Addendum 02 - Wimbish WLA Gym Addition & Renovations, CSP #26-77

Project: **Wimbish WLA Gym Addition and Renovations, CSP #26-77**
Arlington, Texas

Issue.: **ADDENDUM 02**
Issue Date: **May 11, 2026**

Project No.: 26399.005

Owner: **Arlington ISD**

To: Owner and All Offerors

This addendum contains changes to the requirements of the contract drawings and/or project manual. Such changes shall be incorporated into the contract documents and shall apply to the work with the same meaning and force as if they had been included in the original documents. Wherever this addendum modifies a portion of the paragraph of project manual or any portion of the drawing, the remainder of the paragraph of drawing affected shall remain in force. The conditions of the basic project manual shall govern all work described in this addendum. Wherever the conditions of work and the quality of quantity of materials or workmanship are not fully described in this Addendum, the conditions of work, etc. included in the basic project manual for similar items of work shall apply to the work described in this addendum. The "Conditions of the Contract" apply to all work described in this Addendum. The following changes shall be and are hereby made:

This is a list of the original contract documents that includes the missing information per sheet:

General

Item NO. 1: Pre-Proposal Conference Sign-in Sheet

ARLINGTON ISD
WIMBISH WLA GYM ADDITION AND RENOVATIONS
PRE-PROPOSAL CONFERENCE SIGN-IN SHEET
May 06, 2026, 1:00 PM

NAME	COMPANY	E-MAIL
Matthew Omeodu	HKS, Inc.	MOmeodu@hksinc.com
Brook Henderson	Weil Construction	b.henderson@weilconstruction.com
Dak Langford	RATCLIFF CONSTRUCTORS	estimating@ratcliffeconstructors.com
Steve Holden	Temporary Wall Systems	steve.holden@tempwallsystems.com
Wayne Reynard	HKS	WReynard@HKSINC.com
ALEX JACOB	MODERN	AJACOB@MODERNCTRS.COM
SCOTT BUNNING	HKS	SBUNNING@HKSINC.COM
Shaun Ellis	Morales Construction	Shaun.Ellis@moralescs.com
Hunter Hazen	Glidden	hhazen@gliden industries.com
Grant Johnson	Construction Zone	bids@cziglobal.com
LEONARD VITEK	MODERN	LVITEK@MODERNCTRS.COM
Michael C'Leclercq	Hutcherson	Michael@hci-tx.com
Dave Short	MDI	estimating@mdigc.com
Kenny Buyers	RJM	kbuyers@rj-miller.com
VANESSA SALINAS	BIG SKY	estimating@bigskyconstruction.com
TOM KACHAPPILLY	BATSON COOK TEXAS	tkachappilly@batson-cook.com
Vineeth Setty	3i construction Management	vsetty@3icm.com
Ben Sepehripour	3i C.M.	BSepehripour@3icm.com

ADD 02
Narrative

Item NO. 2: RFI-01

1. Please provide a comprehensive list of allowances and values to be carried for each. Allowances have been found within the drawing set that do not coincide with what is shown in the specifications (Allowance Section). In addition, some allowances are also referenced as alternates.
   Allowances that have been found
   Face Brick
   Door Hardware
   Wall Covering
   Carpeting
   Elevator Enclosure
   Graphics
   Landscaping
   Trowable Polymer Modified Cementitious Underlayment (also in alternates)
   Self-Leveling Cementitious Underlayment (also in alternates)
   Moisture Floor Treatment (also in alternates)
   Replacement of carriers (in drawings sheet A2.00)
   Selective Tile Replacement (in drawings sheet A2.00)
   Mirror Replacement (in drawings sheet A2.00)
   TAB (in TAB spec)

   All allowances have been updated and provided within Addendum 02.

2. Please confirm if elevators are part of the project scope, and if so, provide specification, allowance is calling for an elevator enclosure.

   There is no elevator work in this project. Correction has been made via Addendum 02.

Item NO. 3: RFI-02A

Please review and respond to the following questions:

1. What is the expected duration schedule for the project, and is there a required completion date? July 23 2027, see proposal form in addendum 02
2. Please provide 2026 Tarrant County Wages Rates. Reference Instructions to Proposers – Appendix C, pg 166-172, 2024 Tarrant County Wage Rates
3. Spec section 02100 – Allowances list numerous items without any values associated with them. Please provide dollar values for allowances we are to include in our bid. Spec section has been replaced in its entirety. Reference Addendum 02
4. Bid Form shows (6) unit prices vs. (13) shown in spec section 012200. Please clarify which is correct. Spec section has been replaced in its entirety. Reference Addendum 02
5. Specification section 14541 – Preconstruction Laboratory Mockup Testing for Building Enclosure Systems, please confirm that the cost utilization of the facilities as well as the actual tests that will be performed shall be borne by the Owner, not the Contractor. Specification has been removed from Specification book. Reference Addendum 02

6. Specification section 017846.13 – Extra Stock and Maintenance Materials – Architectural, there are numerous specification section listed in section 2.2 that are not part of the Table of Contents and therefore considered not part of this project. Please review and correct the listing of specification section that required extra stock. Spec section has been replaced in its entirety. Reference Addendum 02
7. The precast spec section (03410) calls for PCI certification. Is a precast company that is certified by National Precast Concrete Association (NPCA), Architectural Precast Association (APA), and CCI (Construction Certification Institute) acceptable in lieu of the PCI certification. PCI Certification is a requirement, needs to be PCI certified.
8. Are the details for the precast structure open to revision as part of the precast fabricator's 'delegated design' (e.g., double tees bearing in stem pockets, rather than on corbels)? Yes, the details are open to revision. The details noted in the structural set were for general information only and were to illustrate load path. If the precast engineer has a more efficient design, we are open to pursuing it. However, critical items must be coordinated, reviewed, and approved by the architect and structural engineer (a specific example being the structural depths/widths/detail configuration at the high-low roof step).
9. Who is the existing BAS Controls contractor? Enviromatics

Item NO. 4: RFI-03

1. We contacted Landtec Geotechnical services, and they would not issue the geotechnical report directly to us. They said it must come from you. We do not see the report in the bid documents. See Addendum 02

Item NO. 5: RFI-04

1. Question Wimbish – Anyone know if the existing restroom walls are drywall or CMU?? The restroom toilet partitions appear to scale as if the new are going back in the same locations. If chase walls are Drywall we will need to patch them, if partitions do not line up with existing blocking we will need to open the walls and install blocking for new stall partition blocking. If CMU painter will just have some anchor holes to caulk in?? Existing restroom walls are believed to be drywall. The new partitions are going back in the general location of what was once existing. After the partitions are installed, the wall should be left in a uniform condition and like new. Including but not limited to matching paint and tile.

Item NO. 6: RFI-05

1. Specification 31 63 16, section 1.3 references the geotechnical report provided by Landtec. However, no geotechnical report is found in the specifications. Please provide geotechnical report for this project. See Addendum 02

REVISIONS

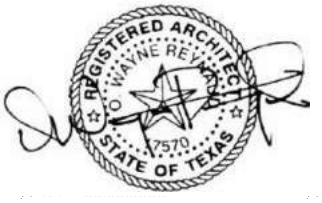
SPECIFICATIONS	DESCRIPTION OF CHANGE
00 3100 Available Project Information	Replaced specification section in its entirety
00 4000 Proposal Form	Added Proposal Form to Spec. book
00 4001 Proposal Bond	Added Proposal Bond to Spec. book
00 6113.13 Performance Bond	Added Performance Bond to Spec. book

ADD 02
Narrative

00 6113.16 Payment Bond	Added Payment Bond to Spec. book
00 5200 Agreement Form	Removed from Spec. book
00 7200 General Conditions	Removed from Spec. book
00 7300 Supplementary Conditions	Removed from Spec. book
01 1000 Summary	Replaced specification section in its entirety
01 2100 Allowances	Replaced specification section in its entirety
01 2200 Unit Prices	Replaced specification section in its entirety
01 2300 Alternates	Replaced specification section in its entirety
01 3233 Photographic Documentation	Replaced specification section in its entirety
01 4339 Visual Mock-Up Requirements	Removed from Spec. book
01 4541 Preconstruction Laboratory Mockup Testing for Building Enclosure Systems	Removed from Spec. book
01 7419.13 Construction Waste Management and Disposal	Removed from Spec. book
01 7846.13 Extra Stock and Maintenance Materials – Architectural	Replaced specification section in its entirety
01 8112.13 Health and Environmental Performance Requirements	Removed from Spec. book
10 2813 Toilet Accessories	Replaced specification section in its entirety
99 9997 LANDTEC ENGINEERS GEOTECHNICAL ENGINEERING REPORT	Added Geotechnical report to Specifications
99 9998 LANDTEC ENGINEERS GEOTECHNICAL Addendum No. 1	Added Geotechnical addendum to Specifications
99 9999 Asbestos Inspection for AISD Wimbish Elementary School	Added Asbestos report to the Specifications
SHEET	**DESCRIPTION OF CHANGE**
Cover Sheet	Title Change
A0.01	Added ADDENDUM 02 to index Removed Alternate 04
AD2.01	Added Amin Restroom Demo Updated demolition general notes

ADD 02
Narrative

AD4.00	Updated demolition general notes
AD4.01	Updated demolition general notes
AD4.02	Updated demolition general notes
AD4.03	Updated demolition general notes
AD4.04	Updated demolition general notes
A2.00	Added Admin Restroom
A2.02	Added information regarding the demolition of toilet accessories
A2.41	Added floor finish general notes
A2.42	Added finish floor plans for the restroom renovations



05-11-2026

HKS

HKS Project No. 26399.005

Project Manual | Divisions 00 - 33

WIMBISH WORLD LANGUAGE ACADEMY GYM ADDITION AND RENOVATIONS

CSP #26-77

ARLINGTON INDEPENDENT SCHOOL DISTRICT

ADDENDUM 02

2026-05-08

PROJECT MANUAL

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LEGEND

First Column:		Current Date for Section
Second Column:	☒	Checked Indicates Section is Included in Current Issue
Third Column:		Section Number
Fourth Column:		Section Title
Fifth Column:		Section Author

REVISED TECHNICAL CONTENT

- Deleted information is indicated by ~~STRIKETHROUGH~~; for example, THIS IS DELETED.
- Added information is indicated by DOUBLE UNDERLINE and BOLD; for example, **THIS IS ADDED.**
- All Revised Information Is Further Identified By A Heavy Vertical Line To The Right Of All Revisions In Each Individual Specification Section (Refer To Heavy Bold Line To The Right For An Example). **AND BOLD**

ISSUES

2026-05-08	**Addendum 02**
2026-03-30	Bid Set
2026-03-06	Permit Set
2026-02-23	75% Construction Development
2026-01-16	Design Development

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

DIVISION 01 - GENERAL REQUIREMENTS

DIVISION 02 - EXISTING CONDITIONS

DIVISION 03 - CONCRETE

DIVISION 21 – FIRE SUPPRESION

DIVISION 22 - PLUMBING

DIVISION 23 – HEATING, VENTILATION AND AIR CONDITIONING (HVAC)

END OF TABLE OF CONTENTS

SECTION 003100
AVAILABLE PROJECT INFORMATION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section references other information relevant to the construction of this Project that is available project information.

B. Bidders are expected to examine the site and the information available from the Owner to determine for themselves the conditions to be encountered.

C. If conditions other than those indicated in the information available from the Owner are encountered before or during construction, notify the Owner before work continues.

1.2 PROPERTY SURVEY

A. The Owner's Surveyor has performed a property survey and the some of the survey information is included on the Drawings for the convenience of the Contractor.

B. Copies of the documents are available from the Owner.

1.3 GEOTECHNICAL REPORT

A. The Owner's Geotechnical Consultant has made subsurface borings at the Project site, has performed an investigation of the geotechnical conditions, and has prepared a report of the investigation that contains specific requirements of the Contractor. These Documents and attachments are not part of the Contract Documents prepared by the Architect.

B. Geotechnical Report included in specification book.

1.4 EXISTING CONDITIONS REPORT

A. The following existing conditions that will affect or influence the construction of this Project include the following:

1.5 CIVIL CONSTRUCTION DOCUMENTS

A. The Owner's Civil Engineering Consultant has developed civil designs for the Owner's property and has prepared construction documents. These Documents and attachments are not part of the Contract Documents prepared by the Architect.

B. Copies of the documents are available from the Owner.

C. Copies of the documents are included in the Contract Documents prepared by the Architect for the convenience of the Owner.

D. The Owner retained the following company: MJ THOMAS

1.6 LANDSCAPING CONSTRUCTION DOCUMENTS

A. The Owner's Landscape Architect Consultant has developed landscaping designs for the Owner's property and has prepared construction documents. These Documents and attachments are not part of the Contract Documents prepared by the Architect.

B. Copies of the documents are available from the Owner.

C. Copies of the documents are included in the Contract Documents prepared by the Architect for the convenience of the Owner.

D. The Owner retained the following company: CCA

1.7 DEMOLITION CONTRACT DOCUMENTS

A. The Owner's Demolition Consultant has determined demolition provisions for the Owner's existing property and has prepared documents indicating demolition requirements. These Documents and attachments are not part of the Contract Documents prepared by the Architect.

B. Copies of the documents are available from the Owner.

C. Copies of the documents are included in the Contract Documents prepared by the Architect for the convenience of the Owner.

D. The Owner retained the following company:

END OF SECTION

SECTION 00 40 00 PROPOSAL FORM

SUBMITTED BY: _____
(Name of Proposer)

_____
(Address)

Undersigned, having examined Drawings, Project Manual, related documents, and site of proposed work, and being familiar with all of conditions surrounding work, including availability of materials and labor, hereby proposes to furnish all labor, materials, and equipment required for the **CSP # 26-77 Wimbish WLA Gym Addition and Renovations** in accordance with Drawings and Project Manual prepared by HKS Architects, for the lump sum amount of:

BASE PROPOSAL _____ Dollars ($_____).

NOTE: Amount shall be shown in both words and figures. In case of discrepancy, amount shown in words shall govern. Above amount does not include State of Texas Sales Tax and Renovation Tax.

HUB PARTICIPATION PERCENTAGE _____

Undersigned affirms that above stipulated base proposal sum represents entire cost in accordance with Drawings, Project Manual, and Addenda and that no claim will be made on account of any increase in wage scales, material prices, taxes, insurance, cost indexes, or any other rates affecting construction industry or this project.

Undersigned proposer agrees that this proposal shall be good and may not be withdrawn for a period of 90 calendar days after scheduled closing time for receiving proposals.

Undersigned proposer understands that the Owner reserves right to reject any or all proposals and to waive any informalities in proposal.

The successful proposer's proposal security will be retained until the contract has been executed and payment and performance bonds have been executed and delivered. The Owner reserves the right to retain the security of the next two lowest proposers until the lowest proposer enters into contract or until 60 days after proposal opening, whichever comes first. All other proposal securities will be returned as soon as practicable.

The Owner reserves right to require bonds from successful proposer. If written notice of acceptance of this proposal is received within 90 days after date designated for opening of proposals, undersigned, within 10 days of receipt of the Contract, will sign and deliver to the Owner the Contract required Performance Bond, Labor and Material Payment Bond, Certificate of Insurance, and insurance policies required by the Contract Documents. Should undersigned fail to deliver signed Contract or required bonds and insurance policies within 10 day period, the Owner reserves right to terminate relationship.

ALLOWANCES

A. Proposer is required to include an Owner's Contingency within Wimbish WLA Gym Additions and Renovations in the amount of **$425,000** within the base proposal amount. Reference Section 01 2100 ALLOWANCES

ALTERNATES

Having examined Bid and Contract Documents prepared by architect, dated April 27 and having examined site conditions, the undersigned proposes to furnish all labor, equipment and materials and perform all work for the alternates of the above-named project for the sums indicated below. In submitting his Proposal, the undersigned agrees to carry out Alternate work in addition to and in accordance with the Base Proposal, and to hold these alternate proposals until indicated by owner. The following are proposed amounts for the listed Alternates:

A. Alternate No. 1:

Wimbish WLA – Add Alternate Fire Lane Extension Per section 01 2300

_____ $ _____
(Amount in words) (Amount in figures)

B. Alternate No. 2:

Wimbish WLA – Add Alternate ACT Ceiling and Lighting Per section 01 2300

_____ $ _____
(Amount in words) (Amount in figures)

C. Alternate No. 3:

Wimbish WLA – Add Alternate LED Lighting Per section 01 2300

_____ $ _____
(Amount in words) (Amount in figures)

UNIT PRICES

Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

List of Unit Prices:
In submitting his Proposal, the undersigned agrees to the Unit Prices as indicated below in accordance with the Base Proposal. The following are the proposed amounts for the listed Unit Prices:

1. Unit Price No. 1 — Acoustical Panel Ceiling
   a. $_____per square foot.
2. Unit Price No. 2 — Electrical Receptacle:

a. Description: Furnish and install one (1) additional electrical receptacle including wiring pack to the nearest circuit/electrical panel.

b. $_____per duplex outlet.

c. $_____per quad outlet.

3. Unit Price No. 3 — Interior Paint:

a. Description: Provide and apply additional interior paint (wall prep, primer, paint, labor and materials) on existing painted interior wall surfaces.

b. $_____per square foot.

4. Unit Price No. 4 — Data Drop:

a. 1. Description: Furnish and install one (1) additional data drop including cabling terminations from the work area outlet/device to the nearest network rack.

b. $_____per drop.

5. Unit Price No. 5 — Driveway Concrete Paving:

a. Description: Provide and install driveway concrete paving including concrete, reinforcing, site preparation, finish and labor as required for a complete installation.

b. $_____per square foot for 6-inch-thick concrete paving.

c. $_____per square foot for 8-inch-thick concrete paving.

6. Unit Price No. 6 — Sidewalk Concrete Paving:

a. Description: Provide and install 4-inch-thick sidewalk concrete paving including concrete, reinforcing, site preparation, finish and labor as required for a complete installation.

b. $_____per square foot.

TIME OF COMPLETION

Undersigned agrees to commence work under this Contract within 10 days of receipt of written Notice to Proceed from the Owner (projected to be June 22, 2026) and to Substantially Complete entire work by: July 23, 2027.

ADDENDA

Undersigned hereby acknowledges receipt of following Addenda to Drawings and Project Manual, all of provisions and requirements of which addenda have been taken into consideration in preparation of this proposal.

Addendum No._____ Dated:_____

Addendum No._____ Dated:_____

Addendum No._____ Dated:_____

PROPOSAL SECURITY

Proposal Security must accompany this Proposal. Security shall be made payable to Arlington Independent School District in amount of five percent of total Proposal Sum. Security shall be by certified check, cashier's check, or acceptable proposal bond by surety licensed to do business in Texas. Enclosed with this proposal is required proposal security in Sum of:

_____Dollars ($_____) .

Date:_____ Signed

Title_____

Name of Firm _____

_____

Organized as a: (Mark one)

Proprietorship_____

Partnership_____

Corporation_____

Under the law of the State of:_____

Legal Address:_____

_____
(Date)

Telephone No. _____

If Proposal is by a corporation, affix seal above address.

END OF SECTION

SECTION 00 40 01 - PROPOSAL BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____, as Principal, and _____, as Surety, are held and firmly bound unto the Arlington Independent School District, Arlington, Texas, hereinafter called the Owner, in the penal sum of _____ Dollars ($_____) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the accompanying Proposal, dated _____, 2025 for **CSP # 26-77 Wimbish WLA Gym Addition and Renovations** the kind and extent of work involved being set forth in detail in the proposed Contract Documents cited herein.

The bond is in a sum constituting **5%** of the amount of our proposal.

THEREFORE, if the Principal shall not withdraw the accompanying proposal within 45 days after the date set for opening thereof, and shall within ten days after the prescribed forms are presented for signature, enter into a written contract with the Owner in accordance with the Proposal as accepted; and give Bond and good and sufficient surety for the faithful performance and proper fulfillment of the contract including payment of persons supplying labor or materials therefor, or in the event of the withdrawal of the proposal within the period specified, or the failure to enter into a contract and give the bond within the time specified, if the Principal shall pay to the Owner the difference between the aggregate amount for which the Owner may enter into a contract for the same work with another Respondent; if the latter amount be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bonded parties have executed this instrument under their respective seals this _____ day of _____, 20___, the name and Corporate Seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representatives, pursuant to authority of its governing body.

_____ _____
Business Address Individual Principal

_____ _____
Business Address Individual Principal

ATTEST:

_____ BY:_____
Secretary President

_____ _____
Business Address Corporate Surety

ATTEST:_____ BY:_____

END OF DOCUMENT 00 40 01

DOCUMENT 00 61 13.13

PERFORMANCE BOND

THE STATE OF TEXAS, COUNTY OF TARRANT

KNOW ALL MEN BY THESE PRESENTS:

THAT we,

as Principal, and

as Surety, are hereby held and firmly bound unto Arlington Independent School District, hereafter called Obligee, in the penal sum of $_____ which is the full amount of Principal's contract with the named Obligee, for the payment of which sum the said Principal and Surety bind themselves, their heirs, executors, administrators and successors, jointly and severally firmly by these presents.

WHEREAS, the principal has entered into a written contract dated _____ with Obligee named, to do and perform certain construction work as provided in said contract and the related plans, specifications, general conditions and other contract documents, all of which are by reference made a part hereof.

NOW, THEREFORE, the conditions of this Obligation is such that if the Principal shall faithfully perform all of the work in accordance with the plans, specifications general conditions and contract documents, and shall faithfully perform each, every and all other obligations incumbent upon him under the terms of said written contract referred to, and shall fully indemnify and save harmless the Obligee from all costs, expense and damage which it may suffer or incur because of Principal's default, or failure so to do, then this obligation shall be void, otherwise it shall remain in full force and effect.

In the event Principal shall default in the faithful performance of the work called for by said written contract, plans, specifications and contract documents, the Surety shall within 15 days of the determination of default (determined as provided in said contract, general conditions and contract documents) take over and assume completion of said contract, or within such 15 day period make other arrangements satisfactory with the Obligee for completion of the contract, and said Surety shall become entitled thereupon to the payment or benefit of the balance of the contract price as the same matures according to its terms.

The Surety, for the protection of the Obligee herein, waives notice of, and hereby consents to any subsequent modification or alteration both in the work to be performed by the Principal, and the consequent price or sums to be paid by the Obligee, as well as any other change, or amendment, addition or deletion in the contract documents during the progress of the work, including but not limited to all extensions of time or other indulgences permitted the Principal.

Notwithstanding any other provision, the liability of the Surety on this bond shall never exceed the penal sum stated in first paragraph.

PROVIDED FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to contract, or to the work performed

thereunder, or the plans, specifications, drawings, etc., accompanying the same, shall in anywise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or the work to be performed thereunder.

This Bond shall automatically be increased by the amount of any Change Order or Supplemental Agreement which increases the Contract price, but in no event shall a Change Order or Supplemental Agreement which reduces the Contract prices decrease the penal sum of this Bond.

This Performance Bond is given in compliance with the terms and provisions of Chapter 2253 of the Texas Government Code, and this bond and all of the provisions herein contained shall be solely for the protection of the named Obligee which has awarded the contract referred to.

The undersigned, Corporate Surety, does by the execution of this Bond solemnly warrant and represent that it is duly authorized to do business in Texas, and that the agent listed below is authorized to receive notices and service of process for any claims arising under this Bond.

Executed this_____ day of _____, 20____.

Attest: _____ Principal

_____

_____ Title

Approved as to Form by Obligee:

_____ _____ Surety

By _____

_____ Title

The Resident Agent of the Surety in Tarrant County, Texas, for delivery of notice and service of the process is: (NOTE: Date of Performance Bond must be date of Contract. If Resident Agent is not a corporation, give a person's name.)

NAME:

ADDRESS:

(NOTE: Date of Payment Bond must be date of Contract. If Resident Agent is not a corporation, give a person's name.)

NOTE:

1. This bond must be payable to the awarding authority, Arlington Independent School District as the named obligee, and it must be approved as to form by such awarding authority.

2. This bond must be furnished before any work is commenced.

3. Surety must be a corporate surety duly authorized to do business in Texas.

4. This PERFORMANCE BOND must be in the full amount of the contract which it secures.

5. Attach Power of Attorney from Corporate Surety to this Performance Bond.

END OF DOCUMENT

DOCUMENT 00 61 13.16

PAYMENT BOND

THE STATE OF TEXAS, COUNTY OF TARRANT

KNOW ALL MEN BY THESE PRESENTS:

THAT we,

as Principal, and

as Surety, are held and firmly bound unto the Arlington Independent School District, hereinafter called Owner, and unto all persons, firms, and corporations who may furnish materials for, or perform labor upon the building or improvements hereinafter referred to, in the penal sum of Dollars ($_____), to be paid in Tarrant County, Texas, for the payment of which sum well and truly be made, we bind ourselves, our heirs, executors, administrators and successors jointly and severally, firmly by these presents. This Bond shall automatically be increased by the amount of any Change Order or Supplemental Agreement which increases the Contract price, but in no event shall a Change Order or Supplemental Agreement which reduces the Contract prices decrease the penal sum of this Bond.

WHEREAS, the principal has entered into a written contract identified as _____, dated _____, 20 _____, with Owner, to do and perform certain construction work as provided in said contract and the related plans, specifications, general conditions and other contract documents, all of which are by reference made a part hereof.

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties and make prompt payments to all persons, firms, subcontractors, corporations and claimants supplying labor and/or material in the prosecution of the work provided in said contract and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Surety is hereby expressly waived, then this obligation shall be void; otherwise it shall remain in full force and effect.

PROVIDED FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to contract, or to the work performed thereunder, or the plans, specifications, drawings, etc., accompanying the same, shall in anywise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or the work to be performed thereunder.

This Bond is given pursuant to the provisions of Chapter 2253 of the Texas government Code (formerly Article 5160 of Vernon's Annotated Civil Statutes), and any other applicable statutes of the State of Texas.

The undersigned and designated agent is hereby designated by the Surety herein as the Resident Agent in Tarrant County to whom any requisite notices may be delivered and on whom service of process may be had in matters arising out of such suretyship, as provided by Article 7.19-1 of the Insurance Code, Vernon's Annotated Civil Statutes of the State of Texas.

IN WITNESS WHEREOF, this instrument is executed this _____ day of _____, 20____.

Attest: _____ Principal

_____

_____ Title

Approved as to Form by Obligee:

_____ _____ Surety

By _____

_____ Title

The Resident Agent of the Surety in Tarrant County, Texas, for delivery of notice and service of the process is: (NOTE: Date of Performance Bond must be date of Contract. If Resident Agent is not a corporation, give a person's name.)

NAME: _____

ADDRESS: _____

(NOTE: Date of Payment Bond must be date of Contract. If Resident Agent is not a corporation, give a person's name.)

NOTE:

1. This bond must be payable to the awarding authority, Arlington Independent School District as the named obligee, and it must be approved as to form by such awarding authority.

2. This bond must be furnished before any work is commenced.

3. Surety must be a corporate surety duly authorized to do business in Texas.

4. This PAYMENT BOND must be in the FULL amount of the contract.

5. Attach Power of Attorney from Corporate Surety to this Payment Bond.

END OF DOCUMENT

SECTION 011000

SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Owner-furnished, Owner-installed (OFOI) products.
3. Owner-furnished, Contractor-installed (OFCI) products.
4. Worker conduct and appearance - work rules.
5. Access to site.
6. Coordination with occupants.
7. Work restrictions.
8. Specification and drawing conventions.

1.2 PROJECT INFORMATION

A. **Project Identification: WIMBISH WORLD LANGUAGE ACADEMY GYM ADDITION AND** RENOVATIONS

1. Project Location: Arlington, Texas

B. Owner: Arlington Independent School District

1. Owner's Representative: HKS INC

C. Architect: HKS Inc,: 350 N. St Paul St Suite 100, Dallas TX 75201

(214) 969-5599

D. Architect's Consultants: The Architect has retained the following design professionals who have prepared designated portions of the Contract Documents:

1. CIVIL - MJ Thomas Engineering LLC: 4700 Bryant Irvin Ct St 204, Ft Worth, TX 76107

(817)732-9839

2. LANDSCAPE – CCA Landscape Architects: 12700 Hillcrest RD St 149, Dallas, TX 75230

(214) 739-9105

3. MEP – Salas O'Brien: 350 N St Paul ST Suite 100, Dallas TX 75201

(972) 812-1270

4. STRUCTURAL – HKS INC: 350 N. St Paul St Suite 100, Dallas TX 75201

(214) 969-5599

5. ROOFING – ARMKO Industries, Inc: 1320 Spinks Rd, Flower Mound TX 75028

(940) 448-2040

1.3 OWNER-FURNISHED, OWNER-INSTALLED (OFOI) PRODUCT

A. The specific product is not in this contract, and actual installation of the product will be made by the Owner.

B. Products will be indicated as follows:

1. Product prefixed with "Space for"
2. N.I.C.
3. Owner Furnished - Owner Installed
4. Product noted as "Future"

C. Roughing-in for Owner Furnished, Owner Installed Product is provided by applicable Sections governing the type of work. Obtain rough-in requirements from Owner.

1.4 OWNER-FURNISHED, CONTRACTOR-INSTALLED (OFCI) PRODUCT

A. Install products indicated as follows:

1. "Owner Furnished, Contractor Installed".
2. "Reuse".
3. "Relocate".

B. Provide labor, transportation, materials, tools, appliances and utilities necessary for the following:

1. Relocated Products:

a. Removing installed product from the Owner's existing facility, as required.
b. Transportation of product from Owner's facility to the job site.

2. Receiving and storage of Owner furnished, Contractor installed product, as required.
3. Providing materials and components for the product as necessary to install in an operating condition, but not including repairing of existing damages to the product.
4. Modification of product only as specified under the particular item.
5. Installation of product in this project, complete and in operating condition, including the adjusting and calibration of the product as necessary for proper operation.
6. Testing of product.
7. Paying of fees, licenses, and taxes in conjunction with the installation of the product.
8. Roughing-in and final utility connections for the Owner furnished, Contractor installed product remains the work of Sections governing the specific utility.

1.5 WORKER CONDUCT AND APPEARANCE - WORK RULES

A. General: The conduct and appearance of each worker at the jobsite is of paramount importance. The Owner reserves the right to require any worker to be reassigned to work outside the Owner's property.

1. Privacy: Where applicable, conduct work of the Contract with the maximum effort to maintain the privacy of the Owner's operations, staff, and clientele. Do not permit workers to peer into other areas of the building visible from the work area. Invasion of privacy is a major infraction of the work rules.
2. Conduct and Demeanor: Construction workers shall treat other construction workers, Owner's staff, clientele, and visitors (as applicable) professionally with respect and courtesy.
3. Physical Appearance: Require each worker to dress appropriately in a clean, neat, and professional manner.

4. Radios and Television: The use of entertainment devices including personal devices with headphones or earphones is prohibited at all times. Control the volume of communication radios and loudspeakers to avoid creating a nuisance.
5. Tobacco Products: The use of tobacco products is prohibited.
6. Language: The use of foul language is prohibited.
7. Loud Conduct: Screaming, yelling, and unnecessary loud conduct is prohibited.
8. Physical Actions: Running, horseplay, fighting, and other unprofessional conduct is prohibited. Fighting is a major infraction of the work rules.
9. Stealing: Stealing of any material, objects, furnishings, equipment, fixtures, supplies, clothing, or other items is prohibited and a major infraction.
10. Sexual Harassment: All forms of physical and verbal sexual harassment including, without limitation: touching; whistling; sexually explicit stories, jokes, drawings, photos, and representations; exhibitionism; and all other sexually oriented offensive behavior is prohibited.
11. Roaming: Construction personnel shall not be allowed to roam, or wander about, the existing facilities.
12. Eating: Construction personnel shall not use the existing Dining Area for breakfast, lunch, or dinner.
13. Parking: Construction personnel shall only park in designated areas reserved for construction parking.
14. Penalties: First infraction of the work rules shall result in a verbal warning from the Owner. Second infractions shall result in being requested to leave the Owner's property. Owner's decision in such matters shall be final with no exceptions.

B. Warnings and Dismissal: For minor infraction of the rules, the Owner may issue a warning. Only one warning will be allowed per worker, and a second infraction shall result in immediate dismissal of the worker from the Owner's property. For major infractions such as invasion of privacy, the worker shall be dismissed immediately without warning and possibly subject to criminal prosecution.

C. Notification of Workers: Clearly notify and educate each worker about these Work Rules and the requirements for worker conduct and appearance.

1.6 ACCESS TO SITE

A. General: Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.

B. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

C. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Confine constructions operations to work in areas indicated on drawings.
2. Allow for Owner occupancy of site and use by the public.
3. Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times.
4. Do not use drives and entrances for parking or storage of materials.
5. Schedule deliveries to minimize use of driveways and entrances.
6. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
7. Coordinate use of premises under direction of Owner.
8. Assume full responsibility for the protection and safekeeping of Products under this Contract, stored on the site.

9. Move any stored Products, under Contractor'¢¢s control, which interfere with operations of the Owner or separate contractor.
10. Obtain and pay for the use of additional storage or work areas needed for operations.

D. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.

1.7 COORDINATION WITH OCCUPANTS

A. Full Owner Occupancy: Owner will occupy site and existing and/or adjacent building(s), as applicable, during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

B. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

C. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work.

1. Architect will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied prior to Owner acceptance of the completed Work.
2. Obtain a Certificate of Occupancy from authorities having jurisdiction before limited Owner occupancy.
3. Before limited Owner occupancy, mechanical and electrical systems shall be fully operational, and required tests and inspections shall be successfully completed. On occupancy, Owner will operate and maintain mechanical and electrical systems serving occupied portions of Work.
4. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of Work.

1.8 WORK RESTRICTIONS

A. Work Restrictions, General: Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Coordinate the limitations relative to working hours in the existing building with Owner.

C. Existing Utility Interruptions: Refer to Division 01 Section "Execution" for requirements.

D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.

1. Notify Owner not less than 72 hours in advance of proposed disruptive operations.
2. Obtain Owner's written permission before proceeding with disruptive operations.

1.9 SPECIFICATION AND DRAWING CONVENTIONS

A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Abbreviated Language: Language used in Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be interpolated as the sense requires. Singular words will be interpreted as plural and plural words interpreted as singular where applicable as the context of the Contract Documents indicates.
2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the Text, subjective language is used for clarity to describe responsibilities that must be fulfilled indirectly by the Contractor, or by others when so noted.
3. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
4. Specification requirements are to be performed by Contractor unless specifically stated otherwise.

B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:

1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 012100

ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

B. Proposer is required to include a single allowance thus:

1. Owner Contingency within Wimbish WLA Gym Additions and Renovations in the amount of $425,000.00 within the base proposal amount.

1.2 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.

B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Purchase products and systems selected by Architect from the designated supplier.

1.3 SUBMITTALS

A. Proposals: Submit proposals for purchase of products or systems included in allowances, in the form specified.

B. Material Invoices: Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

C. Labor Documentation: Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.

D. Coordination: Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.4 COORDINATION

A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.5 ALLOWANCES **REQUIREMENTS**

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight, and delivery to Project site.

~~B.~~ Contractor **shall provide** costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials

C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.6 CONTINGENCY ALLOWANCE EXPENDITURE AUTHORIZATION

A. Use the contingency allowance only as directed by Architect for Owner's purposes and only by ~~Change Orders~~ **allowance expenditure authorization** that indicate amounts to be charged to the allowance.

B. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.

C. ~~Change Orders~~ **Allowance expenditure authorization** authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.

D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by **Final Deductive** Change Order.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

END OF SECTION

SECTION 012200

UNIT PRICES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for unit prices.

1.2 DEFINITIONS

A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.3 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. LIST of UNIT PRICES:

1. In Submitting the proposal. The undersigned agrees to the Unit Prices as indicated below in accordance with the Base Proposal. The following are the proposed amounts for the listed Unit Prices

B. Unit Price No. 1 – Acoustical Panel Ceiling:

a. $_____ per Square foot.

C. Unit Price No. 2 – Electrical Receptacle:

a. Description: Furnish and install one (1) additional electrical receptacle including wiring pack to the nearest circuit/electrical panel.
b. $_____ per duplex outlet
c. $_____ per quad outlet.

D. Unit Price No. 3 – Interior Paint:

a. Description: Provide and apply additional interior paint (wall prep, primer, paint, labor, and materials) on existing painted interior wall surfaces.
b. $_____ per square foot

E. Unit Price No. 4 – Data Drop:

a. Description: Furnish and install one (1) additional data drop including cabling terminations from the work area outlet/device to the nearest network rack.
b. $_____ per drop.

F. Unit Price No. 5 – Driveway Concrete Paving:

a. Description: Provide and install driveway concrete paving including concrete, reinforcing, site preparation, finish and labor as required for a complete installation.
b. $_____ per square foot for 6-inch thick concrete paving.
c. $_____ per square foot for 8-inch thick concrete paving.

G. Unit Price No. 6 – Sidewalk Concrete Paving:

a. Description: Provide and install 4-inch thick sidewalk concrete paving including concrete, reinforcing, site preparation, finish, and labor as required for a complete installation.
b. $_____ per square foot.

END OF SECTION

SECTION 012300

ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

A. Documentation: Show compliance with requirements for accepted alternates and the following, as applicable:

1. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate accepted alternates.
2. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
3. Samples, where applicable or requested.
4. Certificates and qualification data, where applicable or requested.
5. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
6. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
7. Detailed comparison of Contractor's construction schedule using accepted alternates with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
8. Cost information, including change in the Contract Sum.

B. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

C. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.

D. Execute accepted alternates under the same conditions as other work of the Contract.

E. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

F. Acceptance of Alternates will be exercised at option of Owner in any order or combination.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. ALTERNATE NO. 1: Fire Lane Extension

1. Description: Alternate to provide pricing for the fire lane extension. Extent of alternate is shown in the Project Documents

2. _____$_____

(Amount in Words)

B. ALTERNATE NO. 2: ACT Ceiling and Lighting

1. Description: Alternate to install 2X2 ACT ceiling and LED lighting in Library space. Extent of alternate is shown in the Project Documents.

2. _____$_____

(Amount in Words)

C. ALTERNATE NO. 3: LED Lighting

1. Description: Alternate to install new LED lighting in the Northern Corridor classrooms, STEM, and Music Rooms. Extent of alternate is shown in the Project Documents.

2. _____$_____

(Amount in Words)

END OF SECTION

SECTION 013233
PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for the following:

1. Preconstruction photographs.
2. Periodic construction photographs.
3. Final completion construction photographs.

1.2 QUALITY ASSURANCE

A. Photographer Qualifications: An individual who has been regularly engaged as a professional photographer of construction projects for not less than three years.

