomery County, Texas;

**THENCE** South  $03^{\circ} 01' 27''$  East – 1135.14 feet to a 5/8-inch iron rod with cap stamped "IDS" found for the southeast corner of the herein described tract and being on the northeasterly line of the called 0.8833 acre tract of land described in the Agreed Judgment to THE STATE OF TEXAS recorded in Document Number 2012030757 of the Official Public Records of Real Property of Montgomery County, Texas and being at the beginning of a non-tangent curve to the left;

**THENCE** in a northwesterly direction, with said curve to the left and with the northeasterly line of said 0.8833 acre tract, having a radius of 2931.80 feet, a central angle of 00° 08' 09", a chord bearing and distance of North 74° 59' 20" West - 6.95 feet, and an arc distance of 6.95 feet to a 5/8-inch iron rod with cap stamped "IDS" found for the end of said curve;



**THENCE** North 75° 03' 25" West – 629.97 feet, with the northeasterly line of said 0.8833 acre tract, to the **POINT OF BEGINNING** and containing 14.246 acres (620,547 square feet) of land.

#### We find the record title to be apparently in:

#### **PARKSIDE 1774, LLC**

By virtue of that certain Special Warranty Deed dated April 1,, 2021 from Todd Mission Corner, LLC and recorded under Montgomery County Clerk's File Number 2021043746.

#### Subject to the following liens:

None found of record.

#### Subject to the following easements and encumbrances:

Utility Easement dated February 10, 2017 and recorded under Montgomery County Clerk's File Number 2017015600.

Drainage Easement dated May 25, 2022 and recorded under Montgomery County Clerk's File Number 2022066282.

Drainage Easement dated March 16, 1953 and recorded under Volume 348, Page 297 of the Montgomery County Deed Records.

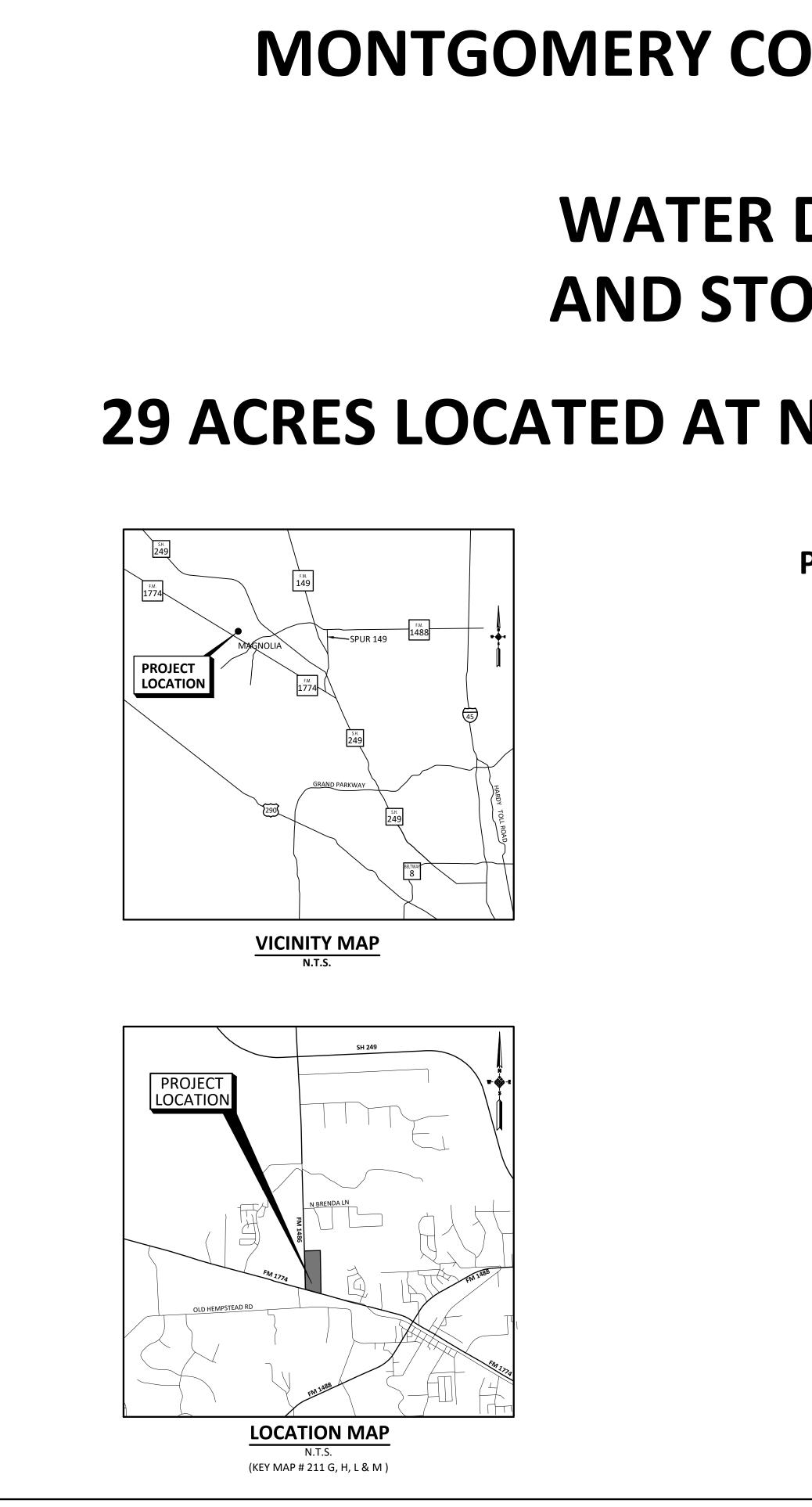
#### Subject to the following restrictions:

None found of record.

We have made no examination as to special assessments or conflicts.

INTEGRITY TITLE COMPANY LLC

Chris Layne ABSTRACTOR



# **MONTGOMERY COUNTY MUNICIPAL UTILITY DISTRICT NO. 174** PLANS

**CONTRACT NO. 1** 

## FOR CONSTRUCTION OF

## WATER DISTRIBUTION, SANITARY SEWER, **AND STORMWATER DETENTION FACILITIES** TO SERVE

# 29 ACRES LOCATED AT NORTHEAST CORNER OF F.M. 1774 AND F.M. 1486

## **MONTGOMERY COUNTY, TEXAS**

## **PROJECT NO. 2024-014-05**

#### Sheet Number

#### Sheet Title

- **COVER SHEET** 
  - CONSTRUCTION NOTES
- RING AND GRUBBING PLAN
- TILITY INDEX
- **STORMWATER POLLUTION PREVENTION PLAN**
- DRAINAGE CALCULATIONS
- **DETENTION BASIN LAYOUT**
- FILL PLAN
- PLAN AND PROFILE OUTFALL I
- PLAN AND PROFILE OUTFALL II, OUTFALL III, AND OUTFALL IV 11
- 12 PLAN AND PROFILE - BASELINE A
- **PLAN AND PROFILE BASELINE A** 13
- **STORM SEWER DETAILS** 14
- 15 STORM SEWER DETAILS
- WATERLINE DETAILS
- 17 SANITARY SEWER DETAILS
- 18 POLLUTION PREVENTION DETAILS AND NOTES

13430 NW. Freeway Suite 700 Houston, Tx. 77040 713.462.3178 **Engineering Group** TxEng Firm 2726 TxSurv Firm 10110700 ERIC D. JOHNSON 02/20/2023 90043 SURVEYED BY: IDS

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**SHEET NO 1 OF 18 SHEETS** 

#### GENERAL CONSTRUCTION NOTES

- 1. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES TO THE EXISTING PUBLIC OR PRIVATE UTILITY LINES. INCLUDING BUT NOT LIMITED TO WATERLINES. WASTEWATER COLLECTION SYSTEMS AND STORM SEWERS, DURING CONSTRUCTION, AL DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING "STANDARD CONSTRUCTION SPECIFICATIONS" WITH LATEST ADDENDA AND AMENDMENTS THERETO. NO SEPARATE PAY.
- 2. CONSTRUCT AND TEST WASTEWATER COLLECTION SYSTEMS, WATER LINES, AND STORM DRAINAGE IN ACCORDANCE WITH THE LATEST EDITION OF THE PUBLICATIONS STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREE PAVING PUBLISHED BY THE CITY OF HOUSTON, DEPARTMENT OF PUBLIC WORKS AND ENGINEERING. UNLESS OTHERWISE NOTED AND APPROVED ON THESE PLANS
- 3 ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE WAY ONLY THE CONTRACTOR SHALL REQUEST THE EXACT LOCATION OF THESE FACILITIES BY CALLING THE ONE-CALL NOTIFICATION SYSTEM. CONTRACTOR SHALL GIVE NOTICE TO TEXAS811 (TELEPHONE NUMBER 811) REQUESTING THE LOCATION OF UNDERGROUND FACILITIES AND UTILITY LINES AT EACH EXCAVATION SITE AS REQUIRED BY TEXAS UTILITIES CODE, CHAPTER 251, NOT EARLIER THAN THE 14TH DAY BEFORE THE DATE THE EXCAVATION IS TO BEGIN OF LATER THAN THE 48TH HOUR BEFORE THE TIME THE EXCAVATION IS TO BEGIN, EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH OCCUR DUE TO HIS FAILURE TO REQUEST THE LOCATION AND PRESERVATION OF THESE UNDERGROUND FACILITIES. CONTRACTOR SHALL COORDINATE ALL CONFLICTS WITH THE APPROPRIATE GOVERNING AGENCY. NO SEPARATE
- 4. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS. THIS INCLUDES BUT IS NOT LIMITED TO COMPLIANCE WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION AND CLEARANCES FROM OVERHEAD POWER LINES.
- 5. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION, AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNING AUTHORITY. ALL CONSTRUCTION STORM RUNOFF SHALL BE IN COMPLIANCE WITH THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM (TPDES) REQUIREMENTS.
- 6. EXISTING PAVEMENTS, CURBS, SIDEWALKS, AND DRIVEWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO MONTGOMERY COUNTY STANDARDS.
- 7. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF JOB, SHALL BE AS GOOD AS OR BETTER THAN THE CONDITION PRIOR TO STARTING WORK.
- 8. ALIGNMENT, CENTERLINE CURVE DATA AND STATIONING TO BE VERIFIED BY ON-THE-GROUND SURVEY FROM APPROVED SUBDIVISION PLAT (OR APPROVED PLOT FOR OFFSITE EASEMENTS), AND ELEVATIONS OF ALL CONNECTIONS TO EXISTING FACILITIES TO BE CONFIRMED PRIOR TO WORK START. CONTRACTOR TO NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 9. OWNER TO OBTAIN ALL PERMITS REQUIRED FOR CONSTRUCTION OF PIPELINES WITHIN COUNTY OR TEXAS DEPARTMENT OF TRANSPORTATION ROW.
- 10. CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS. OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES OR RAILROADS AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK.
- 11. CONTRACTOR SHALL ASSURE HIMSELF THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK. REQUIRED PERMITS THAT CAN BE ISSUED TO CONTRACTOR WILL BE OBTAINED AT HIS/HER EXPENSE.
- 12. CONTRACTOR TO REMOVE PLUGS AND THRUST BLOCKS AND CONNECT TO EXISTING UTILITY LINES AS INDICATED ON PLANS. NO SEPARATE PAY.
- 13. ALL UTILITY TRENCHES TO BE BACKFILLED TO 95 PERCENT STANDARD PROCTOR DENSITY UNLESS OTHERWISE NOTED.
- 14. PROPOSED UTILITY FLOWLINE ELEVATIONS ARE ONLY PROVIDED FOR LINES SHOWN ON A PARTICULAR SHEET. FOR FLOWLINE ELEVATIONS OF PROPOSED UTILITIES PROFILED ON OTHER SHEETS, SEE OTHER SHEETS.
- 15. NO EXTRA PAY WILL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SHEET. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES
- 16. MONTGOMERY COUNTY DOES NOT MAINTAIN SIDEWALKS.

