Addendum 02
Webster High School – Band Room & Greenhouse Additions w/ Site Improvements

09/20/2022

This Addendum is hereby made a part of the Contract Documents to the same extent as though it were originally included herein. This Addendum must be acknowledged in the space provided on the Bid Form.

General Information / Attachments

1. September 27th & 28th, 2022, 3:30PM – Mandatory Prebid Walks
2. October 5th, 2022, 2PM – RFIs Due in Email Form
3. October 13th, 2022, 2PM – New Project Bid Date (Location in Attached CM Manual)

Geotechnical Report

1. Geotechnical Report
2. Addendum to Geotechnical Report

Construction Manager's Manual

1. CM Manual dated 9/20/2022 attached.

Drawings

1. Civil Addendum 02 w/ coversheet attached.

End of Addendum 02

Geotechnical Engineering Report

Webster High School Classroom Additions
Tulsa, Oklahoma
March 14, 2022
Terracon Project No. 04225018

Prepared for:
GS Helms & Associates, LLC
Jenks, Oklahoma

Prepared by:
Terracon Consultants, Inc.
Tulsa, Oklahoma

March 14, 2022

GS Helms & Associates, LLC
424 East Main Street
Jenks, Oklahoma 74037

Attn: Mr. Greg Helms
P: 918-298-7257
E: greg.helms@gshelms.com

Re: Geotechnical Engineering Report
Webster High School Classroom Additions
1919 West 40th Street
Tulsa, Oklahoma
Terracon Project No. 04225018

Dear Mr. Helms:

We have completed the Geotechnical Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. P04225018 dated February 1, 2022. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning the proposed project.

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

Sincerely,
Terracon Consultants, Inc.
Cert. of Auth. #CA-4531 exp. 6/30/23

Bradley M. Watts, P.E.
Oklahoma No. 16526

Michael H. Homan, P.E.
Senior Principal

REPORT TOPICS

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Note: This report was originally delivered in a web-based format. For more interactive features, please view your project online at client.terracon.com.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES
SITE LOCATION AND EXPLORATION PLANS
EXPLORATION RESULTS
SUPPORTING INFORMATION

Note: Refer to each individual Attachment for a listing of contents.

Geotechnical Engineering Report

Webster High School Classroom Additions

Tulsa, Oklahoma

Terracon Project No. 04225018

March 14, 2022

INTRODUCTION

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed classroom additions planned at Webster High School located at 1919 West 40th Street in Tulsa, Oklahoma. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil and rock conditions
- Groundwater conditions
- Site preparation and earthwork
- Foundation design and construction
- Floor slab design and construction
- Lateral earth pressures
- Seismic site classification per IBC
- Pavement design and construction

The geotechnical engineering Scope of Services for this project included the advancement of eight test borings, designated B-1 to B-8, to depths ranging from approximately 3.5 to 19 feet below existing site grades.

Maps showing the site and boring locations are shown in the **Site Location** and **Exploration Plan** section, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs in the **Exploration Results** section.

SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration.

Item	Description
Parcel Information	The project is located at 1919 West 40th Street in Tulsa, Oklahoma. Latitude/Longitude: 36.1060° N/96.0127° W (approximate) See **Site Location**
Existing Improvements	Buildings, pavement, concrete flatwork, maintained grass area, and easterly flowing drainage channel
Current Ground Cover	Grass, asphalt pavement, concrete flatwork, and some trees

Item	Description
Existing Topography	Relatively level to gradually sloping; a maximum elevation difference of about 4 feet was measured between the borings

PROJECT DESCRIPTION

Our understanding of the project conditions is as follows:

Item	Description
Project Description	The project involves constructing the following: ■ One-story building addition named the Band Classroom addition will be built along the east side of the existing building that contains Studio C, Band Rooms, and the Cafeteria. The building addition will be a combination of insulating concrete forming, cast-in-place concrete foundation walls, steel roof framing, and poured in-place concrete roof topping slab to create a FEMA Community Safe Room. The addition will have brick veneer. ■ One-story building addition along the south side of the Classroom D building (a.k.a., Addition on South Side of Classroom D Building) with the east half of the addition consisting of a greenhouse and west half of the addition consisting of a typical steel frame building with metal stud walls. The addition will have brick veneer. ■ Associated paved drive and parking areas.
Maximum Structural Loads **(provided unless otherwise noted as assumed)**	**Band Classroom Addition:** ■ Columns: 180 kips ■ Walls: 15 kips per linear foot ■ Slab-on-Grade: 150 pounds per square foot, uniform (assumed) **Addition On South Side of Classroom D Building:** ■ Columns: 50 kips ■ Walls: 3 kips per linear foot ■ Slab-on-Grade: 150 pounds per square foot, uniform (assumed)