1.3 USAGE RIGHTS

A. Obtain and transfer copyright usage rights from photographer to Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA

A. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of megapixels, and at an image resolution of not less than 4288 by 2848 pixels.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS

A. Photographer: Engage a qualified photographer to take construction photographs.

B. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.

1. Maintain key plan with each set of construction photographs that identifies each photographic location.

C. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.

1. Date and Time: Include date and time in file name for each image.
2. Field Office Images: Maintain one set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Architect.

D. Preconstruction Photographs: Before starting construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect.

1. Flag construction limits before taking construction photographs.
2. Take a minimum of 20 photographs to show existing conditions adjacent to property before starting the Work.
3. Take a minimum of 20 photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.

4. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.

E. Periodic Construction Photographs: Take 20 photographs monthly, coinciding with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.

1. Frequency: Take photographs monthly, coinciding with the cutoff date associated with each Application for Payment.
2. Vantage Points: Following suggestions by Architect and Contractor, photographer to select vantage points. During each of the following construction phases, take not less than 2 of the required shots from same vantage point each time to create a time-lapse sequence as follows:

    a. Commencement of the Work, through completion of subgrade construction.
    b. Above-grade structural framing.
    c. Exterior building enclosure.
    d. Interior Work, through date of Substantial Completion.

F. Drones (If Applicable): Flight Schedule per mutual agreement between the Owner and Contractor to show status of construction and progress.

G. Final Completion Construction Photographs: Take 20 color photographs after date of Substantial Completion for submission as project record documents. Architect will inform photographer of desired vantage points.

1. Do not include date stamp unless directed otherwise by Architect.

H. Additional Photographs: Architect may request photographs in addition to periodic photographs specified. Additional photographs will be paid for by Change Order and are not included in the Contract Sum.

1. Three days' notice will be given, where feasible.
2. In emergency situations, take additional photographs within 24 hours of request.
3. Circumstances that could require additional photographs include, but are not limited to, the following:

    a. Special events planned at Project site.
    b. Immediate follow-up when on-site events result in construction damage or losses.
    c. Photographs to be taken at fabrication locations away from Project site.
    d. Substantial Completion of a major phase or component of the Work.
    e. Extra record photographs at time of final acceptance.
    f. Owner's request for special publicity photographs.

END OF SECTION

SECTION 017846.13
EXTRA STOCK AND MAINTENANCE MATERIALS - ARCHITECTURAL

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Extra stock and maintenance material requirements for contract closeout.

1.2 SUBMITTALS

A. Extra Stock and Maintenance Materials: Furnish maintenance materials, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Owner. Label with manufacturer's name and model number.

1. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Owner’s signature for receipt of submittals.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Store materials in containers and packaging as recommended by manufacturer.

PART 2 - PRODUCTS

2.1 SCHEDULE OF EXTRA STOCK AND MAINTENANCE MATERIALS

A. A Schedule of Materials is attached to this Section.

2.2 SCHEDULE OF EXTRA STOCK AND MAINTENANCE MATERIALS

A. 09 3000 - Tiling:

1. Tile and Trim: 2%, amount installed, each type, composition, color, pattern, and size.
2. Grout: 2%, amount installed, each type, composition, and color.

B. 09 5113 - Acoustical Panel Ceilings:

1. Ceiling Panels: 2%; amount installed, full size units.
2. Suspension System Components: 2%, amount installed, each grid, exposed molding and trim component.
3. Hold Down Clips: 2%; amount installed.
4. Impact Clips: 2%; amount installed.

C. 09 6800 - Carpeting:

1. Tile Carpeting: 5%, amount installed but not less than 10 SY; amount installed, full-size units, each color and type.
2. Sheet Carpeting: 10 linear ft (3 linear m) in roll form and full roll width, for each 500 linear ft (150 linear m) amount installed, each color, pattern, and type.
3. Carpet Cushion: 10 linear ft (3 linear m) in roll form and full roll width, for each 500 linear ft (150 linear m) amount installed, each type.

D. 10 5116 - Wood Lockers:

1. Locker Doors: 2 doors, full-size units, each type and color, complete with door hardware.

2. Locker Hardware: 5%, amount installed but not less 2 each of hinges, pulls, hooks, and locks, each type and finish.

E. 10 5503 - USPS-Delivery Postal Specialties

1. Key Blanks: 25 for each type of compartment-door lock.

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 102813
TOILET ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Toilet accessories and supplementary items necessary for installation.

1. Refer to Drawings and Schedules for Public Area and Guestroom accessories.

1.2 ACTION SUBMITTALS

A. Product Data: Manufacturer's technical literature for each product indicated.

1. Include manufacturer's specifications for materials, finishes, construction details, installation instructions, dimensions, and profiles of individual components.
2. Include details for cutouts required in other Work; include templates, substrate preparation instructions, and directions for preparing cutouts and installing anchoring devices.

B. Accessory Schedule: Organized by rooms, indicating types, quantities, sizes, and installation locations of each accessory, using drawing designations and room names and numbers as indicated on Drawings.

1.3 INFORMATIONAL SUBMITTALS

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For inclusion in operation and maintenance manual as required by Division 01 Section "Operation and Maintenance Data". Include manufacturer's instructions for maintenance of installed Work, including methods and frequency for maintaining optimum condition under anticipated use. Include precautions against cleaning products and methods which may be detrimental to finishes and performance.

1.5 QUALITY ASSURANCE

A. Mock-Ups: Prior to beginning Work of this Section, install mock-ups of toilet accessories, incorporating backup wall construction, to demonstrate surface preparation. Build mock-up using materials indicated for the completed Work.

1. If Architect determines mock-up does not comply with requirements, reconstruct mock-ups until accepted.
2. Accepted mock-ups may become part of completed Work if undisturbed at time of Substantial Completion.

1.6 PRE-INSTALLATION CONFERENCE

A. Pre-Installation Conference: Before Work begins, conduct conference at Project site.

1. Participants:

a. Architect.
b. Contractor, including superintendent.
c. Installer, including project manager and supervisor.
d. If requested, Manufacturer's qualified technical representative.
e. Installers of other construction interfaced with Work.

2. Minimum Agenda: Installer shall demonstrate understanding of the Work required by describing detailed procedures for preparing, installing, and cleaning the Work. Demonstration shall include, but not be limited to, following topics:

   a. Tour representative areas of Work, inspect and discuss condition of substrate, and other preparatory work performed by other trades.
   b. Review Contract Document requirements.
   c. Review approved submittals.
   d. Review inspection and testing requirements.
   e. Review environmental conditions and procedures for coping with unfavorable conditions.
   f. Resolve deviations or differences between Contract Documents and the manufacturer's specifications.

3. Record discussions, including decisions and agreements, and prepare report.

1.7 COORDINATION

A. Coordinate installation of products with interfacing and adjoining construction to provide a successful installation without failure.

1.8 WARRANTY

A. Mirror Manufacturer's Warranty: Furnish warranty for a period of 15 years from date of Substantial Completion agreeing to replace mirrors that develop visible silver spoilage defects, signed by an authorized representative using manufacturer's standard form.

B. Hand Dryer Manufacturer's Warranty: Furnish warranty for a period of 10 years from date of Substantial Completion agreeing to repair or replace defective or faulty dryers, signed by an authorized representative using manufacturer's standard form.

PART 2 - PRODUCTS

2.1 MANUFACTURERS AND PRODUCTS

A. Acceptable Manufacturers and Products: Subject to compliance with requirements of Contract Documents as judged by the Architect, provide product by one of manufacturers listed. If not listed, submit as substitution according to Conditions of the Contract and Division 01 Section "Substitution Procedures".

B. Hand Dryer Products:

1. American Dryer, Inc.
2. Excel Dryer Inc.
3. Saniflow Corporation, div of Mediclinics.
4. World Dryer Corp.

C. Basis of Design: Contract Documents are based on products specified to establish a standard of quality. Other manufacturers with products having equivalent characteristics may be considered, provided deviations are minor and do not change intended aesthetic, functional and performance requirements as judged by Architect.

1. Basis of Design: ADA compliant Verde dri

2.2 MATERIALS, GENERAL

A. Single Source Responsibility: Furnish each type of product from single manufacturer. Provide secondary materials only as recommended by manufacturer of primary materials.

B. General Requirements:

1. Unless otherwise indicated, fabricate units of all-welded construction, with corners and returns as indicated, tight seams and joints, and exposed edges rolled.
2. Fabricate frames drawn and leveled, one-piece seamless construction.
3. Hang doors and access panels with full-length, stainless-steel hinges.
4. Equip units for concealed anchorage and with corrosion-resistant backing plates.

C. Manufacturer Names or Labels: Not permitted on exposed faces of accessories. Provide printed label or stamped metal nameplate indicating manufacturer's name and product model number on an easily noticeable interior surface or on back surface of each accessory.

D. Keys: Provide minimum of 6 universal keys for internal access to accessories for servicing and resupplying.

E. Accessibility Requirements: Products and installation shall comply with Americans with Disabilities Act (ADA), ANSI A 117.1, and state and local accessibility standards.

F. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

2.3 MATERIALS

A. Stainless Steel: ASTM A 666, Type 304, with No. 4 satin finish; minimum 0.0312 in (0.8 mm) (22 gage) nominal thickness unless otherwise indicated.

B. Mirror Glass: ASTM C 1036, Type I, Class 1, Quality q2, nominal 1/4 in (6 mm) thick, with silvering, electroplated copper coating, and protective organic coating.

C. Chrome Plating: ASTM B 456, Service Condition Number SC 2 (moderate service).

D. ABS Plastic: Moldable acrylonitrile-butadiene-styrene resin formulation.

E. HDPE Plastic: Moldable high-density polyethylene resin formulation.

F. Galvanized Steel Mounting Devices: ASTM A 153, hot-dip galvanized after fabrication.

G. Fasteners: Screws, bolts, and other devices of same material as accessory unit, tamper and theft resistant when exposed, and of non-corrosive metal when concealed.

H. Sealant: Silicone mildew resistant sealant specified in Division 07 Section "Joint Sealants".

2.4 TOILET TISSUE DISPENSERS

~~A. Drawing Designation B1 - Surface-Mounted Twin Jumbo Roll Toilet Tissue Dispenser:~~

~~1. Description: Fabricated of stainless steel, cabinet of 0.040 in (1.0 mm) (20 gage) thick, door of 0.050 in (1.25 mm) (18 gage) thick; door with viewing slot, continuous piano hinge and tumbler lock; sized to store two 10 in (250 mm) diameter, 3 in (75 mm) diameter core type, tissue roll; spindles convertible to standard size toilet tissue rolls.~~
~~2. Basis of Design: Cascades Pro Tandem Jumbo Roll Bath Tissue Dispenser, Double Roll~~

B. Drawing Designation B9 - Surface-Mounted Twin Jumbo Roll Toilet Tissue Dispenser:

1. Description: Owner furnished, contractor installed.
2. Basis of Design: Bobrick Washroom Equipment, Inc. Model B-2892.

2.5 GRAB BARS

A. Drawing Designation ~~E1, E2, E3, E4,~~ E5, **E15** - Straight Surface-Mounted Satin Finish Grab Bar with Slip-Resistant Gripping Surface:

1. Description: Fabricated of stainless steel tube; with minimum 0.050 in (1.25 mm) (18 gage) wall thickness and 1-1/2 in (38 mm) outside diameter, with 1-1/2 in (38 mm) clearance between wall surface and inside face of bar.

a. Gripping Surfaces: Satin texture with peened gripping surfaces.
b. Shapes: Either as indicated, or as required by condition requiring grab bar.
c. Mounting: Concealed flanged steel plate welded to end of bar, as required by mounting condition, with snap-on cover; engineered to support minimum 300 lbs (136 kg).

2. Basis of Design:

~~a. E1: Bobrick Washroom Equipment, Inc. Model B-6806.99 x 12; 12 in (300 mm).~~
~~b. E2: Bobrick Washroom Equipment, Inc. Model B-6806.99 x 18; 18 in (450 mm).~~
~~c. E3: Bobrick Washroom Equipment, Inc. Model B-6806.99 x 24; 24 in (600 mm).~~
~~d. E4: Bobrick Washroom Equipment, Inc. Model B-6806.99 x 36 36 in (900 mm).~~
e. E5: Bobrick Washroom Equipment, Inc. Model B-6806.99 x 42; 42 in (1050 mm).
f. E15: Bobrick Washroom Equipment, Inc. Model B-6806.99 x 18; 18 in (450 mm).

B. Drawing Designation E14, E16 - Configured Surface-Mounted Satin Finish Grab Bar with Slip-Resistant Gripping Surface:

1. Description: Fabricated of stainless steel tube; with minimum 0.050 in (1.25 mm) (18 gage) wall thickness and 1-1/2 in (38 mm) outside diameter, with 1-1/2 in (38 mm) clearance between wall surface and inside face of bar.

a. Gripping Surfaces: Satin texture with peened gripping surfaces.
b. Shapes: Either as indicated, or as required by condition requiring the grab bar.
c. Mounting: Concealed flanged steel plate welded to end of bar, as required by mounting condition, with snap-on cover; engineered to support minimum 300 lbs (136 kg).

2. Basis of Design:

a. E14: Bobrick Washroom Equipment, Inc. Model B-68616.99, modified for 24 in x 42 in (600 mm x 1050 mm) unit.
b. E16: Bobrick Washroom Equipment, Inc. Model B-68616.99, modified for 42 in x 54 in (1050 mm x 1350 mm) unit.

2.6 SANITARY NAPKIN DISPOSAL UNITS

A. Drawing Designation G3 - Partition-Mounted Dual-Access Sanitary Napkin Disposal Unit:

1. Description: Fabricated of stainless steel; with seamless adjustable exposed flange at both partition faces; self-closing disposal panel at both partition faces with spring-loaded full length stainless steel piano hinge and international symbol for sanitary napkin disposal; with removable 1.2 gal (4.6 L) capacity molded polyethylene receptacle.

2. Basis of Design: Bobrick Washroom Equipment, Inc. Model B-354.

2.7 SOAP DISPENSERS

A. Drawing Designation J1 - Surface-Mounted Soap Dispenser:

1. Description: Owner furnished, contractor installed.
2. Basis of Design: Bobrick Washroom Equipment, Inc. Model B-2112.

~~B. Drawing Designation J4 - Owner Furnished Soap Dispenser: Refer to Division 01 Sections~~

2.8 MIRRORS

A. Drawing Designation R1 - Surface-Mounted Stainless Steel Framed Mirror (without Shelf):

1. Description: Fabricated of stainless steel; exposed frame with angle shapes not less than 0.050 in (1.25 mm) (18 gage) thick, with square corners mitered, welded, and ground smooth, and to accommodate glass edge protection material; with galvanized steel backing sheet, minimum 0.034 in (0.8 mm) (22 gage) in thick and full mirror size, with non-absorptive filler material (corrugated cardboard not acceptable), and with hanging brackets; glass mirror.
2. Basis of Design: Bobrick Washroom Equipment, Inc. Model B-290 2436.

2.9 ROBE HOOKS

A. Drawing Designation V1 - Surface-Mounted Single Robe Hook:

1. Description: Fabricated of stainless steel; rectangular profiled pin welded to backplate, with cover anchored with set-screws; project nominal 1-1/2 in (38 mm) from wall surface.
2. Basis of Design: Bobrick Washroom Equipment, Inc. Model B-76717.

B. Drawing Designation V2 - Surface-Mounted Double Robe Hook:

1. Description: Fabricated of stainless steel; rectangular profiled pin welded to backplate, with cover anchored with set-screws; project nominal 2 in (50 mm) from wall surface.
2. Basis of Design: Bobrick Washroom Equipment, Inc. Model B-76727.

2.10 MISCELLANEOUS ACCESSORIES

A. Drawing Designation Y1 - Semi-Recessed-Mounted Hand Dryer:

1. Description: One-piece cast iron outer case, minimum 1/8 in (3 mm) thick, finished with multi-coat vitreous enamel with fused graphic operating instructions; rust resistant steel recessed mounting box; UL listed; minimum 1/10 horsepower motor on resilient mountings, sealed or self-lubricating bearings, automatic thermal overload switch; dynamically balanced, single-inlet centrifugal fan directing air through heating element to two-position, self-returning, chrome-plated air-outlet nozzle; cast aluminum base incorporating concealed, vandal-resistant air-inlet vanes; electronic sensor automatically turning dryer on when hands cross path of sensor and shutting off when hands are either removed or dryer operates for maximum 90 seconds; project maximum 4 in (100 mm) from wall surface; voltage indicated on Electrical Drawings.
2. Basis of Design: Bobrick Washroom Equipment, Inc. Model B-750 - white.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Acceptance of Surfaces and Conditions: Examine substrates to receive products and associated work for compliance with requirements and other conditions affecting performance. Proceed only when unsatisfactory conditions have been corrected in a manner complying with Contract Documents. Starting work within a particular area will be construed as acceptance of surface conditions.

3.2 INSTALLATION, GENERAL

A. Installation Quality Standards: In addition to standards listed elsewhere, install toilet accessories according to the following, unless otherwise specified in this Section:

1. Respective manufacturer's written installation instructions.
2. Accepted submittals.
3. Contract Documents.

3.3 PREPARATION

A. General: Comply with manufacturer's instructions, recommendations and specifications for cleaning and surface preparation. Surfaces shall have no defects, contaminants, or errors which would result in poor or potentially defective installation or would cause latent defects in Work.

3.4 INSTALLATION

A. General Requirements: Install toilet accessories level, plumb, and firmly anchored in locations and at heights indicated. Use fasteners that are appropriate to substrate indicated and as recommended by respective product manufacturer.

B. Grab Bars: Install to withstand downward load of minimum 250 lbf (1.10 kN) according to ASTM F 446.

C. Accessories within Shower and Tub Alcoves: Set flanges of accessories in sealant, install sealant in screw holes prior setting screws, and cover screw head prior to snapping on cover, to prevent water infiltration.

D. Mirrors: Secure to walls in concealed, tamper-resistant manner with special hangers, toggle bolts, or screws.

END OF SECTION

LANDTEC
ENGINEERS

GEOTECHNICAL ENGINEERING REPORT

WIMBISH ELEMENTARY SCHOOL GYMNASIUM / STORM SHELTER ADDITION ARLINGTON, TEXAS

SUBMITTED TO:

ARLINGTON ISD

PROJECT NO.

1025-3598

SUBMITTED DATE:

NOVEMBER 12, 2025

LANDTEC ENGINEERS

Geotechnical & Environmental Engineering
Construction Materials Testing
Laboratory Testing

November 12, 2025
Project No. 1025-3598

Paul Sessions | Project Manager
Arlington ISD
psession@aisd.net

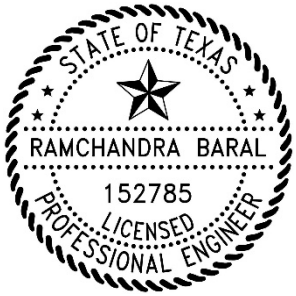
RE: Geotechnical Engineering Exploration and Report
Wimbish Elementary School Gymnasium/Storm Shelter Addition
Arlington, Texas

Dear Paul:

The results of our geotechnical study for the proposed gymnasium/storm shelter addition to the Wimbish Elementary School in Arlington, Texas are presented in the following engineering report. The study has been conducted in general agreement with our proposal and your subsequent authorization to proceed.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the report, please contact us.

Sincerely,



Ramchandra Baral, P.E.
Geotechnical Engineer

November 12, 2025

Review by:

G. Scott Graves, P.E.
Engineering Manager / Sr. Geotechnical Engineer

Texas Board of Professional Engineers and Land Surveyors
PE Firm No. F-000329 / RPLS Firm No. 100956-00

Distribution by PDF: Paul Sessions
Mike Parkos

CONTENTS

REPORT SUMMARY

Wimbish Elementary School
Gymnasium/Storm Shelter Addition
Arlington, Texas
November 2025

The following information presents a summary of the principal findings in the geotechnical engineering report prepared for the addition of a Gymnasium/Storm Shelter to Wimbish Elementary School in Arlington, Texas.

- A total of three (3) borings were drilled at this site on October 30, 2025, to depths ranging from approximately 25 to 45 feet below existing grade.

- Subsurface conditions primarily consist of varying thicknesses and depths of sands, and clayey sands to the completion depth of the borings. The sand and clayey sand soils present in the borings range in color from tan, brown, reddish tan, reddish brown and gray, with Plasticity Index (PI) ranging from non-plastic to 7. In boring B-2 and B-3, an approximately three (3) foot layer of tan and gray clay with shaly clay and sand seams and layer with PI of 49 was encountered at approximately 24 and 22 feet below existing grade, respectively. In boring B-3, an approximately two (2) foot layer of reddish brown and tan sandy lean clay with gray sand seams and layer with PI of 15 was encountered at approximately 7 feet below existing grade.

- Shallow subsurface seepage was observed during drilling in the borings at approximately 11 to 12 feet below existing grade with measured water level at approximately 9 to 10 feet below existing grade at the completion of drilling operations.

- Based on the visual observations of the soils, laboratory testing and experience with the Woodbine Formation soils, the estimated amount of potential soil movement is approximately **1 to 2 inches** of either heave or settlement and will depend on future loading conditions, site drainage and seasonal moisture fluctuations during droughts and wet years.

- Based on our experience, construction of a belled pier foundation is not feasible since the sands are water bearing and cave below depths of about 9 feet from existing grade. Construction of conventional deep drilled shaft foundations requires the use of temporary steel casing to prevent groundwater seepage and caving soil conditions during drilled shaft installation. Therefore, drilled shaft foundations are also not recommended for this project.

- The use of spread or continuous footings for support of structural placed to a specified depth into the medium dense sand should be the most economical and require the least time to construct.

- General earthwork and site grading recommendations are provided for stripping vegetation, subgrade preparation, proof rolling, compaction, moisture, lift thickness, and testing.

The “Summary” is intended to be a brief overview and, therefore, the text of the report should be read and followed in its entirety for specific geotechnical recommendations. The section titled General Comments and Conditions should be read to provide an understanding of the report’s limitations.

INTRODUCTION

Project Information

This report presents the results of a geotechnical engineering study for the proposed gymnasium/storm shelter addition to Wimbish Elementary School in Arlington, Texas. See the area outlined in **blue** in the photo below.

It is our understanding based on email communication that the project is to consist of the demolition to the existing gymnasium to allow construction of a new building within the same footprint. The new building will be approximately 5,000 square feet in area and designed as a storm shelter. The structure is anticipated to utilize precast or tilt-up concrete wall panels that are cast off-site and interlocked on site, supported by reinforced concrete grade beams and footings/drilled piers foundation (pending recommendations of this geotechnical study). The roof structure is expected to consist of steel framing or joists bearing on the concrete panels.

Based on the request and the provided plan showing the proposed boring locations, four (4) borings were originally planned to extend 25 feet below the existing grade in the general area of the proposed building. However, due to site constraints, only three (3) borings were completed, with depths ranging from 25 to 45 feet.

Purpose and Scope

The purpose of this geotechnical study has been to determine the general subsurface conditions, evaluate the engineering characteristics of the subsurface materials encountered, and develop recommendations for foundations, building pad preparation and general earthwork for the project.

To accomplish its intended purposes, the study has been conducted in the following phases.

- Drilling sample borings to determine the general subsurface conditions and obtain samples for testing. Description of the field exploration is provided in Appendix A.
- Performing “selected” laboratory tests on representative samples to determine pertinent engineering properties of the subsurface materials. Description of the laboratory testing is provided in Appendix B; and,
- Performing engineering analyses, using the field and laboratory data to develop recommendations.

Geotechnical recommendations presented in this report are based on the available information provided by the client and/or design team about the building planned for this site, and the subsurface conditions described in this report. If any of the stated information is incorrect, please inform LandTec Engineers in writing so that we may amend the recommendations presented in this report if appropriate.

The analysis and recommendations provided herein are based on future site grades to be within approximately one to two feet of existing site grades.

It is recommended that LandTec be retained to review those portions of the plans and specifications for this project that pertain to geotechnical recommendations contained in this report to determine whether the recommendations have been interpreted as intended. This is typically done when the plans are at the 50 to 75 percent design level. Additionally, the site grading plan should be provided to LandTec in PDF and AutoCAD format.

The scope of services did not include any slope stability analysis for embankments, cut-fill slopes, excavations or retaining walls. These services can be provided under a separate proposal, if requested by the client.

Report Format

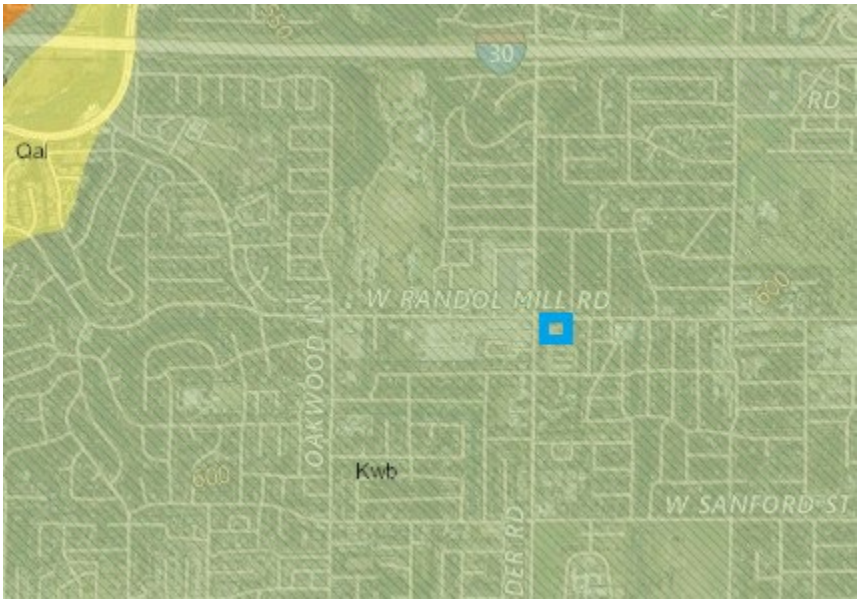
The first sections of the report describe the purpose, scope, and subsurface conditions. The remaining sections present our recommendations to guide design and construction. Field and laboratory phases of the study including boring logs, laboratory test results, details, general information, and tables are presented in the appendices at the end of the report.

Units used in the report are based on the U. S. Customary (English) foot-pound-second system and may include tons per square foot (tsf), kips (1 kip = 1,000 pounds), kips per square foot (ksf), pounds per square foot (psf), pounds per cubic foot (pcf), pounds per square inch (psi), pounds per cubic inch (pci) and other English units as appropriate.

SUBSURFACE CONDITIONS

Site Geology

Based on observations, geological maps and prior history with this and surrounding sites, Wimbish Elementary School is underlain by the Woodbine Geological Formation (Woodbine).



The Woodbine is approximately 250 feet thick in full section and generally composed of sands, clays, sandstones, and shales. Iron oxides, lignite, gypsum, and pyrite are also found throughout the formation. Dense and irregular shaped masses or hard sandstone and limy sandstone occur at random throughout the formation and are commonly referred to as "boulders." Structurally, the Woodbine is quite complex in that it contains numerous small faults, lenticular masses, and consequent divergent dips. It is often difficult, if not impossible, to trace a particular bed for any distance. Water is found at various levels in the formation, some as perched tables in sand lenses.

Soil deposits typically consist of residual Woodbine soils. These soils vary from sands and clayey sands with silt to moderate plasticity sandy lean clays and lean clays, to medium and highly plastic clays and have colors ranging through reddish brown and orange to gray, tan and yellow. Numerous iron oxide particles and seams are present within the residual materials.

The residual soils are typically underlain by the primary slightly weathered to unweathered Woodbine materials. This formation is a complex interbedded system of sand, shaly sand, sandy shale, clayey and silty shale, carbonaceous shale, shale, and sandstone. These materials are typically light tan to light gray, gray and dark gray in color. Within some depths the materials are brownish gray to black, typically influenced by the presence of lignite. The upper part of the Woodbine often has thick layers of clay shale, carbonaceous shale, and sandy shale. Slickensided fracture planes are often found within the shale.

The deeper sands of the Woodbine are typically very dense, often cross-bedded and vary in cementation from uncemented to lightly cemented and moderately cemented. Lightly cemented refers to sand/sandstone that easily crumbles or breaks with handling or little finger pressure. Moderately cemented refers to sand/sandstone that crumbles or breaks with considerable finger pressure. Well cemented sandstone will not crumble when two core specimens are struck together by hand and cores are more rock-like material.

Additional information concerning the Woodbine Formation can be found in the publication titled Geology of Midcities Area, Tarrant, Dallas and Denton Counties, Texas. The publication was prepared by Leo Hendricks with contributions from Henry H. Sampson, Jr. The document was published by The University of Texas at Austin Bureau of Economic Geology. An accompanying map is titled Geologic Quadrangle Map No. 42. These documents are available for review upon request from UT Austin's Bureau of Economic Geology.

Subsurface Conditions

Specific types and depths of subsurface strata encountered in the borings are shown on the boring logs attached in Appendix A. The general subsurface conditions encountered in the borings drilled on October 30, 2025, consist of the following.

Subsurface conditions primarily consist of varying thicknesses and depths of sands, and clayey sands with occasional iron gravels and lignite seams to the completion depth of the borings. The sand and clayey sand soils present in the borings range in color from tan, brown, reddish tan, reddish brown and gray. In boring B-2 and B-3, an approximately three (3) foot layer of tan and gray clay with shaly clay and sand seams and layer was encountered at approximately 24 and 22 feet below existing grade, respectively. In boring B-3, an approximately two (2) foot layer of reddish brown and tan sandy lean clay with gray sand seams and layer was encountered at approximately 7 feet below existing grade.

The sands and clayey sand encountered are considered to be loose to very dense in nature with a measured Plasticity Index (PI) values ranging from non-plastic to 7. This material classifies as “SP”, “SC” and “SP-SC” according to the Unified Soil Classification (USC) System.

The sandy lean clays encountered had a measured Plasticity Index (PI) value of 15 and classifies as “CL” according to the USC System.

The clays encountered had a measured Plasticity Index (PI) value of 49 and classifies as “CH” according to the USC System.

Hand penetrometer tests taken in the field on the undisturbed thin-walled Shelby tube samples revealed values of 0.5 to 4.5+ tons per square foot (tsf).

Standard Penetration Tests (SPT) performed on the sands and clayey sands measured values of approximately 5 blows per foot to 50 blows for 1.0 inch, indicating loose to very dense in nature.

Soil descriptions on the boring logs are a compilation of field log data as well as from laboratory testing of samples. The stratification lines represent the approximate boundary between soil types, and the transition can be gradual. The boring logs presented in this report represent the engineer’s interpretation of the field logs, visual observation of the samples as well as results of laboratory tests.

The boring logs are not intended for use in determining construction means and methods and may be misleading if used for that purpose. We recommend grading, utility and foundation contractors interested in bidding on the work perform their own tests in the form of test pits to determine the quantities of different materials to be excavated, as well as the preferred method of excavation and equipment for this site.

Subsurface Seepage Observation

Shallow subsurface seepage was observed during drilling in borings at approximately 11 to 12 feet below existing grade with water level measured at approximately 9 to 10 feet below existing grade at the completion of drilling operations.

Water level observations and readings should be considered as “short term” observations and water levels could be higher or lower if long term readings were made over several months or seasons. This would require the installation of piezometers with monthly or quarterly readings made over 6 to 12 months. Installation of piezometers and long-term monitoring of water levels was not part of our scope of service for this project. It is not possible to predict water level fluctuations within the soils that could be present at the time of construction using the short-term seepage observations made at the time the borings were made. If long-term observations of the perched groundwater level are desired, LandTec Engineers would be pleased to develop a scope of services and cost estimate.

Fluctuations of the perched groundwater level can occur due to seasonal variations in the amount of rainfall; site topography and runoff; hydraulic conductivity of soil strata; and other factors not evident at the time the borings were performed. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

Water traveling through the soil (subsurface water) is often unpredictable. This could be due to seasonal changes in shallow subsurface water and due to the unpredictable nature of subsurface seepage paths. Therefore, it is necessary during construction for the contractor to be observant for shallow subsurface seepage in excavations to assess the situation and make necessary changes and/or recommendations.

Hard Rock Layers and Boulders

Many sites within the Woodbine Formation have seams, layers and boulders consisting of hard rock. Specific layers of hard rock material were not observed in the borings drilled at this site. However, they could be encountered at random locations on this site.

The rocks (if encountered) are typically described as limy sandstone and ironstone, grading to sandy limestone and limestone, are very hard and well cemented ROCK. Unconfined compressive strengths ranging from 3,000 psi to over 10,000 psi have been recorded. Experience with these very hard materials has revealed them to be in the form of cemented, irregular-shaped boulders and/or layers varying in thickness from less than one foot to over 10 feet.

Construction of foundations, utilities, and general excavations where hard materials are present, typically requires rock-tooth augers, drop chisels, core barrels, or other rock excavation equipment such as rock-tooth buckets for backhoes and hoe-rams.

Seismic Site Classification

The site has been classified with respect to seismic design criteria contained in the 2021 IBC, Section 1613[1]. The criterion requires characterization of the upper 100 feet of subsurface materials. Based on the IBC criteria, the site is classified as Site Class “C” as per Table 1613.2.5 for the upper 45 feet. Note the IBC requires a site soil profile determination extending a depth of 100 feet for seismic site classification. However, our scope of services did not include a boring to 100 feet. The deepest boring only extended to 45 feet, and it can only be estimated that the soils encountered continues to a depth of 100 feet.

[1] International Building Code (2021). Section 1613, Earthquake Loads

Based on 2021 International Building Code (IBC).

Classification Value: “C” (Very dense soil and soft rock)

Potential Soil Movements

Soils encountered in the borings at this site can undergo shrink and swell as the soil moisture content fluctuates during seasonal wet and dry cycles. The potential magnitude of soil movements can only be estimated, due to factors influenced by specific soil properties such as moisture and density, overburden pressure, moisture attraction within the clay mass, site drainage, ponding of surface water, and the overall soil moisture contents at various times during and post foundation installation.

Numerous methods can be used to estimate the amount of potential soil movements. Two of the methods we typically select are described herein. Naturally, these methods are evaluated with judgement and experience including prior knowledge of historical potential soil movements for a specific site and/or general area within the same type of geological formation.

- One of the methods used to estimate soil movement includes the Texas Department of Transportation (TxDOT) Method 124-E for determining Potential Vertical Rise (PVR). Using this method as a guide only, the procedure can be used to determine a value or range of values for predicted movements of expansive clay soils when they change from “dry” to “wet” and vice versa, soil moisture conditions.

Where potentially expansive soils are present, they will typically have variable soil and climatically controlled soil moisture conditions, especially with the ever-changing North Texas weather, ranging from wet, rainy months to other months with extreme drought. Subsurface conditions consisting of expansive soils with variable moisture; density and plasticity also impact the design of foundations.

The term Potential Vertical Movement (PVM) is often considered as a measurement of the change in height of a building slab or pavement from its original constructed elevation. The acronym PVM is used in this report to represent the amount of movement.

Based on the information developed from our field and laboratory programs, PVR Method Tex-124-E, swell tests, and our experience with the soil conditions at this site and nearby sites, we estimate the subgrade soils could subject the proposed structure, floor slabs, flatwork, etc. to **PVM values of approximately 1 to 2 inches**.

Additional movement within slab on grade foundations can occur if the soils below the slab undergo an increase in moisture content and swell (heave) due to excess moisture from leaks in utility lines, storm water and/or irrigation water ponding adjacent to the perimeter walls, and excess water moving along utility trenches from interior and/or exterior sources.

Consideration should be given to the use of special detailing of interior features, from an architectural standpoint, to allow for differential floor and wall movements.

RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION

Geotechnical Considerations

Subsurface conditions primarily consist of low plasticity sand and clayey sand, with some layers of silty sand within the boring locations. Intermittent layers of sandy lean clays and clays, typically 2 to 3 feet thick, were also observed, as described in Subsurface Conditions section above. Based on in situ Standard Penetration Tests (SPT's) the shallow sands and clayey sand were found to have loose to medium dense consistency within depth of 7 feet below existing grade. Below these depths the sands are considered medium dense to dense and very dense in consistency.

Based on the borings, laboratory tests, and experience, use of a belled pier foundation is not recommended since the sands are water bearing and cave below depths of about 9 feet from existing grade.

We recommend the use of spread footings for support of structural loads placed to a specified depth into the medium dense sand, which should be the most economical type of foundation and require the least time to construct.

Construction of deep drilled shaft foundations will require the use of temporary steel casing to prevent groundwater seepage and caving soil conditions during drilled shaft installation and are not recommended.

For heavy loading conditions, Auger Cast-in-Place (ACIP) Piles can be used to support column loads. Recommendations for the ACIP can be provided upon request.

If new foundations are to be constructed within the footprint of the existing structure, all remnants of the existing foundation system including footings, grade beams, slabs, and any buried concrete or masonry debris should be completely removed from the proposed foundation area.

Existing drilled piers or deep foundation elements should be removed to a minimum depth of 3 feet below the proposed final grade to eliminate the risk of interference with the new foundation system and to prevent differential movement between old and new materials.

After removal, the exposed subgrade should be inspected to confirm it is free of loose, disturbed, or unsuitable materials. Any soft or deleterious soils should be undercut and replaced with properly compacted structural fill in accordance to the recommendation provided in the General Earthwork section below.

Conventional Shallow Foundations

Reinforced concrete foundations can be used to support the loads and can consist of conventional shallow foundations including isolated spread footings and continuous strip/grade beams, or mats.

Shallow spread and continuous footings should be founded at a minimum depth of five (5) feet below the grade from which our borings were made on October 30, 2025, or below the lowest adjacent grade, whichever is deeper. New foundations should not be rigidly connected to adjacent slabs, existing foundations, or columns. Control joints, either formed or saw cut should be placed to control crack locations.

Foundation elements may be designed using an allowable net bearing pressure of 2,500 pounds per square foot (psf) or less for footings placed within the medium dense to dense sand. The bearing value contains a factor of safety of three, dead load only. A minimum footing width of three (3) feet is recommended for individual spread footings and two (2) feet for continuous footings; however, the structural engineer will determine the actual width based on the loading conditions and using the allowable net bearing pressure.

The recommended net allowable bearing pressure is the pressure more than the minimum surrounding overburden pressure at the footing base elevation, and assumes any unsuitable fill or soft soils, if encountered, will be removed, and replaced with compacted and tested non-expansive, select fill material.