STORM SEWER CONSTRUCTION NOTES

- 1. STORM SEWERS AND LEADS SHALL BE REINFORCED CONCRETE PIPE, C-76, CLASS III WITH RUBBER GASKETED JOINTS, OR REINFORCED CONCRETE BOX, ASTM C1433, AND SHALL BE INSTALLED, BEDDED, AND BACKFILLED IN ACCORDANCE WITH CITY OF HOUSTON DRAWING NOS. 02317-02, 02317-03, 02317-05, 02317-06, AND 02317-07 AS APPLICABLE UNLESS SHOWN OTHERWISE ON DRAWINGS OR MODIFIED BY THE SPECIFICATIONS.
- 2. ALL PROPOSED PIPE STUB OUTS FROM MANHOLES OR INLETS ARE TO BE PLUGGED WITH 8-INCH BRICK WALLS UNLESS OTHERWISE NOTED.
- ALL CEMENT STABILIZED SAND FOR STORM SEWER CONSTRUCTION TO MEET MONTGOMERY COUNTY MINIMUM 2.0 SACK CEMENT PER TON OF DRY SAND SHALL BE PROVIDED.
- 4. ALL SEWER TRENCHES, INCLUDING TRENCHES FOR LEADS AND STUBS, UNDER OR WITHIN ONE (1) FOOT OF PROPOSED OR FUTURE PAVEMENT SHALL BE BACK FILLED WITH MIN. 2 SACK CEMENT PER TON STABILIZED SAND UP TO PAVING SUBGRADE. INCLUDE COST OF CEMENT STABILIZED SAND BACKFILL IN UNIT PRICE BID PER LINEAR FOOT FOR STORM SEWER LINE, INCLUDING LEADS, IN APPROPRIATE SIZES.
- 5. SPECIAL NOTES FOR WET SAND CONSTRUCTION:
  - A. WHEN TRENCH CONDITIONS REQUIRE THE USE OF WELL POINTS, SHEETING, AND BRACING, OR SEAL SLAB OR CRUSHED STONE PER CITY OF HOUSTON DWG. 02317-06, 02317-02, AND 02317-07 THESE ARE TO BE REQUESTED BY THE CONTRACTOR AND APPROVED BY THE OWNER'S REPRESENTATIVE.
  - B. CONTRACTOR MAY SUBSTITUTE MONOLITHIC REINFORCED STORM SEWER CONSTRUCTION IN ACCORDANCE WITH CITY OF HOUSTON DWG 02641-01 WITH THE APPROVAL OF THE OWNERS REPRESENTATIVE.
  - C. WELL POINTING SHALL BE PAID FOR SEPARATELY.
- 6. ALL STORM SEWER INLETS TO BE BACKFILLED WITH CEMENT STABILIZED SAND TO BOTTOM OF PAVEMENT UNDER PROPOSED PAVEMENT. INCLUDE COST OF CEMENT STABILIZED SAND BACKFILL IN UNIT PRICE BID PER INLET.
- 7. ALL MANHOLES SHALL BE CITY OF HOUSTON TYPE "C" UNLESS OTHERWISE NOTED.
- 8. PROVIDE A MINIMUM OF 1' (ONE FOOT) CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
- ALL STORM SEWER MANHOLE RIMS LOCATED OUTSIDE THE PROPOSED PAVING SHALL BE SET TO PROPOSED FINISHED GROUND ELEVATIONS.
- 10. ALL C, C-1, C-2A, AND H-2 INLETS TO BE CONSTRUCTED OFFSET 3' FROM STREET E/R'S UNLESS OTHERWISE NOTED. ALL C-2 INLETS TO BE CONSTRUCTED OFFSET 8' FROM STREET E/R'S UNLESS OTHERWISE NOTED.
- 11. STAGE I OF INLETS TO BE CONSTRUCTED TO 6" ABOVE LEAD PIPE AND PROVIDED WITH INLET PROTECTION BARRIERS, PER DETAIL.
- 12. BETWEEN THE TIME THAT STORM SEWER IS PLACED AND MANHOLES AND INLETS ARE BUILT, ALL PIPE OPENINGS SHALL BE SUFFICIENTLY PLUGGED PER CITY OF HOUSTON STANDARD SPECIFICATIONS TO KEEP SEDIMENT FROM ACCUMULATING IN THE PIPE.
- 13. MONTGOMERY COUNTY MUD 174 WILL MAINTAIN THE PROPOSED DETENTION BASIN.
- 14. ALL PROPOSED STORM SEWERS WILL BE OWNED AND MAINTAINED BY THE CITY OF MAGNOLIA UPON PASSSING THE 1-YEAR ANNIVERSARY INSPECTION.

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#### WATER CONSTRUCTION NOTES

- 1. SEPARATION DISTANCES FOR ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE "TEXAS COMMISSION ON ENVIRONMENTAL QUALITY," SECTION 290.44, LATEST PRINTING.
- 2. ALL 4" THROUGH 12" WATER MAINS TO BE PVC PIPE, AWWA C-900 PRESSURE CLASS 235, DR-18 MEETING THE REQUIREMENTS OF ANSI/NSF 61 UNLESS OTHERWISE NOTED.
- 3. WATERLINE TRENCHES UNDER OR WITHIN 1 FOOT OF PAVEMENT SHALL BE BACKFILLED WITH BANK SAND COMPACTED TO 95% STANDARD PROCTOR DENSITY TO WITHIN 1 FOOT OF TOP OF SUBGRADE. INCLUDE COST OF BANK SAND BACKFILL IN UNIT PRICE BID PER LINEAR FOOT FOR WATERLINE IN APPROPRIATE SIZES.
- 4. PROVIDE A MINIMUM 12 INCHES OF CLEARANCE AT STORM SEWER AND WATERLINE CROSSINGS.
- 4-INCH THROUGH 12-INCH LINES TO HAVE A MINIMUM OF 4'-0" COVER BELOW TOP OF CURB. USE RESTRAINED JOINT AWWA C900 DR 18 PVC FOR WATERLINES WITH LESS THAN 4 FEET OR MORE THAN 8 FEET OF COVER, USE RESTRAINED JOINT AWWA C900 DR 14 FOR VERTICAL OFFSETS. UNLESS OTHERWISE NOTED VARY FLOWLINE UNIFORMLY FROM DEPTH SHOWN ON PLANS.
- 6. CONSTRUCT WATERLINES WITH ONE JOINT OF PIPE BEYOND VALVES AND PLUG FOR FUTURE LINES UNLESS DISTANCES SHOWN ON PLANS INDICATE OTHERWISE. THRUST BLOCK ALL PLUGS.
- 7. SERVICE CONNECTIONS ARE NOT INCLUDED IN THIS CONTRACT.
- 8. WHERE WATERLINE CROSSES A SANITARY SEWER OR LEAD WITH LESS THAN NINE FEET VERTICAL SEPARATION, PROVIDE ONE MINIMUM 18-FOOT JOINT OF WATERLINE CENTERED ON SEWER OR LEAD. INCLUDE COST OF SEWER OR LEAD CROSSING IN UNIT PRICE BID PER LINEAR FOOT FOR WATERLINE IN APPROPRIATE SIZES.
- 9. ALL FIRE HYDRANTS TO BE INSTALLED PER CITY OF MAGNOLIA WATERLINE DETAILS, FIRE HYDRANT UNIT.
- 10. ALL WATER DISTRIBUTION MAINS TO BE BEDDED AND BACKFILLED PER CITY OF MAGNOLIA WATERLINE DETAILS.