Item	Description
Grading	■ **Band Classroom Addition:** We understand the finished floor elevation will be located about 6 feet above the grade of the adjacent existing pavement. Therefore, we assume maximum fill depths of about 8 feet, relative to existing grades, will be required to reach the final building subgrade elevation. ■ **Addition On South Side of Classroom D Building:** Final grades have not been provided for this addition. We assume maximum cut and fill depths of about 2 feet, relative to the existing grades, will be required to reach the final building subgrade elevation. ■ **Planned Pavements:** We assume maximum cut and fill depths of about 2 feet, relative to the existing grades, will be required to reach the final pavement subgrade elevations.

GEOTECHNICAL CHARACTERIZATION

Subsurface Profile

Subsurface conditions at the boring locations can be generalized as follows:

Stratum	Approximate Depth to Bottom of Stratum	Material Description	Consistency/Density/ Comments
Surface 1	6 inches in B-1, B-2, B-5, and B-6	Surface Vegetation and Topsoil	N/A
Surface 2	4 inches in B-3, B-4, B-7, and B-8	Asphalt	N/A
1	1.5 to 2 feet in B-4, B-5, and B-7	Fill: Silty Lean Clay	Standard penetration resistance blow count values (N-values) ranging from 3 to 6 blows per foot were obtained in the fill
2	8.5 to 14.5 feet; 3.5 to 4.5-foot termination depths in B-7 and B-8	Lean Clay; Silty Lean Clay; Shaley Lean Clay with varying amounts of sand and sandstone fragments	Soft to Very Stiff [1]
3	13.5 to 18 feet in B-3 to B-6	Highly Weathered Shale; Weathered Shale	Soft; Olive-Brown
4	Approx. 19-foot termination depths in B-1 to B-6	Shale	Moderately Hard to Hard; Gray

Stratum	Approximate Depth to Bottom of Stratum	Material Description	Consistency/Density/ Comments

1. The clays were typically medium stiff to very stiff in consistency, except for the clays at borings B-2 to a depth of about 8.5 feet and B-6 from a depth of about 5 to 8.5 feet which were soft or soft to medium stiff.

Conditions encountered at each boring location are indicated on the individual boring logs shown in the **Exploration Results** section and are attached to this report. Stratification boundaries on the boring logs represent the approximate location of changes in material types; in situ, the transition between materials may be gradual.

Groundwater Conditions

The boreholes were observed while drilling and immediately after completion for the presence and level of groundwater. The water levels observed in the boreholes can be found on the boring logs in **Exploration Results** and are summarized below.

Boring Number	Approximate Depth to Groundwater while Drilling (feet) [1]	Approximate Depth to Groundwater after Drilling (feet) [1]
B-1, B-3, B-7, and B-8	Not encountered	Not encountered
B-2	13.5	13
B-4	18	17.5
B-5	11	13.5
B-6	11	13.5

1. Below ground surface

Relatively wet soils were encountered in several borings which indicate the potential for shallow perched water in the areas of those borings.

Groundwater observations made during this exploration occurred over the short duration the borings were performed. Due to the relatively low permeability soil and rock encountered in the borings, a relatively long period may be necessary for a groundwater level to develop and stabilize in a borehole. Therefore, the groundwater observations do not necessarily mean the borings terminated above groundwater, or the water levels summarized above are stable groundwater levels. Long term observations in piezometers or observation wells sealed from the influence of surface water are often required to define groundwater levels in materials of this type.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the borings were performed. Perched water could be present during some periods of the year. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the

boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

GEOTECHNICAL OVERVIEW

Band Classroom Addition

Relatively high moisture content, low strength soils were encountered at boring B-2 to a depth of approximately 8.5 feet below the existing grade. These low strength soils are unstable and subject to excessive settlement under the loads imposed by the new fills. It should be noted that boring B-2 was located near the existing drainage channel. Wet weather conditions occurring prior to and during construction will exacerbate the extent of low strength, unstable conditions. The extent of low strength, unstable near surface soils will not become evident until construction.