Based on properly constructed footings coupled with the recommended preparation of footing subgrade and footings designed in accordance with the bearing pressure we estimate that post-construction total and differential settlement is approximately one inch with anticipated differential movement of approximately three-quarters inch for footings. A portion of the settlement is expected to occur during loading. The total amount of footing movement will be dependent upon the variations within the subsurface soils, loading conditions, depth of the footing, and compaction of soils below the footing.

These design soil criteria are for single, isolated spread or continuous footings. Spread or continuous footings on different levels should be placed such that a downward one-vertical to 2-horizontal (1V:2H) projection from the leading edge of the upper foundation passes below the adjacent, deeper foundation element. All spread or continuous footings should be located such that their edge to edge spacing is at least 25 percent of the width of the largest foundation involved. If closer foundation spacing is necessary, LandTec should be contacted to evaluate if the individual footing capacity is still valid or if a reduction in capacity is necessary due to the close spacing.

Allowable bearing capacity recommendations provided here are based on proper construction procedures, including observation, testing and approval of the bearing surfaces prior to placement of the foundation, proper placing of reinforcing steel and concrete.

Footings should be formed within the excavation, rather than cast against earth trenches. Some exceptions could apply and depend on the ability of the sandy sidewalls to stand without caving and the neatness of the overall excavation. The project geotechnical engineer of record would need to evaluate the excavation stability, sidewall condition, subgrade, and the contractor's approach to excavating, protecting the sides and bottom of the footing excavation, rebar, and concrete placement to use unformed excavations for footings.

In some cases, the contractor may want to consider a lean concrete "mud" slab with thickness of 3 to 4 inches to protect the bearing surface from storm water and other weather-related events as well as general construction activities.

For overturning loads, the maximum foundation contact pressure should not exceed the allowable net total design load bearing pressure for the soil. Resistance to uplift loads is determined by the weight of the foundation plus the weight of the soil directly above the foundation. We recommend a unit weight of 125 pcf for soil and 150 pcf for reinforced concrete. The calculated ultimate uplift capacity for the footing should be reduced by a factor of safety of at least 1.2 to compute the allowable uplift resistance.

Resistance of shallow footings to lateral loads can be provided by adhesion acting on the base of the foundation and by passive resistance of soil adjacent to the foundation. For design purposes, the resistance from soil adhesion and passive soil pressure can be assumed to develop simultaneously. Passive earth pressures for the footing should only be used if the footing is placed in direct contact with undisturbed soil, i.e., footing is cast within an excavation. If the footing is constructed by using forms at grade, i.e., not in an excavation, either lean concrete should be placed between the footing and the earth wall of the adjacent excavation, or the footing can be backfilled with compacted and tested on-site soils placed in maximum of 6-inch-thick lifts. Hand-operated tampers or other lightweight compactors are preferred in the area adjacent to footings. Lean concrete should have a minimum 28-day compressive strength of 2,000 psi.

For concrete footings bearing on undisturbed soil or compacted fill a friction factor of 0.30 for mass concrete can be used in design.

Excavated on site soils placed around and above the footing should be placed in maximum of 8-inch-thick lifts and be compacted to a minimum of 95% of Standard Proctor ASTM D698 to a moisture content ranging from minus one (1) to plus three (3) percentage points of optimum moisture (-1 to +3). Hand operated tampers (sleds or jumping jacks) or other lightweight compactors are preferred in small areas adjacent to walls or footings.

Soil exposed in the bases of all satisfactory footing excavations should be protected against detrimental change in condition such as from disturbance, rain, or excessive drying. Surface runoff should be drained away from the excavations and not allowed to pond.

A modulus of subgrade reaction, k, for compacted and tested fill is estimated to be 100 to 125 pci. For select fill material and granular base, the k value is typically in the range of 125 to 135 pci. These higher k values would require placement of a minimum of 12 inches of the select material and compaction to a minimum of 98 percent of Standard Proctor.

Footing Construction Considerations and Observations

Footing excavations should be observed by the project Geotechnical Engineer of Record (GER) to determine that all excessively loose, soft, or otherwise undesirable materials are removed and that foundations will bear on satisfactory material. Excavations should be observed prior to the contractor placing rebar and concrete (including the mud slab if used). Compaction tests should also be performed in the bottom of the footing excavation at the rate of a minimum of two tests for each individual spread footing location and one test per 25 to 30 linear feet for continuous footings.

The possibility does exist that some soil conditions within the bottom of the excavation for proposed footings are soft and wet and have low strength. These areas will require over-excavation and replacement with suitable backfill material such as recycled crushed concrete flexible base using TxDOT Item 247, Type D, Grade 1 material placed under controlled compaction of 95% of standard Proctor density at -1 to +3 of optimum moisture.

The subgrade must be tested to determine the subgrade has a minimum density of 95 percent of standard Proctor (ASTM D698) at a moisture content ranging from -1 to +3 percentage points of optimum moisture. Compaction tests should be taken along the final subgrade for the footing at a rate of one test per each 25 linear feet with a minimum of two tests per section. For situations where the footing will be placed on fill material, the fill should consist of non-expansive, select fill and be compacted to a minimum of 95 percent standard Proctor density.

Any fill material used on the project should consist of non-expansive, select fill material consisting of soil materials with a Liquid Limit (LL) of 35 or less, a Plasticity Index (PI) between 6 and 15, and which are free of organics or other deleterious materials. When compacted to the recommended moisture and density, the material should have a maximum free swell value of 0.5 percent and a maximum hydraulic conductivity (permeability) of 1.0 E-05 cm/sec, as determined by laboratory testing of remolded specimens of the actual materials proposed for the non-expansive, select fill.

The select fill should be placed in loose lifts not exceeding eight inches in uncompacted thickness and be uniformly compacted to a minimum of ninety-five (95) percent of the maximum dry density determined by Standard Proctor (ASTM D 698). The moisture content of the fill at the time of compaction should be from one percentage point below optimum to plus three percentage points of optimum (-1 to +3).

Contraction, control, or expansion joints should be designed and placed throughout the structure. Properly planned placement of these joints will assist in controlling the degree and location of material cracking which normally occurs due to material shrinkage, thermal effects, soil movements and other related structural conditions.

Grade Beams and Floor Slabs

Interior floor slabs used in conjunction with the footing/grade beam foundation are generally lightly loaded and are not capable of resisting the heaving forces of expansive clay soils. The estimated soil movements should be considered detrimental to floor slabs placed on grade. In areas sensitive to floor slab movement, a positive means of preventing movement is to structurally suspend the floor system (beams and slab) above the expansive subgrade. Support of the structural floor is provided by the footings/grade beams. A minimum vertical void of six (6) inches is recommended below the structural system, and a mechanical ventilation of the void space should be provided along with drainage of the crawl space. If floor slab movements must be limited to one inch or less, this type of foundation system is recommended.

Grade beams can be supported by the pedestals (or short columns) rising from spread footings.

Provision should be made to provide drainage if a crawl space is constructed below the slab. In some cases, it is possible for surface and/or subsurface water to become trapped or seep into the crawl space area. Drain inlets which are tied into the storm sewer, or a sump and pump system must be required. The ground surface below the building should be graded to drain so that water does not pond. The ground surface should slope toward the drain inlets on a minimum 2% grade. Building maintenance (owner's responsibility) should include observation of the void or crawl space on a frequent basis to determine that no water is ponding. To prevent capillary moisture and condensation, mechanical ventilation should be provided in the space below the slab.

MOISTURE CONTROL – SITE GRADING AND LANDSCAPING

To reduce the potential for moisture induced soil movement (uplift) as well as shrinkage, it is very important that measures be taken to control moisture changes around and below the structures. The following recommendations/comments should be incorporated into the overall project design.

- Site grading should be designed to provide surface drainage so that water does not pond during or after construction.

- A slope of 5 to 10 percent should be provided, such that the soil slopes away from the structure, flatwork, etc. 10 to 15 feet beyond. All ADA requirements must also be met. If allowed by the structural engineer, sidewalks can be structurally connected to the foundation, especially at entrances. The sidewalks should be sloped away from the foundation so water will drain. Since potentially expansive clay soils are present, sidewalks could heave and crack over time.

- Water from roof gutters should be collected and transmitted to the storm drain system, to a paved area, or to a sufficient distance from the foundation (approximately 10 to 15 feet). If downspouts discharge next to the structure onto flatwork or paved areas, the area should be watertight to eliminate infiltration next to the building. Joints should be sealed against moisture penetration and planned maintenance checks should repair and replace damaged joint sealer.

- Utility ditches should be backfilled so that they do not become conduits that allow surface and subsurface water to flow adjacent to or below the structure, paving and flatwork. This can be accomplished using clay or concrete plugs placed within the trench backfill.

- Landscape irrigation systems should be designed and located to prevent excessive moisture adjacent to the foundation. Systems should not be located where water will be sprayed onto building walls and subsequently drain downward and flow into the soils beneath structures.

- Trees should not be planted within a distance equal to the mature tree height from the foundation. Tree root systems extend out from the tree to find moisture, especially in times of drought, and planting the tree the recommended distance from the slab will help prevent drying and shrinkage of the soil next to and below the foundation. Drying and shrinkage of the soil next to the foundation can cause settlement of the foundation grade beam and slab.

- Flower beds and planting areas should not be constructed along building perimeters. Constructing sidewalks or pavements adjacent to buildings would be preferable. If required, flower beds and planting areas could be constructed beyond the sidewalks away from the building. If it is desired to have flower beds and planting adjacent to the building, the use of above grade concrete planter boxes or other methods which reduce the likelihood of large changes in moisture content of soils adjacent to or below structures should be considered.

- Utilities which project through floor slabs, particularly where expansive soils, or soils subject to settlement are present, should be designed with some degree of flexibility and/or with a sleeve to reduce the potential for damage to the utilities should movement occur. For structurally suspended floor slabs with void space or crawl space below, utilities should be protected from expansive soil movement by providing a void space between the utility and the soil at least equal to that recommended below the floor slab and grade beam. The utility line should also have built-in flexibility, allowing the pipe or line to move without damage as the soil expands and contracts.

- Contraction, control, or expansion joints should be designed and placed throughout the structure. Properly planned placement of these joints will assist in controlling the degree and location of material cracking which normally occurs due to material shrinkage, thermal effects, soil movements, and other related structural conditions.

GENERAL EARTHWORK

General Information

This section of the report provides recommendations for cutting and filling across the site. These recommendations are intended to provide guidance for the general site grading.

Recommendations are provided for grading including vegetation stripping, preparation of subgrade, scarifying, placement methods for fill based on what will be constructed. Recommendations for lift thickness, moisture and density, processing, compaction methods, monitoring and testing the subgrade and fill are also provided. The following paragraphs apply to general earthwork at the project site.

Subgrade Preparation

Stripping should consist of the removal of roots, vegetation and rubbish not removed by the clearing and grubbing operation. The actual stripping depth should be based on field observations with attention given to old drainage areas, uneven topography, and excessively wet soils. The stripped areas should be observed by LandTec to determine if additional excavation is required to remove weak or otherwise objectionable materials that would adversely affect the fill placement.

Proof-rolling: The subgrade should be firm and able to support the construction equipment without displacement. Soft or yielding subgrade should be corrected and made stable before construction proceeds. The subgrade should be proof rolled to detect soft spots, which if exist, should be reworked. Proof rolling should be performed using a heavy pneumatic tired roller, loaded dump truck or water tanker or similar equipment weighing approximately 20 tons. The project geotechnical engineer's field representative should observe the proof rolling operations.

The traffic of heavy equipment, including heavy compaction equipment, may create pumping and general deterioration of the soil. Occasionally some soil must be excavated, mixed and dried, and replaced. At times, excavating and replacing with selected soils is required before an adequate subgrade can be achieved. Therefore, it should be anticipated that some construction difficulties will be encountered during periods when these soils are saturated.

Placing of Fill Material

Fill material should be placed on a properly prepared subgrade as specified. The combined excavation, placing, and spreading operation should be done in such a manner to obtain blending of material, and to provide that the materials, when compacted will have the most practicable degree of compaction and stability. Materials excavated from cut sections and/or borrow sources and hauled to construct fills must be mixed and not segregated, except where such segregated soil zones are required. Fill should be placed in horizontal lifts. Filling along (parallel to) slopes should not be permitted. In areas where slopes will be constructed using fill, the fill should extend beyond finished contours and cut back to grade. If the surface of the fill is too smooth and hard to bond properly with a succeeding layer, the surface should be roughened and loosened by scarification before the succeeding layer is placed.

Where fill is to be placed next to existing fill, that fill should be removed to un-weathered, dense material. Each layer should be benched and scarified as adjoining lifts are placed. Material hauling equipment should be routed over the fill surface to distribute the added compaction afforded by the rolling equipment, and to prevent the formation of ruts on the surface.

The surface of the fill should be graded to drain freely and maintained throughout construction. During the dumping and spreading process, the contractor should remove all roots and debris and all rocks greater than four (4) inches in maximum dimension from the fill materials. No rocks should be allowed within the final 18 inches of subgrade.

In the event of slides in any part of the fill prior to final acceptance of the work, the contractor should remove material from the slide area and should rebuild such portion of the fill as requested by the geotechnical engineer of record.

Moisture and Density Control

Following the spreading and mixing of the soil, it should be processed by ripping or disking throughout its thickness to break up and provide additional blending of materials. Additional scarification should be made to break up and blend the fill.

The recommended loose lift thickness is nine (9) inches. The moisture content of the soil should be adjusted, if necessary, by either aeration or the addition of water to bring the moisture content within the specified range. Water required for sprinkling to bring the fill material to the proper moisture content should be applied evenly through each layer.

Any layers which become damaged by weather conditions should be reprocessed to meet specification requirements. The compacted surface of a layer of fill should be lightly loosened by scarification before the succeeding layer is placed.

When the moisture content and the condition of the fill layer are satisfactory, compaction should be made with a self-propelled tamping-foot roller (sheep foot with cleaner teeth).

On-site soils and imported general clay fill material with a Plasticity Index (PI) equal to or greater than 25 should be compacted to a minimum of 95 percent but not over 100 percent of the maximum dry density as determined by the moisture-density relations test method ASTM Designation D 698 for standard Proctor. The moisture content for the clay fill placed outside the moisture conditioned zone should be to a minimum of two (2) percentage points above optimum (+2).

The moisture content (or ranges specified) should be considered as a minimum or an allowable range. The contractor may have to maintain a narrower range (within the maximum allowable) to consistently achieve the specified density for some soils or under some conditions. The moisture content and density of all fill material should be maintained at the specified range of moisture and density. Some modifications to the moisture and density requirements can be made by the geotechnical engineer of record based on site conditions at the time of construction and the project requirements.

Field density tests should be taken as each lift of fill material is placed. One field density test per lift for each 2,500 to 5,000 square feet of compacted area is recommended. The project geotechnical engineer maintains the right to adjust the frequency of compaction tests based on actual field conditions and the contractor's performance. A minimum of three (3) tests per lift in any section should be required. Earthwork operations should be observed and tested on a continuing basis by an experienced engineering technician working in conjunction with the geotechnical engineer of record. The contractor should assist the engineering technician in taking tests to the extent of furnishing labor and equipment to prepare the areas for testing and curtailing operations in the vicinity of the test area during testing.

Each lift should be compacted, tested, and approved before another lift is added. The purpose of the field density tests is to provide some indication that uniform and adequate compaction is being obtained.

The presence of the engineering technician, field representative and/or geotechnical engineer will be for the purpose of providing observation and field testing. Our services do not include supervision or direction of the actual work of the contractor, employees, or agents of the contractor. Neither the presence of our field representative nor the observation and testing shall excuse the contractor in any way for defects discovered in the contractor's work. The contractor is directly responsible for the quality of the fill material and should have appropriately trained Quality Control personnel on site to observe and direct the earthwork operation.

Summary of General Earthwork Recommendations

Construction Step or Component	General Description and Requirement
Proof-rolling subgrade prior to fill placement (after clearing and grubbing phase)	Use pneumatic tired equipment with gross vehicle weight of approximately 20 tons (loaded water truck or scraper; or similar piece of equipment).
Subgrade below fill placement	Scarify and/or disk plow to a minimum depth of 6 inches and then compact to a minimum of 95% of standard Proctor (ASTM D 698) to a minimum moisture content of plus two percentage points above optimum moisture content (+2).
Lift thickness for fill material	The loose lift thickness should be 9-inches or less when placing fill material, prior to compacting.
General Fill material compaction requirements **(See Appendix C for Moisture Conditioning Recommendations)**	Compact general clay fill material with a PI equal to or greater than 25 to a minimum of 95% and maximum of 100% of standard Proctor (ASTM D 698); to a minimum moisture content of at least two percentage points above optimum moisture content (+2). See Appendix C for Moisture Conditioning recommendations.
Testing Requirements	Perform compaction tests (moisture and density) at the rate of one test each 2,500 to 5,000 SF per lift and/or as directed by the project geotechnical engineer.

Backfill for utilities should be properly placed and compacted. Dense or dry backfill can swell and create a mound along the ditch line. Loose or wet backfill can settle and form a depression along the ditch line. Distress to overlying structures, pavements, sidewalks, etc. can occur if heaving or settling happens. Granular bedding material is recommended for pipe bedding. Clean coarse sand or well graded crushed rock make good bedding materials. In all cases the City requirements for utility line embedment material should be followed and is the responsibility of the contractor.

Backfill should be placed and compacted in uniform lifts of 8 to 12 inches and be tested for moisture and density. We recommend that each lift be tested with a spacing of 150 to 200 feet along the trench. Compaction should be to a minimum of 95 percent of standard Proctor density (ASTM D 698) at a moisture content ranging from one percentage point below optimum to four percentage points above optimum (-1 to +4). Where trench depths exceed 10 feet, compaction of the backfill should be to a minimum of 98% of standard Proctor, for that portion of the trench backfill below 10 feet.

Soil and Base Materials

The following table lists the general requirements as well as moisture and compaction recommendations for soils and base materials.

Recommendations for Soils and Base Materials

Type Material	General Recommendations	Moisture Content	Compaction Range
On-Site Soils	General Site Fill. Clean soil with no vegetation, organic material, debris, and no rocks greater than 4 inches in maximum dimension.	Minimum of +2 percentage points above optimum moisture	95% to 98% of the maximum standard Proctor dry density, ASTM D698
Off-Site Soils (Hauled onto the Jobsite). Must be approved by engineer.	General Site Fill. Clean clay soil (free of deleterious material and debris) with a liquid limit (LL) less than 45, plasticity index less than 20 and no rock greater than 4 inches in maximum dimension.	Minimum of +2 percentage points above optimum moisture	95% to 98% of the maximum standard Proctor dry density, ASTM D698
Non-Expansive, Select Fill Material (Hauled onto the Jobsite). Must be approved by engineer.	Clayey sand or sandy lean clay with a Liquid Limit (LL) less than 35 percent and a Plasticity Index (PI) between 6 and 15.	-1 to +3 percentage points of optimum moisture	95% to 100% of the maximum standard Proctor dry density, ASTM D698, for use on building pads.
Moisture Conditioned (MC) On-Site Soils	On-Site soils excavated, mixed, moisture adjusted and returned to the excavation in lifts to controlled moisture and density used within building pads, below paving and below flatwork. See also Report Text.	Minimum of +5 percentage points above optimum moisture	93% to 98% of the maximum standard Proctor dry density, ASTM D698
Recycled Concrete Flexible Base Material. Must be approved by engineer.	TxDOT Item 247, Type D, Grade 1-2. For use as protective cover for Moisture Conditioned Soils.	-1 to +3 percentage points of optimum moisture	95% to 100% of the maximum standard Proctor dry density, ASTM D698, for use on building pads.

Even with proper compaction, deep fills and trench backfills are subject to some long-term settlement. Experience has indicated that some settlement of the well compacted fill should be anticipated for fills greater than about five feet thick. The settlement will result in movement of supported sidewalks or floor slabs placed on fill, and shear loads on pipes passing through the fill into the structure. Total settlement of the fill about 1 to 2 percent of the total compacted

fill thickness may occur. For example, 100 inches of fill would be expected to settle in the range of 1 to 2 inches. This fill settlement could result in some movement of sidewalks, pavement, drives, etc. and could also increase the vertical load on and possible deflection of utilities crossing through the fill.

Excavations

Excavations should consider the stability of adjacent structures, street pavement, underground utilities, etc. Unstable soils include, but are not necessarily limited to, (1) jointed, fissured, and slickensided materials (2) soils with pockets or layers of sand or gravel, and (3) soils with groundwater seepage occurring. Slopes in these types of soils may become unstable during periods of wet weather or as loads are applied to the top and/or along the slope. The stability is also affected by weather conditions, excavation depth, adjacent structures, construction equipment, and the length of time the excavation will remain open.

Surcharge loads, either static or dynamic, should not be applied to the slope, particularly at the top of slope. Construction equipment should be prevented from traveling along or near the top of the excavation slope. Monitoring of temporary slopes, trenches, and dewatering during construction should be undertaken by the contractor to detect early warnings of movement within slopes, structures, pavements, etc.

Excavations should be shored to provide stability up-slope and to protect construction workers. In all cases, the requirements of the Occupational Safety and Health Administration (OSHA) must be followed. It is important for the contractor to monitor the slope stability by observation and measurement, and to prevent excessive loads (especially heavy vibratory loads) from being applied to the slope. The contractor should be responsible for maintaining the slopes in a safe condition during construction and the use of slope stability monitoring equipment is recommended. Inclinometers are one means of measuring slope movement. This report has not been prepared for trench safety design and slope angle design.

Excavations for installation of utilities, moisture conditioning, etc. should be shored, benched, and/or sloped to provide stability up-slope and to protect existing structures and adjacent property. Existing structures must be protected during excavating from loss of soil bearing so that existing footings, grade beams and slabs are maintained in their original constructed condition and could require temporary shoring along the perimeter of the existing building.

In the Federal Register, Volume 54, No. 209 (October 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its “Construction Standards for Excavations, 29 CFR, part 1926, Subpart P”. This document was issued to better ensure the safety of workers entering trenches or excavations. It is mandated by this federal regulation that excavations, whether they be utility trenches, basement excavation or footing excavations, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations will be strictly enforced and if they are not closely followed, the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person," as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

We are providing this information solely as a service to our client. LandTec Engineers does not assume responsibility for construction site safety or the contractor's or other parties' compliance with the local, state, and federal safety or other regulations.

Fill or cut slopes constructed in the soils at the site should generally be maintained on slopes no steeper than 5-horizontal to 1-vertical (5H:1V). Some slopes in this geological formation could require flatter slopes. Slopes over 4 feet in height should be designed based on site specific geometry and soil strength parameters. This report has not been prepared for slope angle design. If these services are desired, we would be pleased to provide slope stability analysis as an additional scope of service.

All slopes, whether temporary construction slopes or permanent fill slopes should be designed to allow drainage at planned areas where erosion protection can be provided, instead of allowing surface water to flow down unprotected slopes. Vegetative ground cover should be provided as soon as practical to completed slopes.

Acceptance of Imported Fill

The owner/client in conjunction with the geotechnical engineer of record should approve any soil hauled onto this project from off-site sources. The contractor must obtain a written, notarized certification from the landowner of each proposed off-site soil borrow source stating that to the best of the landowner's knowledge and belief there has never been contamination of the borrow source site with hazardous or toxic materials. The certification must be furnished to the owner prior to proceeding to furnish soils to the site. Soil materials derived from the excavation of underground petroleum storage tanks shall not be used as fill on this project.

RETAINING WALL – PRELIMINARY

The following preliminary information is provided, however additional geotechnical information such as location, type of wall, existing and proposed grades, wall section details, desired limitation of differential movement, etc. will need to be provided for final recommendations.

If movements less than one inch is required for the retaining wall structure, LandTec Engineers should be contacted for recommendations for a footing/pier and beam foundation system.

Wall Design and Drainage

The location and type of retaining wall that will be used are unknown at this time of report preparation.

Retaining walls should be designed for lateral pressures including, but not necessarily limited to, earth, water, and surcharge. In addition, the wall backfill must be drained. If the wall is rigid at the top, we recommend a design using the at-rest and drained condition. For flexible walls, the active state and drained condition should be used.

A wall drainage system is recommended to reduce pressures on the retaining wall. The drainage system should include a vertical drain on the back side of the wall and a collection system at the base of the wall. The vertical drain should be at least 12 inches wide and extend to the surface. The granular drain material, such as ASTM #57 aggregate, should have a hydraulic conductivity of 1.0 E-2 cm/sec or greater. Geotextile should be used between the drainage aggregate and the backfill material.

Consideration can also be given to the use of a drainage geocomposite consisting of a geonet and non-woven geotextile can be used and be like HydroProduct 220 or other engineer approved drainage composite. The single sided drainage composite with the geonet side against the wall and the geotextile facing the soil will provide drainage along the wall and transmit the groundwater to the perimeter drain collection system. Below grade walls should also be waterproofed to limit moisture migration through subsurface walls.

The perimeter drain collection system at the bottom of the vertical drain should consist of a 6-inch minimum diameter slotted or perforated pipe (like Advanced Drainage System ADS HDPE heavy duty drainpipe) with a minimum slope of one percent.

The pipe should be surrounded by washed aggregate like ASTM #57 aggregate, which is surrounded by a non-woven geotextile. The perimeter drain should be located at least 12 inches lower than the footing. The collection system should be connected to a sump and pump system or flow by gravity for discharge.

Clean outs should be provided in the drain system. A test clean out of the drain system should be performed to verify it is working, prior to backfilling. A similar clean out test should be performed near the completion of the project to verify the drain system is working.

Equivalent Fluid Pressures

The following preliminary information provides additional information for equivalent fluid pressures including both drained and undrained backfill conditions. Equivalent fluid pressures (triangular distribution) may be used for the horizontal backfill, non-surcharged condition. Geotechnical design parameters for various backfill materials are provided in the following table. The equivalent fluid pressures given here do not include a safety factor, however a safety factor of at least 1.5 is recommended.

Equivalent Fluid Pressures

Backfill Material	Assumed Angle of Shearing Resistance, degrees	Assumed Total Unit Weight, pcf	Flexible Walls (Active)			Rigid Walls (At-Rest)		
			Coeff., k_a	Drained	Undrained	Coeff., k_o	Drained	Undrained
Non-Expansive, Select Fill (1)	25	125	0.33	50 pcf	83 pcf	0.56	67 pcf	101 pcf
Granular Backfill (Free Draining Gravel (2) or Sand/Gravel Mix)	34	120	0.28	35 pcf	82 pcf	0.44	50 pcf	92 pcf
On-Site Clays (CH)	20	125	0.41	50 pcf	88 pcf	0.66	78 pcf	103 pcf

1) Non-expansive, select fill material should consist of uniformly blended clayey sand or lean sandy clay (SC or low CL) with a Liquid Limit (LL) less than thirty-five (35), and a Plasticity Index (PI) between about 6 and 15 and containing no deleterious material.

2) Granular backfill should have less than 5% passing the #200 mesh sieve and less than 30% passing the #4 sieve and be non-plastic. Maximum particle size is 1-1/2 inch. ASTM #57 aggregate can be used for this class of material.

The wall backfill limits should extend outward at least two (2) feet from the base of the wall and then upward on a one horizontal to two vertical (1H:2V) slope. For narrower backfill widths of granular or select fill soils, the lateral earth pressures for on-site soils should be used.

The on-site higher plasticity clays are not recommended for wall backfill material because of swell pressures.

Additional Lateral Pressures

The location and magnitude of permanent surcharge loads (if present) should be determined, and the additional pressure generated by these loads, such as the weight of construction equipment, vehicular loads that are used at the time the structures are being built and loads due to future structures, traffic, equipment, etc. must also be considered in the design. Use a pressure coefficient of 0.5 for the lateral component of uniformly distributed surcharge loads.

Passive Earth Pressure/Friction Factor for Wall Footings

Passive earth pressures at the toe of the wall footing should only be used if the footing is placed in direct contact with undisturbed soil, i.e., footing is cast within an excavation. If the footing is constructed by using forms at grade, i.e., not in an excavation, either lean concrete should be placed between the footing and the earth wall of the adjacent excavation, or the footing should have a keyway with a 12-to-18-inch depth extending below the footing and cast integrally with the footing. The lean concrete must have a minimum 28-day compressive strength of 2,000 psi. Additionally, the footing should be a minimum depth of one foot below the lowest adjacent grade. A passive pressure of 250 pounds per square foot of depth can be used in design calculations. A friction factor of 0.35 for mass concrete on stiff undisturbed soil can be used in design.

Shallow footings should only be used in areas where the expansive clays have been removed and replaced with moisture conditioned or select fill material, otherwise a pier and beam foundation should support the walls as referenced previously.

Backfill Placement and Compaction

The excavated area between the drainage material and excavation face should be backfilled using select backfill materials (liquid limit in the range of 35 or less) and a Plasticity Index (PI) in the range of 6 to 15. Such material should be placed in horizontal layers not to exceed 8-inches in thickness when compacted at optimum moisture to a minimum density of 95 percent of that obtained by ASTM D 698 compaction procedures.

The backfill material should be placed in maximum of 8-inch lifts and compacted to a density ranging between 93 and 98 percent of maximum Standard Proctor (ASTM D 698) dry density at a moisture content ranging from optimum to four (4) percentage points above optimum (0 to +4). Caution should be exercised not to over-compact the backfill. Over-compaction will result in excessive lateral earth pressures. Hand-operated tampers or other lightweight compactors are preferred in the three-foot area adjacent to walls.

Even with proper compaction, deep fills and trench backfills are subject to some long-term settlement. Experience has indicated that some settlement of the well compacted fill should be anticipated for fills greater than about five feet thick. The settlement will result in movement of supported sidewalks or floor slabs placed on fill, and shear loads on pipes passing through the fill into the structure. Total settlement of the fill on the order of 1 to 2 percent of the total compacted fill thickness may occur. For example, 100 inches of fill would be expected to settle in the range of 1 to 2 inches. This fill settlement could result in some movement of sidewalks, pavement, drives, etc. and could also increase the vertical load on and possible deflection of utilities crossing through the fill. Pipes and conduits in fill should be designed for potential soil loading due to settlement within the fill.

Placement of a relatively impervious soil in the upper layer of the backfill around the exterior of the structure (where the surface is not paved) for the purpose of minimizing the amount of infiltration of the outside surface water is recommended. The uppermost 18 inches of backfill material should consist of sandy lean clay or lean clay with a LL in the range of 35 to 45, a PI in the range of 20 to 25, and the amount passing the No. 200 sieve greater than 50 percent. The ground surface should slope away from the structure on a gradient of 1 to 2 percent, such that surface water does not pond adjacent to the structure within the backfill zone.

This report has not been prepared for analysis of retaining wall global stability. If these services are desired and requested, we would be pleased to provide stability analysis as an additional scope of service.

From a geotechnical engineering standpoint, the following items will require particular attention during construction.

- The subsurface drain system is a key component for collection and removal of water from behind walls. The layout and grade of drainpipe is very important and should be performed by a surveyor. Grades on drainpipes are scheduled for a minimum of one percent slope. We recommend the surveyor provide notes or a record drawing of the underdrain layout and grades, verifying that the slope is achieved. Following the installation of the drain system a clean-out test should be made to verify that the system is clear of obstructions and flowing as designed. A record of the cleanout test should be incorporated into the project records.

- Samples of the materials proposed for use by the contractor in the drain system, including pipe, aggregate, geotextile, fittings, etc. should be submitted well in advance of scheduled use for review and to verify conformance with project specifications.

If deeper excavations or structural elements are near or below groundwater seepage, they should be underlain by granular fill material compatible with ASTM C 33, #57 aggregate and should be constructed to provide a drainage course (blanket drain) with a minimum thickness of 12 inches. The drainage aggregate should be separated from the soil subgrade using a single layer of 8 oz non-woven geotextile.

A pre-design meeting is recommended before the wall underdrain system is designed to discuss the parameters related to the foundation and drain system.

GENERAL COMMENTS AND CONDITIONS

In any geotechnical study, the design recommendations are based on a limited amount of information about the subsurface conditions. In the analysis, the geotechnical engineer must assume the subsurface conditions are like the conditions encountered in the boring. However, during construction, anomalies in the subsurface conditions are quite often revealed.

Confirmation-Dependent Recommendations: Do not rely on these recommendations until the Geotechnical Engineer of Record (GER) confirms through field observation that the inferred conditions on which the recommendations are based are the conditions that exist. If observation suggests otherwise, your GER will develop the necessary modifications.

The project geotechnical engineer of record should be retained to observe earthwork and foundation installation and perform materials evaluation during the construction phase of the project. This enables the project geotechnical engineer to stay abreast with the project and to be readily available to evaluate unanticipated conditions, to conduct additional tests if required and, when necessary, to recommend alternative solutions to unanticipated conditions.

It is proposed that construction observation commence at the outset of the project. Experience has shown that the most suitable method for procuring these services is for the owner to contract directly with the geotechnical / materials engineer. This results in a clear, direct line of communication between the owner or his representative and the geotechnical / materials engineer.

The services described in this report were performed consistent with generally accepted geotechnical engineering principles and practices. No other warranty, expressed or implied, is made. These services were performed in agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

The conclusions and recommendations in this report are invalid if:

- the report is used for adjacent or other property or buildings.
- grades, shallow perched seepage water levels, or both, change between the issuance of this report and construction.
- any other change is implemented that materially alters the project from that proposed when this report was prepared.

The boring logs do not provide a warranty of the conditions that may exist at the entire site. The extent and nature of subsurface soil and shallow perched seepage variations may not become evident until construction begins. Variations in soil conditions between borings could possibly exist between or beyond the points of exploration or groundwater elevations may change, both of which may require additional studies, consultation, and possible design revisions. Any person associated with this project who observes conditions or features of the site or surrounding areas that are different from those described in this report should report the differences immediately for consideration and evaluation. This report was prepared solely for the use of our client and should be reviewed in its entirety.

Any constructed item that the client does not want to move up, down, or laterally (vertical and/or horizontal) because of expansive soils will need to be involved in the planning and design options for measures to limit or prevent differential movement. This includes but is not necessarily limited to foundations, slabs, paving, sidewalks, patios, porches, steps, flatwork, hardscape, fountains, pavers, monument signs, walls, and any other items that are ground supported. LandTec provided in the report, recommendations, and comments based on experience how expansive soils can be handled, but the client must be involved with these discussions and make the final decision. This often takes place in meetings and discussions with the design professionals (as a group) including as a minimum the client, architect, structural, civil, and geotechnical engineer. If a general contractor or construction manager is already under contract by the client, they should also be involved in these discussions and can typically provide cost comparisons between different options, allowing the client to make final choices based on their desired goals for project, performance, and cost.

It is recommended that LANDTEC be retained to review those portions of the plans and specifications for this project that pertain to geotechnical recommendations contained in this report to determine whether the recommendations have been interpreted as intended. This is typically done when the plans are at the 50 to 75 percent design level.

APPENDIX A

Plan of Borings, Boring Logs, General Notes, &
Description of Field Exploration

LEGEND

B-1 BORING LOCATION

0 50 100
NTS

NOTE: BORING LOCATIONS ARE APPROXIMATE.

DRAWING: A1

DRAWN BY: R BARAL
APPRV BY: R BARAL

DRAW DATE: 11-2025
PROJ NO: 1025-3598

PLAN OF BORINGS
WIMBISH ES GYMNASIUM/STORM SHELTER
ARLINGTON, TEXAS

Q:\Projects\AISD\3598 Wimbish ES Gym - Storm Shelter Addition - GEO\DRAWINGS\POB.dwg

LANDTEC ENGINEERS
TBPE REGISTRATION NO. F-329
TBPLS REGISTRATION NO. 100956-00
3906 W IH-20, STE 100
ARLINGTON, TX 76017
817-572-2818
WWW.LANDTECENG.COM

LANDTEC ENGINEERS

Project: Wimbish ES Gymnasium/Storm Shelter
Arlington, Texas

Project Number: 1025-3598

BORING LOG B-1

Location: See Plan of Borings
Surface El.: Unkown

Depth, feet	Samples	Symbol / USCS	MATERIAL DESCRIPTION	Hand Penetrometer, tsf	Penetration Blows / Foot	Recovery %	RQD	Moisture Content, %	Unit Dry Weight, pcf	Liquid Limit	Plastic Limit	Plasticity Index	% Passing No. 200 Sieve	Unc. Compressive Strength, tsf
			CLAYEY SAND (SC), silty, tan & brown, w/some reddish brown sand seams	0.5				21.3					24	
				1.0				10.6					21	
			4.0											
5			**SAND (SP),** silty, tan & brown, loose to medium dense		7			7.6		NP	NP	NP	13	
					13			13.1						
10					9			21.5					27	
			12.0											
15			**SAND (SP),** reddish brown, dense to very dense, w/some gray sand seams & layers		29, 50/ 5.5"			21.9		NP	NP	NP	18	
			18.0											
20			**SAND (SP),** reddish tan & tan, very dense, w/some lightly cemented sand seams & layers		50/ 3"			22.5						
25					50/ 1"									
30					50/ 5.75"			18.5					21	
35					50/ 5"									
40			40.0		50/ 3.5"			18.5						
45														
50														

Completion Depth: 40 ft
Date: 10/30/2025
Driller: CoreCo

Remarks: Seepage was observed @ 11' during drilling. Water level @ 10' after completion.

Soil and rock descriptions on this boring log are a compliation of data collected in both the field and the laboratory. The stratification lines represent the approximate boundary between soil types and the transition can be gradual.

FIGURE A2

BORING LOG W/FIGURE (DEPTHS - 5FT) 3598 WIMBISH ES.GPJ LANDTEC.GDT 11/12/25

LANDTEC ENGINEERS

Project: Wimbish ES Gymnasium/Storm Shelter
Arlington, Texas

Project Number: 1025-3598

BORING LOG B-2

Sheet 1 of 1

Location: See Plan of Borings
Surface El.: Unkown

Depth, feet	Samples	Symbol / USCS	MATERIAL DESCRIPTION	Hand Penetrometer, tsf	Penetration Blows / Foot	Recovery %	RQD	Moisture Content, %	Unit Dry Weight, pcf	Liquid Limit	Plastic Limit	Plasticity Index	% Passing No. 200 Sieve	Unc. Compressive Strength, tsf
			CLAYEY SAND (SC), silty, tan & brown, w/some reddish brown sand seams	2.0				14.6					26	
				1.75				14.3		24	17	7	36	
			4.0											
5			**SAND (SP),** silty, tan & brown, loose to medium dense		19			10.9						
					20			11.9					26	
10					9			18.4						
			14.0											
15			**CLAYEY SAND & SAND (SC-SP),** reddish tan, tan & gray, loose to medium dense		10			22.0		23	16	7	41	
20			- w/iron ore gravel & lignite seams below 19'		14			22.1						
			24.0											
25			**CLAY (CH),** tan & gray, w/gray shaly clay & reddish brown sand seams & layers		25			25.5		74	25	49	90	
			27.0											
30			**SAND (SP),** reddish tan & tan, very dense, w/interbedded gray weathered sandy shale & lightly cemented tan & gray sand seams & layers		22, 50/ 5.5"									
35					52									
40					50/ 3.75"			28.7						
45			45.0		50/ 1.75"			33.1						
50														

Completion Depth: 45 ft
Date: 10/30/2025
Driller: CoreCo

Remarks: Seepage was observed @ 12' during drilling. Water level @ 9' after completion.