#### WASTEWATER CONSTRUCTION NOTES

- 1. SANITARY SEWER PIPE 10-INCH IN DIAMETER AND SMALLER SHALL BE SDR 26 P.V.C. SEWER PIPE MEETING ASTM SPECIFICATION D-3034, UNLESS OTHERWISE NOTED, SANITARY SEWER PIPE 12-INCH TO 15-INCH IN DIAMETER SHALL BE SDR 35 PVC MEETING ASTM SPECIFICATION D-3034.
- 2. SEPARATION DISTANCES FOR ALL SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE "TEXAS COMMISSION ON ENVIRONMENTAL QUALITY," SECTION 217.53, LATEST PRINTING.
- 3. WHERE SANITARY SEWER LINE CROSSES A WATERLINE WITH LESS THAN 9-FEET BUT MORE THAN 2-FEET VERTICAL SEPARATION, PROVIDE ONE MINIMUM 20-FOOT JOINT OF PRESSURE RATED PVC SANITARY SEWER (ASTM D2241, CLASS 150, SDR 26) CENTERED ON WATERLINE, THE SANITARY SEWER LINE SHALL BE EMBEDDED FOR ONE FULL SEGMENT PLUS 12 INCHES BEYOND THE JOINTS AT EACH END WITH CEMENT STABILIZED SAND HAVING A MINIMUM OF 10 PERCENT CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). INCLUDE COST OF WATERLINE CROSSING IN UNIT PRICE BID PER LINEAR FOOT FOR SANITARY SEWER IN APPROPRIATE SIZES.
- 4. MAINTAIN 12-INCH MINIMUM VERTICAL CLEARANCE AT CROSSINGS BETWEEN SANITARY SEWERS AND CULVERTS, UNLESS OTHERWISE NOTED.
- 5. ALL 6-INCH LEADS SHALL BE LAID AT MINIMUM 0.70% GRADE, UNLESS OTHERWISE NOTED.
- 6. ALL SEWER TRENCHES, INCLUDING TRENCHES FOR LEADS AND STUBS, UNDER OR WITHIN ONE (1) FOOT OF PROPOSED OR FUTURE PAVEMENT SHALL BE BACK FILLED WITH CEMENT STABILIZED SAND UP TO WITHIN ONE (1) FOOT OF TOP OF PAVING SUBGRADE, EXCEPT IN CUL-DE-SACS AND KNUCKLES WHERE THE TRENCHES SHALL BE BACK FILLED WITH CEMENT STABILIZED SAND UP TO THE BOTTOM OF THE PAVING SUBGRADE. INCLUDE COST OF CEMENT STABILIZED SAND BACKFILL IN UNIT PRICE BID PER LINEAR FOOT FOR SANITARY SEWER LINE, INCLUDING LEADS, IN APPROPRIATE SIZES. THE REMAINING DEPTH OF TRENCH SHALL BE BACKFILLED WITH SUITABLE EARTH MATERIAL IN 6-INCH LAYERS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY PER ASTM D698/AASHT0 T99.
- 7. SPECIAL NOTES FOR WET/UNSTABLE SOIL CONDITIONS:
  - A. CONTRACTOR SHALL OBTAIN APPROVAL OF THE OWNER'S REPRESENTATIVE FOR USE OF WELL POINTS, TRENCH SHEETING, OR BRACING WHEN TRENCH CONDITIONS WARRANT.
  - B. WELL POINTING SHALL BE PAID FOR SEPARATELY.
- 8. ALL SANITARY SEWER MANHOLES SHALL BE STANDARD CITY OF MAGNOLIA, 4 FOOT DIAMETER PRECAST MANHOLE PER CITY OF MAGNOLIA SANITARY SEWER DETAILS UNLESS OTHERWISE NOTED. SANITARY SEWER MANHOLE RIMS SHALL BE 2 INCHES ABOVE FINISHED GRADE. BACKFILL SHALL BE ADDED AND SLOPED AWAY FROM THE MANHOLE RIM FOR STORM WATER DRAINAGE. THE TOP ONE FOOT OF MANHOLE SHALL CONSIST OF CONCRETE RINGS NOT MORE THAN 4-INCHES THICK
- 9. DEFLECTION TEST SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID PIPE. TEST SHALL BE CONDUCTED AFTER FINAL BACKFILL. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. THE DEFLECTION TEST IS TO BE RUN WITH A RIGID MANDREL. IT SHALL HAVE A DIAMETER OF 95% OF INSIDE DIAMETER OF PIPE AND SHALL HAVE NINE OR MORE RUNNERS OR LEGS AND THE TOTAL NUMBER OF RUNNERS OF LEGS SHALL BE AN ODD NUMBER. THE TEST SHALL BE PERFORMED USING 40 LBS. PULL MAXIMUM, WITHOUT MECHANICAL PULLING DEVICES. THE MANDREL TEST SHALL NOT BE PERFORMED SOONER THAN 30 DAYS AFTER BACKFILLING THE SEWER LINE TRENCH.
- 10. LOW PRESSURE AIR TEST SHALL BE CONDUCTED PER TCEO TAC 217.57 OR CITY OF HOUSTON STANDARD SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. HOLDING TIMES SHALL BE AS ESTABLISHED BY TCEQ AND CITY OF HOUSTON STANDARD SPECIFICATIONS. CONTRACTOR TO PROVIDE TEST PLUGS AND
- 11. CONTRACTOR SHALL PROVIDE RECORD OF LOCATION OF ALL STACKS, STUBS, LEADS, ETC.TO IDS ENGINEERING GROUP.
- 12. ALL NEW AND EXISTING MANHOLES SHALL BE CORED WHEN MAKING CONNECTIONS THAT WERE NOT MADE BY THE MANUFACTURER. CONTRACTOR SHALL USE RESILIENT CONNECTOR MEETING THE REQUIREMENTS OF ASTM C923 FOR PIPE CONNECTION.

#### TCEQ WATER DISTRIBUTION SYSTEM - GENERAL CONSTRUCTION NOTES

- 1. THIS WATER DISTRIBUTION SYSTEM MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEO) RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS 30 TEXAS ADMINISTRATIVE CODE (TAC) CHAPTER 290 SUBCHAPTER D. WHEN CONFLICTS ARE NOTED WITH LOCAL STANDARDS. THE MORE STRINGENT REQUIREMENT SHALL BE APPLIED. AT A MINIMUM, CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS MEET TCEQ'S "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS."
- 2. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)/NSF INTERNATIONAL STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI [§290.44(A)(1)].
- 3. PLASTIC PIPE FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NSF INTERNATIONAL SEAL OF APPROVAL (NSF-PW) AND HAVE AN ASTM DESIGN PRESSURE RATING OF AT LEAST 150 PSI OR A STANDARD DIMENSION RATIO OF 26 OR LESS [§290.44(A)(2)].
- 4. 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 [§290.44(A)(3)]
- 5. ALL WATER LINE CROSSINGS OF WASTEWATER MAINS SHALL BE PERPENDICULAR [§290.44(E)(4)(B)].
- 6. WATER TRANSMISSION AND DISTRIBUTION LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. HOWEVER, THE TOP OF THE WATER LINE MUST BE LOCATED BELOW THE FROST LINE AND IN NO CASE SHALL THE TOP OF THE WATER LINE BE LESS THAN 24 INCHES BELOW GROUND SURFACE [§290.44(A)(4)].
- 7. THE MAXIMUM ALLOWABLE LEAD CONTENT OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES IS 0.25 PERCENT [§290.44(B)].
- 8. THE CONTRACTOR SHALL INSTALL APPROPRIATE AIR RELEASE DEVICES WITH VENT OPENINGS TO THE ATMOSPHERE COVERED WITH 16-MESH OR FINER, CORROSION RESISTANT SCREENING MATERIAL OR AN ACCEPTABLE EQUIVALENT [§290.44(D)(1)]
- 9. THE CONTRACTOR SHALL NOT PLACE THE PIPE IN WATER OR WHERE IT CAN BE FLOODED WITH WATER OR SEWAGE DURING ITS STORAGE OR INSTALLATION [§290.44(F)(1)].
- 10. WHEN WATERLINES ARE LAID UNDER ANY FLOWING OR INTERMITTENT STREAM OR SEMI-PERMANENT BODY OF WATER THE WATERLINE SHALL BE INSTALLED IN A SEPARATE WATERTIGHT PIPE ENCASEMENT. VALVES MUST BE PROVIDED ON EACH SIDE OF THE CROSSING WITH FACILITIES TO ALLOW THE UNDERWATER PORTION OF THE SYSTEM TO BE ISOLATED AND TESTED [§290.44(F)(2)]
- 11. PURSUANT TO 30 TAC §290.44(A)(5), THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY THE MOST CURRENT AWWA FORMULAS FOR PVC PIPE, CAST IRON AND DUCTILE IRON PIPE. INCLUDE THE FORMULAS IN THE NOTES ON THE PLANS. THE HYDROSTATIC LEAKAGE RATE FOR POLYVINYL CHLORIDE (PVC) PIPE AND APPURTENANCES SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) C-605 AS REQUIRED IN 30 TAC §290.44(A)(5), PLEASE ENSURE THAT

THE FORMULA FOR THIS CALCULATION IS CORRECT AND MOST CURRENT FORMULA IS IN USE;

WHFRF:

- Q = THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR,
- L = THE LENGTH OF THE PIPE SECTION BEING TESTED, IN FEET,
- D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND

P = THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUNDS PER SQUARE INCH THE HYDROSTATIC LEAKAGE RATE FOR DUCTILE IRON (DI) PIPE AND APPURTENANCES SHALL NOT

EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY FORMULAS IN AMERICA WATER WORKS ASSOCIATION (AWWA) C-600 AS REQUIRED IN 30 TAC §290.44(A)(5), PLEASE ENSURE THAT THE FORMULA FOR THIS CALCULATION IS CORRECT AND MOST CURRENT FORMULA IS IN USE;

- L = THE QUANTITY OF MAKEUP WATER IN GALLONS PER HOUR,
- S = THE LENGTH OF THE PIPE SECTION BEING TESTED, IN FEET,
- D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND P = THE AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST IN POUNDS PER SQUARE INCH (PSI).
- 12. THE CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE IN ALL DIRECTIONS OF NINE FEET BETWEEN THE PROPOSED WATERLINE AND WASTEWATER COLLECTION FACILITIES INCLUDING MANHOLES. IF THIS DISTANCE CANNOT BE MAINTAINED. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROJECT ENGINEER FOR FURTHER DIRECTION. SEPARATION DISTANCES, INSTALLATION METHODS, AND MATERIALS UTILIZED MUST MEET §290.44(E)(1)-(4).
- 13. THE SEPARATION DISTANCE FROM A POTABLE WATERLINE TO A WASTEWATER MAIN OR LATERAL MANHOLE OR CLEANOUT SHALL BE A MINIMUM OF NINE FEET. WHERE THE NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE POTABLE WATERLINE SHALL BE ENCASED IN A JOINT OF AT LEAST 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEFT LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT FIVE-FOOT INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHALL BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OF MANUFACTURED SEALANT [§290.44(E)(5)]
- 14. FIRE HYDRANTS SHALL NOT BE INSTALLED WITHIN NINE FEET VERTICALLY OR HORIZONTALLY OF ANY WASTEWATER LINE, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE REGARDLESS OF CONSTRUCTION [§290.44(E)(6)].
- 15. SUCTION MAINS TO PUMPING EQUIPMENT SHALL NOT CROSS WASTEWATER MAINS, WASTEWATER LATERALS, OR WASTEWATER SERVICE LINES, RAW WATER SUPPLY LINES SHALL NOT BE INSTALLED WITHIN FIVE FEET OF ANY TILE OR CONCRETE WASTEWATER MAIN, WASTEWATER LATERAL, OR WASTEWATER SERVICE LINE [§290.44(E)(7)].
- 16. WATERLINES SHALL NOT BE INSTALLED CLOSER THAN TEN FEET TO SEPTIC TANK DRAINFIELDS [§290.44(E)(8)].
- 17. THE CONTRACTOR SHALL DISINFECT THE NEW WATERLINES IN ACCORDANCE WITH AWWA STANDARD C-651-14 OR MOST RECENT, THEN FLUSH AND SAMPLE THE LINES BEFORE BEING PLACED INTO SERVICE. SAMPLES SHALL BE COLLECTED FOR MICROBIOLOGICAL ANALYSIS TO CHECK THE EFFECTIVENESS OF THE DISINFECTION PROCEDURE WHICH SHALL BE REPEATED IF CONTAMINATION PERSISTS, A MINIMUM OF ONE SAMPLE FOR EACH 1.000 FEET OF COMPLETED WATERLINE WILL BE REQUIRED OR AT THE NEXT AVAILABLE SAMPLING POINT BEYOND 1,000 FEET AS DESIGNATED BY THE DESIGN ENGINEER [§290.44(F)(3)].
- 18. DECHLORINATION OF DISINFECTING WATER SHALL BE IN STRICT ACCORDANCE WITH CURRENT AWWA STANDARD C655-09 OR MOST RECENT

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#### CENTERPOINT ENERGY NOTES

#### CAUTION: UNDERGROUND GAS FACILITIES

- THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT 1-800-545-6005 OR 811 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.
- WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (713) 207-5463 OR (713) 945-8037 (7:00 AM TO 4:30 PM) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.
- WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING
- NON-MECHANIZED EXCAVATION PROCEDURES.
- WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED. SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING. • FOR EMERGENCIES REGARDING GAS LINES CALL (713) 659-3552 OR (713) 207-4200.

THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

#### WARNING: OVERHEAD ELECTRICAL FACILITIES

OVERHEAD LINES MAY EXIST ON THE PROPERTY. THE LOCATION OF OVERHEAD LINES HAS NOT BEEN SHOWN ON THESE DRAWINGS AS THE LINES ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ACTIVITIES THAT OCCUR IN CLOSE PROXIMITY TO HIGH VOLTAGE LINES, SPECIFICALLY:

- ANY ACTIVITY WHERE PERSON OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES; AND
- OPERATING A CRANE, DERRICK, POWER SHOVEL, DRILLING RIG, PILE DRIVER, HOISTING EQUIPMENT, OR SIMILAR APPARATUS WITHIN 10 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES.
- PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL

LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222.

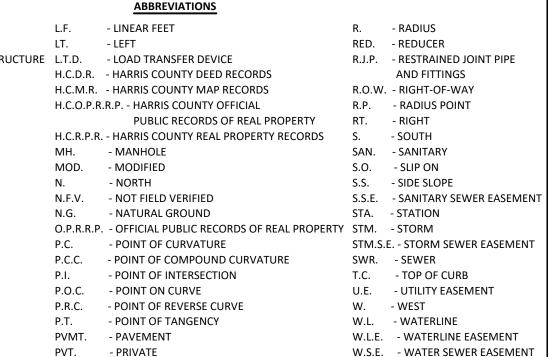
#### ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE. CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN. IF YOU

NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEY & RIGHT OF WAY DIVISION AT (713) 207-6348 OR (713) 207-5769.

#### AT&T Texas/SWBT Facilities

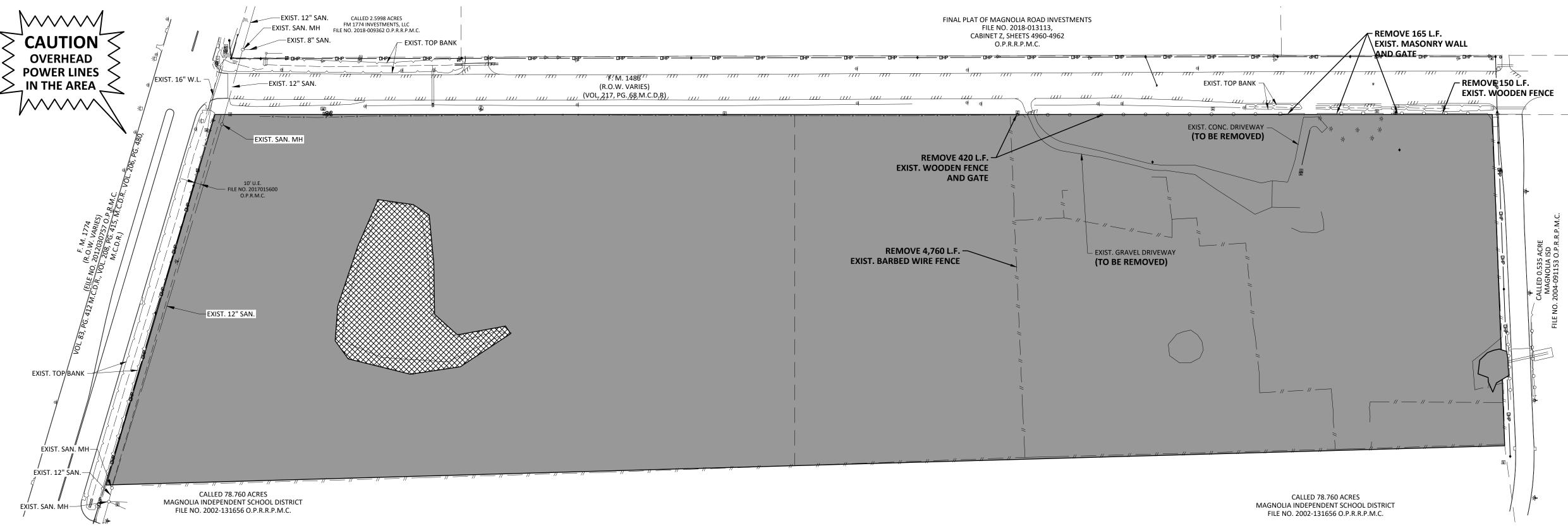
- 1. THE LOCATIONS OF AT&T TEXAS/SWBT FACILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
- 2. THE CONTRACTOR SHALL CALL 1-800-344-8377 A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND LINES FIELD LOCATED 3. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF AT&T
- TEXAS/SWBT FACILITIES, ALL EXCAVATIONS MUST BE ACCOMPLISHED USING NON-MECHANIZE EXCAVATION PROCEDURES. WHEN BORING, THE CONTRACTOR SHALL EXPOSE THE AT&T TEXAS/SWBT FACILITIES
- 4. WHEN AT&T TEXAS/SWBT FACILITIES ARE EXPOSED, THE CONTRACTOR WILL PROVIDE SUPPORT TO PREVENT DAMAGE TO THE CONDUIT DUCTS OR CABLES. WHEN EXCAVATING NEAR TELEPHONE POLES THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
- 5. THE PRESENCE OR ABSENCE OF AT&T TEXAS/SWBT UNDERGROUND CONDUIT FACILITIES OR BURIED CABLE FACILITIES SHOWN ON THESE PLANS DOES NOT MEAN THAT THERE ARE NO DIRECT BURIED CABLES OR OTHER CABLES IN CONDUIT IN THE AREA.
- 6. PLEASE CONTACT THE AT&T TEXAS DAMAGE PREVENTION MANAGER MR. ROOSEVELT LEE JR. AT (713)567-4552 OR E-MAIL HIM AT RL7259@ATT.COM, IF THERE ARE QUESTIONS ABOUT BORING OR EXCAVATING NEAR OUR AT&T TEXAS/SWBT FACILITIES.

ERIC D.	JOHNSON	Pi	2/20/2023
	<b>DS</b> gineering	g Group	13430 NW. Freewa Suite 70 Houston, Tx. 7704 713.462.317 TxEng Firm 272 TxSurv Firm 1011070
APPROVED E.D.J.	-	DATE:	FEBRUARY 2023
DESIGNED BY: C.A.P.	DRAWN BY: P.T	A. JOB NO.	2024-014-05
LINE CROSSING THE RC SMALL ONE STORY WH A ONE STORY HOUSE, 4 FEET NORTH OF THE PC FENCE. DISK IS SET LEV INCH PLASTIC SCREW P NAVD88, 2011 ADJ. ELE WATER I	DAD, 322.5 FEET NO ITTE HOUSE, 226 FE 46.5 FEET WEST OF OWER POLE, AND 1 VEL WITH THE GRO PLUG. EVATION = 231.30'	DRTH OF A PRIVA EET SOUTH OF A I F THE CENTERLIN 1.0 FOOT EAST OI UND, ACCESS TO	HE SECOND POLE SOUTH OF A TE DRIVE LEADING WEST TO A PRIVATE DRIVE LEADING WEST TO A OR IVATE DRIVE LEADING EAST TO E OF NICHOLS SAW MILL ROAD, 2 THE WESTERLY RIGHT OF WAY WHICH IS HAD THROUGH A 4
			TION FACILITIES
		O SERVE	
			NORTHEAST ND FM 1486
C FILE NO:	CONSTRU	JCTION	NOTES
DRAWING	SCALE		
DRAWING HORZ : N/A VERT : N/A	SCALE		



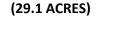
IDS Drawing No. \_\_\_\_

	App.
	Revisions
	Date

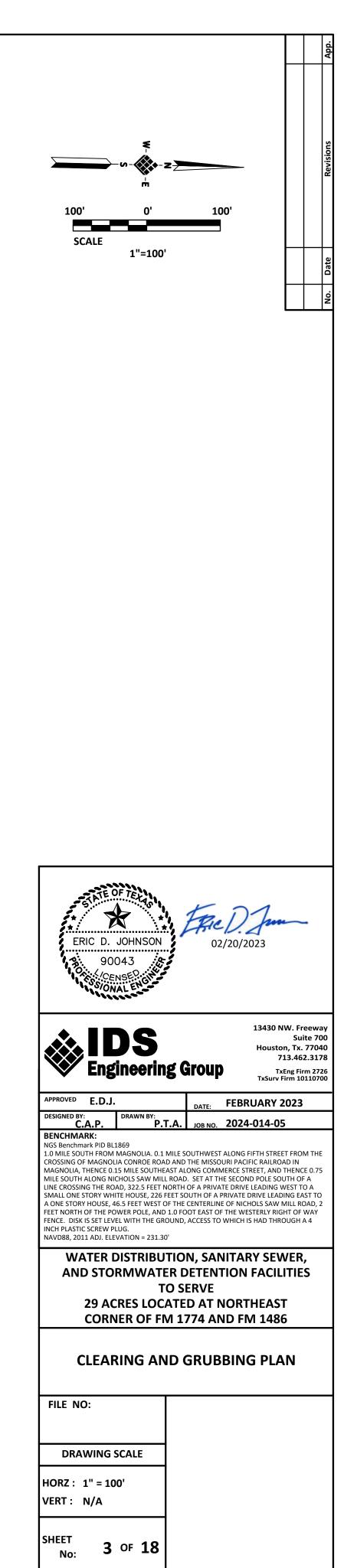


#### **CLEARING NOTES**

- 1. CONTRACTOR MUST LIMIT HIS OPERATION TO ONLY THOSE AREAS SHOWN TO BE CLEARED.
- 2. CONTRACTOR TO TAKE ALL DUE PRECAUTIONS TO WORK WITHIN THE CLEARING LIMITS SHOWN. UNDER NO CIRCUMSTANCES IS THE CONTRACTOR ALLOWED IN AREAS NOT DESIGNATED AS CLEAR ZONES WITHOUT FIRST OBTAINING OWNER PERMISSION. CONTRACTOR SHALL PAY \$200.00 PER INCH DIAMETER PER TREE FOR ANY TREES DAMAGED OR DESTROYED OUTSIDE CLEAR ZONES.
- 3. LOCATION OF STABILIZED CONSTRUCTION ACCESS TO BE APPROVED BY OWNER IF IN LOCATION OTHER THAN SHOWN ON PLANS.
- 4. CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES, PUBLIC AND PRIVATE. ANY DAMAGE INCURRED TO EXISTING FACILITIES, AS A RESULT OF CLEARING OPERATION WILL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 5. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY DRAINAGE FOR AREAS THAT RETAIN WATER OR AREAS THAT LIMIT CLEARING OPERATIONS DUE TO SITE CONDITIONS, IN A MANNER APPROVED BY THE OWNER AT NO SEPARATE PAY. CONTRACTOR TO REMOVE TEMPORARY DRAINAGE FACILITIES OR RESTORE TEMPORARY DRAINAGE FACILITIES TO ORIGINAL SITE CONDITIONS, NO SEPARATE PAY.
- 6. CONTRACTOR TO LEVEL AND RESTORE TO ORIGINAL GROUND ELEVATION ANY HOLES, RUTS AND DEPRESSIONS CAUSED AS A RESULT OF CLEARING AND GRUBBING OPERATION. ALL CLEARING LIMITS TO BE VOID OF LOW AREAS THAT RETAIN WATER AS A **RESULT OF CONSTRUCTION OPERATIONS. NO SEPARATE PAY.**
- 7. OWNER RESERVES THE RIGHT TO SAVE ANY TREE LOCATED WITHIN THE CLEARING LIMITS.