The full-depth of the low strength, unstable soils that are subject to excessive settlement will require undercutting and replacement with tested and approved, engineered fill. Considering the results of boring B-2, undercut depths on the order of 8.5 feet below existing grades should be anticipated to remove the unsuitable soils in the area of boring B-2. Based on these undercut depths, we anticipate fill depths up to approximately 15 feet will be required to reach the final building subgrade elevation for the planned Band Classroom addition.

We estimate post-fill construction settlement could be approximately 1 to 2 inches where the 15-foot deep fills are constructed. The settlement will occur due to compression of the fill under its own weight and compression of the on-site soils under the weight of the fill. Because of the variable thickness of fill required across the Band Classroom addition, differential fill settlement could approach the total settlement value. Conventional on-grade building floor slabs will be subject to the estimated magnitude of total and differential fill settlement, if they were constructed immediately after fill construction.

Because of the variable composition and consolidation characteristics of on-site soils, we cannot accurately predict how long it will take for the majority of the fill settlement to occur such that post-fill construction settlements will be within acceptable levels. At the planned Band Classroom addition, we recommend that settlement monitoring be performed after grading is completed to evaluate when post-fill construction settlement will be within acceptable levels and it is acceptable to begin construction of the building. Foundation installation for the building should not begin until the settlement monitoring period is completed. Settlement monitoring is discussed in more detail in the **Settlement Monitoring – Band Classroom Addition** section.

Based on the results of the borings and anticipated foundation loads, we recommend the planned Band Classroom addition be supported on drilled pier foundations bearing in the moderately hard to hard, gray shale bedrock that was encountered in borings B-1 to B-4 at depths of approximately

13.5 to 18 feet (approximate elevation 82.5 to 89 feet). The **Drilled Pier Foundations** section addresses the design and construction of drilled pier foundations.

The on-site soils have relatively low volume change potential with variations in moisture content. However, because variable thicknesses of fill could be placed to grade building pad, we recommend that a minimum 30-inch thick layer of Low Volume Change (LVC) engineered fill be constructed beneath slab-on-grade floors of the Band Classroom addition to help provide more uniform support. The **Floor Slabs** section addresses slab-on-grade support of the building.

Flexible and rigid pavement system options are provided in this report. The **Pavements** section addresses the design of pavement systems.

Addition on South Side of Classroom D Building

Relatively low strength soils were encountered at boring B-6 between depths of approximately 5 to 8.5 feet below the existing grade. These low strength soils, as well as the clay soil encountered in boring B-5 between depths of about 5 to 8.5 feet have relatively high moisture content and are unstable. Wet weather conditions occurring prior to and during construction will exacerbate the extent of low strength, unstable conditions. The extent of low strength, unstable near surface soils will not become evident until construction.

Because of the relatively low strength, near surface soils encountered at boring B-6, we recommend the planned Addition on South Side of Classroom D Building be supported on drilled pier foundations bearing in the moderately hard to hard, gray shale bedrock that was encountered in borings B-5 to B-6 at depths of approximately 13.5 to 17.5 feet (approximate elevation 82.5 to 86 feet). The **Drilled Pier Foundations** section addresses the design and construction of drilled pier foundations.

We have considered footings for support of this building addition. However, to develop support for footings, it would be necessary to perform an undercut and backfill procedure to construct a thickness of engineered fill beneath the footings. We anticipate construction difficulties would be encountered when performing the undercut and backfill procedure due to the high moisture content, unstable soil conditions between the approximate depths of 5 to 8.5 feet. These conditions could require footing undercuts to be extended deeper and below the zone of unstable soils and/or require the use of special backfill construction procedures involving the use of crushed aggregate underlain by a geogrid mat. Because of these potential construction difficulties and also considering groundwater was encountered in borings B-5 and B-6 at a depth as shallow as 11 feet, it appears that footings are not a viable option for support of the planned Addition on South Side of Classroom D Building.