BORING LOG W/FIGURE (DEPTHS - 5FT) 3598 WIMBISH ES.GPJ LANDTEC.GDT 11/12/25

Soil and rock descriptions on this boring log are a compliation of data collected in both the field and the laboratory. The stratification lines represent the approximate boundary between soil types and the transition can be gradual.

FIGURE A3

LANDTEC ENGINEERS

Project: Wimbish ES Gymnasium/Storm Shelter
Arlington, Texas

Project Number: 1025-3598

BORING LOG B-3

Location: See Plan of Borings
Surface El.: Unkown

Depth, feet	Samples	Symbol / USCS	MATERIAL DESCRIPTION	Hand Penetrometer, tsf	Penetration Blows / Foot	Recovery %	RQD	Moisture Content, %	Unit Dry Weight, pcf	Liquid Limit	Plastic Limit	Plasticity Index	% Passing No. 200 Sieve	Unc. Compressive Strength, tsf
			CLAYEY SAND (SC), silty, tan & brown, w/some reddish brown sand seams	4.5+				11.7					21	
			3.0	4.0				7.4					45	
			SAND (SP), silty, tan & brown, loose to medium dense		10			6.3		NP	NP	NP		
5					23			17.0						
			7.0		5									
			SANDY LEAN CLAY (CL), reddish brown & tan, w/gray sand seams & layers					15.8		32	17	15	56	
			9.0											
10			**CLAYEY SAND & SAND (SC-SP),** reddish tan, tan & gray, loose to medium dense	0.5										
					17			17.2						
15														
			- w/iron ore gravel below 19'		27			24.1						
20			22.0											
			CLAY (CH), tan & gray, stiff, w/gray shaly clay & reddish brown sand seams & layers											
			25.0		27			26.3						
25														
30														
35														
40														
45														
50														

Completion Depth: 25 ft
Date: 10/30/2025
Driller: CoreCo

Remarks: Seepage was observed @ 12' during drilling. Water level @ 9' after completion.

Soil and rock descriptions on this boring log are a compliation of data collected in both the field and the laboratory. The stratification lines represent the approximate boundary between soil types and the transition can be gradual.

FIGURE A4

GENERAL NOTES

DRILLING AND SAMPLING SYMBOLS:

- Thin-Walled Shelby Tube
- :Split Spoon - 2" O.D., unless otherwise noted
- :TxDOT Cone Penetrometer (TCP)
- :Auger
- Water Level (Level after exploration completed)
- Water Level (Level where first observed)

RELATIVE DENSITY OF COARSE-GRAINED SOILS:		CONSISTENCY OF FINE-GRAINED SOILS:	
Penetration Resistance Blows/foot	**Relative Density**	**Unconfined Compressive Strength, Qu, tsf**	**Consistency**
0-4	Very Loose	Less than 0.25	Very Soft
4-10	Loose	0.25 to 0.50	Soft
10-30	Medium Dense	0.50 to 1.00	Firm
30-50	Dense	1.00 to 2.00	Stiff
over 50	Very Dense	2.00 to 4.00	Very Stiff
		4.00 and higher	Hard

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 more or less vertical.
Laminated : Composed of thin layers of varying color and texture.
Interbedded : Composed of alternate layers of different soil types.
Calcareous : Containing appreciable quantities of calcium carbonate.
Well graded : Having wide range in grain sizes and substantial amounts of all intermediate particle sizes.
Poorly graded : Predominantly of one grain size or having a range of sizes with some intermediate size missing.

NOTE: Slickensided and fissured clays may have lower unconfined compressive strengths because of planes of weakness or cracks in the soil. The consistency rating of such soils is based on penetrometer readings.

DEGREE OF WEATHERING:

Unweathered : Rock in its natural state before being exposed to atmospheric agents.
Slightly Weathered : Noted predominantly by color change with no disintegrated zones.
Weathered/Severely Weathered: Complete color change with consistency, texture, and general appearance approaching soil.

SUBSURFACE CONDITIONS:

Soil and rock descriptions on the boring logs are a compilation of field data as well as from laboratory testing of samples. The stratification lines represent the approximate boundary between materials and the transition can be gradual.

Water level observations have been made in the borings at the times indicated. It must be noted that fluctuations in the groundwater level may occur due to variations in rainfall, hydraulic conductivity of soil strata, construction activity, and other factors.

Hardness terms for soil and rock are for relative comparison of the various samples and are not intended to be used as an indication of the ease or difficulty of excavation or of excavation stability. Hardness terms on the logs may be based upon a combination of the test and observation methods listed above, and upon field observations.

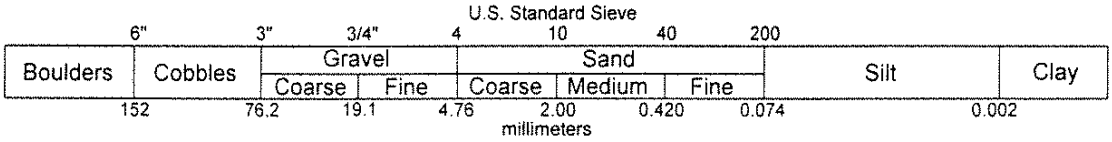
LANDTEC ENGINEERS

Figure A5

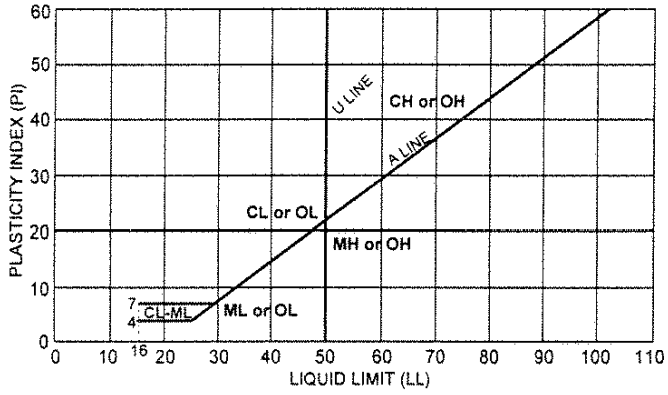
CLASSIFICATION OF SOILS

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests			Soil Classification	
			Group Symbol	Group Name
GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS Less than 5% fines	$C_U \geq 4$ and $1 \leq C_c \leq 3$	GW	Well-graded Gravel
		$C_U \leq 4$ and $1 \geq C_c \geq 3$	GP	Poorly-graded Gravel
	GRAVELS WITH FINES More than 12% of fines	Fines classify as ML or MH	GM	Silty Gravel
		Fines classify as CL or CH	GC	Clayey Gravel
SANDS 50% or more of coarse fraction retained on No. 4 sieve	CLEAN SANDS Less than 5% fines	$C_U \geq 6$ and $1 \leq C_c \leq 3$	SW	Well-graded Sand
		$C_U \leq 6$ and $1 \geq C_c \geq 3$	SP	Poorly-graded Sand
	SANDS WITH FINES More than 12% fines	Fines classify as ML or MH	SM	Silty Sand
		Fines classify as CL or CH	SC	Clayey Sand
SILTS AND CLAYS Liquid limit less than 50%	Inorganic	PI > 7 and plots on or above "A" line	CL	Lean Clay
		PI < 4 and plots below "A" line	ML	Silt
	Organic	Liquid limit – ovendried / Liquid limit – not dried < 0.75	OL	Organic Clay
				Organic Silt
SILTS AND CLAYS Liquid limit more than 50%	Inorganic	PI plots on or above "A" line	CH	Fat Clay
		PI plots below "A" line	MH	Elastic Silt
	Organic	Liquid limit – ovendried / Liquid limit – not dried < 0.75	OH	Organic Silt
				Organic Silt
Highly fibrous organic soils	Primary organic matter, dark in color, and organic odor		Pt	Peat

SOIL GRAIN SIZE



PLASTICITY CHART



LANDTEC ENGINEERS

Figure A6

Description of Field Exploration

Subsurface materials at the site were explored by three (3) borings drilled to approximately 25 to 45 feet below existing grade. The borings were drilled on October 30, 2025, at the approximate locations shown on the Plan of Borings in Appendix A. The borings were drilled with a truck mounted drill rig using continuous flight augers. The boring logs and a key to terms and descriptions on the logs are provided in Appendix A.

Soil descriptions on the boring logs are a compilation of field log data as well as from laboratory testing of samples. The stratification lines represent the approximate boundary between soil types and the transition can be gradual. The boring logs presented in this report represent the engineer's interpretation of the field logs, visual observation of the samples as well as results of laboratory tests.

Relatively undisturbed samples of cohesive soils encountered in the borings were obtained with a Shelby tube sampler. Depths at which these samples were taken are indicated in the "Sample" column of the boring log. Estimates of the consistency of cohesive soil samples were obtained in the field using a hand penetrometer. The result of a hand penetrometer reading is recorded at a corresponding depth in the "Penetrometer, TSF" column of the boring log. When the capacity of the hand penetrometer is exceeded, the value of 4.5+ is recorded.

Samples were taken by driving a standard ASTM 2-in. OD split-spoon sampler (ASTM D 1586) 18 in. into the soil with a 140-lb hammer falling freely a distance of 30 inches. Where resistance was high, the number of inches of penetration for 50 blows of the hammer was recorded. Depths at which the split-spoon samples were taken in these borings are designated "X" in the "Sample" column of the boring logs. The number of blows required to drive the sampler the final 12 in. of penetration or the inches of penetration for 50 blows is recorded at a corresponding depth in the "Blows Per Ft" column of the boring logs. Representative portions of each split-spoon sample were selected and sealed in plastic bags to prevent loss of moisture.

Short term observations were made in the borings to observe for shallow subsurface seepage. Water level observations made during drilling and shortly after completion of the borings are noted on the respective logs. Water level measurements refer only to those observed at the times and places indicated, and can vary with time, geologic condition, construction activity, rainfall, and other factors.

APPENDIX B

Summary of Laboratory Results & Description of Laboratory Testing

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	%<#200 Sieve	Water Content (%)	Dry Density (pcf)	Unconfined Compressive Strength tsf
B-1	1.0				24	21.3		
B-1	3.0				21	10.6		
B-1	4.8	NP	NP	NP	13	7.6		
B-1	7.3					13.1		
B-1	8.8				27	21.5		
B-1	14.5	NP	NP	NP	18	21.9		
B-1	19.5					22.5		
B-1	29.5				21	18.5		
B-1	39.5					18.5		
B-2	1.0				26	14.6		
B-2	3.0	24	17	7	36	14.3		
B-2	4.8					10.9		
B-2	6.3				26	11.9		
B-2	9.3					18.4		
B-2	14.3	23	16	7	41	22.0		
B-2	19.3					22.1		
B-2	24.3	74	25	49	90	25.5		
B-2	39.3					28.7		
B-2	44.3					33.1		
B-3	1.0				21	11.7		
B-3	2.3				45	7.4		
B-3	3.8	NP	NP	NP		6.3		
B-3	5.3					17.0		
B-3	7.0	32	17	15	56	15.8		
B-3	14.3					17.2		
B-3	19.3					24.1		
B-3	24.3					26.3		

LANDTEC ENGINEERS

Summary of Laboratory Results

Project: Wimbish ES Gymnasium/Storm Shelter
Arlington, Texas

Number: 1025-3598 Date: 10/30/2025

Description of Laboratory Testing

Representative samples of the soils were tested in our geotechnical soil laboratory. Liquid limit and plastic limit tests (Atterberg limits) and percent passing No. 200 sieve were performed on soil samples from the borings to classify them according to the Unified Soil Classification (USC) System.

Strength properties of the soil and rock were evaluated by performing unconfined compression tests. The results of these tests are reported as Qu values (in tons per square foot). Moisture content and density determinations were also made on samples to determine the in-situ conditions. These tests were performed in general accordance with the American Society for Testing and Materials (ASTM) Procedures.

Results of the laboratory tests including classification, strength, unit dry weight and moisture content are presented on each respective boring log in Appendix A. A summary of Laboratory Results along with the swell tests are provided in Appendix B.

APPENDIX C

GBA Statement

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, clients can benefit from a lowered exposure to the subsurface problems that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed below, contact your GBA-member geotechnical engineer. Active involvement in the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Geotechnical-Engineering Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. *Those who rely on a geotechnical-engineering report prepared for a different client can be seriously misled*. No one except authorized client representatives should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one – not even you – should apply this report for any purpose or project except the one originally contemplated.*

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read it *in its entirety*. Do not rely on an executive summary. Do not read selected elements only. *Read this report in full.*

You Need to Inform Your Geotechnical Engineer about Change

Your geotechnical engineer considered unique, project-specific factors when designing the study behind this report and developing the confirmation-dependent recommendations the report conveys. A few typical factors include:

- the client's goals, objectives, budget, schedule, and risk-management preferences;
- the general nature of the structure involved, its size, configuration, and performance criteria;
- the structure's location and orientation on the site; and
- other planned or existing site improvements, such as retaining walls, access roads, parking lots, and underground utilities.

Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.*

This Report May Not Be Reliable

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, that it could be unwise to rely on a geotechnical-engineering report whose reliability may have been affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If your geotechnical engineer has not indicated an "apply-by" date on the report, ask what it should be*, and, in general, *if you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying it. A minor amount of additional testing or analysis – if any is required at all – could prevent major problems.

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface through various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing were performed*. The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgment to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team from project start to project finish, so the individual can provide informed guidance quickly, whenever needed.

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, *they are not final*, because the geotechnical engineer who developed them relied heavily on judgment and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* revealed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a full-time member of the design team, to:

- confer with other design-team members,
- help develop specifications,
- review pertinent elements of other design professionals' plans and specifications, and
- be on hand quickly whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction observation.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for informational purposes only*. To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report, but they may rely on the factual data relative to the specific times, locations, and depths/elevations referenced. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely*. Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures*. If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. As a general rule, *do not rely on an environmental report prepared for a different client, site, or project, or that is more than six months old.*

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, none of the engineer's services were designed, conducted, or intended to prevent uncontrolled migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, ***proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration.*** Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. ***Geotechnical engineers are not building-envelope or mold specialists.***

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December 30, 2025
Project No. 1025-3598-A

Paul Sessions | Project Manager
Arlington ISD
psession@aisd.net

RE: Addendum No. 1
Addressing: Foundation & Pavement Recommendations
Wimbish Elementary School Gymnasium/Storm Shelter Addition
Arlington, Texas

Dear Paul:

Addendum No. 1 addresses the request by Matthew Omeodu and Craig Steples with HKS on December 10, 2025, December 18, 2025 and December 29, 2025 to address the foundation and pavement recommendations for the proposed addition.

It is our understanding that, due to the magnitude of the wall loads directly adjacent to the existing building, conventional spread footings would be inadequate, as the resulting bearing pressures would exceed allowable limits. Accordingly, the use of Auger Cast-in-Place (ACIP) Piles is preferred, with cantilevered foundation support provided where required.

Based on email correspondence and discussions held on December 18, 2025, we understand that HKS is requesting foundation recommendations for a slab-on-grade system accommodating differential movements on the order of 1 inch, as well as recommendations for Auger Cast-in-Place (ACIP) piles.

Comments and recommendations associated with the following item should be used in conjunction with the Geotechnical Engineering Report No. 1025-3598 submitted November 12, 2025, which continues to apply to this project.

FOUNDATION RECOMMENDATIONS

Grade Beams

Grade beams used in conjunction with the Auger Cast-in-Place (ACIP) Piles should be tied into the tops of the piles and should have a permanent void space of six (6) inches beneath.

This void is required to prevent vertical movements within the soil from applying pressure to the bottom of the beam.

Structural cardboard carton forms should be used to create the void space. Care should be taken to protect the cardboard forms from damage, crushing, or becoming wet prior to placement of concrete. The cardboard cartons should extend the full length between piers and the full width of the beam. The in-place void boxes should be observed by the Contractor, prior to concrete placement, to determine that they are firm and capable of supporting the wet concrete and that they are placed the full width and length of the beam.

Soil retainers should be placed along the perimeter of the grade beam, over the void space, to prevent backfill intrusion. The void box supplier can also provide soil retainer panels made specifically for this purpose.

The installation of cardboard carton void boxes is inherently difficult because of space constraints and the effort installing the void boxes. The weight of the rebar cage, time to tie rebar and exposure of the void box to rains, ponding water in the trench, etc. impact the installation.

If the cardboard carton boxes are saturated by several rain events prior to a concrete placement, the void box typically can no longer support the rebar and wet concrete. The manufacturer generally says the cardboard boxes can withstand one rain event without saturation and loss of support. In summary, the need for some Safety Factor in the use of cardboard carton void boxes is recommended.

Exterior grade beams or foundation walls should be backfilled with on-site clayey soils with minimum thickness of one to two feet to limit the migration of surface water beside and below the grade beam and/or into the void space below the grade beam and slab. Backfill soils should be placed in 8-inch-thick lifts compacted to between 95 and 98 percent of standard Proctor maximum dry density at a moisture content at least two (2) percentage points above optimum.

In addition to the recommended backfilling of exterior grade beams, flatwork should be placed along the outside of the perimeter grade beam to limit roof drain storm water and/or irrigation water entering into the grade beam backfill. The ground surface and flatwork should be sloped away from the perimeter of the building at least two (2) percent and preferably five (5) percent for a minimum of 15 feet beyond the building. All ADA requirements should be followed.

The joint between the grade beam and flatwork should be sealed with a high performance, one component, polyurethane based, elastomeric sealant with excellent adhesion, durability and resistance to aging and weathering.

Interior Floor Slab on Prepared Building Pad

If differential movement of the interior floor slabs on the order of approximately one (1) inch is acceptable to the owner/designer and the interior floor slab will be placed on grade, it will be necessary to reduce the potential differential movement, both up and down. Reduction of some of the estimated soil movement can be made through the use of providing a uniformly prepared building pad after the replacement of the existing soils.

Some movement should be anticipated within the floor system, if placed on the soil. Note however, the risk for slab movement even on the order of one-half inch can result in unsatisfactory performance resulting in cracked floors and walls, uneven floors, doors out of plumb and general poor performance of the structure. Consideration should be given to the use of special detailing of interior features, from an architectural standpoint, to allow for differential floor and wall movements.

To prepare the uniform building pad, LandTec recommends the excavation and removal of the top two (2) feet of existing soils and replacement with recycled concrete flexible base material. The intent is to remove the existing material and replace it with a material that has low potential for movement in order to reduce the potential for slab movement associated with volumetric changes within the soils due to moisture variations to an acceptable level below the foundation. Although the site soils are not classified as expansive clay, moisture fluctuations within the near surface soils may induce volume changes that could lead to heave and cracking of lightly loaded structures and associated flatwork. The actual movements could be greater if poor drainage conditions allow ponded water and/or other sources of moisture are allowed to infiltrate beneath the foundation after construction.

The building pad preparation should include the following to provide a uniform pad to place the slab.

- Excavate and remove existing soils to a depth of two (2) feet below existing grade or below the bottom of the proposed slab, whichever results in a minimum of two (2) feet of flexible base material beneath the slab. LandTec personnel should be on site to observe and verify the removal of the existing material.

- A minimum of 5 feet outside the building line is recommended (wherever possible). Additional areas to be considered for removal, depending on the risk level and the desired reduction in soil movement includes sidewalks, porches, patios, and any other areas where it is desired to reduce the soil movement.

- Once the excavation is made, proof rolling the subgrade with a 20-ton roller is recommended. Soft or yielding subgrade (identified during proof rolling) should be corrected and made stable before construction proceeds.

- Replace the excavated soil with “Recycled Concrete Flexible Base” material in 8-inch loose lifts and compact to a uniform density of 95 to 100 percent of the maximum dry density determined by standard Proctor (ASTM D698) at a moisture content ranging from one (1) percentage point below optimum to approximately three (3) percentage points above optimum moisture (-1 to +3).

- Recycled Concrete Flexible Base material should conform to TxDOT Item 247, Type D, Grade 1-2, Crushed Recycled Concrete Flexible Base material meeting the same specifications as Type A.

Consideration should be given to reducing the amount of differential soil movement to flatwork placed around the outside and between buildings by using a similar process as described for the building interior floor slabs. Expansive soils can impact features outside the building including entries to the building, flatwork, patios, porches, sidewalks along the edge of pavement curbs and the pavement itself.

The use of special detailing of the transition between interior and exterior features, from an architectural standpoint, to allow for differential movements between the interior floor slab and outside flatwork is recommended. Dowels are recommended only at door locations to control and mitigate potential differential movement between adjoining building sections.

The modulus of subgrade reaction, k, for the recycled concrete flexible base material is typically in the range of 125 to 135 pci. These higher k values would require placement of the material and compaction to a minimum of 98 percent of Standard Proctor.

Excavations should be shored, benched, and/or sloped to provide stability up-slope and to protect existing structures and adjacent property. Existing structures must be protected during excavating from loss of soil bearing so that existing footings, grade beams and slabs are maintained in their original functioning condition. Excavations next to an existing building should be main in short sections of 25 feet or less and protected from sloughing and moisture changes. Excavations should also consider the stability of the adjacent structures, street, drive, and parking lot paving as well as underground utilities, etc. Soil retainers should be placed along the excavation adjacent to the existing building.

Field density tests on the flexible base material should be taken as each lift of fill material is placed. As a guide, one field density test per lift for each 2,500 to 5,000 square feet of compacted area is recommended. A minimum of two (2) compaction tests per lift should be required. Tests indicating high moisture and/or low density will require re-working that particular lift.

The process of soil replacement by flexible base material should be observed and tested on a continuing basis by a LandTec Engineers field representative working in conjunction with the project geotechnical engineer.

Deep Foundation - Auger Cast-in-Place (ACiP) Piles

Deep foundation for support of column and wall loads of the proposed building addition should be provided by Auger Cast-in-Place (ACIP) Piles. Foundation should be placed within the very dense **reddish tan and tan sand** which was encountered approximately 18 and 27 feet below existing grade in Borings B-1 and B-2, respectively.

If the building loads are supported by deep foundations (ACIP piles), shallow foundations (footings) should not be used beneath the same building.

Based on the borings, laboratory tests, and experience, use of a belled pier foundation is not recommended since the sands are water bearing and cave below depths of about 9 feet from existing grade.

Construction of deep drilled shaft foundations will require the use of temporary steel casing to prevent groundwater seepage and caving soil conditions during drilled shaft installation and are not recommended.

General Description: Auger Cast-in-Place piles are installed by advancing a continuous flight hollow-stem auger to a predetermined depth in the ground, and then pumping high-strength flowable cement grout into the hole through the bottom of the hollow stem auger as the auger is slowly withdrawn. The grout is pumped under relatively high pressure and a positive head of grout is maintained above the base of the auger during auger extraction. After the auger is completely removed, reinforcing steel is then placed. Auger cast pile shafts penetrating the soils will use a combination of end bearing and skin friction in developing their load carrying capacity. It is anticipated that some pile locations will need to be designed as pile groups with caps to carry the design load.

Pile Load Tests: Full scale, on-site load tests are not required to verify the desired capacity is achievable prior to construction based on load tests already performed on multiple sites in Arlington within the Woodbine Formation and on previous AISD projects.

End bearing and skin friction values for piles provided in the following tables are based on experience with multiple pile load tests already performed in the bearing materials (the same foundation bearing materials as the school site). Test pile installation were observed, and the pile load test data was evaluated by LandTec Engineers. Therefore, based on our experience the values in the tables can be used to design the auger cast piles.

Design Parameters: Auger Cast-in-Place piles use a combination of end bearing and skin friction in developing load carrying capacity. Typical piles are 18-inch and 24-inch diameter but can be as large as 40-inch.

The following tables includes allowable end bearing and skin friction values in kips per square foot (ksf) and includes a recommended five (5) feet of minimum penetration of the pile tip into the bearing material. Additional depth into the bearing material beyond the minimum 5-feet will need to be determined by the structural engineer using the skin friction value provided for the primary bearing material.

End Bearing & Skin Friction Values for Auger Cast-in-Place (ACIP) Piles

Stratum	Estimated Depth Below Existing Grade, Feet	Recommended Minimum Pile Tip Penetration into the Bearing Material	Allowable End Bearing, ksf, FS=2 for Total Load	Allowable Skin Friction, ksf, FS=2 for Total Load
Upper Sands, Clayey Sands & Sandy Lean Clay	Upper 10 ft.	n/a	n/a	n/a
Sands, Clayey Sands, Sandy Lean Clays & Clays	From 10 ft. to approximately 18 to 27 ft.	n/a	n/a	1.0 (reduce value by 25% for tension)
Primary Bearing Material REDDISH TAN & TAN SAND	Encountered below approximately 18 to 27 ft.	Minimum of 5 ft. of penetration into the primary bearing material	20.0	2.5 (reduce value by 25% for tension)

Notes:

1. Factor of Safety at least 2 for end bearing and skin friction based on design loads which are total load (dead load plus live load).

2. Minimum pile tip is five (5) feet into bearing stratum. It is anticipated the auger cast pile contractor will want to determine a minimum depth for piles that will work for most situations where the depth to shale is variable.

3. If hard rock is encountered, the piles must penetrate through the rock and extend to the recommended depth. Other conditions will be evaluated by LandTec Engineers.

Pile Design Notes

Design Parameter	Pile Recommendations
Minimum Embedment Depths	A minimum of 5 feet into the bearing material is required. Additional penetration depth will be determined by the structural engineer based on the actual loading conditions.
Pile Surface Area Adjustment	An increase in pile surface area of up to 10% can be used. Example: For 18-inch dia. pile the surface area is 4.71 sf/ft. Can be increased 10% to 5.18 sf/ft.
Minimum center to center spacing to develop full skin friction	2.5 times the diameter of the larger pile shaft. Should be examined case by case. General reduction guide varies linearly from the 100% value at a spacing of 2.5 diameters to 50% of the design value at 1.0 diameter.
Groups of 3 or more piles spaced closer than 2.5 pile diameters	Should be evaluated on a case-by-case basis depending on soil conditions and field observations. Alternative installation sequences may be needed to allow a minimum of 12 hours of grout curing time, before installation of adjacent piles.
Adjacent Pile Spacing	Piles closer than 6 pile diameters (center to center) should not be placed within 12 hours of each other unless approved by the geotechnical engineer of record.
Minimum pile diameter	18 inches
Settlement	Less than ¾-inch total and ½ inch differential

To develop full load carrying capacity in skin friction, adjacent piles should have a minimum center-to-center spacing of 2.5 times the diameter of the larger pile. Closer spacing could require reductions in skin friction and/or changes in installation sequences.

Two piles installed side by side should be designed based on one-half of the recommended unit skin friction. Unit skin friction values for two piles spaced between 1 and 2.5 diameters (center-to-center) can be linearly interpolated between 50 and 100 percent of the recommended unit skin friction, respectively. Pile groups of 3 or more piles spaced closer than 2.5 pile diameters, or groups of piles with uplift loads, should be evaluated on a case-by-case basis by LandTec working in conjunction with the structural engineer.

Post construction settlements of properly constructed auger cast piles are anticipated to be minor and primarily elastic and be on the order of ¾ inch. Differential settlement will depend on pile spacing, depth and loading conditions. However, differential settlement between adjacent, similarly loaded piles is expected to be less than one half of the total settlement. We anticipate settlement will occur rapidly as loads are applied.

Soil Induced Uplift Loads: The magnitude of these loads varies with the pile shaft diameter, soil parameters, and particularly the in-situ moisture levels at the time of

construction. The piles must contain sufficient continuous vertical reinforcing and embedment depth to resist the net tensile load.

For the conditions encountered at this site, the uplift load can be approximated by assuming a uniform uplift of 1.5 ksf over the pile perimeter for a depth of 12 feet. Where the pile is within moisture conditioned soils and/or non-expansive select fill, a uniform uplift of 0.9 ksf can be used for that depth.

Auger Cast Pile Construction Observations:

- Auger Cast Pile construction should be observed on a continuous basis by a field representative of LandTec Engineers, the Geotechnical Engineer of Record (GER), to observe, among other things, the following items:

- Identification and adequate penetration of the pile excavation into the bearing material.

- Grouting operations should be observed by LandTec's field representative to determine that grout is maintained within the hollow portion of the auger at all times during extraction to prevent the inflow of water and caving soil.

- Reinforcing steel should be centered in the pile using devices made specifically for that purpose. The devices are attached to the rebar cage to provide the required concrete cover between the sidewall and reinforcing steel as well as the bottom and the ends of reinforcing steel.

- Some adjustment in pile depth should be anticipated due to potential variability in the depth of the bearing material from one location to another, variability within the geologic formation and other factors not evident at the time the exploration was performed. Variations within subsurface conditions found in the field during pile installation and constructability issues will be met with real time collaborative evaluation between the structural engineer, geotechnical engineer, pile installation contractor and general contractor.

- Pile depths should be anticipated to vary in depth and should be taken into consideration when ordering and cutting the reinforcing steel cages. The rebar cages may need to be cut to specific individual pile lengths rather than pre-cutting to standard/typical lengths.

- Caution should be exercised during construction to prevent the bearing of a pile on soft material within the founding stratum. Should any pile excavation terminate on a soft layer such as clay, clayey shale or lignite after the required penetration has been achieved, the pile should be deepened until the next layer of suitable bearing material has been encountered. The closest boring log may indicate shale, sandy shale, shaly sand, sand, sandstone, etc., however, the actual material type at a specific pile location can be completely different.

- During construction of the piles, care should be taken to avoid creating an oversized cap (or mushroom), particularly near the ground surface. A “mushroom” at the top of the pile shaft could be lifted by heave of the expansive soils. If a pile cap is used, a minimum void space of 6-inches should be created below the portion of the cap extending beyond the pile shaft diameter.

- For piles installed within the primary bearing materials and to the design depths, the allowable bearing and skin friction values provided herein are valid. Allowable bearing capacity and skin friction recommendations provided herein are based on proper construction procedures and techniques performed by an experienced pile contractor as well as full time observation by the GER and/or the engineer’s field representative.

L-Pile Parameters

Foundation piles or piers subjected to lateral loading are commonly designed using the p-y method in which the soil is modeled as a series of non-linear springs.

This procedure is used with appropriate computer codes (i.e., LPile, Version 2012-06 by ENSOFT, INC.)[1] and has the advantage that the major factors influencing soil resistance are inherently included in the semi-empirical p-y design criteria. The lateral resistance of a drilled pile or pier should be conducted using the computer code LPILEplus for Windows. The analysis should consider the penetration depth, cutoff elevation, and free and fixed head conditions. Suitable p-y modification factors must be used to account for group effects of closely spaced piers or auger cast piles.

[1] LPile, Version 2012-06 User’s Manual, ENSOFT, Inc., Nov. 2012

The following parameters are provided.

Summary of LPile Input Values

Parameter	Clays, Lean Clays, Sandy Lean Clays	Sands	Shale (Weak Rock)
LPILE Material Type	Clay	Sand (Reese)	Weak Rock (Reese)
Effective Soil Unit Weight (pci)	0.075	0.072	0.076
Undrained Cohesion, c (psi)	10 – 15	12	-
Friction Angle, degrees	20	30	
Strain Factor, E_{50}	0.010	0.010	-
Soil Modulus, K, (pci)	100 – 200	120	-
Young's Modulus, E_r (psi)	-	-	15,000
Uniaxial Compressive Strength (psi)	-	-	100 – 140
Rock Quality Designation, RQD	-	-	70
K_{rm}	-	-	0.0005

Note:

1. The upper three (3) feet of soil should not be counted as providing lateral resistance, and therefore should be discounted in lateral loading calculations. The exception is where floor slabs or paving are placed.

PAVEMENT RECOMMENDATIONS

Pavement Considerations

Detailed traffic loads and frequencies were not available; however, we anticipate that traffic will consist of light duty pavement sections for areas expected to receive car, pickup, and SUV type traffic. Medium duty pavement sections assume one and two-ton vehicles. Heavy duty paving sections will need to support the largest fire truck which has a weight of 80,000 pounds.

In some cases, all types of vehicles will travel over the pavement, particularly driveways. If heavier loading conditions are expected, the pavement sections provided herein should be re-evaluated. The following paragraphs provide general information for subgrade preparation and concrete paving for parking lots and drives constructed at the site.

The actual subgrade soil type will be dependent on the amount of cut and fill grading across parking and drive areas. Some subgrade areas could consist of sand and clayey sand that should be stabilized with Portland cement to provide suitable subgrade for pavement. Other areas where the final subgrade is clay will require a lime stabilized subgrade.

The performance of the pavement for the parking and drive areas depends upon several factors including (1) the characteristics of the supporting soil; (2) the magnitude and frequency of wheel load applications; (3) the quality of construction materials; and (4) the desired period of design life.

Pavement Sections

The following pavement sections are recommended for the project at this time.

Pavement Sections for Drives and Parking Lots on Stabilized Subgrade

Pavement Sections	Jointed Reinforced Concrete Pavement, Thickness	Stabilized Subgrade (CBR of at least 12)
Light Duty Paving - Parking Lot Stalls/ Cars Only	5 inches (minimum)	8 inches
Heavy Duty Paving – Main Bus Drives, Fire Lanes & Waste Collection Trucks	7 inches (minimum)	8 inches

Pavement for channelized heavy traffic, truck loading, truck turning areas and dumpster pads (including delivery trucks and waste collection trucks) should be evaluated based on loads and frequency. Note, the City may require fire lanes with thicker concrete pavement sections, therefore, the Civil Engineer for this project should check with the City.

Option for Concrete Pavement on Non-Stabilized Subgrade

If the client and design team desires to omit the stabilized subgrade for this project, the concrete pavement should be increased to a minimum of one (1) inch for drives and parking lot areas. The 5-inch concrete paving for light duty pavement (cars, pickup trucks, and SUV's only) should be increased to 6-inches. The heavy duty paving should be increased from a 7-inch-thick section to an 8-inch section. Depending on the loading conditions and traffic volume, more than one (1) inch of pavement thickness could be required. Special attention should be given to the preparation of the subgrade below paving, including proper compaction and moisture control. In some cases, the City's Fire Department could require a site-specific fire lane pavement design for the heaviest fire truck.

Once the pavement subgrade is brought to final grade the subgrade should be proof rolled to determine if soft subgrade is present. The proof rolling operation should be observed by the geotechnical engineer. Special attention should be given to potentially soft, wet subgrade soils which may require removal and replacement with compacted and tested suitable on-site soils and/or recycled crushed concrete flexible base material prior to installing concrete paving.

The top 6 inches of subgrade soil should be prepared by scarifying and adjusting the moisture content to between one percentage point above optimum to three percentage points above the optimum moisture content (+1 to +3). The subgrade should be compacted to at least 95% of the standard Proctor density (ASTM D698). Compaction tests should be performed on the processed subgrade at the rate of one test per each 5,000 sf or less to determine compliance with specifications for moisture and density.

Pavement Requirements

Concrete, reinforcing steel and dowels should consist of the following as a minimum.

Reinforced Concrete Pavement: The materials and properties of reinforced concrete shall meet applicable requirements in the ACI Manual of Concrete Practice. The Portland cement concrete mix should have a minimum 28-day compressive strength of 3,600 psi. It should contain a minimum of 4.5 ± 1.5 percent entrained air.

Reinforcing Steel: Reinforcing steel should consist of the following and as a minimum and all rebar should be supported by appropriate height chairs.

- 5-inch and 6-inch pavement: #3 rebar spaced at 18 inches on centers in both directions.
- 7-inch and 8-inch pavement: #3 rebar spaced at 16 inches on centers in both directions or #4 rebar placed on 24-inch centers in both directions.

Control Joint Spacing: Control joints should be spaced at about 18 to 24 times the thickness of the pavement with thickness in inches and spacing in feet. A maximum control joint spacing of 12 to 15 feet is recommended. Saw cut control joints should be cut within 6 to 12 hours of concrete placement.

Jointing Plan: A site specific jointing plan should be prepared for all concrete pavements.

Dowels at Expansion and Construction Joints: Dowels at expansion joints should be spaced at 12-inch centers and consist of the following. Special baskets made especially for support of dowels should be used to keep the dowel perpendicular to the joint and level. One end of the dowel bar should have a greased sleeve.

- 5 & 6-inch pavement: 3/4-inch diameter, 18 inches long with 6-inch minimum embedment
- 7-inch and 8-inch pavement: 1-inch diameter, 24 inches long with 8-inch minimum embedment

We recommend the concrete pavement details for joint spacing, joint reinforcement, and joint sealing be prepared in accordance with American Concrete Institute (ACI 330R-01 and ACI 325R.9.91). Expansion (isolation) joints should be full depth and be used to isolate fixed objects abutting pavement and joints within the paved area.

Surface drainage should be provided during construction and maintained throughout the life of the structure. Consideration should be given to the design and location of planting areas or other features which would produce moisture concentration adjacent to or beneath the paving. Joints should be sealed with a flexible joint sealer to prevent infiltration of surface water. Maintenance should include periodic inspection of open joints and cracks and resealing, as necessary.

Concrete paving should have adequate crack control and expansion joints, including sealed joints and maintenance will need to include re-sealing joints to prevent moisture intrusion into the subgrade. It will be very important to keep cracks and joints sealed and to provide proper drainage across the pavement with no flat grades. Open cracks or joints will allow

water to enter the subgrade and cause general deterioration of the pavement and subgrade.

Since the soils can undergo some shrink and swell, some movements within the pavement section should be expected. Proper drainage should be provided both during and after construction, and a minimum slope of two (2) percent is recommended for the paved areas. ADA slope requirements must also be followed. Emphasis should be given to areas where the pavement is placed directly adjacent to entries. If the subgrade heaves, the pavement could result in sloping toward the building, causing problems with drainage, door opening and closing, etc. The pavement should be maintained properly, including the use of a flexible joint material to seal cracks which can occur during the life of the pavement. A proper testing and inspection program during construction is also vital to the overall long-term performance of the pavement.