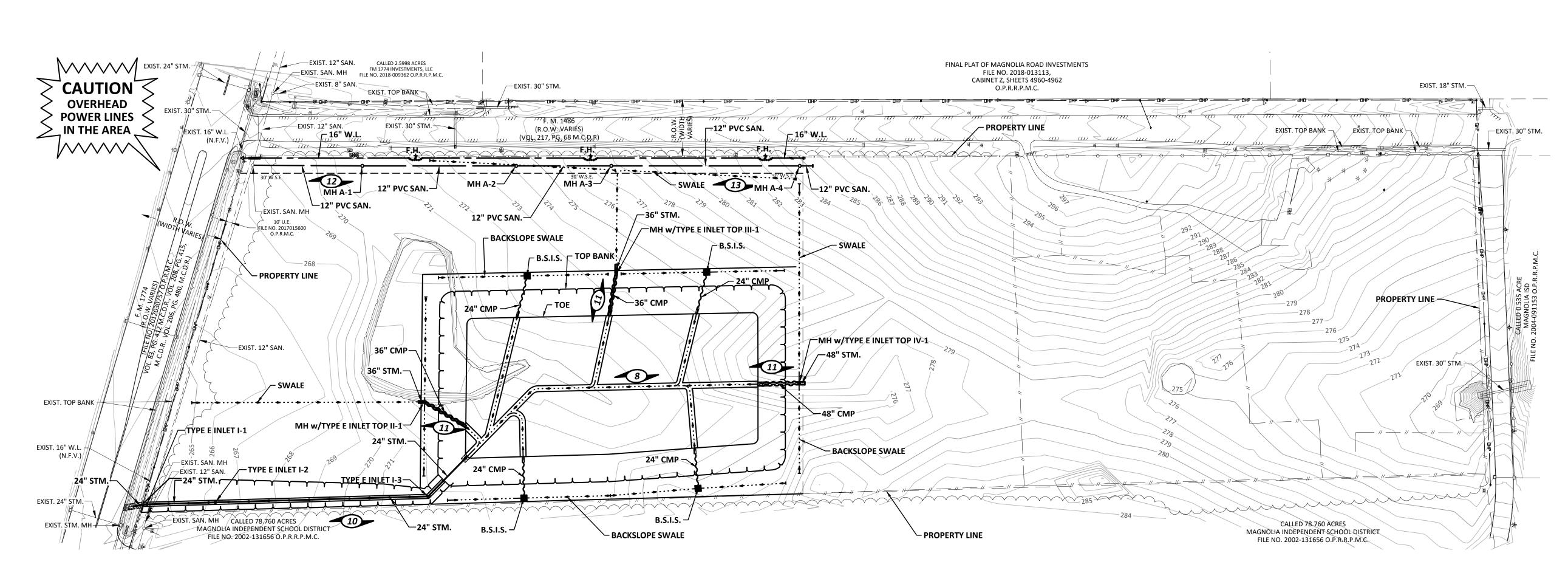
(1.0 ACRES)

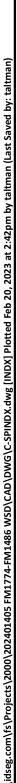


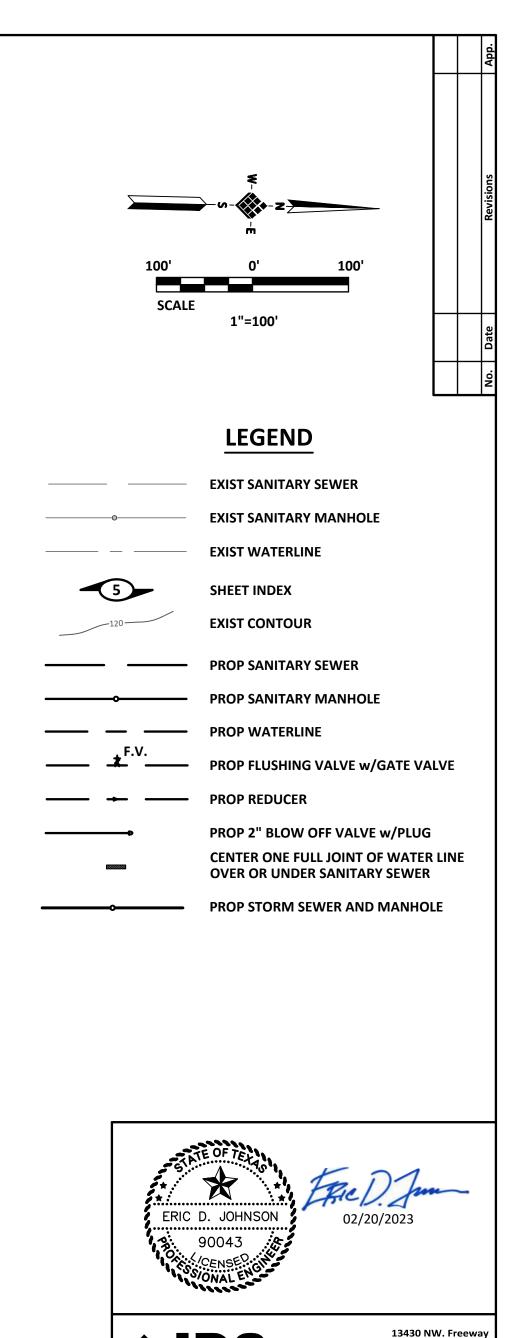
APPROXIMATE LIMITS OF CLEARING AND GRUBBING (INCLUDING CHIP AND HAUL)

APPROXIMATE LIMITS OF POND DRAINING AND DEMUCKING

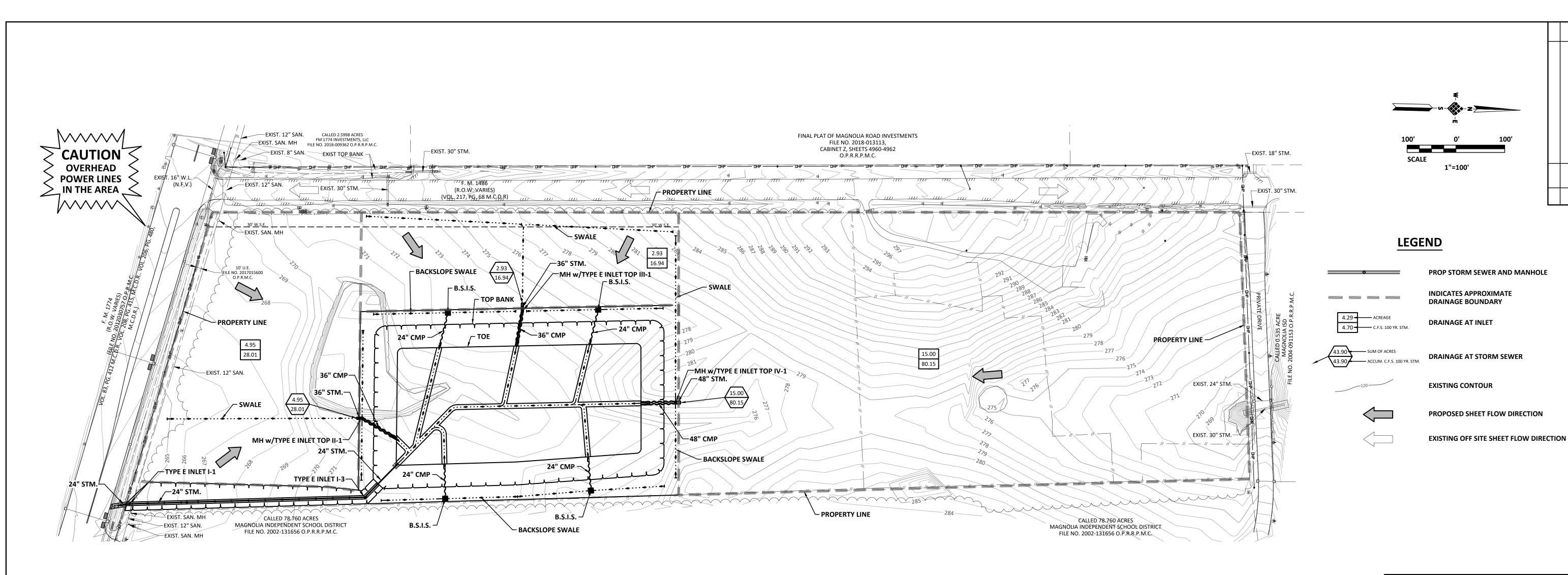
IDS Drawing No. \_\_\_\_\_

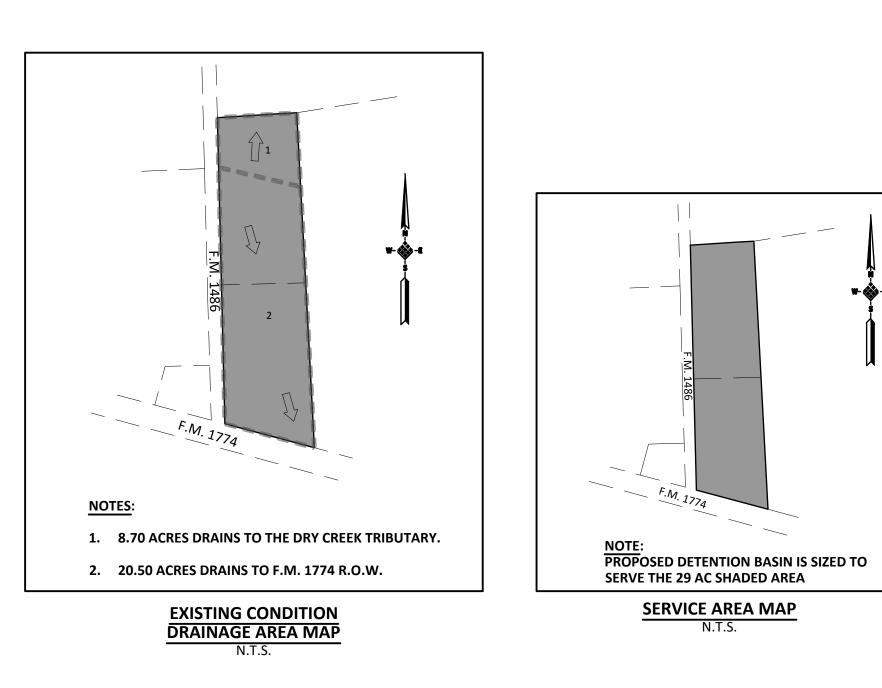






ERIC D. JOI	
	13430 NW. Freeway           Suite 700           Houston, Tx. 77040           713.462.3178           TxEng Firm 2726           TxSurv Firm 10110700
APPROVED E.D.J.	DATE: FEBRUARY 2023
C.A.P.	VN BY: P.T.A. JOB NO. 2024-014-05
CROSSING OF MAGNOLIA COT MAGNOLIA, THENCE 0.15 MIL MILE SOUTH ALONG NICHOLS LINE CROSSING THE ROAD, 32 SMALL ONE STORY WHITE HO A ONE STORY HOUSE, 46.5 FE FEET NORTH OF THE POWER F	OLIA. 0.1 MILE SOUTHWEST ALONG FIFTH STREET FROM THE ROE ROAD AND THE MISSOURI PACIFIC RAILROAD IN E SOUTHEAST ALONG COMMERCE STREET, AND THENCE 0.75 SAW MILL ROAD. SET AT THE SECOND POLE SOUTH OF A 2.5 FEET NORTH OF A PRIVATE DRIVE LEADING WEST TO A JSE, 226 FEET SOUTH OF A PRIVATE DRIVE LEADING EAST TO TT WEST OF THE CENTERLINE OF NICHOLS SAW MILL ROAD, 2 OLE, AND 1.0 FOOT EAST OF THE WESTERLY RIGHT OF WAY H THE GROUND, ACCESS TO WHICH IS HAD THROUGH A 4 N = 231.30'
AND STORM 29 ACRES	RIBUTION, SANITARY SEWER, WATER DETENTION FACILITIES TO SERVE LOCATED AT NORTHEAST OF FM 1774 AND FM 1486
	UTILITY INDEX
FILE NO:	
DRAWING SCAI	E
HORZ: 1" = 100' VERT: N/A	
SHEET No: <b>4</b> OF	18