The on-site soils have relatively low volume change potential with variations in moisture content. However, because of the potential for a variable subgrade conditions, we recommend that a minimum 12-inch thick layer of Low Volume Change (LVC) engineered fill be constructed beneath

slab-on-grade floors of the building addition to help provide more uniform support. The **Floor Slabs** section addresses slab-on-grade support of the building.

General

Constructing floor slabs and pavements over existing fill is discussed in this report. Because of the potential for variation in the composition and quality of existing fill away from the borings and unsuitable materials to be buried in existing fills, there is an inherent risk of unpredictable settlement of slabs and pavements constructed over existing fills. This risk cannot be eliminated unless the full-depth of the existing fill is removed and replaced with tested and approved, new engineered fill. However, the risk can be reduced with thorough observation and testing by a representative of the Geotechnical Engineer during construction.

The **General Comments** section provides an understanding of the report limitations.

EARTHWORK

Earthwork will include clearing and grubbing, excavations and fill placement. The following sections provide recommendations for use in the preparation of specifications for the work. Recommendations include critical quality criteria as necessary to render the site in the state considered in our geotechnical engineering evaluation for slabs and pavements.

Site Preparation

Areas within the limits of construction should be stripped and cleared of all surface vegetation, topsoil, trees, and any debris. Tree stumps and major root systems should be removed full-depth. Any existing surface and subsurface features from past site use should be removed full-depth from the limits of construction. Excavations required for tree stump and root removal, and demolition should be cleaned of loose material, water, and debris and properly backfilled with tested and approved, engineered fill.

After stripping and completing the required cuts and overexcavations, and prior to placing any new fill, the subgrade should be proofrolled to aid in locating soft, unstable areas. Proofrolling should be performed with a loaded tandem axle dump truck weighing at least 25 tons. Areas too small to proofroll should be evaluated by the Geotechnical Engineer. Low strength, unstable soils should be overexcavated full-depth and replaced with suitable engineered fill.

Based on the results of the borings, low strength, unstable subgrade conditions should be anticipated. Low strength, unstable soils were encountered to a depth of about 8.5 feet at boring B-2. Low strength, unstable soil conditions could be encountered at other locations in the vicinity of the existing drainage channel. Perched water seepage could be encountered in undercuts made in the area of the drainage channel. High moisture content, unstable near surface soils

could also be encountered in the area of borings B-5 and B-6, and within the proposed pavement areas (area of B-7 and B-8).

After completing the proofrolling, and before placing any fill, the exposed subgrade should be scarified to a minimum depth of 9 inches, moisture conditioned, and compacted as recommended in **Fill Compaction Requirements** within **Earthwork**.

Where relatively deep undercuts are required, fills should be benched into the sides of the undercut periodically as fill placement progresses vertically.

Fill Material Types

Soils used as engineered fill materials should meet the following requirements:

Fill Type [1]	Acceptable Location For Placement
Imported Low Volume Change (LVC) Material [2] (8 ≤ PI ≤ 18)	n All locations and elevations n Required for top 30 inches of the floor slab subgrade at the Band Classroom addition n Required for top 12 inches of the floor slab subgrade at the Addition at South Side of Classroom D Building n Required as fill beneath Band Classroom addition and Addition on South Side of Classroom D Building (i.e., only Imported LVC Material should be used as fill beneath these building areas) n Required for 12-inch select fill layer below pavements
On-Site Clay Soils [3, 4]	n Not allowed as fill beneath the Band Classroom addition n Not allowed as fill beneath the Addition on South Side of Classroom D Building n Depths greater than 12 inches below the final pavement subgrade
ODOT Type A Aggregate Base [5]	n Aggregate base course in pavement sections

1. Controlled, compacted fill should consist of approved materials that are free of organic matter and debris and contain maximum rock size of 3 inches. Frozen material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the geotechnical engineer for evaluation prior to its use.
2. Approved, imported, low plasticity cohesive soil having a plasticity index (PI) of 8 to 18 and containing at least 15% fines (material passing the No. 200 sieve, based on dry weight).
3. Undocumented existing fills may contain unsuitable materials and debris that render the existing fill materials unsuitable for reuse as engineered fill. The presence of unsuitable materials and debris may not be identified until construction is underway.
4. The on-site soils could have elevated moisture levels and require drying to allow for placement as engineered fill.