Pavement design methods are intended to provide structural sections with adequate thickness over a particular subgrade such that wheel loads are reduced to a level the subgrade can support. The support characteristics of the subgrade for pavement design do not account for shrink/swell movements on an expansive clay subgrade such as the soils encountered on this project. Thus, the pavement may be adequate from a structural standpoint, yet still experience cracking and deformation due to shrink/swell related movement of the subgrade. It is therefore important to minimize moisture changes in the subgrade both during construction and during the life of the pavement to reduce shrink/swell movements.

Post-construction subgrade movements and some cracking of the pavements are common for some subgrade conditions where expansive soils are encountered. Reducing moisture changes in the subgrade is important to reduce shrink/swell movements.

Related civil design factors such as subgrade drainage, edge or shoulder support, cross-sectional configurations, surface elevations, and environmental factors which will significantly affect the service life must be included in the preparation of the construction drawings and specifications. Normal periodic maintenance will also be required.

During construction, if heavy lifting crane loads are applied to existing or new pavement, the contractor should provide adequate support for the crane outriggers and distribute the load so the concrete pavement will not be overstressed and undergo cracking.

The use of sand or select fill as a leveling course below pavement should be prevented. The porous soils can allow water inflow between the pavement and subgrade, causing heave or strength loss within the subgrade soil.

Adequate jointing should be provided along the trails including expansion joints and saw joints which are sealed to prevent water intrusion into the subgrade.

These recommendations will not eliminate differential movement and can only be expected to reduce the amount of movement. See also preventative maintenance recommendations in the below section.

Pavement Subgrade Recommendations

Once the subgrade elevations for the new entry drive have been achieved in the field, the subgrade soil should be sampled to determine the final overall subgrade conditions and the Plasticity Index (PI). Since the clayey sands with lower Plasticity Index (PI less than 16) were encountered, the subgrade should be stabilized with cement. If sampling of the final subgrade indicates a Plasticity Index (PI) of approximately 16 or greater, the subgrade may be stabilized using hydrated lime. The actual percent of cement or lime per square yard for recommended depth will need to be determined by the project geotechnical engineer, and will require sampling, classification tests, lime series tests and Proctor tests.

The following preliminary recommendations for subgrade materials are provided as follows:

- **Cement Stabilized Subgrade – For sandy subgrade soils with Plasticity Index (PI) value of about 15 and below.**

  Follow TxDOT Item 275 and apply the Portland cement at an application rate of 4 to 5 percent or approximately 25 pounds of cement per square yard for the 8-inch thickness. Some sands could require a higher percentage of cement to effectively bind the sand and provide a stable subgrade, especially if the subgrade will be subjected to construction traffic. Compact to a minimum of 95 percent of Standard Proctor (ASTM D698) at a moisture content between optimum and four percentage points above optimum (0 to +4).

- **Lime Stabilized Subgrade – For clayey subgrade soils with Plasticity Index (PI) values of about 16 and higher.**

  Follow TxDOT Item 260 and apply the hydrated lime at an application rate of 6 percent or approximately 38 pounds of lime per square yard for the 8-inch thickness. Compact to a minimum of 95 percent of Standard Proctor (ASTM D 698) at a moisture content between optimum and four percentage points above optimum (0 to +4).

The treated subgrade should extend a minimum of twelve inches outside the curb line. This will improve the support for the edge of the pavement and lessen the "edge effect" associated with shrinkage during dry periods.

Proper finishing of concrete pavement requires the use of sawed and sealed joints. Sawing of joints should begin as soon as the concrete has hardened sufficiently to permit sawing

without excessive raveling. All joints should be completed before uncontrolled shrinkage cracking occurs. Joints should be cleaned and sealed before opening to traffic.

Once final subgrade elevations are established and after all utilities are placed (if any) and backfilled several subgrade samples should be obtained and tested for soluble sulfate content. If values exceed 3,000 ppm, some adjustments will be required in the construction method for the lime treated subgrade. This could involve longer “mellow” times for the soil-lime mix and keeping the moisture content high to cause sulfate heave to occur prior to compaction and grading. Problems with the subgrade could be encountered however, if the sulfates are above about 3,000 and up to about 7,000 ppm. Soils with sulfates above 7,000 ppm are not recommended for lime stabilization per TxDOT research.

The Lime Association of Texas has a document titled “Guidelines for Stabilization of Soils Containing Sulfates.” The Texas Transportation Institute (TTI) in College Station, Texas also has a document titled “Hydrated Lime Stabilization of Sulfate-Bearing Soils in Texas.” Both documents discuss the Sulfate problem during construction and present methods to limit the sulfate and lime reaction.

Depth checks should be made at the rate of one test per 150 linear feet to determine the subgrade treatment depth is to the required thickness. Depth checks will be made to accurately determine the compacted subgrade thickness. The use of a hand auger or actual survey of top and bottom of treated subgrade are acceptable.

If the completed subgrade is machine milled to achieve a smooth, level surface, depth checks must be performed again to verify the milling machine has not reduced the minimum required subgrade thickness. Depending on the outcome of the additional depth checks, the Engineer may require the subgrade to be reworked with additional stabilization additive.

Finishing of the completed section shall be accomplished by rolling as directed with a pneumatic tire or other suitable roller sufficiently light to prevent hairline cracking.

Once the subgrade is completed, any area of the finished subgrade that is below the final desired grade (shy of grade) based on survey, blue tops, string line, laser, etc. (and meets the minimum required thickness) will not be allowed to have stabilized soil (trimmings) added to achieve grade. This is also called “scabbing on material” and will not be allowed. Any low area will require additional depth of pavement.

The Contractor should make provisions for maintaining the compacted subgrade in a moist condition for the curing time of two (2) to three (3) days, depending on weather conditions and as directed by the engineer. The requirement is to maintain the in-situ moisture, approximately two (2) percentage points above optimum throughout the stabilized section.

If the pavement will not be immediately placed on the subgrade, generally within 7 to 10 days and depending on weather conditions, and wants to discontinue watering, the contractor should apply an asphalt emulsion material applied at the rate of 0.10 to 0.20

gallons per square yard as determined by the Engineer. The asphalt emulsion used should be of the type and grade shown as on the plans or as approved by the Engineer. During this curing time, all construction vehicles should be prohibited from the subgrade.

The contractor should maintain the completed subgrade within the limits of the contract in good condition, satisfactory to the Engineer as to grade, slope, and cross section until such time as the next course is constructed. All irregularities or other defects that may occur shall be repaired by the Contractor as his expense.

SUBGRADE AND PAVEMENT MAINTENANCE

Preventative Maintenance

Long-term pavement performance will be dependent upon several factors, including maintaining subgrade moisture levels and providing for preventative maintenance. The following recommendations should be implemented to help promote long-term pavement performance:

- Site grading should be designed to drain away from the pavements, preferably at a minimum grade of 2 percent. All ADA slope requirements must also be followed.
- The subgrade and the pavement surface should be designed to promote proper surface drainage, preferably at a minimum grade of 2 percent.
- Joint sealant should be installed, and cracks sealed immediately.
- Curbs should be extended into the underlying subgrade for a depth of at least 4 inches to help prevent moisture migration into the subgrade soils beneath the pavement section.
- Compacted, low permeability clay backfill should be placed against the exterior side of the curb and gutter. The uppermost 12 inches of backfill material should consist of sandy lean clay or lean clay with a LL in the range of 35 to 45, a PI in the range of 20 to 25, and the amount passing the No. 200 sieve greater than 50 percent.

Preventative maintenance should be planned and provided for the pavements at this site. Preventative maintenance activities are intended to slow the rate of pavement deterioration and consist of both localized maintenance (e.g., crack, and joint sealing and patching) and global maintenance (e.g., surface sealing). Prior to implementing any maintenance, additional engineering observations are recommended to determine the type and extent of preventative maintenance.

Pavements will be subject to differential movement due to heave in the site soils. Flat grades should be avoided with positive drainage provided away from the pavement edges. Backfilling of curbs should be accomplished as soon as practical to prevent ponding of water.

Openings in pavement, such as landscape islands, are sources for water infiltration into surrounding pavements. Water collects in the islands and migrates into the surrounding subgrade soils thereby degrading support of the pavement. This is especially applicable for islands with raised concrete curbs, irrigated foliage, and low permeability near-surface soils. The civil design for the pavements with these conditions should include features to restrict or to collect and discharge excess water from the islands. Examples of features are edge drains connected to the storm water collection system or other suitable outlet and impermeable barriers (vertical moisture barriers) preventing lateral migration of water such as a cutoff wall installed to a depth of at least 5 feet below the pavement structure.

Secondary Considerations - Paving

- Utility ditches should be backfilled so that they do not become conduits that allow surface water to flow adjacent to or below the pavement. This can be accomplished using clay or concrete plugs placed within the trench backfill.

- Landscape irrigation systems should be designed and located to prevent excessive moisture adjacent to paving. Systems should not be located where water will be sprayed and subsequently drain downward and flow into the soils beneath paving.

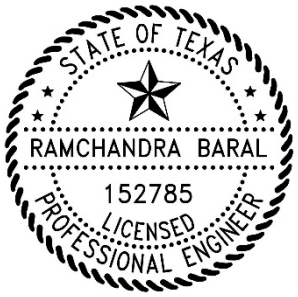
- Excessive irrigation in parking lot islands can cause the surrounding pavement to heave and crack. Utility trenches in and between islands (irrigation, lighting, etc. trenches) should be backfilled with clayey soils to prevent flow of storm and irrigation water below the pavement. Clay plugs or similar means to cut off the flow of excess water below paving is important.

- Utility lines should be designed with some degree of flexibility and/or with a sleeve to reduce the potential for damage to the utilities should movement occur.

- Trees and tree root zones can have an impact on structures, paving and general flatwork by causing the soil to dry and shrink, which in turn causes the concrete to undergo settlement. We recommend trees or large bushes not be planted within a distance equal to or more than the mature height of the tree. Vertical moisture barriers can be used between the item to be protected and the tree to provide a barrier to roots. Barriers should be at least 5 feet deep and can consist of narrow trenches filled with concrete or other impervious material such as a heavy mil plastic or HDPE.

We trust this information will be helpful. If you have any questions, please let us know.

Sincerely,



Ramchandra Baral, P.E.
Geotechnical Engineer

December 30, 2025

Review by:

G. Scott Graves, P.E.
Engineering Manager / Sr. Geotechnical Engineer

Texas Board of Professional Engineers and Land Surveyors
PE Firm No. F-000329 / RPLS Firm No. 100956-00

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ASBESTOS INSPECTION

FOR

ARLINGTON INDEPENDENT SCHOOL DISTRICT

WIMBISH ELEMENTARY SCHOOL

DREW CONSULTING SERVICES, INC.
PO BOX 1313
PROSPER, TEXAS 75078
(214) 384-2237

JOHN DREW
TDSHS CONSULTANT LICENSE #: 10-5252
TDSHS CONSULTING AGENCY LICENSE #: 10-0067
EXPIRES: 05/03/22

MAY 14, 2020

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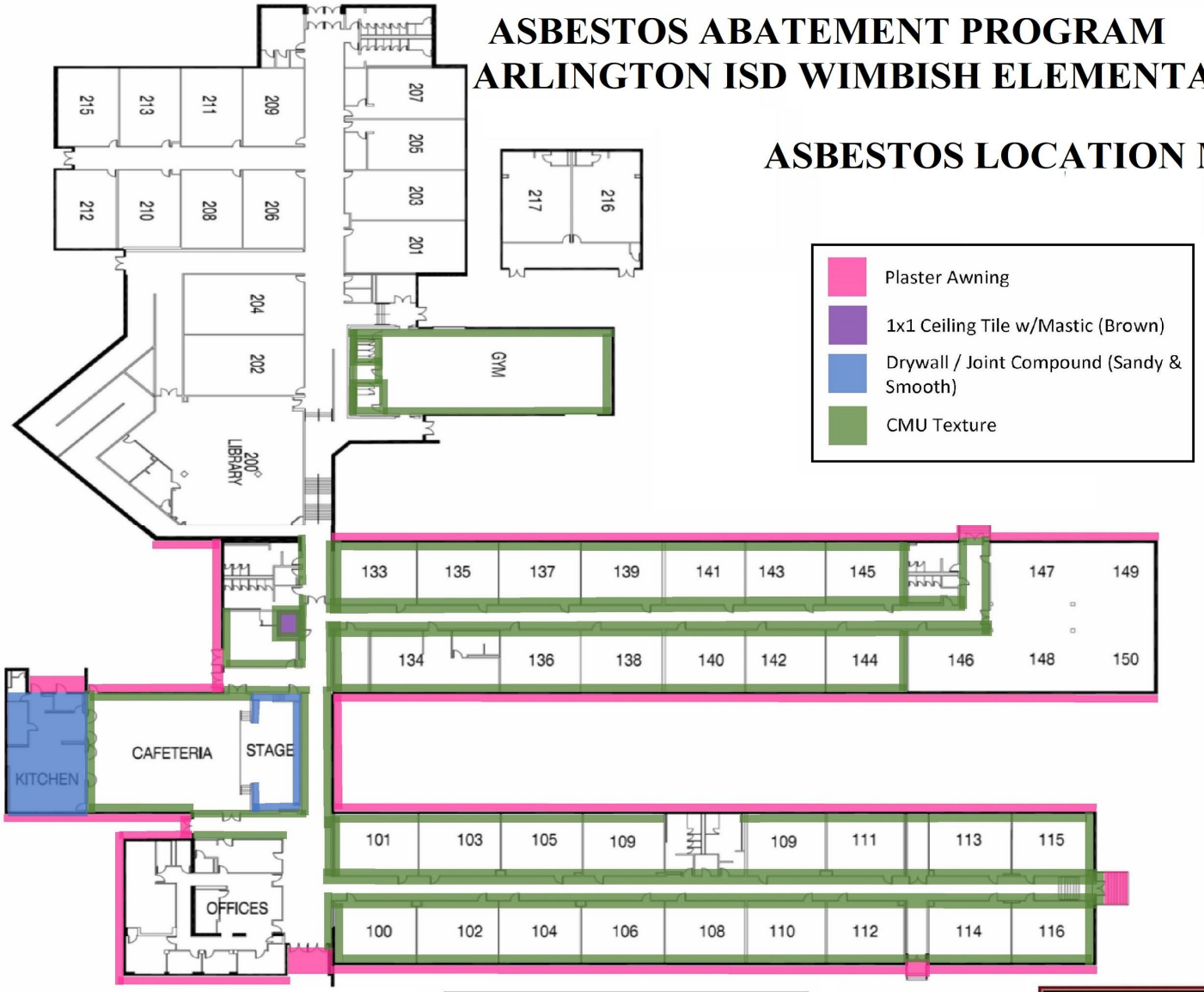
ASBESTOS ABATEMENT PROGRAM
ARLINGTON ISD WIMBISH ELEMENTARY SCHOOL

ASBESTOS LOCATION MAP



CONSULTANT: JOHN DREW
TDSHS LICENSE#: 10-5252
SIGNATURE:
DREW CONSULTING SERVICES, INC.

Arlington ISD
Wimbish Elementary School
1601 Wright Street
Arlington, Texas 76012

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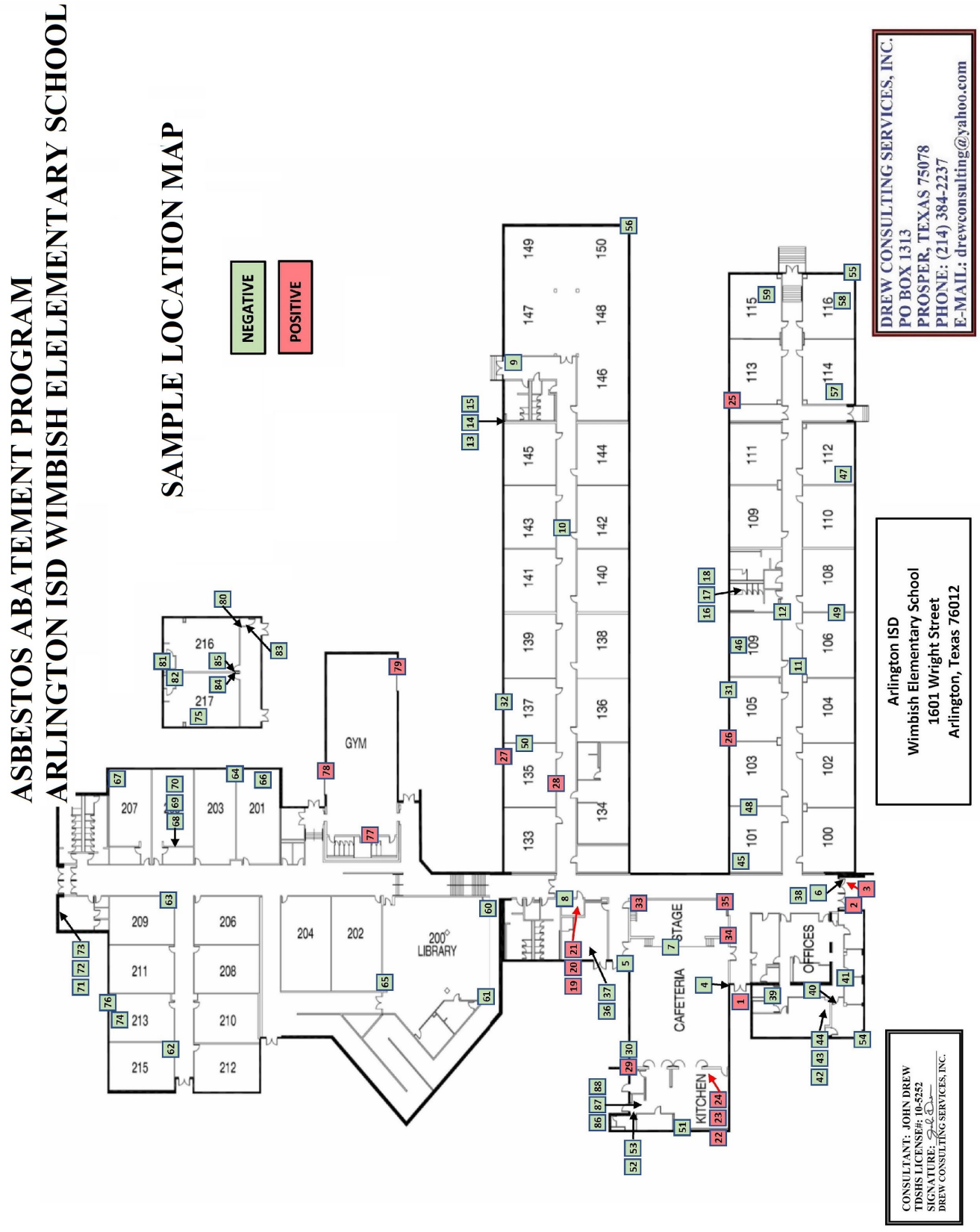
ASBESTOS ABATEMENT PROGRAM
ARLINGTON ISD WIMBISH ELEMENTARY SCHOOL
SAMPLE LOCATION MAP
NEGATIVE
POSITIVE
DREW CONSULTING SERVICES, INC.
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Wimbish Elementary School
1601 Wright Street
Arlington, Texas 76012
CONSULTANT: JOHN DREW
TDSHS LICENSE#: 10-5252
SIGNATURE:
DREW CONSULTING SERVICES, INC.
GYM
200
LIBRARY
CAFETERIA
STAGE
KITCHEN
OFFICES

ASBESTOS AHERA RE-INSPECTION REPORT

ARLINGTON ISD

WIMBISH ELEMENTARY SCHOOL

ARLINGTON, TEXAS

MAY 14, 2020

I. INTRODUCTION

Drew Consulting Services, Inc. inspected the occupied Wimbish Elementary School located at 1601 Wright Street in Arlington, Texas for asbestos-containing building materials (ACBM) on April 16th 2020. This Inspection was conducted by Texas Department of State Health Services (TDSHS)-licensed Individual Asbestos Consultant John Drew (TDSHS license #10-5252) & Inspector Brian Jacobs (TDSHS license #602877) under an agreement between Drew Consulting Services, Inc. and Arlington ISD.

The purpose of the study was twofold: 1) determine locations and conditions of asbestos-containing products used in the structure and 2) assess the immediate health hazards observed during the survey. This Survey Report presents recommendations for reducing potential health hazards associated with asbestos products within the building.

II. SUMMARY OF FINDINGS AND RECOMMENDATIONS

Drywall Texture/Joint Compound Homogeneous Area #1
Drywall Texture Joint Compound in Kitchen & Stage.
The Drywall Texture & Joint Compound contain Asbestos.
(~2,500 s.f.)
Friable Material in Good Condition

Plaster Exterior Awning Homogeneous Area #2
Plaster Awnings
The Plaster contains Asbestos and is on the Exterior Awnings throughout.
(~5,800 s.f.)
Friable Material in Good Condition

1x1 Ceiling Tile Mastic (Button) (Brown) Homogeneous Area #3
Ceiling Tile Mastic
The Button Mastic contains Asbestos and is in the Janitors Closet.
(~80 s.f.) Non-Friable Material in Good Condition

CMU Texture Homogeneous Area # 4
CMU Texture
The Texture contains Asbestos and is in Rooms 100 – 145, Cafeteria & Gym.
(38,500 s.f.)
Friable Material in Good Condition

{All of these materials must be removed by a licensed asbestos abatement contractor, under design by a licensed asbestos consultant, prior to any disturbance of these materials.}

III. SCOPE OF WORK

The Scope of this contract included the following tasks:

TASK 1 A comprehensive visual inspection of all accessible building spaces. Bulk samples of suspect materials were collected and analyzed by polarized light microscopy (PLM).

TASK 2 Report writing. This Survey Report includes the following information: analytical results of bulk samples collected to verify asbestos content of suspect materials, description of sample locations, a description of the condition of asbestos found during the survey, and an asbestos management strategy for the buildings.

IV. METHODS AND SAMPLING STRATEGY

All accessible spaces in the residence were viewed and suspect materials touched by the investigator to determine the location, condition, and friability of observed asbestos material. All bulk samples were submitted for polarized light microscopy (PLM) analysis. When suspect material was initially sighted, one (1) bulk sample was usually collected. When similar materials were found in other parts of the facility, additional samples were collected to confirm that the material was consistent in asbestos content. In compliance with the Texas Asbestos Health Protection Rules, a minimum of three bulk samples were collected for each homogeneous area and/or material.

Every reasonable effort was made to view materials with restricted access. However, demolition investigation was not performed. Therefore, this report may omit asbestos materials found behind false ceilings and walls.

Drew Consulting Services, Inc. has had extensive experience with older buildings that have been abated prior to demolition or renovation projects. Occasionally, additional asbestos was discovered during demolition of concealing wall and ceiling material.

V. SAMPLE RESULTS

The PLM Report in Appendix I indicate the results of PLM analysis for bulk samples collected at the buildings, as required under Task 1 above. The PLM Report shows the room or area in which the sample was collected and provides a description of the sampled material. Eighty Eight (88) samples were collected during the survey. The laboratory bulk sample report is located in Appendix I.

Any product containing more than 1% fibrous asbestos, when analyzed by PLM, is considered a potential hazard by the Environmental Protection Agency (EPA). PLM is the EPA-recognized method for determining fibrous bulk asbestos content. Additionally, the EPA indicates that further analysis by point counting be performed to confirm asbestos content for friable materials found to contain less than ten percent asbestos by visual area estimation. Point counting analysis may be omitted if the material is assumed to contain more than one percent asbestos and is then handled accordingly. All samples collected by Drew Consulting Services, Inc. were analyzed by Moody Labs LLC. TDH-licensed and NVLAP-accredited laboratory in Carrollton, Texas.

VI. ASBESTOS PRODUCTS IN THE FACILITIES

Drywall Joint Compound/Texture Ceiling.
Plaster Awning.
CMU Texture.
1x1 Ceiling Tile w/ Mastic Brown
{All of these materials must be removed by a licensed asbestos abatement contractor, under design by a licensed asbestos consultant, prior to any disturbance of these materials.}

VII. NON-ASBESTOS PRODUCTS IN THE FACILITIES

The following products were tested and found to contain less than 1% asbestos when analyzed by PLM:

1. 12”x12” Floor Tile. (Specific)
2. Cove Base /Mastic.
3. Carpet Mastic.
4. Ceramic Wall & Floor Tile/Grout.
5. Caulking (Red).
6. Sink Undercoating.
7. Brick with Mortar.
8. Window Caulk.
9. Roofing Materials.
10. Pipe Insulation Mastic.
11. Plaster Ceiling/Wall.
12. 2x2 2x4 Ceiling Tile.
13. HVAC Mastic.
14. Brick Mastic.
15. Drywall Joint Compound/Texture.

VIII. ACM MATERIALS DESCRIPTION & INFORMATION SHEET

DISTRICT: ARLINGTON ISD
FACILITY: WIMBISH ELEMENTARY SCHOOL
ADDRESS: 1601 WRIGHT STREET
ARLINGTON, TEXAS

Homogeneous Area: #1 – Drywall Texture & Joint Compound in Kitchen & Stage.

Type of Material:

- ☒ **Surfacing**
- ☐ **TSI**
- ☐ **Misc.**

Description: **Drywall Texture & Joint Compound in Kitchen & Stage.**

Condition:

Percent Damage: <5 , _____Localized, X Distributed

Type of Damage:_____Deterioration_____Water X Physical
Description:

Overall Rating: X Good_____Damaged_____Significantly Damaged

Potential for Disturbance:

Potential for Contact:_____High X Moderate _____Low
Description:

Effect of Vibration:_____High _____Moderate X Low
Description:

Potential for Air Erosion: ____High _____Moderate X Low
Description:

Potential for Water Damage:_____High X Moderate ____Low
Description:

Overall Rating:____High X Moderate_____Low

Date of Inspection/Re-Inspection: 04/16/20
Management Planner: John Drew 10-5252

Signature: 

DISTRICT: ARLINGTON ISD
FACILITY: WIMBISH ELEMENTARY SCHOOL
ADDRESS: 1601 WRIGHT STREET
ARLINGTON, TEXAS

Homogeneous Area: #2 Plaster Exterior Awnings – Plaster

Type of Material:

- ☒ **Surfacing**
- ☐ **TSI**
- ☐ **Misc.**

Description: Plaster Texture on Awnings - Exterior Awnings.

Condition:

Percent Damage: <5 , Localized, X Distributed

Type of Damage: X Deterioration X Water X Physical
Description:

Overall Rating: X Good Damaged Significantly Damaged

Potential for Disturbance:

Potential for Contact: High X Moderate Low
Description:

Effect of Vibration: High Moderate X Low
Description:

Potential for Air Erosion: High Moderate X Low
Description:

Potential for Water Damage: High X Moderate Low
Description:

Overall Rating: High X Moderate Low

Date of Inspection/Re-Inspection: 04/16/20
Management Planner: John Drew 10-5252

Signature: 

DISTRICT: ARLINGTON ISD
FACILITY: WIMBISH ELEMENTARY SCHOOL
ADDRESS: 1601 WRIGHT STREET
ARLINGTON, TEXAS

Homogeneous Area: #3 1x1 Ceiling Tile (Button) (Mastic) (Brown) Janitors Closet.

Type of Material:

- ☐ **Surfacing**
- ☐ **TSI**
- ☒ **Misc.**

Description: 1x1 Ceiling Tile (Button) (Mastic) (Brown) Janitors Closet.
Condition:

Percent Damage: <5 , Localized, X Distributed

Type of Damage: Deterioration Water X Physical
Description:

Overall Rating: X Good Damaged Significantly Damaged

Potential for Disturbance:

Potential for Contact: High Moderate X Low
Description:

Effect of Vibration: High Moderate X Low
Description:

Potential for Air Erosion: High Moderate X Low
Description:

Potential for Water Damage: High Moderate X Low
Description:

Overall Rating: High Moderate X Low

Date of Inspection/Re-Inspection: 04/16/20
Management Planner: John Drew 10-5252

Signature: 

DISTRICT: ARLINGTON ISD
FACILITY: WIMBISH ELEMENTARY SCHOOL
ADDRESS: 1601 WRIGHT STREET
ARLINGTON, TEXAS

Homogeneous Area: #4 CMU Texture in Rooms 100- 145, Cafeteria & Gym.

Type of Material:

- ☒ **Surfacing**
- ☐ **TSI**
- ☐ **Misc.**

Description: CMU Texture in Rooms 100- 145, Cafeteria & Gym.

Condition:

Percent Damage: <5 , Localized, X Distributed

Type of Damage: X Deterioration Water X Physical
Description:

Overall Rating: X Good Damaged Significantly Damaged

Potential for Disturbance:

Potential for Contact: High X Moderate Low
Description:

Effect of Vibration: High Moderate X Low
Description:

Potential for Air Erosion: High Moderate X Low
Description:

Potential for Water Damage: High Moderate X Low
Description:

Overall Rating: High X Moderate Low

Date of Inspection/Re-Inspection: 04/16/20
Management Planner: John Drew 10-5252

Signature: 

Material Information Sheet
For
Arlington ISD
Wimbish Elementary School
{*All Quantities are approximations*}

MATERIAL DESCRIPTION – Plaster Awning

LOCATIONS	QUANTITY
Exterior on original building	5,800 sf

TOTAL QUANTITY: 5,800 sf

MATERIAL DESCRIPTION – 1' x 1' Ceiling Tile w/ Mastic (Brown)

LOCATIONS	QUANTITY
Janitors Closet	80 sf

TOTAL QUANTITY: 80 sf

MATERIAL DESCRIPTION – Drywall/ Joint Compound/ Texture (Sandy & Smooth)

LOCATIONS	QUANTITY
Kitchen and Stage	2,500 sf

TOTAL QUANTITY: 2,500 sf

MATERIAL DESCRIPTION – CMU Texture

LOCATIONS	QUANTITY
Rooms 100 – 145, cafeteria and gym	38,500 sf

TOTAL QUANTITY: 38,500 sf

IX. ASBESTOS HEALTH HAZARD CONSIDERATIONS

Friability is the characteristic of a substance describing its ability to be crumbled, pulverized, or reduced to powder by hand pressure. When applied to asbestos-containing substances, friability describes the substance's fiber release potential. Because asbestos becomes a health hazard when inhaled or ingested, the more likely an asbestos-containing substance is to crumble when disturbed the greater its hazard potential.

Generally, any area open to air movement should be maintained free of friable material. This means broken or loose fibrous materials should be cleaned up and repaired if doing so will not produce more of a fiber release hazard than already exists. According to Texas law, an Abatement Contractor licensed by the Texas Department of Health must perform repairs or other "intentional disturbance of any amount of asbestos-containing material".

X. ALTERNATIVES FOR CONTROLLING ACM

There are four industry recognized alternative procedures to control exposure to asbestos-containing building materials (ACBM): (1) removal and disposal; (2) encapsulation; (3) enclosure; and (4) operation and maintenance programs. The selection of a particular alternative should be based upon the intended usage of the facility, the condition, and location of the ACBM.

Removal and Disposal

Removal of the ACBM is the only permanent solution for exposure to asbestos fibers. This alternative may initially appear to be the most expensive solution. Properly executed, however, removal maybe the best long-term alternative. Removal should be seriously considered when the material is extremely friable, significantly damaged, or when the material is located in accessible areas or spaces. The EPA also requires removal before demolition of a facility or before renovation activities which may disturb the ACBM. According to the latest interpretation of the EPA and TDSHS Regulations, roofing tars and felts in good condition do not have to be removed prior to demolition.

The removal process typically starts with preparation of specifications for the asbestos abatement and then proceeds to selection of a qualified contractor. The abatement process begins with isolation of the work areas and then proceeds to the removal of the ACBM, which is collected and placed in approved containers and subsequently, transported to a disposal site. Removal may require interruption of normal building activities; however, contractors are prepared for operating after normal working hours to minimize inconveniences.

Encapsulation

Encapsulation is a process by which bonding agents are spray-applied to the surface of the ACBM. Sealants penetrate the surface and harden the material or cover the surface with a protective coating to prevent fiber release. The encapsulant should meet the flammability, smoke generation, toxicity and impact resistance criteria specified.

Encapsulation of ACBM is a temporary measure designed to reduce fiber emissions from the material. This alternative is useful only when the ACBM is in stable relatively undamaged condition and presents little exposure potential. Encapsulation is considered a temporary measure because the ACBM still exists in the facility and care must always be taken to avoid disturbing it. The presence and location of the material should be documented and periodic inspections of the encapsulated areas should be made to ensure that no deterioration or damage has occurred. The necessary recordkeeping for this alternative can become cumbersome and expensive with time.

Enclosure

Enclosure, also a temporary solution, is usually difficult to implement. This alternative requires surrounding the ACBM with an airtight seal or barrier to prevent any fibers released by the material from reaching facility occupants. This method is useful to implement when ACBM is difficult, if not impossible to remove or encapsulate. Building such a barrier, however, may be so costly that it approaches the cost of asbestos removal without actually resolving the situation. Again, the location of the materials should be documented, inspected and a record system implemented.

Operations and Maintenance Program

An operations and maintenance program is established to monitor the condition of the ACBM and promote safe work practices within the facility. The operations and maintenance program should include notification of the building occupants and workers of the presence and location of such materials, training of maintenance personnel in proper cleaning and maintenance of the materials, periodic air monitoring, and re-inspection of the ACBM. Proper records documenting training programs, building occupant notices, locations, and the condition of the ACBM should also be maintained.

Regardless of the alternative chosen, specially trained personnel should conduct all related activities under properly controlled conditions. Asbestos removal should be performed by a qualified asbestos removal contractor, and under the guidelines of strict specifications. All ACBM, even when confronted in maintenance activities, must be properly disposed of as contaminated waste.

RECOMMENDATIONS

Based on observations made at the site, and results of bulk samples collected during the surveys, Drew Consulting Services, Inc. recommends the following:

1. If necessary, additional bulk samples should be collected from previously concealed materials that may be revealed during demolition or renovation activity, or from materials outside the original survey scope of work. "Suspect" material includes any material serving as a sprayed-on or troweled-on acoustic or fireproofing surface; floor and ceiling tiles; transite panels, siding or shingles; thermal insulation or any material associated with mechanical systems; or any binding agent such as tar sealant, mastic adhesive, roofing tar, caulking, et cetera. TDSHS regulations require bulk samples in public buildings be collected by a licensed asbestos inspector or individual asbestos consultant.

2. To comply with National Emission Standards for Hazardous Air Pollutants (NESHAPS) asbestos regulation (EPA 40 CFR 61, Subpart M) Drew Consulting Services, Inc. recommends removing all friable and non-friable ACBM that has the potential to become disturbed during regular demolition or renovation activities. Therefore, all asbestos products identified in this report should be removed prior to demolition/renovation activities. Materials must be removed by a TDSHS-licensed asbestos abatement contractor with project management provided by an asbestos consulting agency. A project design with the scope of work and abatement drawings must be developed by an individual asbestos consultant prior to abatement. NESHAPS regulations do not require abatement of flooring materials in good condition prior to demolition if conventional demolition methods are used and the concrete is not salvaged. However, local landfill provisions may have conditions for acceptance of asbestos material as a special waste.

3. A proper notification to comply with the EPA NESHAP regulations and the TDSHS regulations can be accomplished by submitting a TDH Demolition/Renovation notification form no less than ten working days (not calendar days) prior to the commencement of renovation, demolition, and/or abatement activities.

4. If any material cannot be positively identified as non-asbestos-containing by this report, it should be treated as asbestos until a sample can be collected and analyzed by PLM.

XI. LIMITATIONS

Drew Consulting Services, Inc. has endeavored to investigate the existing conditions within the affected areas using standard accepted procedures. Regardless of the thoroughness of a survey, it is possible that some areas containing asbestos were overlooked or inaccessible. This report presents general descriptions of various construction materials and the general locations where these materials were encountered. If questions arise during the planning for renovation, demolition or other construction, Drew Consulting Services, Inc. should be notified to permit us to review the situation and present recommendations.

This report has been prepared on behalf of and exclusively for the use of Arlington ISD. The conclusions expressed by Drew Consulting Services, Inc. regarding the conditions of the site are based solely on the observations made and the data collected during this survey. The beneficiaries are hereby advised that conditions observed are subject to change. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party or be used or relied upon by any other party, in whole or in part, without Drew Consulting Services, Inc.'s prior written consent.

John Drew
TDH Individual Asbestos Consultant #10-5252

APPENDIX I
BULK SAMPLE LAB ANALYSIS REPORT

Moody Labs

2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Summary Report

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client :	Drew Consulting Services, Inc.	Lab Job No. :	20B-03960
Project :	AISD, Wimbish Elementary School	Report Date :	04/23/2020
Project # :	Not Provided	Sample Date :	04/16/2020
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

On 4/17/2020, eighty eight (88) bulk material samples were submitted by a representative of Drew Consulting Services, Inc. for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below.

Sample Number	Client Sample Description / Location	Asbestos Content
1	Plaster Awning, Exterior at Café	None Detected - Base Plaster 2% Chrysotile - Top Plaster
2	Plaster Awning, Exterior Office	Not Analyzed - Positive Stop
3	Plaster Awning, Exterior Office	Not Analyzed - Positive Stop
4	Window Caulking (Soft, Grey), Exterior	None Detected - Caulking
5	Window Caulking (Soft, Grey), Exterior	None Detected - Caulking
6	Window Caulking (Soft, Grey), Exterior	None Detected - Caulking
7	12 x 12 Floor Tile (Grey Specks) with Mastic (Black), Café at Stage	None Detected - Floor Tile None Detected - Black Mastic
8	12 x 12 Floor Tile (Grey Specks) with Mastic (Black), Janitor's Closet	None Detected - Floor Tile None Detected - Black Mastic
9	12 x 12 Floor Tile (Grey Specks) with Mastic (Black), Hall at 147	None Detected - Floor Tile None Detected - Black Mastic
10	12 x 12 Floor Tile (Grey Dots) with Mastic (Black), Hallway at Room 143	None Detected - Floor Tile None Detected - Yellow Mastic None Detected - Black Mastic
11	12 x 12 Floor Tile (Grey Dots) with Mastic (Black), Hallway at Room 106	None Detected - Floor Tile None Detected - Black Mastic
12	12 x 12 Floor Tile (Grey Dots) with Mastic (Black), Hallway at Room 106	None Detected - Floor Tile None Detected - Yellow Mastic None Detected - Black Mastic
13	4 x 4 Ceramic Wall Tile with Grout, Restrooms	None Detected - Ceramic Tile None Detected - Grout
14	4 x 4 Ceramic Wall Tile with Grout, Restrooms	None Detected - Ceramic Tile None Detected - Grout
15	4 x 4 Ceramic Wall Tile with Grout, Restrooms	None Detected - Ceramic Tile None Detected - Grout

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Summary Report

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client :	Drew Consulting Services, Inc.	Lab Job No. :	20B-03960
Project :	AISD, Wimbish Elementary School	Report Date :	04/23/2020
Project # :	Not Provided	Sample Date :	04/16/2020
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

On 4/17/2020, eighty eight (88) bulk material samples were submitted by a representative of Drew Consulting Services, Inc. for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below.