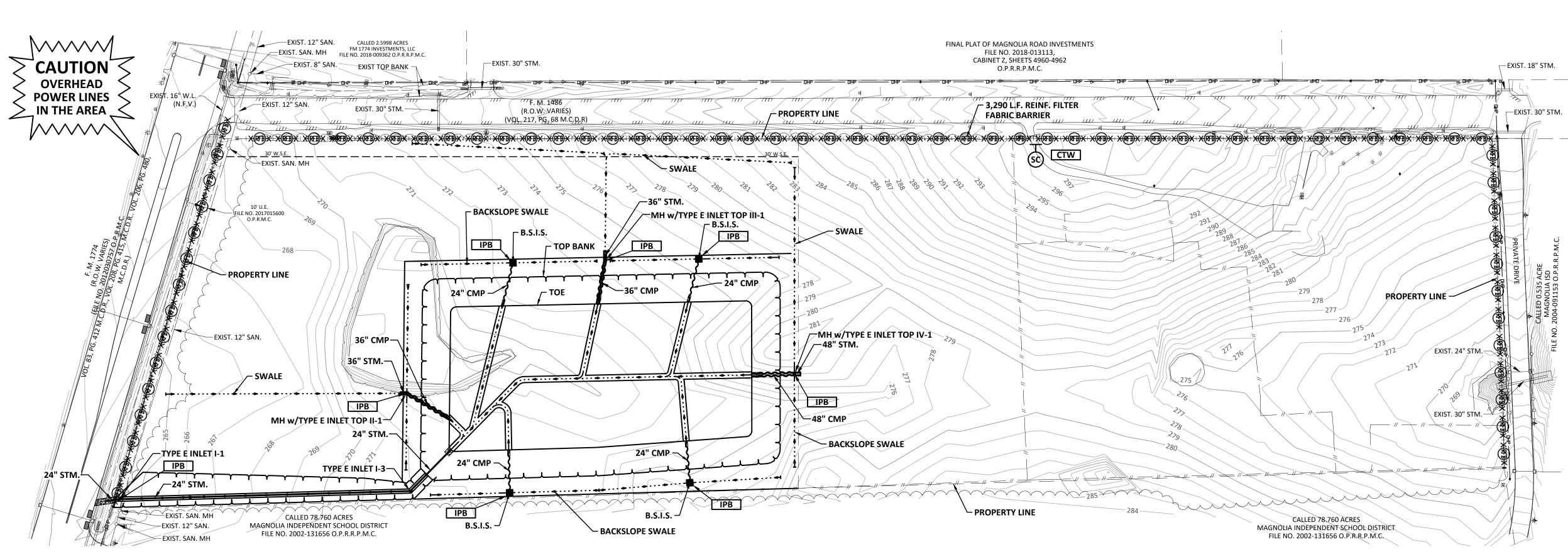




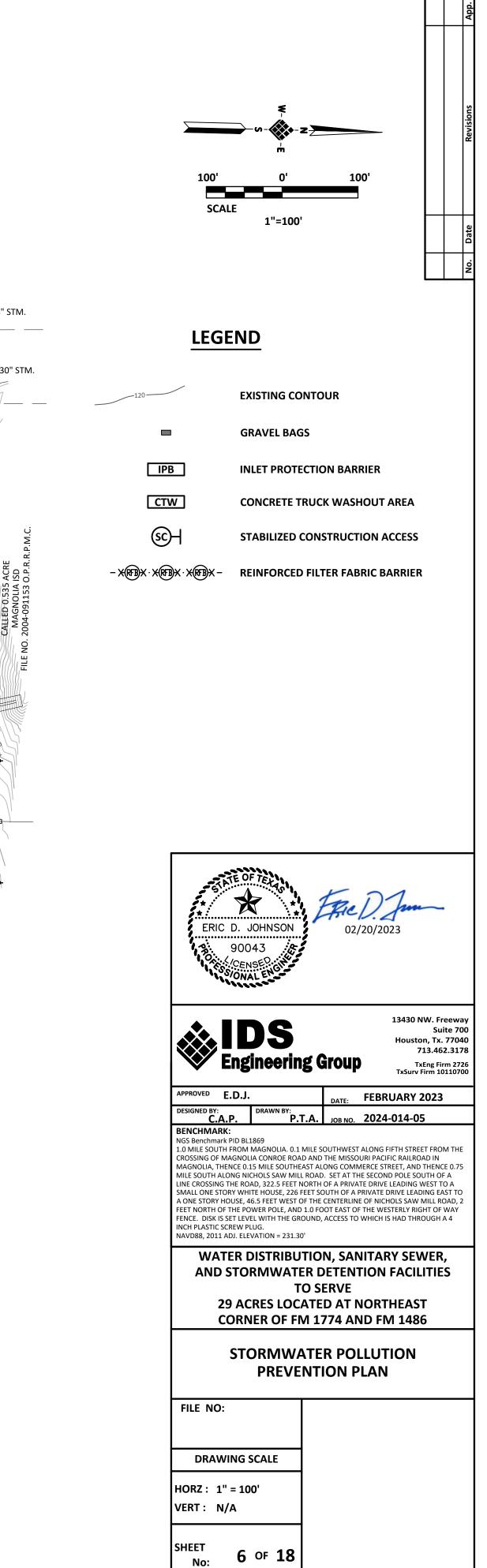
TxDOT Tracking number (TR#)	TR2205013	8
Highway	N/A	
TxDOT frontage	630	FT
TxDOT Area (the strip of site within 150-ft frontage)	N/A	AC
Total tractarea based on submitted survey map	29.2	AC
Proposed disturbed area	29.2	AC
Project contributing drainage area to TxDOT	0.4	AC
Off-site contributing drainage area (if applicable)	N/A	AC
Increased impervious area	29.2	AC
10-yrrequired detention volume	N/A	AC-FT
10-yrproposed detention volume	12.7	AC-FT
10-yrdesign W.S.E.	268.1	FT
10-yrPre-developedpeak flow	48.7 (to FM 1774	4 <b>)/</b> CFS
10-yrPost-developed peak flow	31.2 ( to north)	CFS
(Before de tenti on/restrictor)	209.8	
10-yr Proposed discharge to TxDOT	10.6	CFS
R.O.W. (With detention/restrictor)	10.0	
100-yr required detention volume	25.3	AC-FT
100-yrproposed detention volume	25.9	AC-FT
100-yrdesign W.S.E.	272	FT
100-yrPre-developedpeak flow	80 (to FM 1774)/	CFS
100-yr Post-developed peak flow	48.8 ( to north)	
(Before detention/restrictor)	316	CFS
100-yr Proposed discharge to TxDOT		CFS
R.O.W. (With detention/restrictor)	15.6	
TxDOT as-built or calculated allowable discharge	33.9	CFS
Primary tie-in/outfall structure size	24	Inch
Primary restrictor size	24 in x 7 in	Inch
Primary restrictor maximum discharge	33.9	CFS
Secondary outfall device size (If applicable)	N/A	CFS
Secondary outfall discharge (If applicable)	N/A	CFS
Maximum combined pumped discharge (If applicable)	N/A GPM	<u> </u>
% Pumped discharge volume (If applicable)	N/A	AC-FT
Effective gravity discharge elevation (If applicable)	N/A	FT
B.F.E. per effective FIRM (If applicable)	N/A	FT
Proposed fill below B.F.E. (If applicable)	N/A	AC-FT
Proposed cut below B.F.E. (If applicable)	N/A	AC-FT

ERIC D. C.	·····	Fic 02/	D.J. 20/2023
	<b>DS</b> ineering (	Group	13430 NW. Freeway Suite 700 Houston, Tx. 77040 713.462.3178 TxEng Firm 2726 TxSurv Firm 10110700
APPROVED E.D.J.		DATE:	FEBRUARY 2023
DESIGNED BY: C.A.P.	DRAWN BY: P.T.A.	JOB NO.	2024-014-05
CROSSING OF MAGNOL MAGNOLIA, THENCE 0.3 MILE SOUTH ALONG NII LINE CROSSING THE RO SMALL ONE STORY WHI A ONE STORY HOUSE, 4 FEET NORTH OF THE PC FENCE. DISK IS SET LEV INCH PLASTIC SCREW PI NAVD88, 2011 ADJ. ELE WATER L AND STO	MAGNOLIA. 0.1 MILE S IA CONROE ROAD AND IS MILE SOUTHEAST AI CHOLS SAW MILL ROAL AD, 322.5 FEET NORTH ITE HOUSE, 226 FEET S 6.5 FEET WEST OF THE WER POLE, AND 1.0 FO EL WITH THE GROUND LUG. VATION = 231.30' DISTRIBUTIO RMWATER L TO S	THE MISSO LONG COMM D. SET AT TH OF A PRIVAD OUTH OF A P CENTERLINE DOT EAST OF ACCESS TO DIN, SAN DETENT ERVE	ALONG FIFTH STREET FROM THE URI PACIFIC RAILROAD IN MERCE STREET, AND THENCE 0.75 E SECOND POLE SOUTH OF A TE DRIVE LEADING WEST TO A RIVATE DRIVE LEADING EAST TO E OF NICHOLS SAW MILL ROAD, 2 THE WESTERLY RIGHT OF WAY WHICH IS HAD THROUGH A 4
	RES LOCATE		
	DRAINAGE	AREA	ΜΑΡ
FILE NO:			
DRAWING	SCALE		
HORZ: 1" = 10 VERT: N/A	0'		
SHEET No: 5	OF <b>18</b>		

IDS Drawing No. \_\_\_\_\_







#### STORM SEWER CALCULATIONS IDS ENGINEERING GROUP

CLIENT: PROJECT:	Parkside 1774 FM 1774 & FN		D	
IDS JOB NO:	2024-014-05	11100 1100		
DATE ISSUED: DATE LAST MODIFIED:	10/4/2022 10/4/2022	BY:	САР	
STORM EVENT FREQUENC		100	YEAR	
100-YEAR WSEL:	272.00			

269.40

OF-3

1 OF-4

25-YEAR WSEL:

Reach Pipe Min Pipe Manhole/Inlet Number Size Span Pipe Grade Length Area Upstream Downstream (inches) (inches) Material % Line (feet) (acres) Outflow 24 2.32 RCP 0.18% 96 3 3 2 365 24 RCP 0.18% 0.00 2 1 118 24 RCP 0.18% 0.00 1 Ditch 23 24 RCP 0.18% 0.00 36 RCP 0.11% 4.95 11 Stub 10 1 **OF-2** CMP 0.35% 0.00 - 11 82 36 1 Ш RCP 0.11% 2.93 Stub 10 36 1

36

48

48

NOTES:

111

IV

IV

1

Stub

1

1. This spreadsheet has been developed using the Montgomery County criteria outlined in the Drainage Criteria Manual for Montgomery County Texas. The Rational Method has been used to calculate flows, and Manning's Formula for pipes flowing full has been used to calculate velocities.