Fill Type [1]	Acceptable Location For Placement

5. Subsection 703.01 of the Oklahoma Department of Transportation, Standard Specifications for Highway Construction

Fill Compaction Requirements

The compacted subgrade and engineered fill should be moisture conditioned and compacted in accordance with the following recommendations:

Item		Description
Subgrade Scarification Depth		9 inches
Maximum Lift Thickness [1]		9 inches or less in loose thickness
Minimum Compaction Requirements [2]		■ **Depths Within 4 feet of the Final Subgrade:** At least 95% of the material's standard Proctor maximum dry density (ASTM D 698) ■ **Depths Greater than 4 feet below the Final Subgrade:** At least 98% of the material's standard Proctor maximum dry density (ASTM D 698)
Moisture Content	**Imported LVC Material and On-Site Clay**	-2 to +2% of the material's optimum moisture content (ASTM D-698)
	Aggregate Base	Workable moisture content [3]

1. Thinner lifts are recommended in confined areas or when hand-operated compaction equipment is used.
2. We recommend that engineered fill (including scarified compacted subgrade) be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified moisture and compaction requirements are achieved.
3. Workable moisture content is the moisture content sufficient to achieve the specified compaction without causing pumping when proofrolled.

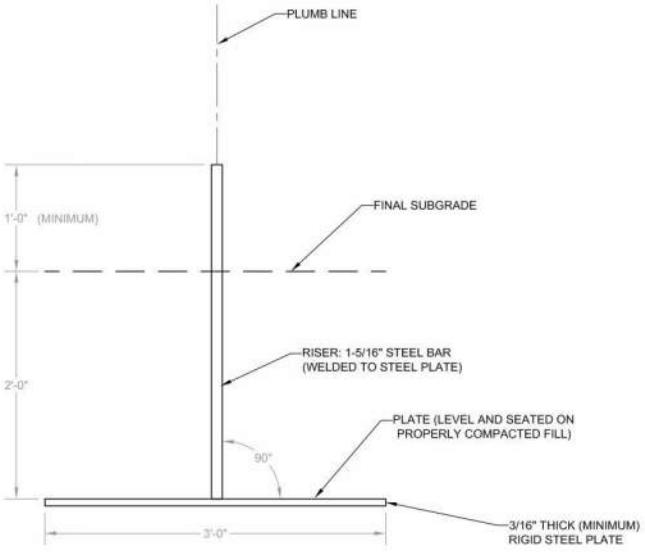
Settlement Monitoring – Band Classroom Addition

Fills up to approximately 15 feet in depth are anticipated at the Band Classroom addition site. To verify that post-construction settlement of on-grade building floor slabs will be within accepted levels, the fill should be allowed to settle prior to constructing the building. Foundation installation for the building should not begin until the settlement monitoring period is completed. Settlement plates should be installed in the compacted fill and the plates should be monitored to determine when the majority of the fill settlement has occurred. A settlement plate detail is shown in Figure 1 below. Terracon should be consulted when the final grading plans are available to provide recommended settlement plate locations.

Building construction, including foundation installation, should not begin until settlement has stabilized and future settlement will be within acceptable levels. We estimate it could take approximately 8 to 12 weeks after fill construction for the settlement to stabilize. However, the actual length of time needed for settlement to stabilize should be evaluated through the recommended monitoring. The quality of subgrade preparation prior to placing fills could have a significant impact on the length of the settlement monitoring period.

Following construction of the fill and settlement plate installation, a licensed surveyor should shoot the elevation of the top of each settlement plate riser at least two times per week. Elevations should be shot to the nearest 0.01 foot. Elevation shots should be made by the same surveyor at approximately the same time of day with similar ambient temperatures. Terracon should be retained to review the monitoring/elevation data and advise the client and design team as to when settlement has sufficiently stabilized. Monitoring should continue until the settlement has adequately stabilized.

A settlement plate detail is provided below. Once the settlement monitoring is completed and the plates are no longer needed, the plates should be removed and the excavation backfilled with engineered fill.