Sample Number	Client Sample Description / Location	Asbestos Content
16	1 x 1 Ceramic Floor Tile with Grout, Restrooms	None Detected - Ceramic Tile None Detected - Grout
17	1 x 1 Ceramic Floor Tile with Grout, Restrooms	None Detected - Ceramic Tile None Detected - Grout
18	1 x 1 Ceramic Floor Tile with Grout, Restrooms	None Detected - Ceramic Tile None Detected - Grout
19	1 x 1 Ceiling Tile with Mastic, Janitor's Office at Room 135	None Detected - Acoustic Tile 2% Chrysotile - Brown Mastic
20	1 x 1 Ceiling Tile with Mastic, Janitor's Office at Room 135	Not Analyzed - Positive Stop
21	1 x 1 Ceiling Tile with Mastic, Janitor's Office at Room 135	Not Analyzed - Positive Stop
22	Drywall / Joint Compound / Texture (Smooth), Kitchen Furrdown	None Detected - Drywall Material 2% Chrysotile - Old Joint Compound None Detected - New Joint Compound None Detected - Textured Paint
23	Drywall / Joint Compound / Texture (Smooth), Kitchen Furrdown	Not Analyzed - Positive Stop
24	Drywall / Joint Compound / Texture (Smooth), Kitchen Furrdown	Not Analyzed - Positive Stop
25	CMU Texture, Room 113	None Detected - CMU 2% Chrysotile - Texture
26	CMU Texture, Room 105	Not Analyzed - Positive Stop
27	CMU Texture, Room 135	Not Analyzed - Positive Stop
28	CMU Texture, Hall at Room 135	Not Analyzed - Positive Stop
29	CMU Texture, Cafeteria	Not Analyzed - Positive Stop
30	Cove Base (Black) with Mastic (Yellow), Café	None Detected - Cove Base None Detected - Cream Mastic

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Summary Report

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client :	Drew Consulting Services, Inc.	Lab Job No. :	20B-03960
Project :	AISD, Wimbish Elementary School	Report Date :	04/23/2020
Project # :	Not Provided	Sample Date :	04/16/2020
Identification :	Asbestos, Bulk Sample Analysis		
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116		

On 4/17/2020, eighty eight (88) bulk material samples were submitted by a representative of Drew Consulting Services, Inc. for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below.

Sample Number	Client Sample Description / Location	Asbestos Content
31	Cove Base (Black) with Mastic (Yellow), Room 105	None Detected - Cove Base None Detected - Cream Mastic
32	Cove Base (Black) with Mastic (Yellow), Room 137	None Detected - Cove Base None Detected - Cream Mastic
33	Drywall / Joint Compound / Texture (Sandy), Stage	None Detected - Drywall Material 2% Chrysotile - Joint Compound None Detected - Textured Paint
34	Drywall / Joint Compound / Texture (Sandy), Stage	Not Analyzed - Positive Stop
35	Drywall / Joint Compound / Texture (Sandy), Stage	Not Analyzed - Positive Stop
36	Pipe Insulation with Mastic (White), Mechanical Room at Café	None Detected - Thermal Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic
37	Pipe Insulation with Mastic (White), Mechanical Room at Café	None Detected - Thermal Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic
38	Pipe Insulation with Mastic (White), Above Ceiling at Entrance	None Detected - Thermal Insulation None Detected - Paper / Foil Wrap None Detected - White Mastic
39	Drywall / Joint Compound / Texture (Smooth), Office Area Closet	None Detected - Drywall Material None Detected - Joint Compound None Detected - Textured Paint
40	Drywall / Joint Compound / Texture (Smooth), Office A004	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
41	Drywall / Joint Compound / Texture (Smooth), Office	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
42	Sink Undercoating (Grey), Office Break Room	None Detected - Sink Undercoating
43	Sink Undercoating (Grey), Office Break Room	None Detected - Sink Undercoating

Moody Labs

PLM Summary Report

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

Client :	Drew Consulting Services, Inc.	Lab Job No. : 20B-03960
Project :	AISD, Wimbish Elementary School	Report Date : 04/23/2020
Project # :	Not Provided	Sample Date : 04/16/2020
Identification :	Asbestos, Bulk Sample Analysis	
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116	

On 4/17/2020, eighty eight (88) bulk material samples were submitted by a representative of Drew Consulting Services, Inc. for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below.

Sample Number	Client Sample Description / Location	Asbestos Content
44	Sink Undercoating (Grey), Office Break Room	None Detected - Sink Undercoating
45	2 x 2 Ceiling Tile (Pinhole), Room 101	None Detected - Acoustic Tile
46	2 x 2 Ceiling Tile (Pinhole), Room 109	None Detected - Acoustic Tile
47	2 x 2 Ceiling Tile (Pinhole), Room 112	None Detected - Acoustic Tile
48	Plaster Walls with Texture (Sandy), Room 101	None Detected - Base Plaster None Detected - Top Plaster None Detected - Texture
49	Plaster Walls with Texture (Sandy)	None Detected - Base Plaster None Detected - Top Plaster No Texture
50	Plaster Walls with Texture (Sandy), Room 135	None Detected - Base Plaster None Detected - Top Plaster No Texture
51	Plaster Ceiling with Texture (Smooth), Kitchen Ceiling	None Detected - Plaster None Detected - Texture
52	Plaster Ceiling with Texture (Smooth), Kitchen Ceiling	None Detected - Plaster None Detected - Texture
53	Plaster Ceiling with Texture (Smooth), Kitchen Ceiling	None Detected - Plaster None Detected - Texture
54	Brick with Mortar, Exterior	None Detected - Brick None Detected - Mortar
55	Brick with Mortar, Exterior	None Detected - Brick None Detected - Mortar
56	Brick with Mortar, Exterior	None Detected - Brick None Detected - Mortar
57	Carpet Mastic (Cream), Room 114	None Detected - Leveling Compound None Detected - Cream Mastic

Moody Labs
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PLM Summary Report

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

Client :	Drew Consulting Services, Inc.	Lab Job No. :	20B-03960
Project :	AISD, Wimbish Elementary School	Report Date :	04/23/2020
Project # :	Not Provided	Sample Date :	04/16/2020
Identification :	Asbestos, Bulk Sample Analysis		
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Sample Number	Client Sample Description / Location	Asbestos Content
58	Carpet Mastic (Cream), Room 115	None Detected - Leveling Compound None Detected - Cream Mastic
59	Carpet Mastic (Cream), Room 116	None Detected - Leveling Compound None Detected - Cream Mastic
60	Drywall / Joint Compound / Texture (Orange Peel), Library	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
61	Drywall / Joint Compound / Texture (Orange Peel), Library	No Drywall None Detected - Joint Compound None Detected - Texture
62	Drywall / Joint Compound / Texture (Orange Peel), Room 215	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
63	Drywall / Joint Compound / Texture (Orange Peel), Room 209	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
64	Drywall / Joint Compound / Texture (Orange Peel), Room 201	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
65	2 x 4 Ceiling Tile (Pin and Fissure), Library	None Detected - Acoustic Tile
66	2 x 4 Ceiling Tile (Pin and Fissure), Room 201	None Detected - Acoustic Tile
67	2 x 4 Ceiling Tile (Pin and Fissure), Room 207	None Detected - Acoustic Tile
68	Sink Undercoating (White), Room 205	None Detected - Sink Undercoating
69	Sink Undercoating (White), Room 205	None Detected - Sink Undercoating
70	Sink Undercoating (White), Room 205	None Detected - Sink Undercoating
71	Caulking (Red), Mechanical Room at 209	None Detected - Caulking
72	Caulking (Red), Mechanical Room at 209	None Detected - Caulking

Moody Labs

PLM Summary Report

NVLAP Lab Code 102056-0
TDSHS License No. 30-0084

2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

Client :	Drew Consulting Services, Inc.	Lab Job No. :	20B-03960
Project :	AISD, Wimbish Elementary School	Report Date :	04/23/2020
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Sample Number	Client Sample Description / Location	Asbestos Content
73	Caulking (Red), Mechanical Room at 209	None Detected - Caulking
74	Roofing, Exterior	None Detected - Sand None Detected - Flashing Material
75	Roofing, Exterior	None Detected - Sand None Detected - Flashing Material
76	Roof Flashing, Exterior	None Detected - Sand None Detected - Flashing Material
77	CMU Texture (Sandy / Wave), Gym	None Detected - CMU 2% Chrysotile - Texture
78	CMU Texture (Sandy / Wave), Gym	Not Analyzed - Positive Stop
79	CMU Texture (Sandy / Wave), Gym	Not Analyzed - Positive Stop
80	Drywall / Joint Compound / Texture (Smooth), K-Pod	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
81	Drywall / Joint Compound / Texture (Smooth), K-Pod	None Detected - Drywall Material None Detected - Joint Compound None Detected - Texture
82	Drywall / Joint Compound / Texture (Smooth), K-Pod	None Detected - Drywall Material None Detected - Texture / Joint Cmpd
83	Carpet Mastic, K-Pod	None Detected - Yellow Mastic
84	Carpet Mastic, K-Pod	None Detected - Yellow Mastic
85	Carpet Mastic, K-Pod	None Detected - Yellow Mastic
86	HVAC Mastic (Black), Kitchen, Above Ceiling	None Detected - Paper / Foil Wrap None Detected - Black Mastic
87	HVAC Mastic (Black), Kitchen, Above Ceiling	None Detected - Paper / Foil Wrap None Detected - Black Mastic

Moody Labs

PLM Summary Report

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2051 Valley View Lane
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Sample Number	Client Sample Description / Location	Asbestos Content
88	HVAC Mastic (Black), Kitchen, Above Ceiling	None Detected - Paper / Foil Wrap None Detected - Black Mastic

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. The test report shall not be reproduced, except in full, without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056-0.

NVLAP LAB #102056-0

Analyst(s): Daniel Farley, Nathan Wood

Lab Manager : Heather Lopez — Approved Signatory : Heather Lopez

Lab Director : Bruce Crabb — Approved Signatory : Bruce Crabb

Thank you for choosing Moody Labs

APPENDIX II
TDSHS LICENSE & INSURANCE

DREW CONSULTING SERVICES, INC.

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 9/26/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER MHBT, a Marsh & McLennan Agency, LLC company 8144 Walnut Hill Lane, 16th Floor Dallas TX 75231	CONTACT NAME: Peggy Mauldin PHONE (A/C, No, Ext): 972-770-1642 FAX (A/C, No): E-MAIL ADDRESS: Peggy_Mauldin@mhbt.com
INSURED Drew Consulting Services, Inc. P.O. Box 1313 Prosper TX 75078	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : Nautilus Insurance Company — 17370 INSURER B : Great Divide Insurance Company — 25224 INSURER C : Texas Mutual Insurance Company — 22945 INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 738823312 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			ECP201280615	9/10/2019	9/10/2020	EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
	X $5,000 Ded						MED EXP (Any one person)	$ 5,000
	X Contrl Liab						PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY X PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY			BAP201280715	9/10/2019	9/10/2020	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
A	X UMBRELLA LIAB X OCCUR			FFX201280515	9/10/2019	9/10/2020	EACH OCCURRENCE	$ 1,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$ 1,000,000
	DED X RETENTION $ 0							$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N			0001228400	9/10/2019	9/10/2020	X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y	N / A					E.L. EACH ACCIDENT	$ 1,000,000
	(Mandatory in NH)						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Policy No: ECP201280615
Carrier: Nautilus Insurance Company
Pollution Liability policy is Per Occurrence
Professional Liability policy is Claims Made
Contractors Pollution Occurrence Limit $1,000,000 Each Pollution Condition
Deductible $15,000 per Occurrence
Professional Liability Limit $1,000,000 Each Claim
Deductible $25,000 Each Claim
See Attached...

CERTIFICATE HOLDER

Texas Department of State Health Services
Asbestos Program MC2835
P.O. Box 149347
Austin TX 78714-9347

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

DREW CONSULTING SERVICES, INC.

Texas Department of State Health Services

Asbestos Individual Consultant

JOHN DREW

License No. 105252

Control No. 97733

Expiration Date: 3-May-2022

Texas Department of State Health Services

DREW CONSULTING SERVICES INC

is certified to perform as an

Asbestos Consultant Agency

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1954 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Asbestos Health Protection, as long as this license is not suspended or revoked.

License Number 100067

Expiration Date: 05/03/2021

John Hellerstedt, M.D.,
Commissioner of Health

Control Number 97233

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE

SEE BACK

WIMBISH
WORLD LANGUAGE ACADEMY

HKS

WIMBISH WORLD LANGUAGE ACADEMY GYM ADDITION AND RENOVATIONS CSP #26-77

ARLINGTON ISD

ARLINGTON, TEXAS

OWNER

ARLINGTON INDEPENDENT SCHOOL DISTRICT
690 E. LAMAR BLVD.
ARLINGTON, TEXAS 76011

ARCHITECT

HKS INC.
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
(214) 969-5599

CIVIL

MJ THOMAS ENGINEERING LLC
4700 BRYANT IRVIN COURT, SUITE 204
FORT WORTH, TEXAS 76107
(817) 732-9839

LANDSCAPE

CCA LANDSCAPE ARCHITECTS
12700 HILLCREST ROAD, SUITE 149
DALLAS, TEXAS 75230
(214) 739-9105

MEP

SALAS O'BRIEN
106 DECKER DRIVE, SUITE 200
IRVING, TEXAS 75062
(972) 812-1270

STRUCTURAL

HKS, INC
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
(214) 969-5599

ROOFING

ARMKO INDUSTRIES, INC
1320 SPINKS RD
FLOWER MOUND, TEXAS 75028
(940) 448-2040

BID SET

April 27 , 2026

PROJECT NO. 26399.004

ALTERNATES

ALTERNATE 01

SCOPE: FIRE LANE EXTENSION

REF. SHEETS:
A1.01 - SITE PLAN
CIVIL SET

ALTERNATE 02

SCOPE: NEW 2X2 ACT CEILING AND LED LIGHTING IN LIBRARY

REF. SHEETS:
AD4.00, A4.00
MEP SET

ALTERNATE 03

SCOPE: NEW LED LIGHTING IN NORTH CORRIDOR, STEM, AND MUSIC ROOMS

REF. SHEETS:
AD4.00, A4.00

PLOT DATE:
5/8/2026 1:22:54 PM
TEMPLATE VERSION: 23.0.4

DRAWING ABBREVIATIONS

A

AB	ANCHOR BOLT
AD	AREA DRAIN
AC	AIR CONDITIONING
ACT	ACOUSTICAL CEILING TILE
ADD	ADDENDUM
ADD'L	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AGGR	AGGREGATE
AL ALUM	ALUMINUM
ALT	ALTERNATE
ANOD	ANODIZED
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL

B

B.M.	BENCH MARK
BD	BOARD
BETW	BETWEEN
BF	BACKFACE
BG	BUMPER GUARD
BL	BED LOCATOR
BL	BUILDING LINE
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
BR	BUMPER RAIL
BRG	BEARING
BSMT	BASEMENT
BU ROD	BACK-UP ROD
BUR	BUILT-UP ROOF
BW	BEARING WALL

C

C	COMPACT PARKING SPACE
CC	CUBICK CURTAIN
CDR	CARD READER
CEM	CEMENT
CER	CERAMIC
CG	CORNER GUARD
C/P	CAST IN PLACE
CJ	CONTROL JOINT
CJ	CONSTRUCTION JOINT
CL	CENTER LINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMM	COMMUNICATIONS
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CPE	CHLORINATED POLYETHYLENE
COOR	CORRIDOR
CR	COLD ROLLED
CR	CRASH RAIL
CSK	COUNTERSUNK
CT	CERAMIC TILE
CTD	CENTERED
CTR	CENTER
CW	CURTAIN WALL

D

D	DEPTH
DBA	DEFORMED BAR ANCHOR
DET	DETAIL
DF	DECORATIVE FILM
DIA	DIAMETER
DIAPH	DIAPHRAGM
DIM	DIMENSION
DJ	DEFLECTION JOINT
DL	DEAD LOAD
DN	DOWN
DRG	DRAWING
DS	DOWN SPOUT
DWGS	DRAWINGS
DWLS	DOWELS

E

EA	EACH
EF	EACH FACE
EFG	ENTRANCE FLOOR GRILLE
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC
ELEV	ELEVATOR
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
ESC	ESCALATOR
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXP BLT	EXPANSION BOLT
EXT	EXTERIOR

F

FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FHC	FIRE HOSE CABINET
FIB	FIBERGLASS
FIN	FINISH
FLR	FLOOR
FS	FAR SIDE
FT	FOOT
FT	FLOOR TRANSITION
FTG	FOOTING
FV	FIELD VERIFY
FVC	FIRE VALVE CABINET

G

GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GEN	GENERAL
GFRC	GLASS-FIBER REINFORCED CONCRETE
GI	GALVANIZED IRON
GL	GLASS
GM	GLAZED MASONRY UNIT
GND	GROUND
GR	GRADE
GRG	GLASS-REINFORCED GYPSUM
GYP BD	GYPSUM BOARD

H

HB	HOSE BIB
HDW	HARDWARE
HDWD	HARDWOOD
HK	HOOK
HM	HOLLOW METAL
HOR	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HS	HEADED STUD
HSKP	HOUSEKEEPING
HT	HEIGHT
HW	HAND WASH
HW	HEAD OF WALL

I

IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
INSUL	INSULATION
INT	INTERIOR

J

K

K	KIPS (1000 LB)
KO	KNOCK-OUT
KP	KICKPLATE
KPD	KEYPAD
KSF	KIPS PER SQUARE FOOT

L

L	ANGLE
LAV	LAVATORY
LG	LONG
LKB	LOCKABLE
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATION
LP	LOW POINT
LT	LIGHT
LWC	LIGHTWEIGHT CONCRETE

M

MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MEMB	MEMBRANE
MEP	MECHANICAL, ELECTRICAL AND PLUMBING
MFG	MANUFACTURER
MGO	MEDICAL GAS OUTLET
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MOB	MEDICAL OFFICE BUILDING
MOD BIT	MODIFIED BITUMEN
MOD	MODIFIED
MSL	MEAN SEA LEVEL
MTL	METAL

N

NA	NOT AVAILABLE
NIC	NOT IN CONTRACT
NOA	NOTICE OF ACCEPTANCE
BY	FLORIDA GOVERNING AUTHORITY
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE

O

OA	OVER ALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OD	OVERFLOW DRAIN
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OSF	OUTSIDE FACE

P

P LAM	PLASTIC LAMINATE
PC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PCP	PORTLAND CEMENT PLASTER
PENT	PENTHOUSE
PL	PROPERTY LINE
PL	PLATE
PLUMB	PLUMBING
PLYWD	PLYWOOD
PP	PUSH PLATE
POL	POLISHED
PORT CEM	PORTLAND CEMENT
PR	PAIR
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
PT	PNEUMATIC TUBE
PTD	PAINTED

R

R	RISER
RAD	RADIUS
RAF	RUBBERIZED ASPHALT FLASHING
RAM	RUBBERIZED ASPHALT MEMBRANE
RAU	RUBBERIZED ASPHALT UNDERLAYMENT
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REBAR	REINFORCING BAR
RECP	RECEPTACLE
REF	REFER OR REFERENCE
REINF	REINFORCING
RELOC	RELOCATE/RELOCATED
REQ'D	REQUIRED
RFVC	RECESSED FIRE VALVE CABINET
RS	ROOF SCUPPER
RM	ROOM
RO	ROUGH OPENING

S

SAB	SOUND ATTENUATION BLANKET
SBC	STANDARD BUILDING CODE
SCHED	SCHEDULE
SDL	SUPERIMPOSED DEAD LOAD
SECT	SECTION
S/H	SINGLE HUNG
SHWR	SHOWER
SIM	SIMILAR
SO	STRUCTURAL OPENING
SOG	SLAB ON GRADE
SP	STAND PIPE
SPA	SPACE, SPACING
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
SSF	SOLID SURFACE
STA	STATION
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STIFF	STIFFENER
STIR	STIRRUP
STL	STEEL
STRUC	STRUCTURAL
SYM	SYMMETRICAL
SYS	SYSTEM

T

T	TREAD
T&B	TOP AND BOTTOM
TC	TOP OF CURB
TEL	TELEPHONE
TEMP	TEMPERATURE
THK	THICK
TLT	TOILET
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOP	TOP OF PARAPET
TOS	TOP OF SLAB
TOSTL	TOP OF STEEL
TRSH CH	TRASH CHUTE
TW	TOP OF WALL
TYP	TYPICAL

U

U/C	UNDER COUNTER
U/G	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE

V

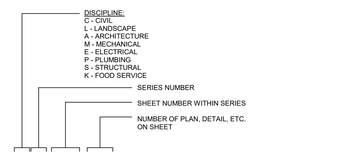
VAR	VARIES
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VWC	VINYL WALL COVERING

W

W/	WITH
W/C	WHEEL CHAIR
W/O	WITHOUT
W	WIDTH
WP	WATERPROOF(ING)
WD	WOOD
WF	WIDE FLANGE
WL	WIND LOAD
WP	WORK POINT
WPO	WORK POINT - POINT OF ORIGIN
WP1	WORK POINT - NUMBERED
WWF	WELDED WIRE FABRIC

INDEX OF DRAWINGS

NUMBERING SYSTEM:



INDEX OF DRAWINGS

Sheet Number	SHEET NAME	ISSUED FOR PERMIT 03-06-2026	ISSUED FOR BID 04-27-2026	ISSUED FOR ADDENDUM 02 05-08-2026
ARCHITECTURE				
A0.00	COVER	X	X	X
A0.01	PROJECT INFORMATION	X	X	X
CIVIL				
C1.00	COVER SHEET		X	
C1.01	PLAT		X	
C1.02	GENERAL NOTES		X	
C1.03	GENERAL NOTES 2		X	
C1.04	SITE PLAN		X	
C1.05	DEMOLITION PLAN		X	
C1.06	DIMENSION CONTROL PLAN		X	
C1.07	OVERALL GRADING PLAN		X	
C1.08	GRADING PLAN 1		X	
C1.09	GRADING PLAN 2		X	
C1.10	GRADING PLAN 3		X	
C1.11	GRADING PLAN 4		X	
C1.12	WATER PLAN		X	
C1.13	SANITARY SEWER PLAN		X	
C1.14	EXISTING DRAINAGE AREA MAP		X	
C1.15	PROPOSED DRAINAGE AREA MAP		X	
C1.15A	HYDRAULIC CALCS		X	
C1.16	STORM SEWER PLAN		X	
C1.17	STORM WATER MANAGEMENT PLAN		X	
C1.18	STORM WATER MANAGEMENT NOTES		X	
C2.01	SIDEWALK DETAILS		X	
C2.02	SIDEWALK DETAILS 2		X	
C2.03	PAVING DETAILS		X	
C2.04	SANITARY SEWER DETAILS		X	
C2.05	SIGNAGE & STRIPING DETAILS		X	
C2.06	EMBEDMENT DETAILS		X	
C2.07	WATER DETAILS		X	
C2.08	STORM SEWER DETAILS		X	
C2.09	STORM SEWER DETAILS 2		X	
C2.10	STORM SEWER DETAILS 3		X	
C2.11	STORM WATER MANAGEMENT DETAILS		X	
C2.12	STORM WATER MANAGEMENT DETAILS 2		X	
LANDSCAPE				
L1.00	TREE CONSERVATION AND REMOVAL KEY PLAN		X	
L1.01	TREE CONSERVATION AND REMOVAL PLAN ENLARGEMENT		X	
L1.02	TREE CONSERVATION AND REMOVAL PLAN ENLARGEMENT		X	
L1.03	TREE CONSERVATION DETAILS		X	
L2.00	IRRIGATION KEY PLAN		X	
L2.01	IRRIGATION PLAN ENLARGEMENT		X	
L2.02	IRRIGATION PLAN ENLARGEMENT		X	
L2.03	IRRIGATION DETAILS		X	
L3.00	PLANTING KEY PLAN		X	
L3.01	PLANTING PLAN ENLARGEMENT		X	
L3.02	PLANTING PLAN ENLARGEMENT		X	
L3.03	PLANTING SCHEDULE AND DETAILS		X	
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ALS.01	LIFE SAFETY PLAN - GYM ADDITION	X	X	
ALS.02	LIFE SAFETY PLAN - STORM SHELTER	X	X	
AD2.01	DEMOLITION FLOOR PLAN	X	X	X
AD4.00	OVERALL DEMOLITION REFLECTED CEILING PLAN	X	X	X
AD4.01	DEMOLITION REFLECTED CEILING PLAN - AREA A	X	X	X
AD4.03	DEMOLITION REFLECTED CEILING PLAN - AREA C	X	X	X
AD4.04	DEMOLITION REFLECTED CEILING PLAN - AREA D	X	X	X
A1.01	SITE PLAN	X	X	
A2.00	OVERALL FLOOR PLAN	X	X	X
A2.01	FLOOR PLAN - AREA A	X	X	
A2.02	RESTROOM RENOVATIONS	X	X	X
A2.21	ROOF PLAN & DETAILS - AREA A	X	X	
A2.22	ROOF PLAN DETAILS	X	X	
A2.41	FINISH FLOOR PLAN - AREA A	X	X	X
A2.42	RESTROOM RENOVATION - FINISH PLANS	X	X	X
A4.00	OVERALL REFLECTED CEILING PLAN	X	X	
A4.01	REFLECTED CEILING PLAN - AREA A	X	X	
A4.03	REFLECTED CEILING PLAN - AREA C	X	X	
A4.04	REFLECTED CEILING PLAN - AREA D	X	X	
A5.01	ELEVATIONS AND SECTIONS	X	X	
A6.01	BUILDING SECTIONS	X	X	
A7.01	BUILDING DETAILS	X	X	
A7.02	BUILDING DETAILS	X	X	
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R0.01	ENVEOLPE FLASHING DETAILS	X	X	
R1.00	GENERAL ROOFING INFORMATION	X	X	
R1.01	OVERALL ROOF PLAN	X	X	
R1.01A	EXPANSION JOINTS	X	X	
R1.02	ENLARGED ROOF PLAN	X	X	
R2.01	ROOF DETAILS	X	X	
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S1.01	GENERAL NOTES	X	X	
S1.02	SPECIAL INSPECTION TABLES 2021	X	X	
S1.03	TYPICAL DETAILS - FOUNDATION PILE & GRADE BEAM	X	X	
S2.01	FOUNDATION PLAN	X	X	
S2.02	ROOF FRAMING PLAN	X	X	
S3.01	SECTIONS AND DETAILS	X	X	
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M8.01	UNIT A - MECHANICAL PLAN - DEMO	X	X	
M8.02	UNIT B - MECHANICAL PLAN - DEMO	X	X	
M8.03	UNIT C - MECHANICAL PLAN - DEMO	X	X	
M8.04	UNIT D - MECHANICAL PLAN - DEMO	X	X	
M8.11	UNIT A - MECHANICAL PLAN	X	X	
M8.12	UNIT B - MECHANICAL PLAN	X	X	
M8.13	UNIT C - MECHANICAL PLAN	X	X	
M8.14	UNIT D - MECHANICAL PLAN	X	X	
M8.21	UNIT A - MECHANICAL PLAN - ROOF	X	X	
M8.41	MECHANICAL DETAILS	X	X	
M8.51	MECHANICAL LEGENDS	X	X	
M8.61	MECHANICAL SCHEDULES	X	X	
ELECTRICAL				
E10.00	ELECTRICAL SITE PLAN	X	X	
E10.02	UNIT A - ELECTRICAL PLAN - DEMO		X	
E10.03	UNIT B - ELECTRICAL PLAN - DEMO	X	X	
E10.04	UNIT C - ELECTRICAL PLAN - DEMO	X	X	
E10.05	UNIT D - ELECTRICAL PLAN - DEMO	X	X	
E10.10	UNIT A - LIGHTING PLAN	X	X	
E10.11	UNIT A - LIGHTING PLAN - ALT 03	X	X	
E10.12	UNIT B - LIGHTING PLAN	X	X	
E10.13	UNIT C - LIGHTING PLAN	X	X	
E10.14	UNIT D - LIGHTING PLAN			
E10.20	UNIT A - POWER PLAN	X	X	
E10.30	UNIT A - ELECTRICAL PLAN - ROOF	X	X	
E10.51	ELECTRICAL DETAILS	X	X	
E10.52	ELECTRICAL DETAILS	X	X	
E10.61	ONE LINE DIAGRAM	X	X	
E10.71	ELECTRICAL PANEL SCHEDULES	X	X	
PLUMBING				
P09.11	UNIT A/B - DEMO PLUMBING PLAN	X	X	
P9.00	PLUMBING SITE PLAN	X	X	
P9.11	UNIT A/B - PLUMBING PLAN - UNDERFLOOR	X	X	
P9.21	UNIT A/B - PLUMBING PLAN	X	X	
P9.22	UNIT C/D - PLUMBING PLAN	X	X	
P9.31	UNIT A/B - PLUMBING ROOF PLAN	X	X	
P9.41	PLUMBING RISER	X	X	
P9.51	PLUMBING DETAILS	X	X	
P9.61	PLUMBING LEGENDS & SCHEDULES	X	X	
TECHNOLOGY				
T12.00	TECHNOLOGY NOTES AND LEGENDS	X	X	
T12.01	TECHNOLOGY COMPOSITE PLAN		X	
T12.02	UNIT A - TECHNOLOGY PLAN - DEMO		X	
T12.03	UNIT B - TECHNOLOGY PLAN - DEMO	X	X	
T12.12	UNIT A - TECHNOLOGY PLAN	X	X	
T12.13	UNIT B - TECHNOLOGY PLAN		X	
T12.14	UNIT C - TECHNOLOGY PLAN		X	
T12.31	ENLARGED TECHNOLOGY PLAN	X	X	
T12.41	TECHNOLOGY DETAILS	X	X	
T12.42	TECHNOLOGY DETAILS	X	X	
T12.43	TECHNOLOGY DETAILS	X	X	
T12.44	TECHNOLOGY DETAILS	X	X	

BUILDING SUMMARY

PROJECT INFORMATION

PROJECT NAME: WIMBISH WORLD LANGUAGE ACADEMY

K-POD (TO BE DEMOLISHED) - 2,738 SF
GYM ADDITION - 6151 SF

ADDRESS: 1601 WRIGHT ST, ARLINGTON, TX 76012

PROPOSED USE: EDUCATION

APPLICABLE CODES

- BUILDING CODE: 2021 INTERNATIONAL BUILDING CODE
- MECHANICAL: 2021 INTERNATIONAL MECHANICAL CODE
- PLUMBING: 2021 INTERNATIONAL PLUMBING CODE
- ELECTRICAL: 2020 NATIONAL ELECTRIC CODE
- ENERGY CODE: 2021 INTERNATIONAL ENERGY CONSERVATION CODE W/ LOCAL AMENDMENTS
- FIRE CODE: 2021 INTERNATIONAL FIRE CODE
- 2012 TEXAS ACCESSIBILITY STANDARDS

BUILDING PLANNING

OCCUPANCY: EDUCATION (E) NON SEPARATED USE

MIXED OCCUPANCY? YES / (NO)

REQUIRED FIRE SEPARATION: N/A

TYPE OF CONSTRUCTION

CONSTRUCTION TYPE: TYPE II-B SPRINKLERED

ESSENTIAL FACILITY (CHAPTER 16, IBC)

ESSENTIAL FACILITY? YES / (NO)

GENERAL BUILDING LIMITATIONS

HIGH RISE? YES / (NO)

ITEM	ALLOWED	ACTUAL
HEIGHT OF BUILDING	75 FEET	30'-7"
NUMBER OF STORIES	3	1
MAX SINGLE FLOOR AREA	43,500 (MULTI-STORY)/58,000(SINGLE)*	6,167
MAX TOTAL AREA OF BUILDING	130,500	6,167
ROOF STRUCTURE	X	X
PARKING SPACES	EXISTING - NO NEW OCCUPANTS ADDED	

FIRE PROTECTION SYSTEMS

- FIRE EXTINGUISHING SYSTEM: (YES) / NO - NEW ADDITION AREAS TO BE FULLY SPRINKLERED
  - TYPE: X
- STANDPIPE SYSTEM: YES / (NO)
  - CLASS: X
- SMOKE CONTROL: YES / (NO)

FIRE RESISTANT CONSTRUCTION/FIREPROOFING SCHEDULE

ITEM	REQ'D RATING / HR	UL/FM # WHERE APPLICABLE
- PRIMARY STRUCTURAL FRAME	0	X
- BEARING WALLS		
- EXTERIOR	0	X
- INTERIOR	0	X
- NONBEARING WALLS AND PARTITIONS		
- EXTERIOR	0	X
- INTERIOR	0	X
- FLOOR/CEILING	0	X
- ROOF/CEILING	0	X

FIRE PROOFING NOTES

1. ALL FIRE RESISTIVE RATINGS ARE ASSUMED TO BE THERMALLY RESTRAINED.
2. ALL BEAMS AND COLUMNS SHALL BE ADJUSTED USING W/D OR A/P RATIOS TO DETERMINE THE CORRECT FIREPROOFING THICKNESS.

VICINITY MAP

WIMBISH WORLD LANGUAGE ACADEMY
1601 WRIGHT ST, ARLINGTON, TX 76012

HKS

ARCHITECT

HKS INC.
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
(214) 969-5599

CIVIL

MJ THOMAS ENGINEERING LLC
4700 BRYANT IRVIN COURT, SUITE 204
FORT WORTH, TEXAS 76107
(817) 732-9839

LANDSCAPE

CCA LANDSCAPE ARCHITECTS
12700 HILLCREST ROAD, SUITE 149
DALLAS, TEXAS 75230
(214) 739-9105

MEP

SALAS O'BRIEN
106 DECKER DRIVE, SUITE 200
IRVING, TEXAS 75062
(972) 812-1270

STRUCTURAL

HKS, INC
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
(214) 969-5599

WIMBISH WORLD LANGUAGE ACADEMY

SEAL & SIGNATURE

05-08-2026

REVISION

NO.	DESCRIPTION	DATE
1	ADDENDUM 02	05-08-2026

HKS PROJECT NUMBER
26399.005

DATE
04-27-2026

ISSUE
BID SET

SHEET TITLE
PROJECT INFORMATION

SHEET NO.
A0.01

DEMO CEILING SYMBOLS LEGEND

_ _ _ _	ITEMS SHOWN DASHED ARE TO BE REMOVED
———	ITEMS SHOWN SOLID ARE TO BE REMAIN

DEMOLITION GENERAL NOTES

1. CONTRACTOR SHALL DEMOLISH ALL ITEMS NECESSARY TO INSTALL NEW WORK PER PLANS AND SPECIFICATIONS. DEMOLITION WORK SHALL INCLUDE BUT NOT BE LIMITED TO ITEMS INDICATED BY DASHED LINES. REFERENCE NOTES AND SYMBOLS ON DEMOLITION PLAN.
2. CONTRACTOR SHALL REVIEW ALL DEMOLITION PHOTO CONTACT SHEETS FOR ADDITIONAL DEMOLITION INFORMATION.
3. CONTRACTOR REQUIRED TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO DEMOLITION AND NEW CONSTRUCTION.
4. REFER TO DEMOLITION SPECIFICATIONS FOR SPECIFIC PROJECT REQUIREMENTS
5. CONTRACTOR TO COORDINATE DEMOLITION WORK SEQUENCE.
6. DEMOLITION DRAWINGS REPRESENT EXISTING CONDITIONS BASED ON LIMITED EXISTING DRAWINGS AND SITE OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING BUILDING AND SITE CONDITIONS PRIOR TO DEMOLITION.
7. DEMOLITION DRAWINGS GENERALLY INDICATE EXISTING SCOPE OF WORK TO BE DEMOLISHED AND ARE NOT INTENDED TO LIMIT OR FULLY DEFINE THE SCOPE OF WORK TO BE REMOVED IN ORDER TO ACCOMPLISH SCOPE OF NEW CONSTRUCTION. WHERE THESE CONDITIONS OCCUR OUTSIDE OF THE DEMOLITION LIMITS, AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AS PART OF THE NEW CONSTRUCTION SCOPE OF WORK, U.N.O.
8. CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY CONFLICTS BETWEEN EXISTING CONSTRUCTION AND CONSTRUCTION DOCUMENTS.
9. REFERENCE CIVIL, LANDSCAPE, AND MEP DRAWINGS/SPECS FOR OTHER DISCIPLINE DEMOLITION SCOPE OF WORK.
10. WHERE EXISTING CEILING MOUNTED DEVICES, FIXTURES OR OTHER CEILING MOUNTED ITEMS ARE SCHEDULED TO BE SAVAGED, COORDINATE WITH OWNER FOR STORAGE LOCATIONS.
11. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. TRANSPORT AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS.
12. PRIOR TO DEMOLITION WORK, THE GENERAL CONTRACTOR SHALL REVIEW OWNER PROVIDED INFORMATION IN THE SPECIFICATIONS IN REGARD TO ASBESTOS CONTAINING MATERIALS FOR THIS BUILDING. GENERAL CONTRACTOR SHALL MAKE OWNER AWARE OF ANY REQUIRED ABATEMENT WITHIN 10 DAYS OF NOTICE TO PROCEED.
13. IN LOCATIONS THAT WOULD REQUIRE ABATEMENT, CONTRACTOR TO LEAVE EXISTING CEILING ANGLE IRON AROUND PERIMETER OF ENTIRE ROOM, AS TO NOT DISTURB EXISTING ASBESTOS CONTAINING MATERIALS. PREPARE EXISTING ANGLE TO RECEIVE NEW FINISHES IN CONSTRUCTION.
14. ALL IT/AV/DATA/TECHNOLOGY EQUIPMENT LOCATED IN CEILINGS BEING DEMOLISHED OR MODIFIED SHALL BE PROTECTED AND PRESERVED DURING DEMOLITION. MUST REMAIN OPERATIONAL DURING CONSTRUCTION.
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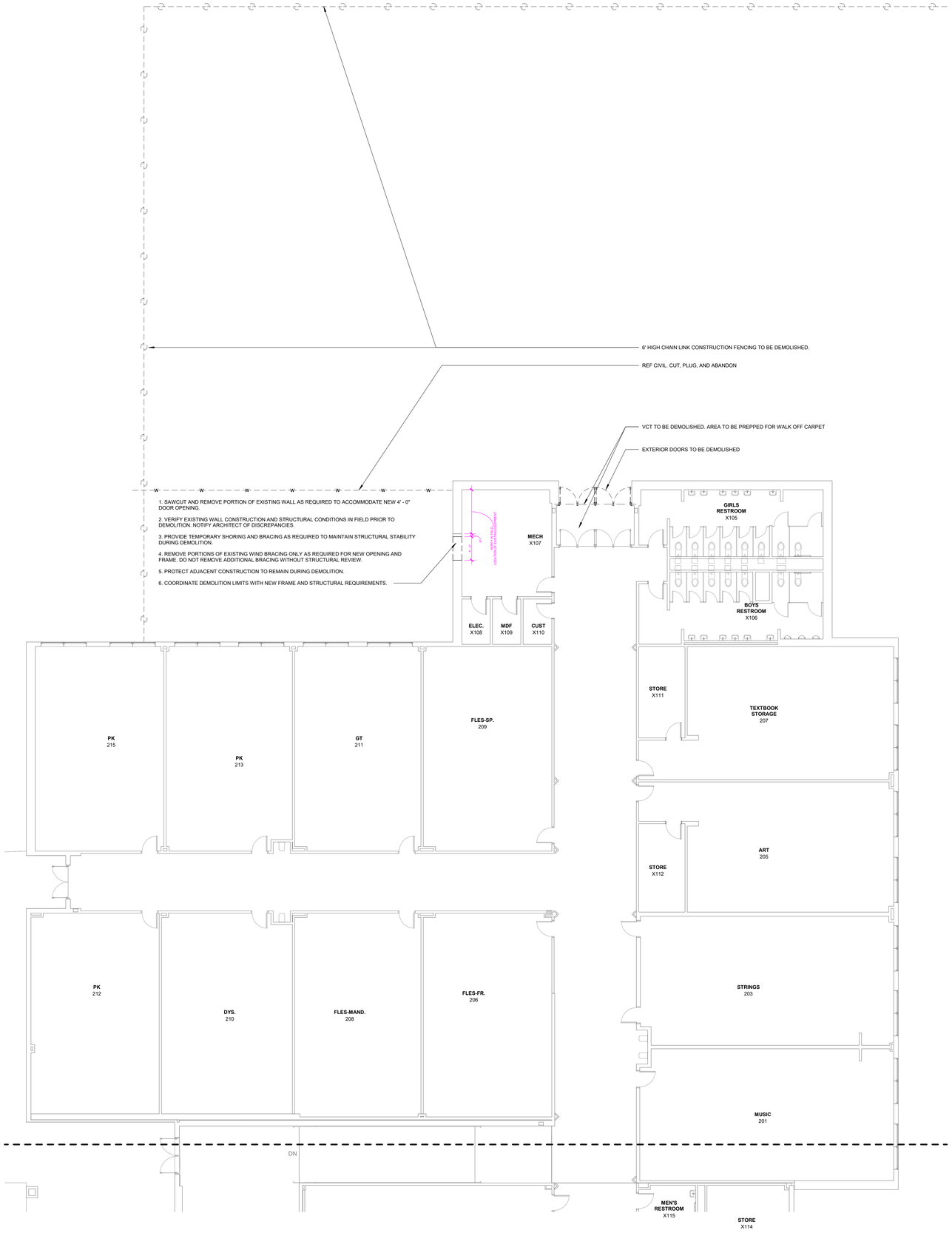
16. AT CEILINGS TO BE REMOVED, CONTRACTOR TO RELOCATE ALL EXISTING FIRE STROBES, SPRINKLER HEADS, SPEAKERS, AND OTHER DEVICES WITHIN CEILING AS REQUIRED FOR INSTALLATION OF NEW CEILINGS OR GYP FUR DOWNS.