0.35%

0.07% 15.00

CMP 0.24% 0.00 15.00

0.00

2. Minimum storm sewer grades and maximum velocities as established in the City of Houston design criteria have been used to establish the grades used in this system. 3. Calculations of depth to HGL based on 4-inch curb.

СМР

RCP

4. Starting HGL is the 25 year WSEL in the drainage channel, or the top of pipe, which ever is greater.

72

10

71

5. Rainfall intensity is interpolated from the Intensity-Duration data provided by Montgomery County Engineering, which is derived from NOAA Atlas 14.

\\FS3\Projects\2000\202401405 FM1774-FM1486 WSD\Eng-PM\Calcs\Drainage\[MoCo Storm Calculations 2022-10-04.xlsx]CURVE4\_TC15

Runoff	Rainfall			De	sign	Actual	Hydraulic	Minor	Change	Minor	Upstream	Hydraul	ic Grade	Manhole	Pipe F	lowline	Depth from
Coefficient	Intensity	T.C.	Q	Flow	Velocity	Velocity	Gradient	Loss	in Head	Losses	Top of Curb	Upstream	Downstream	Drop (D/S)	Upstream	Downstream	Gutter to HGL
	(in/hr)	(minutes)	(cfs)	(cfs)	(fps)	(fps)	(%)	Code	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)
0.80	7.39	26.6	13.71	9.77	3.11	4.36	0.367%	7	0.35	0.37	274.50	271.98	271.26		262.70	262.52	2.19
0.80	6.49	34.0	13.71	9.60	3.06	4.36	0.367%	0	1.34	0.00	274.00	271.26	269.92		262.52	261.86	2.41
0.80	5.89	40.5	13.71	9.60	3.06	4.36	0.367%	0	0.43	0.00	273.00	269.92	269.48		261.86	261.65	2.75
0.80	5.46	46.4	13.71	9.60	3.06	4.36	0.367%	0	0.08	0.00	273.10	269.48	269.40		261.65	261.61	3.29
0.80	7.07	28.3	28.01	22.12	3.13	3.96	0.176%	7	0.02	0.30	273.00	270.22	269.89		263.60	263.59	2.45
0.80	6.30	35.3	28.01	21.37	3.02	3.96	0.601%	0	0.49	0.00	273.00	269.89	269.40		263.59	263.30	2.78
0.80	7.23	27.1	16.94	22.12	3.13	2.40	0.065%	7	0.01	0.11	273.30	269.68	269.56		263.96	263.95	3.29
0.80	6.39	34.3	16.94	21.37	3.02	2.40	0.220%	0	0.16	0.00	273.30	269.56	269.40		263.95	263.70	3.41
0.80	6.68	31.1	80.15	38.00	3.02	6.38	0.311%	7	0.03	0.79	273.90	270.97	270.15		263.78	263.77	2.60
0.80	6.13	37.8	80.15	38.12	3.03	6.38	1.061%	0	0.75	0.00	273.30	270.15	269.40		263.77	263.60	2.82

Total

Area

(acres)

2.32

2.32

2.32

2.32

4.95

4.95

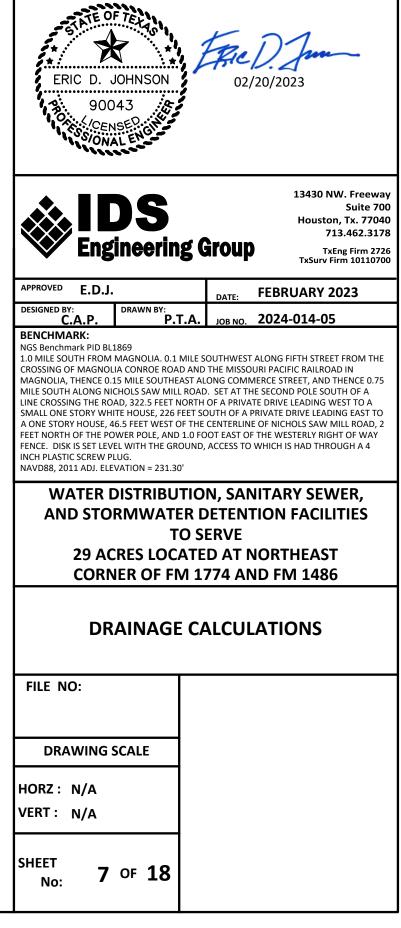
2.93

2.93

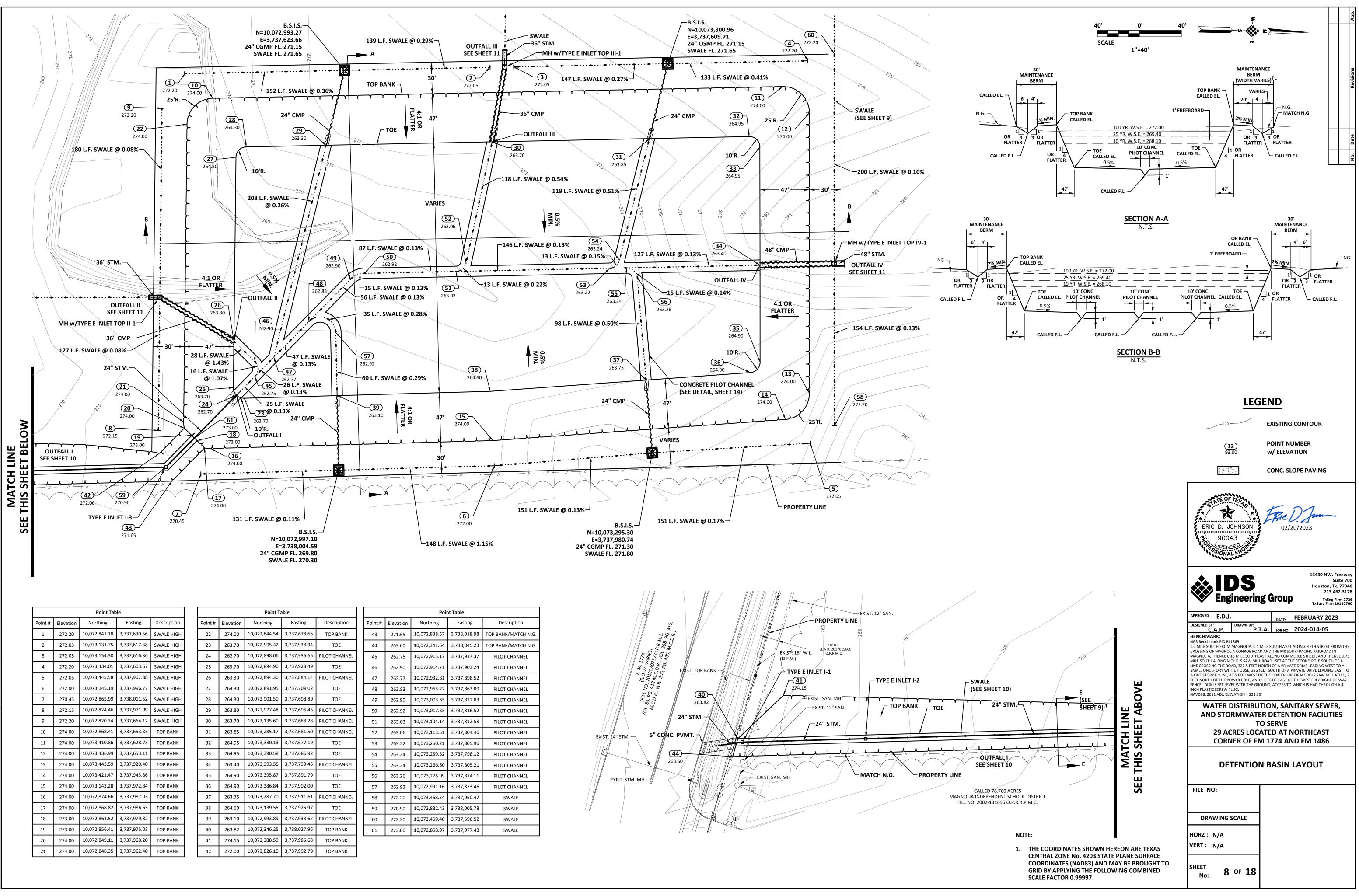
15.00

	Minor Loss Codes							
Code	Equation	K- Value	Scenario					
0	N/A	N/A	No minor losses					
1	(V <sub>Up</sub> <sup>2</sup> -KV <sub>Down</sub> <sup>2</sup> )/2g	0.25	Inlet on mainline with branched lateral					
2	(V <sub>Up</sub> <sup>2</sup> -KV <sub>Down</sub> <sup>2</sup> )/2g	0.5	Inlet on Main line					
3	$(V_{Up}^{2}-KV_{Down}^{2})/2g$	0.25	Manhole on mainline with 90° lateral					
4	(V <sub>Up</sub> <sup>2</sup> -KV <sub>Down</sub> <sup>2</sup> )/2g	0.35	Manhole on mainline with 60° lateral					
5	(V <sub>Up</sub> <sup>2</sup> -KV <sub>Down</sub> <sup>2</sup> )/2g	0.5	Manhole on mainline with 45° lateral					
6	(V <sub>Up</sub> <sup>2</sup> -KV <sub>Down</sub> <sup>2</sup> )/2g	0.75	Manhole on mainline with 22.5° lateral					
7	(KV <sub>Up</sub> <sup>2</sup> )/2g	1.25	Inlet or Manhole at the beginning of line					