01 DEMOLITION FLOOR PLAN - AREA A
1/8" = 1'-0"

02 ADMIN RESTROOM - DEMO
1/4" = 1'-0"

PLOT DATE: 5/8/2026 1:23:18 PM
TEMPLATE VERSION: 23.0.4

STEM LAB 1
204

HKS

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WIMBISH WORLD LANGUAGE ACADEMY

SEAL & SIGNATURE

05-08-2026

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE
1	ADDENDUM 02	05-08-2026

HKS PROJECT NUMBER
26399.005
DATE
04-27-2026
ISSUE
BID SET

SHEET TITLE
DEMOLITION FLOOR PLAN

SHEET NO.
AD2.01

DEMO CEILING SYMBOLS LEGEND

- ITEMS SHOWN DASHED ARE TO BE REMOVED
- ITEMS SHOWN SOLID ARE TO BE REMAIN

DEMOLITION GENERAL NOTES

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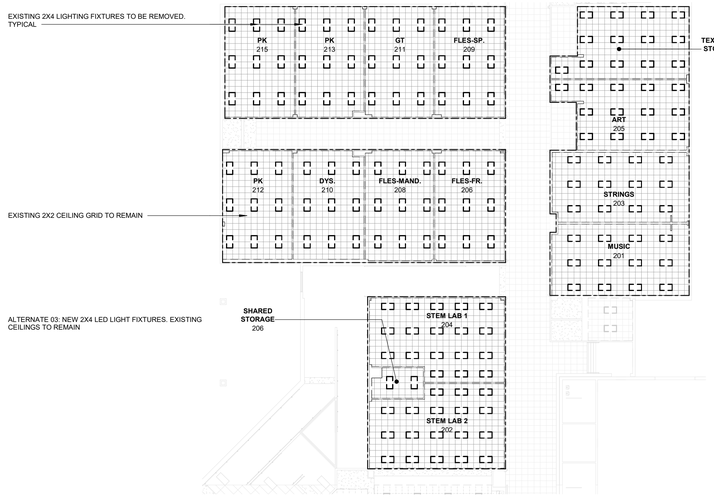
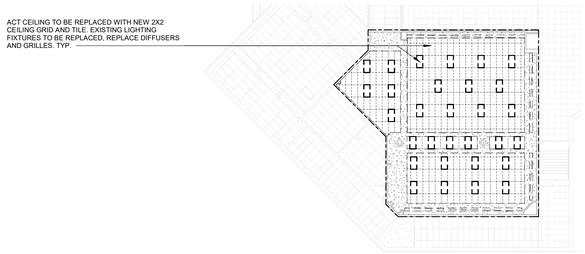
DEMOLITION KEYNOTES

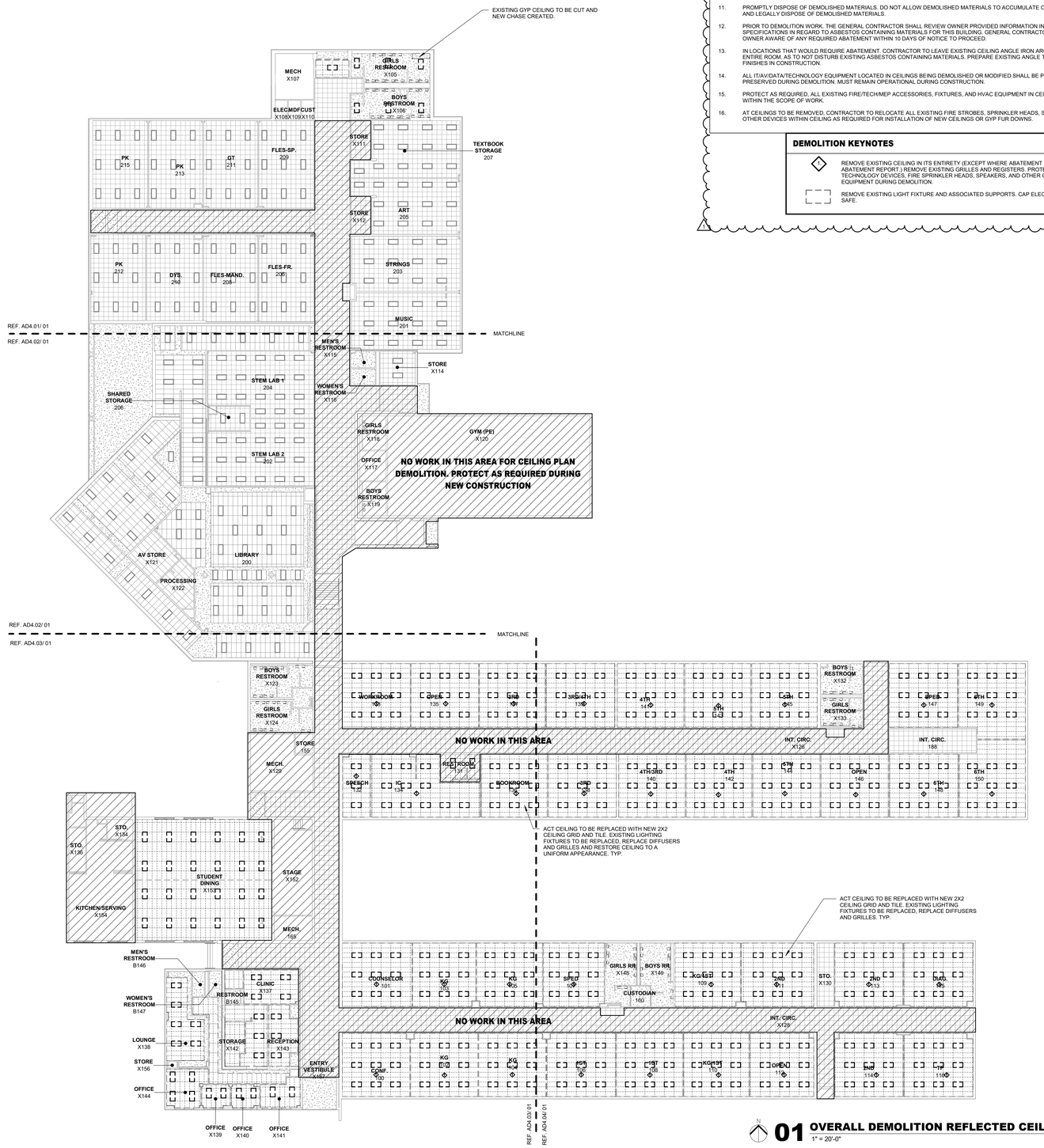
- ◇1 — REMOVE EXISTING CEILING IN ITS ENTIRETY (EXCEPT WHERE ABATEMENT IS REQUIRED, REF. ABATEMENT REPORT.) REMOVE EXISTING GRILLES AND REGISTERS. PROTECT ALL EXISTING TECHNOLOGY DEVICES, FIRE SPRINKLER HEADS, SPEAKERS, AND OTHER CEILING-MOUNTED EQUIPMENT DURING DEMOLITION.
- REMOVE EXISTING LIGHT FIXTURE AND ASSOCIATED SUPPORTS. CAP ELECTRICAL CONDUCTORS SAFE.



03 ALTERNATE 03
1" = 20'-0"



02 ALTERNATE 02
1" = 20'-0"



01 OVERALL DEMOLITION REFLECTED CEILING PLAN
1" = 20'-0"

HKS

ARCHITECT
HKS INC.
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
(214) 969-5599

CIVIL
KJ THOMAS ENGINEERING LLC
6700 BRYANT IRVIN COURT, SUITE 204
FORT WORTH, TEXAS 76107
(817) 732-9839

LANDSCAPE
SCA LANDSCAPE ARCHITECTS
2700 HILLCREST ROAD, SUITE 149
DALLAS, TEXAS 75230
(214) 739-9105

MEP
DALAS OBRIEN
206 DECKER DRIVE, SUITE 200
IRVING, TEXAS 75062
(972) 812-1270

STRUCTURAL
HKS, INC
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
(214) 969-5599

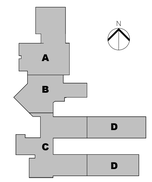
WIMBISH WORLD LANGUAGE ACADEMY

SEAL & SIGNATURE

REGISTERED ARCHITECT JOANNE RENEE PAGE 23705 STATE OF TEXAS

05-08-2026

KEY PLAN



REVISION

NO.	DESCRIPTION	DATE
1	ADDENDUM 02	05-08-2026

HKS PROJECT NUMBER
26399.005

DATE
04-27-2026

ISSUE
BID SET

SHEET TITLE
OVERALL DEMOLITION REFLECTED CEILING PLAN

SHEET NO.
AD4.00

PLOT DATE: 5/8/2026 1:23:21 PM TEMPLATE VERSION: 23.0.4

DEMO CEILING SYMBOLS LEGEND

_ _ _ _	ITEMS SHOWN DASHED ARE TO BE REMOVED
———	ITEMS SHOWN SOLID ARE TO BE REMAIN

DEMOLITION GENERAL NOTES

1. CONTRACTOR SHALL DEMOLISH ALL ITEMS NECESSARY TO INSTALL NEW WORK PER PLANS AND SPECIFICATIONS. DEMOLITION WORK SHALL INCLUDE BUT NOT BE LIMITED TO ITEMS INDICATED BY DASHED LINES. REFERENCE NOTES AND SYMBOLS ON DEMOLITION PLAN.
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8. CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY CONFLICTS BETWEEN EXISTING CONSTRUCTION AND CONSTRUCTION DOCUMENTS.
9. REFERENCE CIVIL, LANDSCAPE, AND MEP DRAWINGS/SPECS FOR OTHER DISCIPLINE DEMOLITION SCOPE OF WORK.
10. WHERE EXISTING CEILING MOUNTED DEVICES, FIXTURES OR OTHER CEILING MOUNTED ITEMS ARE SCHEDULED TO BE SAVAGED, COORDINATE WITH OWNER FOR STORAGE LOCATIONS.
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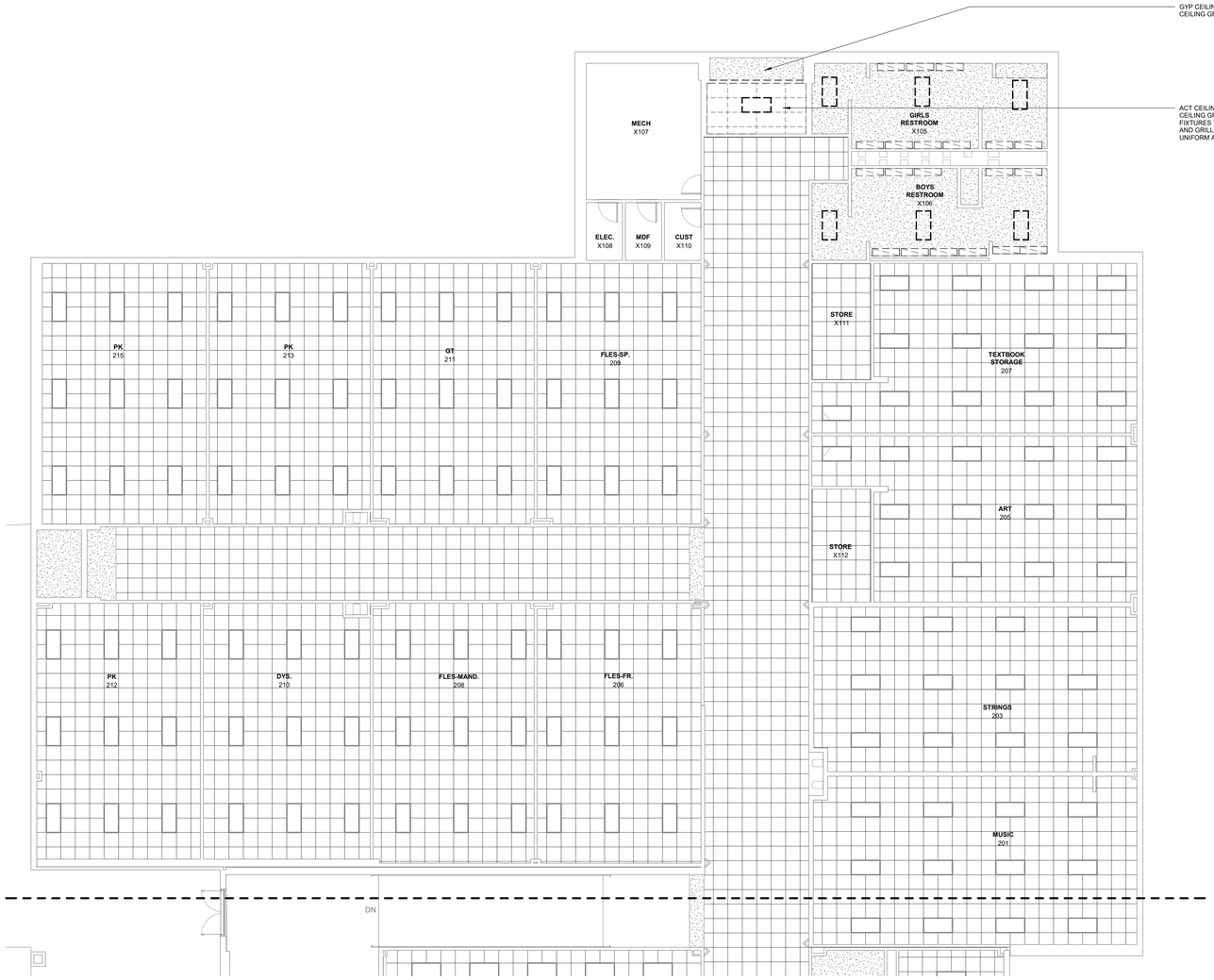


N

01 DEMOLITION REFLECTED CEILING PLAN - AREA A
1/8" = 1'-0"

HKS

ARCHITECT
HKS INC.
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
(214) 969-5599

CIVIL
MJ THOMAS ENGINEERING LLC
4700 BRYANT IRVIN COURT, SUITE 204
FORT WORTH, TEXAS 76107
(817) 732-9839

LANDSCAPE
CCA LANDSCAPE ARCHITECTS
12700 HILLCREST ROAD, SUITE 149
DALLAS, TEXAS 75230
(214) 739-9105

MEP
SALAS O'BRIEN
106 DECKER DRIVE, SUITE 200
IRVING, TEXAS 75062
(972) 812-1270

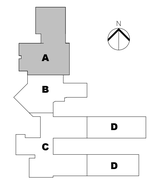
STRUCTURAL
HKS, INC
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
(214) 969-5599

WIMBISH WORLD LANGUAGE ACADEMY

SEAL & SIGNATURE

REGISTERED ARCHITECT — MICHAEL W. HARRIS — 24076 — STATE OF TEXAS

05-08-2026



KEY PLAN

REVISION

NO.	DESCRIPTION	DATE
1	ADDENDUM 02	05-08-2026

HKS PROJECT NUMBER
26399.005

DATE
04-27-2026

ISSUE
BID SET

SHEET TITLE
DEMOLITION REFLECTED CEILING PLAN - AREA A

SHEET NO.
AD4.01

PLOT DATE: 5/8/2026 1:22:21 PM
TEMPLATE VERSION: 23.0.4

DEMO CEILING SYMBOLS LEGEND

ITEMS SHOWN DASHED ARE TO BE REMOVED

ITEMS SHOWN SOLID ARE TO BE REMAIN

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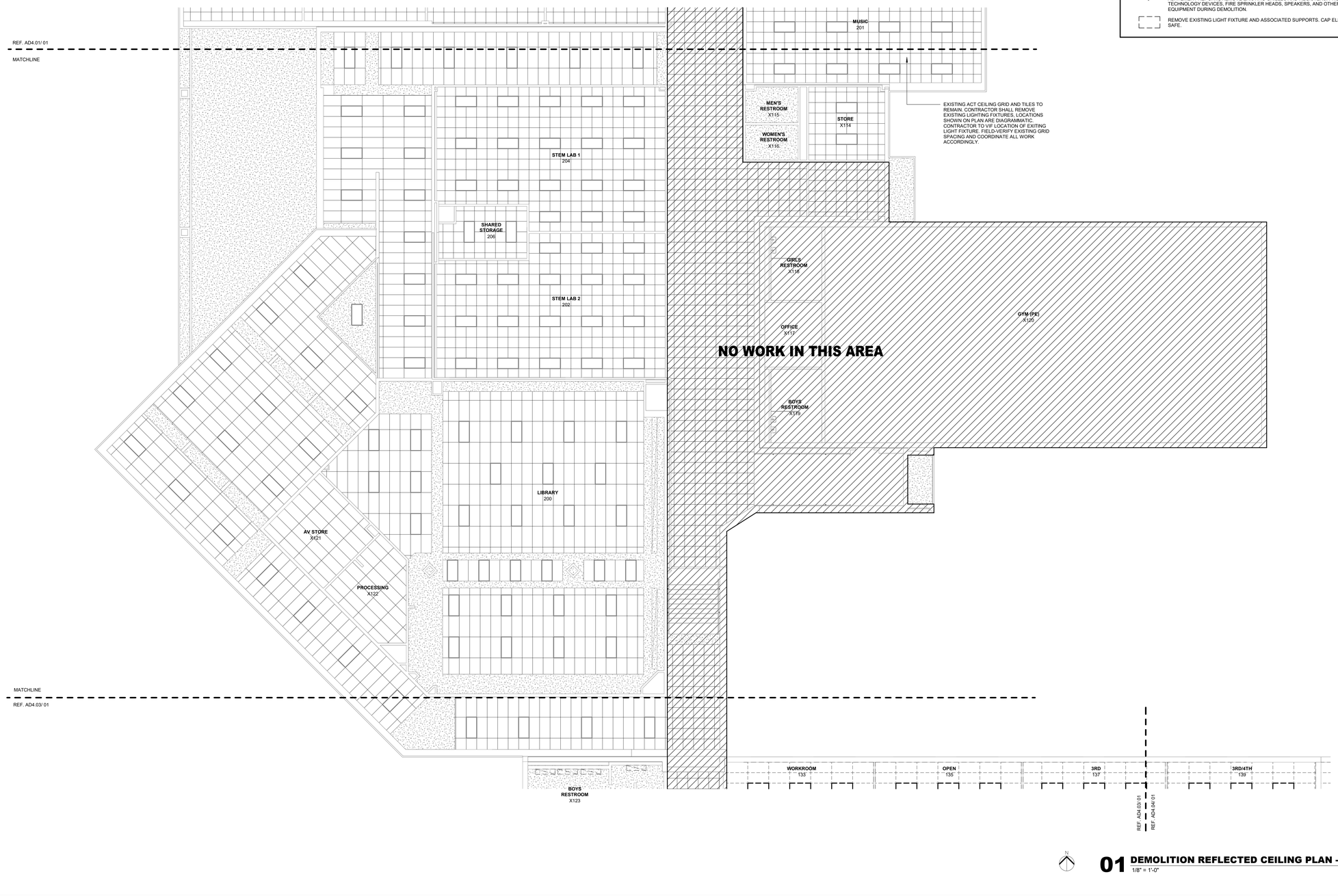


N

01 DEMOLITION REFLECTED CEILING PLAN - AREA B
1/8" = 1'-0"

HKS

ARCHITECT
HKS INC.
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
(214) 969-5599

CIVIL
MJ THOMAS ENGINEERING LLC
4700 BRYANT IRVIN COURT, SUITE 204
FORT WORTH, TEXAS 76107
(817) 732-9839

LANDSCAPE
CCA LANDSCAPE ARCHITECTS
12700 HILLCREST ROAD, SUITE 149
DALLAS, TEXAS 75230
(214) 739-9105

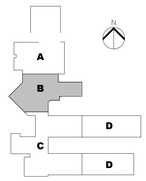
MEP
SALAS O'BRIEN
106 DECKER DRIVE, SUITE 200
IRVING, TEXAS 75062
(972) 812-1270

STRUCTURAL
HKS, INC
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
(214) 969-5599

WIMBISH WORLD LANGUAGE ACADEMY

SEAL & SIGNATURE

05-08-2026



KEY PLAN

REVISION

NO.	DESCRIPTION	DATE
1	ADDENDUM 02	05-08-2026

HKS PROJECT NUMBER
26399.005

DATE
04-27-2026

ISSUE
BID SET

SHEET TITLE
DEMOLITION REFLECTED CEILING PLAN - AREA B

SHEET NO.
AD4.02

PLOT DATE: 5/6/2026 1:23:22 PM
TEMPLATE VERSION: 23.0.4

DEMO CEILING SYMBOLS LEGEND

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- ITEMS SHOWN SOLID ARE TO BE REMAIN

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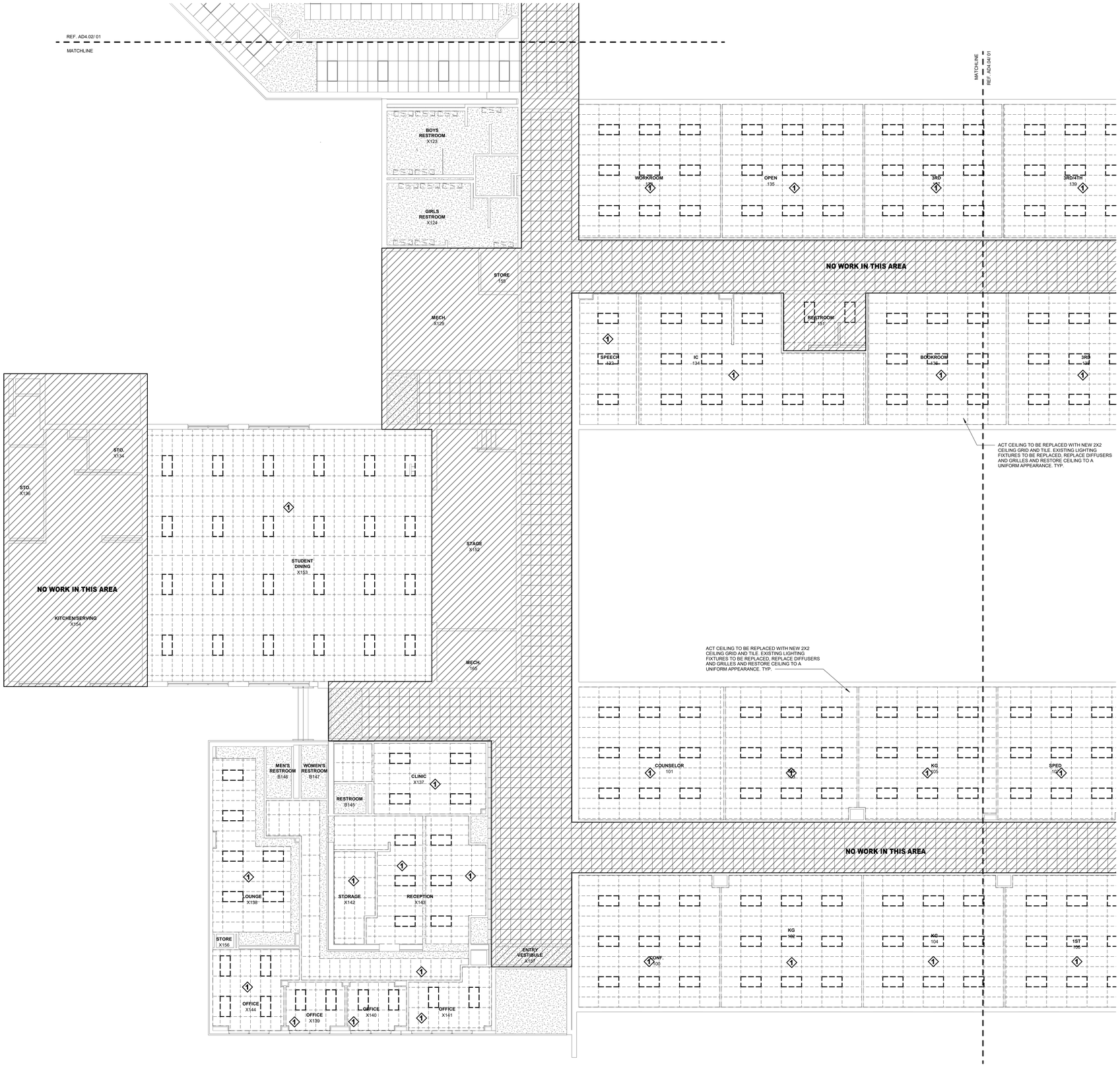


N

01 DEMOLITION REFLECTED CEILING PLAN - AREA C
1/8" = 1'-0"

HKS

ARCHITECT
HKS INC.
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
(214) 969-5599

CIVIL
MJ THOMAS ENGINEERING LLC
4700 BRYANT IRVIN COURT, SUITE 204
FORT WORTH, TEXAS 76107
(817) 732-9839

LANDSCAPE
CCA LANDSCAPE ARCHITECTS
12700 HILLCREST ROAD, SUITE 149
DALLAS, TEXAS 75230
(214) 739-9105

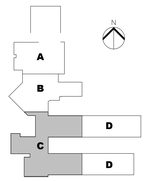
MEP
SALAS O'BRIEN
106 DECKER DRIVE, SUITE 200
IRVING, TEXAS 75062
(972) 812-1270

STRUCTURAL
HKS, INC
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
(214) 969-5599

WIMBISH WORLD LANGUAGE ACADEMY

SEAL & SIGNATURE

05-08-2026



KEY PLAN

REVISION

NO.	DESCRIPTION	DATE
1	ADDENDUM 02	05-08-2026

HKS PROJECT NUMBER
26399.005

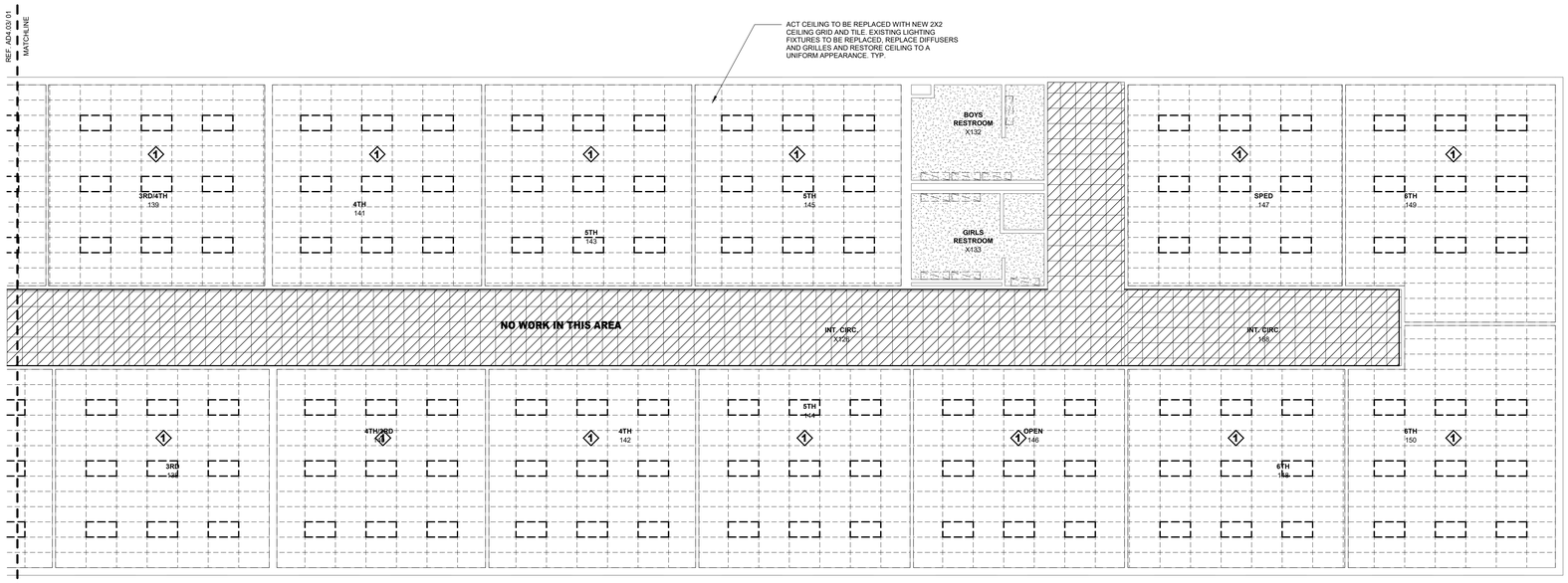
DATE
04-27-2026

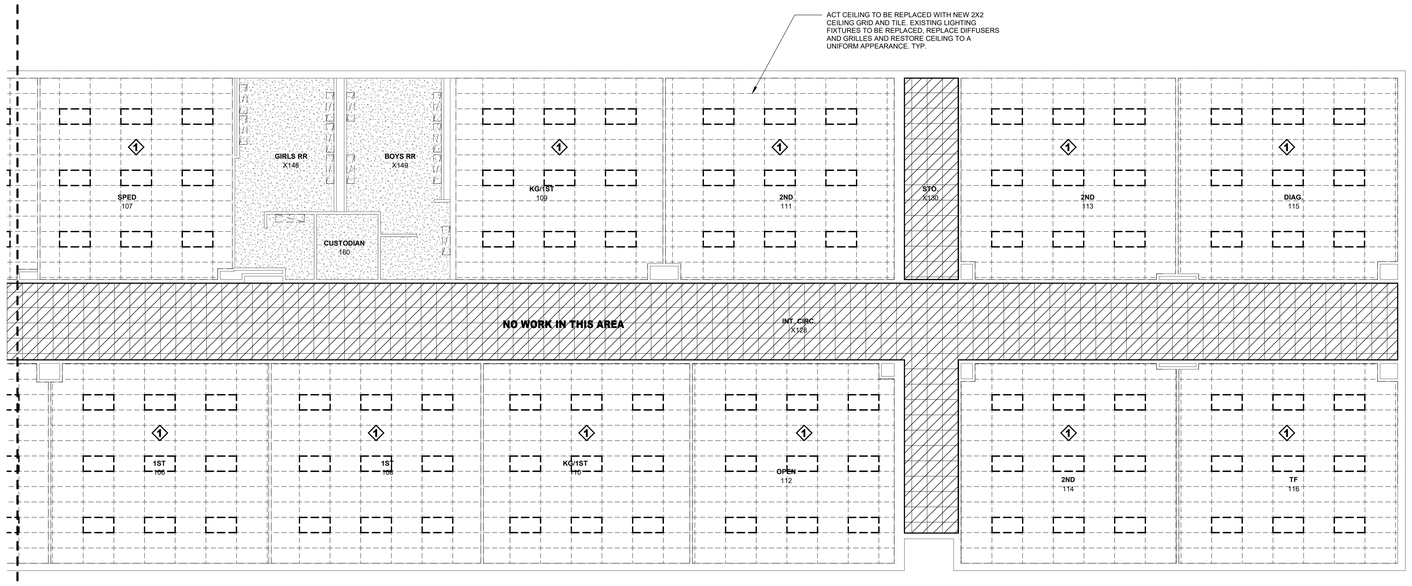
ISSUE
BID SET

SHEET TITLE
DEMOLITION REFLECTED CEILING PLAN - AREA C

SHEET NO.
AD4.03

PLOT DATE: 5/8/2026 1:22:23 PM
TEMPLATE VERSION: 23.0.4





DEMO CEILING SYMBOLS LEGEND

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REMOVE EXISTING LIGHT FIXTURE AND ASSOCIATED SUPPORTS. CAP ELECTRICAL CONDUCTORS SAFE.

N

01 DEMOLITION REFLECTED CEILING PLAN - AREA D

1/8" = 1'-0"

HKS

ARCHITECT
HKS INC.
350 N SAINT PAUL ST SUITE 100
DALLAS, TEXAS 75201
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CIVIL
MJ THOMAS ENGINEERING LLC
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MEP
SALAS O'BRIEN
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WIMBISH WORLD LANGUAGE ACADEMY

SEAL & SIGNATURE

05-08-2026

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE
1	ADDENDUM 02	05-08-2026

HKS PROJECT NUMBER
26399.005

DATE
04-27-2026

ISSUE
BID SET

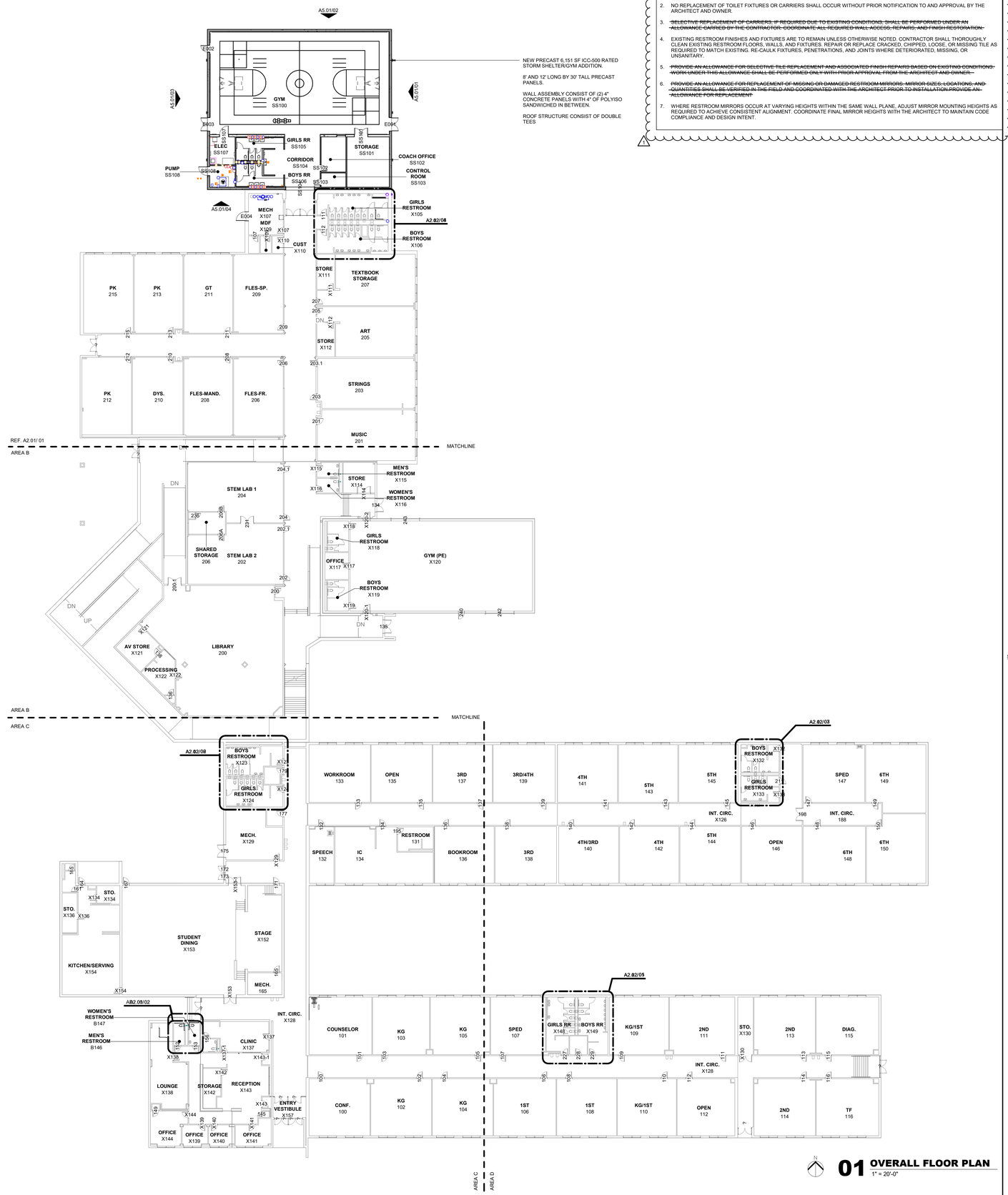
SHEET TITLE
DEMOLITION REFLECTED CEILING PLAN - AREA D

SHEET NO.
AD4.04

PLOT DATE: 5/8/2026 1:34:46 PM TEMPLATE VERSION: 23.0.4

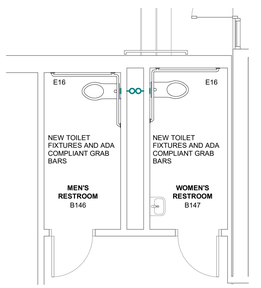
GENERAL NOTES - FLOOR PLAN

1. EXISTING WALL-MOUNTED TOILET FIXTURES ARE TO REMAIN. CONTRACTOR SHALL INSPECT EXISTING CARRIERS, ANCHORAGE, AND SUPPORTS FOR STABILITY. MINOR ADJUSTMENTS MAY BE MADE WHERE SUFFICIENT TO ACHIEVE A RIGID, SECURE INSTALLATION.
2. NO REPLACEMENT OF TOILET FIXTURES OR CARRIERS SHALL OCCUR WITHOUT PRIOR NOTIFICATION TO AND APPROVAL BY THE ARCHITECT AND OWNER.
3. ~~SELECTIVE REPLACEMENT OF CARRIERS, IF REQUIRED DUE TO EXISTING CONDITIONS, SHALL BE PERFORMED UNDER AN ALLOWANCE CARRIED BY THE CONTRACTOR. COORDINATE ALL REQUIRED WALL ACCESS, REPAIRS, AND FINISH RESTORATION.~~
4. EXISTING RESTROOM FINISHES AND FIXTURES ARE TO REMAIN UNLESS OTHERWISE NOTED. CONTRACTOR SHALL THOROUGHLY CLEAN EXISTING RESTROOM FLOORS, WALLS, AND FIXTURES. REPAIR OR REPLACE CRACKED, CHIPPED, LOOSE, OR MISSING TILE AS REQUIRED TO MATCH EXISTING. RE-CAULK FIXTURES, PENETRATIONS, AND JOINTS WHERE DETERIORATED, MISSING, OR UNSANITARY.
5. ~~PROVIDE AN ALLOWANCE FOR SELECTIVE TILE REPLACEMENT AND ASSOCIATED FINISH REPAIRS BASED ON EXISTING CONDITIONS. WORK UNDER THIS ALLOWANCE SHALL BE PERFORMED ONLY WITH PRIOR APPROVAL FROM THE ARCHITECT AND OWNER.~~
6. ~~PROVIDE AN ALLOWANCE FOR REPLACEMENT OF MISSING OR DAMAGED RESTROOM MIRRORS. MIRROR SIZES, LOCATIONS, AND QUANTITIES SHALL BE VERIFIED IN THE FIELD AND COORDINATED WITH THE ARCHITECT PRIOR TO INSTALLATION. PROVIDE AN ALLOWANCE FOR REPLACEMENT.~~
7. WHERE RESTROOM MIRRORS OCCUR AT VARYING HEIGHTS WITHIN THE SAME WALL PLANE, ADJUST MIRROR MOUNTING HEIGHTS AS REQUIRED TO ACHIEVE CONSISTENT ALIGNMENT. COORDINATE FINAL MIRROR HEIGHTS WITH THE ARCHITECT TO MAINTAIN CODE COMPLIANCE AND DESIGN INTENT.



GENERAL NOTE:

THOROUGHLY CLEAN EXISTING RESTROOM FINISHES, INCLUDING TILE FLOORS, TILE WALLS, CEILINGS, FIXTURES, PARTITIONS, DOORS, FRAMES, ACCESSORIES, AND EXPOSED PIPES. RESTORE ALL SURFACES TO A UNIFORM, CLEAN CONDITION. DO NOT DAMAGE EXISTING FINISHES.



02 ADMIN RESTROOM
1/4" = 1'-0"

01 OVERALL FLOOR PLAN
1" = 20'-0"

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WIMBISH WORLD LANGUAGE ACADEMY

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SEAL & SIGNATURE

REGISTERED ARCHITECT STATE OF TEXAS

05-08-2026

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SHEET TITLE
OVERALL FLOOR PLAN

SHEET NO.
A2.00

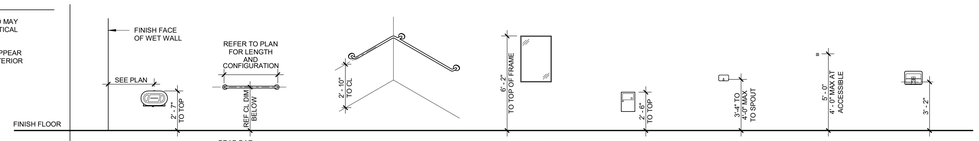
PLOT DATE: 5/5/2026 1:22:59 PM TEMPLATE VERSION: 23.0.4

TOILET ACCESSORY MOUNTING DIAGRAM

SCALE: 1/4" = 1'-0"

NOTE:

1. ACCESSORIES LISTED MAY HAVE GAPS IN ALPHABETICAL LISTING.
2. ACCESSORIES CAN APPEAR ON FLOOR PLANS OR INTERIOR ELEVATIONS.

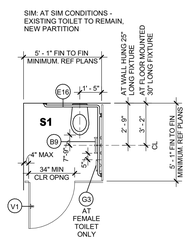


TOILET ACCESSORY TYPE	TOILET TISSUE DISPENSER	GRAB BAR 24" AT 5 - 8 YRS (ELEMENTARY)	ACCESSIBLE TOILET STALL OR SHOWER GRAB BAR WITH SEAT	STAINLESS STEEL FRAMED MIRROR	SANITARY NAPKIN TAMPON DISPOSAL (WOMEN'S AND UNISEX ONLY)	SOAP DISPENSER	ROBE HOOK	HAND DRYER
MOUNTING DETAIL - REFER TO SHEET A2.01	A	C	C D AT PATIENT OF SIZE CONDITIONS ONLY	B	A	A	A	A
DRAWING DESIGNATION	B9 TWIN JUMBO - ROLL	E5 42"	E14 24 X 42 - NON-SLIP FINISH E16 42 X 54 - NON-SLIP FINISH	R1 24 X 36 WITHOUT SHELF SURFACE MOUNTED	G3 PARTITION MOUNTED	J1 SURFACE MOUNTED	V1 1 1/2" SINGLE SURFACE MOUNTED	V1 SURFACE-MOUNTED

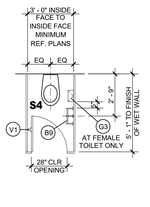
STANDARD LAYOUTS - 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN/2017 A117.1

SCALE: 1/4" = 1'-0"

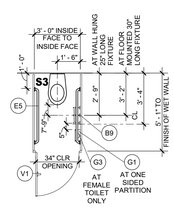
NOTE: LOCATE FLUSH ACTIVATION ON WIDE SIDE AT ALL TOILETS - LOCATE FLUSH VALVE BENEATH ADJACENT GRAB BARS.



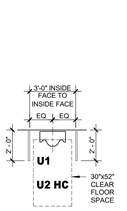
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT
PLAN DESIGNATION S1



STANDARD COMPARTMENT
PLAN DESIGNATION S4

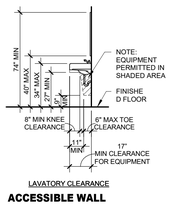


AMBULATORY ACCESSIBLE STANDARD COMPARTMENT
PLAN DESIGNATION S3

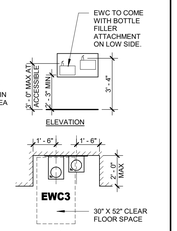


STANDARD URINAL
PLAN DESIGNATION U1
PLAN DESIGNATION U2 @ ACCESSIBLE

L4 AT NON-ACCESSIBLE
CLEAR FLOOR SPACE AT LAVATORY
ACCESSIBLE WALL MOUNTED LAVATORY FRONT APPROACH
PLAN DESIGNATION L3

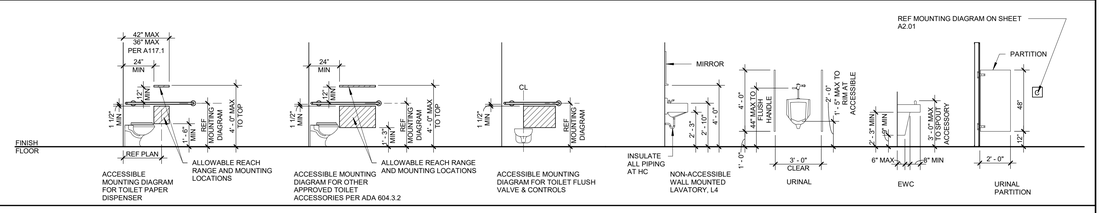


ACCESSIBLE WALL MOUNTED LAVATORY FRONT APPROACH SECTION
SECTION L3



FOUNTAIN/COOLER HI-LO
PLAN DESIGNATION EWC3

FIXTURE AND PARTITION MOUNTING DIAGRAM



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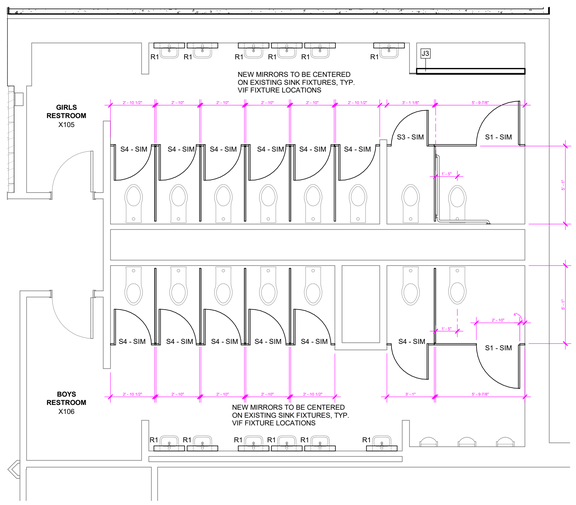
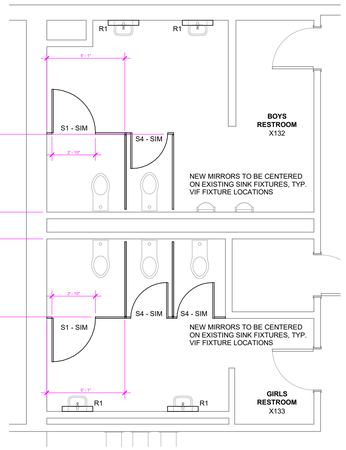
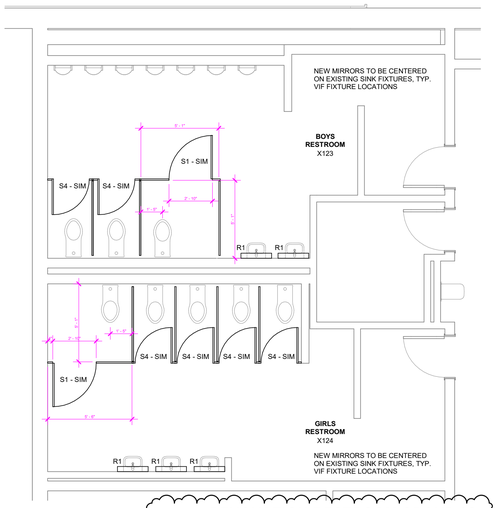
EXISTING PAPER TOWEL DISPENSER AND RECEPTACLE TO REMAIN.



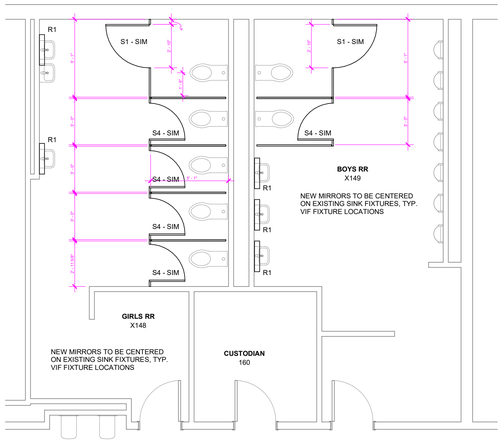
08 RENOVATION RESTROOM GROUP 04
1/4" = 1'-0"



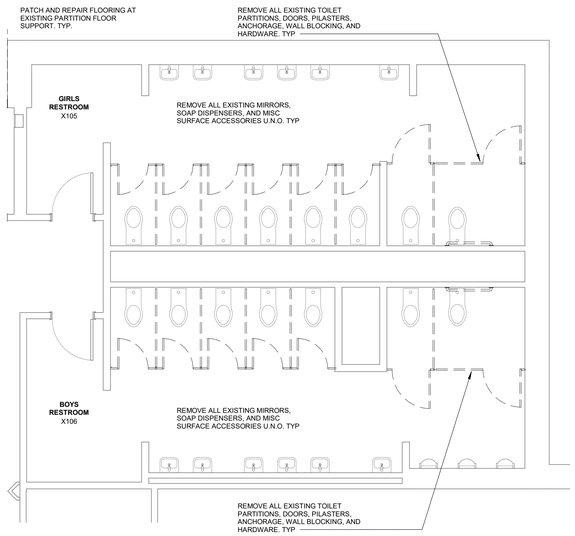
07 RENOVATION RESTROOM GROUP 03
1/4" = 1'-0"



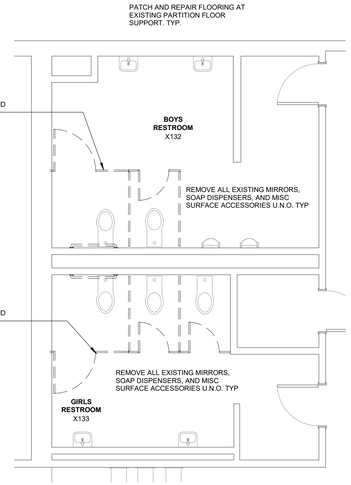
06 RENOVATION RESTROOM GROUP 02
1/4" = 1'-0"



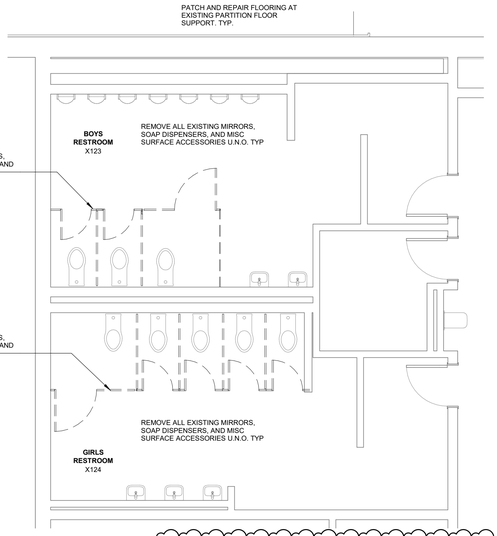
05 RENOVATION RESTROOM GROUP 01
1/4" = 1'-0"



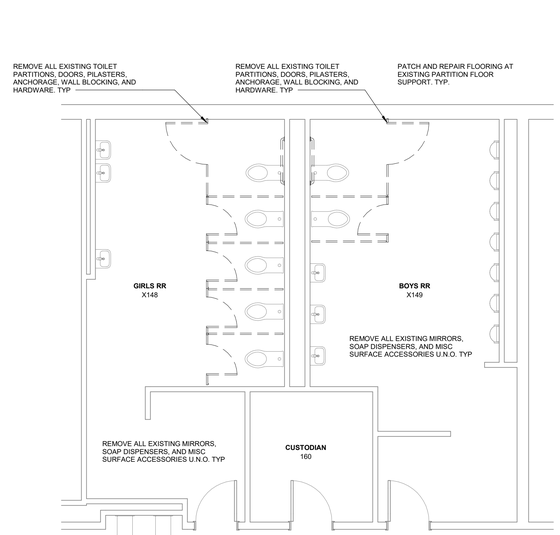
04 DEMOLITION RESTROOM GROUP 04
1/4" = 1'-0"



03 DEMOLITION RESTROOM GROUP 03
1/4" = 1'-0"



02 DEMOLITION RESTROOM GROUP 02
1/4" = 1'-0"



01 DEMOLITION RESTROOM GROUP 01
1/4" = 1'-0"

PLOT DATE: 5/8/2026 1:23:03 PM
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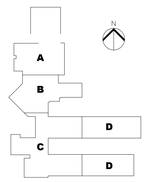

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE
1	ADDENDUM 02	05-08-2026

HKS PROJECT NUMBER
26399.005

DATE
04-27-2026

ISSUE
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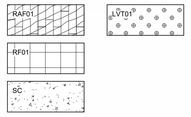
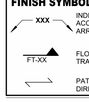
SHEET TITLE
RESTROOM RENOVATIONS

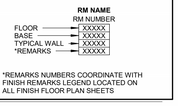
SHEET NO.
A2.02

FINISH FLOOR KEY PLAN



FINISH SYMBOLS LEGEND





*REMARKS NUMBERS COORDINATE WITH FINISH REMARKS LEGEND LOCATED ON ALL FINISH FLOOR PLAN SHEETS

INTERIOR TYPICAL FINISHES

THE FOLLOWING FINISH SELECTIONS SHALL BE TYPICAL UNLESS NOTED OTHERWISE

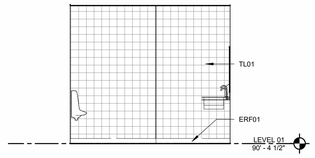
ACT01	ACOUSTIC CEILING TILE
IPT01	WALLS
IPT02	GYP CEILING & SOFFITS
LVT01	COACH OFFICE FLOORING
RAF01	RESILIENT athletic FLOORING
RB01	WALL BASE
RF01	RESTROOM FLOORING & WALL BASE
SC	SEALED CONCRETE
T01	RESTROOM FIELD WALL TILE
T02	RESTROOM ACCENT WALL TILE

INTERIOR FINISH GENERAL NOTES

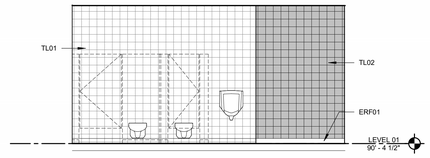
1.	PATTERN NAME, COLOR AND NUMBER FOR EACH MATERIAL ARE GIVEN WHEREVER POSSIBLE ON THE FINISH PLAN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT/DESIGNER SO THAT THE CORRECT MATERIAL IS INSTALLED.
3.	REFERENCE A2 SERIES DRAWINGS FOR INTERIOR FINISH PLANS.
6.	REFERENCE A4 SERIES FOR ALL CEILING FINISHES.
7.	~~ALL CORNERS IN CORRIDOR SHALL RECEIVE A CORNER GUARD, U.N.O.~~
11.	ALL FLOORING TRANSITIONS SHALL BE CENTERED UNDER THE DOOR IN THE CLOSED POSITION.
12.	ALL FLOORING TO BE INSTALLED PARALLEL TO DOOR UNLESS NOTED OTHERWISE.
17.	TILE AND/OR FLOORING SHALL NOT CUT LESS THAN 1/3" OF THE MATERIAL UNLESS IT IS GREATER THAN 6 INCHES.
18.	ALL EXPOSED TILE EDGES AND OUTSIDE WALL TILE CORNERS TO RECEIVE METAL TRIM REFER TO IDSS.

GENERAL FINISH FLOOR PLAN NOTES

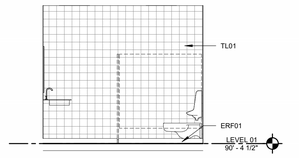
1. PATTERN NAME, COLOR, AND NUMBER FOR EACH MATERIAL IS GIVEN WHEREVER POSSIBLE ON THE FINISH FLOOR PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT SO THAT THE CORRECT MATERIAL CAN BE INSTALLED
2. ALL FLOORING TRANSITIONS SHALL BE CENTERED UNDER THE DOOR IN THE CLOSED POSITION. PROVIDE A TRANSITION AT EVERY DOOR.
3. ALL EXPOSED TILE EDGES AND OUTSIDE WALL TILE CORNERS TO RECEIVE METAL TRIM.
4. TILE AND/OR FLOORING SHALL NOT CUT LESS THAN 1/3" OF THE MATERIAL UNLESS ITS GREATER THAN 6"
5. PAINT ACCESS PANELS LOCATED WITHIN GYP BOARD WALLS OR CEILINGS TO MATCH CORRESPONDING WALL OR CEILING.
6. AT ALL DOOR STOPS OF FLOOR MOUNTED HARDWARE, CONTRACTOR TO CUT FLOORING OR RUBBER BASE AS REQUIRED TO ALLOW HARDWARE TO REMAIN OPERATIONAL
7. EXISTING WALL AND FLOOR TILES THAT ARE TO REAMIN ARE TO BE DEEP CLEANED AS PART OF THE FINAL CLEAN PRIOR TO OWNER HAND OVER
8. COORDINATE ALL TILE LAYOUT WITH PLUMBING FIXTURES, PARTITIONS, ACCESSORIES, AND FLOOR DRAINS FOR CENTERED/ BALANCED INSTALLATION
9. SLOPE FLOOR TILE TO DRAIN; NO STANDING WATER PERMITTED
10. ALIGN GROUT JOINTS BETWEEN FLOOR TILE AND WALL TILE WHERE FEASIBLE FOR A VISUALLY CONTINUOUS SYSTEM
11. PROVIDE GROUT SUITABLE FOR WET ENVIRONMENTS; STAIN-RESISTANT, EPOXY OR HIGH-PERFORMANCE CEMENTITIOUS GROUT.
12. CONTRACTOR TO VERIFY EXISTING SUBSTRATE CONDITIONS PRIOR TO TILE INSTALLATION. REPORT DAMAGED SUBSTRATE TO ARCHITECT.
13. ALL TILE TO BE INSTALLED PER MANUFACTURERS REQUIREMENTS FOR MORTAR, GROUT, EXPANSION JOINTS, AND CONTROL JOINTS
14. CONTRACTOR SHALL PROVIDE ALL REQUIRED SEALANTS AT TILE TRANSITIONS, CORNERS, AND JOINTS.
15. PROVIDE NEW FLOOR TILE (TL-01:) AND PERIMETER BAND IN NEWLY INSTALLED STALL FLOOR AREA; MATCH EXISTING FLOOR GRID LAYOUT TO MAINTAIN SEAMLESS, UNIFORM FINISH THROUGHOUT.
16. ALL GYP BOARD RESTROOM CEILINGS TO BE REPAINTED SW7004 SNOWBOUND, FLAT, UNO



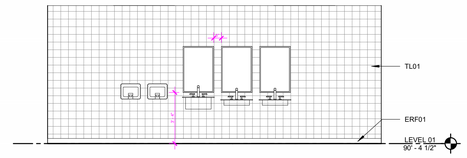
16 BOYS RR ELVATION 04
1/4" = 1'-0"



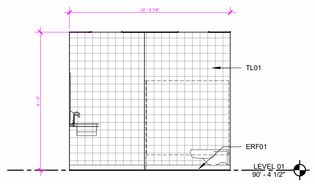
15 BOYS RR ELVATION 03
1/4" = 1'-0"



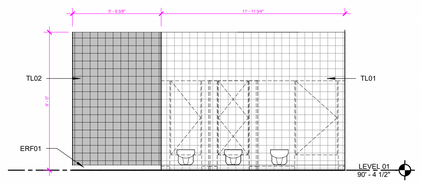
14 BOYS RR ELVATION 02
1/4" = 1'-0"



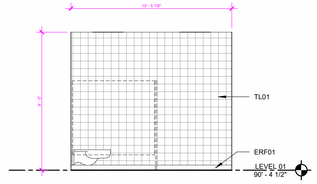
13 BOYS RR ELVATION 01
1/4" = 1'-0"



12 GIRLS RR ELVATION 04
1/4" = 1'-0"



11 GIRLS RR ELVATION 03
1/4" = 1'-0"



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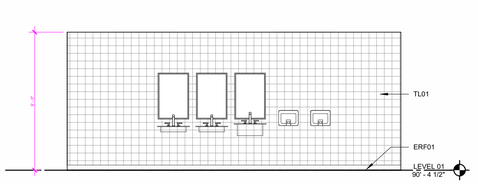
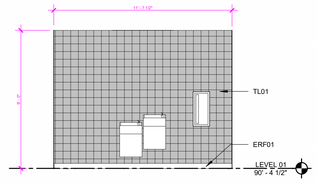
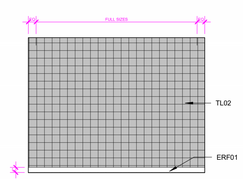
1/4" = 1'-0"



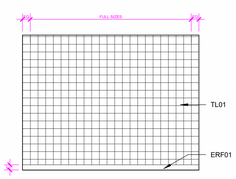
09 GIRLS RR ELVATION 01
1/4" = 1'-0"



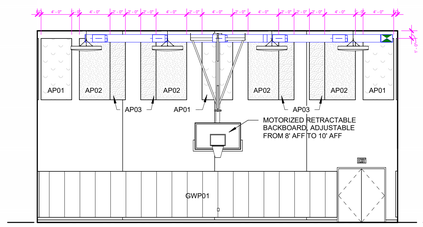
08 RESTROOM VESTIBULE ELEVATION
1/4" = 1'-0"



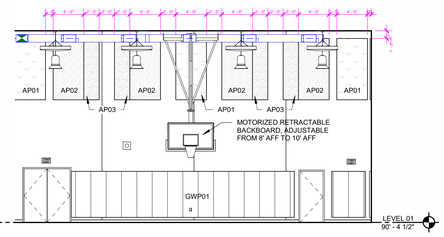
07 INT. ELEV - GROUP RR ACCENT WALL
1/4" = 1'-0"



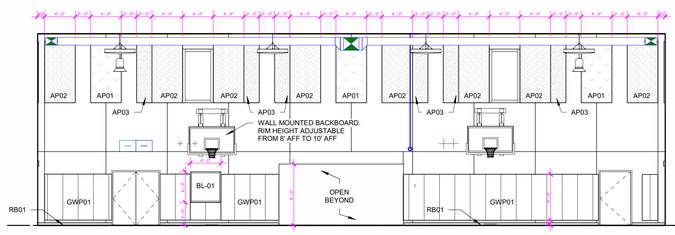
06 INT. ELEV - GROUP RR FIELD WALL
1/4" = 1'-0"



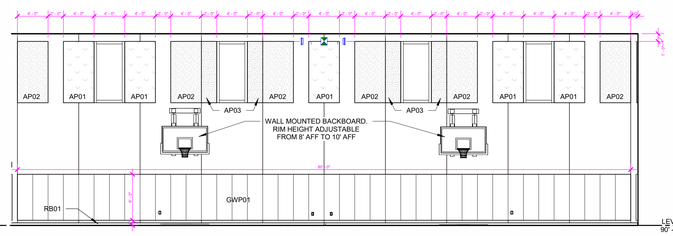
05 INTERIOR ELEVATION 04
1/8" = 1'-0"



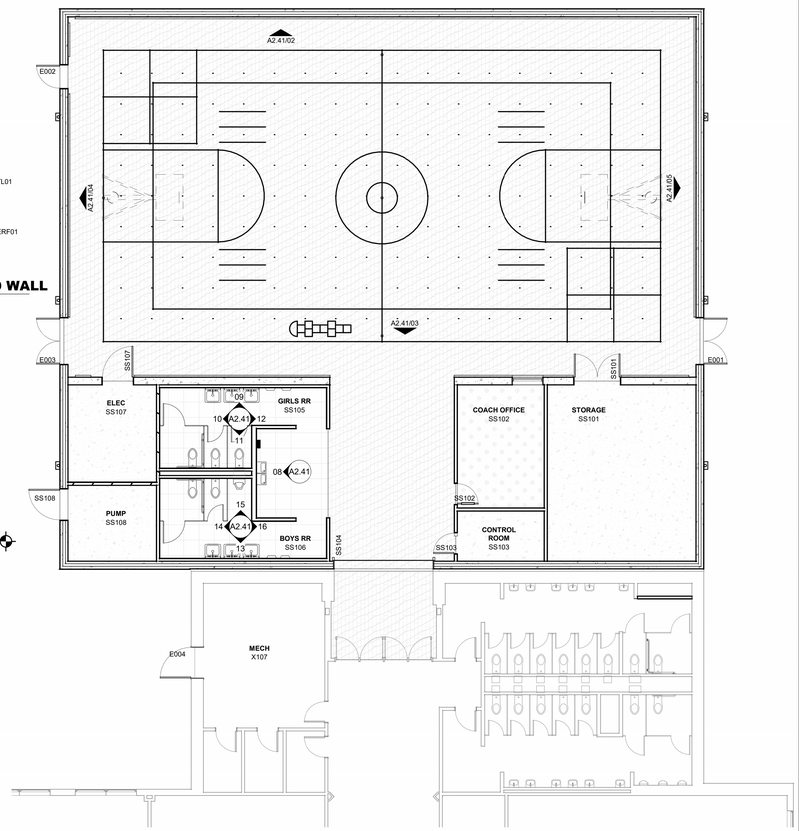
04 INTERIOR ELEVATION 03
1/8" = 1'-0"



03 INTERIOR ELEVATION 02
1/8" = 1'-0"



02 INTERIOR ELEVATION 01
1/8" = 1'-0"



01 FINISH FLOOR PLAN - AREA A
1/8" = 1'-0"

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WIMBISH WORLD LANGUAGE ACADEMY

SEAL & SIGNATURE

05-08-2026

KEY PLAN

REVISION

NO.	DESCRIPTION	DATE
1	ADDENDUM 02	05-08-2026

HKS PROJECT NUMBER
26399.005

DATE
04-27-2026

ISSUE
BID SET

SHEET TITLE
FINISH FLOOR PLAN - AREA A

SHEET NO.
A2.41

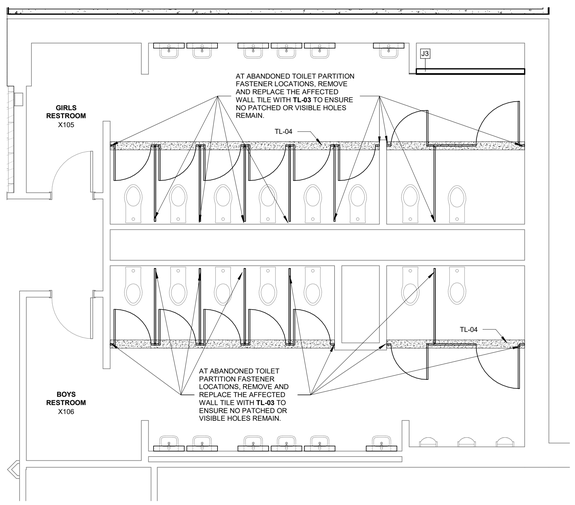
PLOT DATE: 5/6/2026 1:23:16 PM
TEMPLATE VERSION: 23.0.4

INTERIOR DESIGN SELECTION SUMMARY

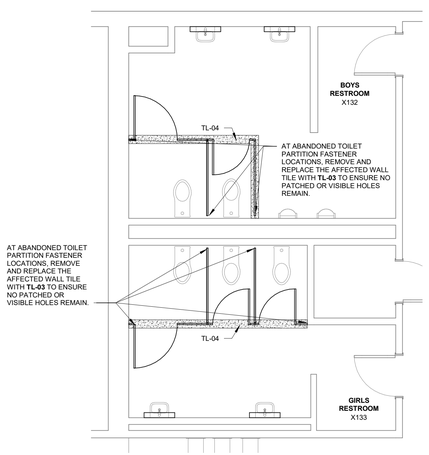
NAME	MANUFACTURER	STYLE	PATTERN	NUMBER	COLOR	SIZE (IN)	INSTALLATION	COMMENTS
ACOUSTICAL CEILING TILE								
ACT - 01	N/A							EXISTING CEILING
ACT - 02	CALLA	SQUARE LAY-IN		2820	WHITE	24x24 in		SMOOTH TEXTURE
INTERIOR PAINT								
IPT-01	SHERWIN WILLIAMS				SW7004 SNOWBOUND			CEILING GYP. BOARD RESTROOM
TILE								
TL - 03								WALL TILE
TL - 04								FLOOR TILE

GENERAL FINISH FLOOR PLAN NOTES

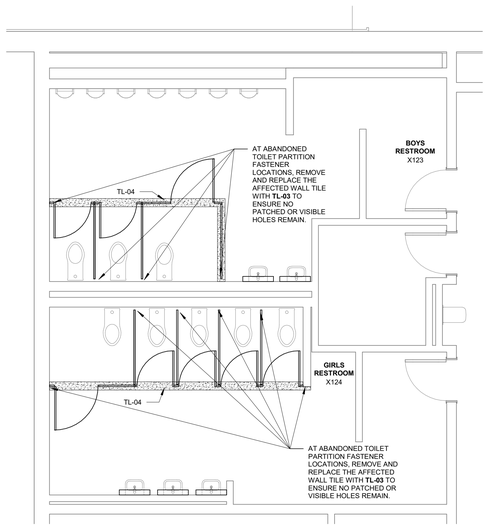
1. PATTERN NAME, COLOR, AND NUMBER FOR EACH MATERIAL IS GIVEN WHEREVER POSSIBLE ON THE FINISH FLOOR PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT SO THAT THE CORRECT MATERIAL CAN BE INSTALLED
2. ALL FLOORING TRANSITIONS SHALL BE CENTERED UNDER THE DOOR IN THE CLOSED POSITION. PROVIDE A TRANSITION AT EVERY DOOR.
3. ALL EXPOSED TILE EDGES AND OUTSIDE WALL TILE CORNERS TO RECEIVE METAL TRIM.
4. TILE AND/OR FLOORING SHALL NOT CUT LESS THAN 1/3" OF THE MATERIAL UNLESS ITS GREATER THAN 6"
5. PAINT ACCESS PANELS LOCATED WITHIN GYP BOARD WALLS OR CEILINGS TO MATCH CORRESPONDING WALL OR CEILING.
6. AT ALL DOOR STOPS OF FLOOR MOUNTED HARDWARE, CONTRACTOR TO CUT FLOORING OR RUBBER BASE AS REQUIRED TO ALLOW HARDWARE TO REMAIN OPERATIONAL
7. EXISTING WALL AND FLOOR TILES THAT ARE TO REAMIN ARE TO BE DEEP CLEANED AS PART OF THE FINAL CLEAN PRIOR TO OWNER HAND OVER
8. COORDINATE ALL TILE LAYOUT WITH PLUMBING FIXTURES, PARTITIONS, ACCESSORIES, AND FLOOR DRAINS FOR CENTERED/ BALANCED INSTALLATION
9. SLOPE FLOOR TILE TO DRAIN; NO STANDING WATER PERMITTED
10. ALIGN GROUT JOINTS BETWEEN FLOOR TILE AND WALL TILE WHERE FEASIBLE FOR A VISUALLY CONTINUOUS SYSTEM
11. PROVIDE GROUT SUITABLE FOR WET ENVIRONMENTS; STAIN-RESISTANT, EPOXY OR HIGH-PERFORMANCE CEMENTITIOUS GROUT.
12. CONTRACTOR TO VERIFY EXISTING SUBSTRATE CONDITIONS PRIOR TO TILE INSTALLATION. REPORT DAMAGED SUBSTRATE TO ARCHITECT.
13. ALL TILE TO BE INSTALLED PER MANUFACTURERS REQUIREMENTS FOR MORTAR, GROUT, EXPANSION JOINTS, AND CONTROL JOINTS.
14. CONTRACTOR SHALL PROVIDE ALL REQUIRED SEALANTS AT TILE TRANSITIONS, CORNERS, AND JOINTS.
15. PROVIDE NEW FLOOR TILE (TL-01:) AND PERIMETER BAND IN NEWLY INSTALLED STALL FLOOR AREA; MATCH EXISTING FLOOR GRID LAYOUT TO MAINTAIN SEAMLESS, UNIFORM FINISH THROUGHOUT.
16. ALL GYP BOARD RESTROOM CEILINGS TO BE REPAINTED SW7004 SNOWBOUND, FLAT, UNO



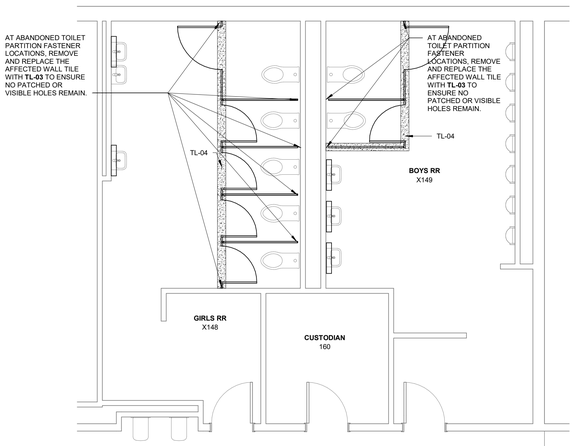
04 RENOVATION RESTROOM GROUP 04 - FINISHES
1/4" = 1'-0"



03 RENOVATION RESTROOM GROUP 03 - FINISHES
1/4" = 1'-0"



02 RENOVATION RESTROOM GROUP 02 - FINISHES
1/4" = 1'-0"



01 RENOVATION RESTROOM GROUP 01 - FINISHES
1/4" = 1'-0"

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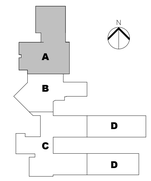
SEAL & SIGNATURE

REGISTERED ARCHITECT STATE OF TEXAS

05-08-2026



KEY PLAN

REVISION

NO.	DESCRIPTION	DATE
1	ADDENDUM 02	05-08-2026

HKS PROJECT NUMBER
26399.005

DATE
04-27-2026

ISSUE
BID SET

SHEET TITLE
RESTROOM RENOVATION - FINISH PLANS

SHEET NO.
A2.42

PLOT DATE: 5/8/2026 1:23:18 PM TEMPLATE VERSION: 23.0.4