aav Aav	Bavicione	Date	



IDS Drawing No. \_\_\_\_\_

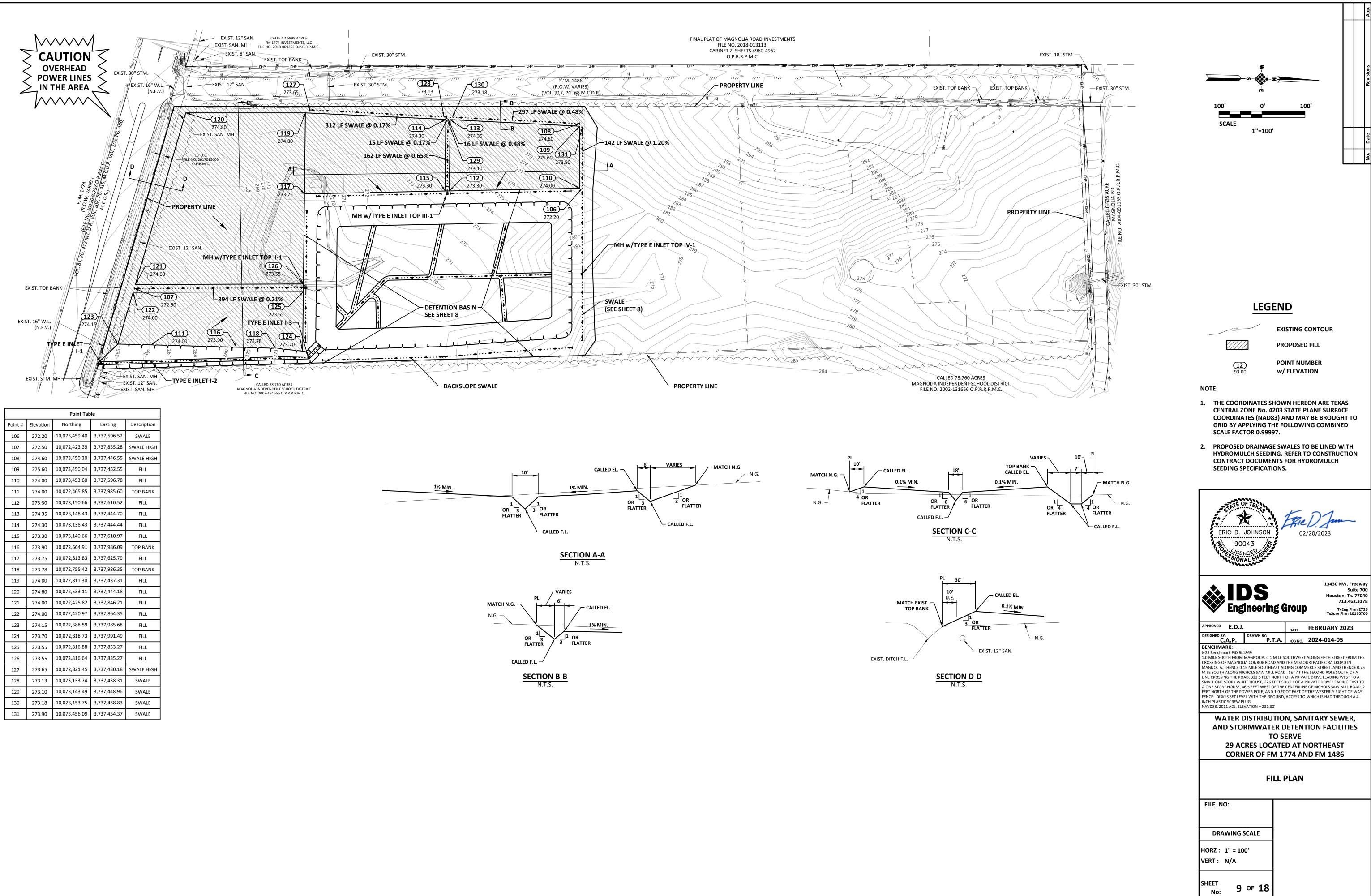


Point Table						
Point #	Elevation	Northing	Easting	Description		
1	272.20	10,072,841.18	3,737,630.56	SWALE HIGH		
2	272.05	10,073,131.75	3,737,617.38	SWALE HIGH		
3	272.05	10,073,154.30	3,737,616.36	SWALE HIGH		
4	272.20	10,073,434.01	3,737,603.67	SWALE HIGH		
5	272.05	10,073,445.58	3,737,967.88	SWALE HIGH		
6	272.00	10,073,145.19	3,737,996.77	SWALE HIGH		
7	270.45	10,072,865.99	3,738,011.52	SWALE HIGH		
8	272.15	10,072,824.46	3,737,971.09	SWALE HIGH		
9	272.20	10,072,820.34	3,737,664.12	SWALE HIGH		
10	274.00	10,072,868.41	3,737,653.35	TOP BANK		
11	274.00	10,073,410.86	3,737,628.75	TOP BANK		
12	274.00	10,073,436.99	3,737,653.11	TOP BANK		
13	274.00	10,073,443.59	3,737,920.40	TOP BANK		
14	274.00	10,073,421.47	3,737,945.86	TOP BANK		
15	274.00	10,073,143.28	3,737,972.84	TOP BANK		
16	274.00	10,072,874.66	3,737,987.03	TOP BANK		
17	274.00	10,072,868.82	3,737,986.65	TOP BANK		
18	273.00	10,072,861.52	3,737,979.82	TOP BANK		
19	273.00	10,072,856.41	3,737,975.03	TOP BANK		
20	274.00	10,072,849.11	3,737,968.20	TOP BANK		
21	274.00	10,072,848.35	3,737,962.40	TOP BANK		

Point Table							
Elevation	Northing	Easting	Description				
274.00	10,072,844.54	3,737,678.66	TOP BANK				
263.70	10,072,905.42	3,737,938.34	TOE				
262.70	10,072,898.06	3,737,935.65	PILOT CHANNEL				
263.70	10,072,894.90	3,737,928.49	TOE				
263.30	10,072,894.30	3,737,884.14	PILOT CHANNEL				
264.30	10,072,891.95	3,737,709.02	TOE				
264.30	10,072,901.50	3,737,698.89	TOE				
263.30	10,072,977.48	3,737,695.45	PILOT CHANNEL				
263.70	10,073,135.60	3,737,688.28	PILOT CHANNEL				
263.85	10,073,285.17	3,737,681.50	PILOT CHANNEL				
264.95	10,073,380.13	3,737,677.19	TOE				
264.95	10,073,390.58	3,737,686.92	TOE				
263.40	10,073,393.55	3,737,799.46	PILOT CHANNEL				
264.90	10,073,395.87	3,737,891.79	TOE				
264.90	10,073,386.84	3,737,902.00	TOE				
263.75	10,073,287.70	3,737,911.61	PILOT CHANNEL				
264.60	10,073,139.55	3,737,925.97	TOE				
263.10	10,072,993.89	3,737,933.67	PILOT CHANNEL				
263.82	10,072,346.25	3,738,027.96	TOP BANK				
274.15	10,072,388.59	3,737,985.68	TOP BANK				
272.00	10,072,826.10	3,737,992.79	TOP BANK				
	274.00 263.70 262.70 263.70 263.30 264.30 264.30 263.30 263.70 263.85 264.95 264.95 264.95 264.95 264.90 263.40 264.90 263.75 264.60 263.10 263.82 263.82	Elevation         Northing           274.00         10,072,844.54           263.70         10,072,898.06           262.70         10,072,898.06           263.70         10,072,894.30           263.70         10,072,894.30           263.70         10,072,894.30           263.70         10,072,894.30           263.30         10,072,894.30           264.30         10,072,891.95           264.30         10,072,977.48           263.70         10,073,135.60           263.70         10,073,380.13           264.95         10,073,380.13           264.95         10,073,390.58           264.95         10,073,393.55           264.90         10,073,393.55           264.90         10,073,393.55           264.90         10,073,393.55           264.90         10,073,386.84           263.75         10,073,386.84           263.75         10,073,385.87           264.60         10,073,386.84           263.75         10,073,386.84           263.75         10,072,993.89           263.82         10,072,346.25           274.15         10,072,388.59	ElevationNorthingEasting274.0010,072,844.543,737,678.66263.7010,072,905.423,737,938.34262.7010,072,898.003,737,928.49263.7010,072,894.303,737,884.14264.3010,072,891.403,737,09.02264.3010,072,901.503,737,698.89263.7010,072,977.483,737,698.28263.7010,073,135.603,737,688.28263.7010,073,380.133,737,688.28264.9510,073,390.583,737,686.92264.9510,073,393.553,737,698.19264.9010,073,393.553,737,99.46264.9010,073,395.873,737,99.1.61264.9010,073,395.873,737,991.61264.9010,073,395.873,737,991.61264.9010,073,395.873,737,991.61264.9010,073,395.873,737,991.61264.9010,073,395.873,737,991.61264.9010,073,395.853,737,993.67263.7510,072,346.253,737,935.67263.8210,072,346.253,737,935.68263.8210,072,346.253,737,935.68274.1510,072,348.593,737,985.68				

	Point Table					
Point #	Elevation	Northing	Easting			
43	271.65	10,072,838.57	3,738,018.9			
44	263.60	10,072,341.64	3,738,045.2			
45	262.75	10,072,915.17	3,737,917.3			
46	262.90	10,072,914.71	3,737,903.2			
47	262.77	10,072,932.81	3,737,898.5			
48	262.83	10,072,965.22	3,737,863.8			
49	262.90	10,073,003.65	3,737,822.8			
50	262.92	10,073,017.35	3,737,816.5			
51	263.03	10,073,104.14	3,737,812.5			
52	263.06	10,073,113.51	3,737,804.4			
53	263.22	10,073,250.21	3,737,805.9			
54	263.24	10,073,259.52	3,737,798.1			
55	263.24	10,073,266.60	3,737,805.2			
56	263.26	10,073,276.99	3,737,814.1			
57	262.92	10,072,991.16	3,737,873.4			
58	272.20	10,073,468.34	3,737,950.4			
59	270.90	10,072,832.43	3,738,005.7			
60	272.20	10,073,459.40	3,737,596.5			
61	273.00	10,072,858.97	3,737,977.4			

IDS Drawing No.



Point Table								
Point #	Elevation	Northing	Easting	Description				
106	272.20	10,073,459.40	3,737,596.52	SWALE				
107	272.50	10,072,423.39	3,737,855.28	SWALE HIGH				
108	274.60	10,073,450.20	3,737,446.55	SWALE HIGH				
109	275.60	10,073,450.04	3,737,452.55	FILL				
110	274.00	10,073,453.60	3,737,596.78	FILL				
111	274.00	10,072,465.85	3,737,985.60	TOP BANK				
112	273.30	10,073,150.66	3,737,610.52	FILL				
113	274.35	10,073,148.43	3,737,444.70	FILL				
114	274.30	10,073,138.43	3,737,444.44	FILL				
115	273.30	10,073,140.66	3,737,610.97	FILL				
116	273.90	10,072,664.91	3,737,986.09	TOP BANK				
117	273.75	10,072,813.83	3,737,625.79	FILL				
118	273.78	10,072,755.42	3,737,986.35	TOP BANK				
119	274.80	10,072,811.30	3,737,437.31	FILL				
120	274.80	10,072,533.11	3,737,444.18	FILL				
121	274.00	10,072,425.82	3,737,846.21	FILL				
122	274.00	10,072,420.97	3,737,864.35	FILL				
123	274.15	10,072,388.59	3,737,985.68	FILL				
124	273.70	10,072,818.73	3,737,991.49	FILL				
125	273.55	10,072,816.88	3,737,853.27	FILL				
126	273.55	10,072,816.64	3,737,835.27	FILL				
127	273.65	10,072,821.45	3,737,430.18	SWALE HIGH				
128	273.13	10,073,133.74	3,737,438.31	SWALE				
129	273.10	10,073,143.49	3,737,448.96	SWALE				
130	273.18	10,073,153.75	3,737,438.83	SWALE				
131	273.90	10,073,456.09	3,737,454.37	SWALE				