Notes:

1) Firmly seat and level plate to ensure installation of a riser in a plumb line

2) Use a carpenters level to check plumb of the riser when installing

3) Protect settlement plate against disturbance

4) Disturbed settlement plates shall be replaced

Figure 1

Utility Trench Backfill

Utility trenches are a common source of water infiltration and migration. All utility trenches that penetrate beneath the buildings should be effectively sealed to restrict water intrusion and flow through the trenches that could migrate below the buildings. We recommend constructing an effective clay "trench plug" that extends at least 5 feet out from the face of the structure exterior. The plug material should consist of clay compacted at a water content at or above the soil's optimum water content. The clay fill should be placed to completely surround the utility line and be compacted in accordance with recommendations in this report.

Grading and Drainage

All grades must provide effective drainage away from the buildings during and after construction and should be maintained throughout the life of the structure.

Exposed ground should be sloped and maintained at a minimum 5 percent away from the buildings for at least 10 feet beyond the perimeter of the structure. Locally, flatter grades may be necessary to transition ADA access requirements for flatwork. After structure construction and landscaping have been completed, final grades should be verified to document effective drainage has been achieved. Grades around the structures should also be periodically inspected and adjusted, as necessary, as part of the structure's maintenance program. Where paving or flatwork abuts the structures, a maintenance program should be established to effectively seal and maintain joints and prevent surface water infiltration.

Planters located within 10 feet of the buildings should be self-contained to prevent water accessing the building subgrade soils. Sprinkler mains and spray heads should be located a minimum of 5 feet away from the building lines. Low-volume, drip style landscaped irrigation should not be used near the buildings. Roof runoff should be collected in drains or gutters. Roof drains and downspouts should be discharged onto pavements which slope away from the buildings or extend down spouts at least 10 feet away from the building.

Earthwork Construction Considerations

The on-site clay soils are moisture sensitive and subject to disturbance and instability with moisture increases. If wet conditions exist during construction, construction equipment mobility could be hindered and it could be necessary to overexcavate and replace or stabilize unstable subgrade soils to develop suitable support for new fills, slabs, and pavements, and to allow construction to proceed.

Relatively high moisture content, low strength soils that were unstable were encountered at boring B-2 to a depth of approximately 8.5 feet. Boring B-2 was located near the existing drainage channel. The relatively wet soil conditions indicate the perched water seepage could be encountered within the zone of low strength soils at boring B-2. Wet weather conditions around

the time of construction and during construction will exacerbate the extent of soft, high moisture content near surface soils and perched water conditions.

The low strength, unstable soils encountered to a depth of about 8.5 feet at boring B-2 are subject to excessive settlement under the loads imposed by the new fills and require full-depth removal and replacement with tested and approved engineered fill. Special construction procedures could be required to stabilize the subgrade across the bottom of the overexcavations, after removal of the low strength soils. The need for special construction procedures and selection of the appropriate procedure should be evaluated during construction.

It should be expected that temporary dewatering could be required during construction to perform the overexcavation and backfill procedures "in the dry."

Near surface soils with relatively high moisture content that were unstable were also encountered in the borings for the proposed Addition on South Side of Classroom D Building and in planned pavement areas.

It is our experience that high moisture content, unstable soils can be found beneath existing slabs and pavement after demolition.

It is not possible to accurately predict until construction is underway the actual quantity of unsuitable soils that will need to be removed. We encourage the owner to secure a base bid for removing a specified quantity of the unsuitable soils. The owner should also secure unit rates for adding or deducting quantities from the base bid that includes costs for exporting unsuitable materials and importing approved replacement materials, if required.

Upon completion of filling and grading, care should be taken to maintain the subgrade water content prior to construction of foundations, slabs, and pavements. Construction traffic over the completed subgrades should be avoided. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. Water collecting over, or adjacent to, construction areas should be removed. If the subgrade freezes, desiccates, saturates, or is disturbed, the affected material should be removed, or the materials should be scarified, moisture conditioned, and recompacted, prior to construction of overlying elements.

As a minimum, all temporary excavations should be sloped or braced as required by Occupational Health and Safety Administration (OSHA) regulations to provide stability and safe working conditions. Temporary excavations will probably be required during grading operations. The grading contractor, by his contract, is usually 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. All excavations should comply with applicable local, state and federal safety regulations, including the current OSHA Excavation and Trench Safety Standards.

Construction Observation and Testing

The earthwork efforts should be monitored under the direction of the Geotechnical Engineer. Monitoring should include documentation of adequate removal of existing surface and subsurface site features, vegetation and topsoil, proofrolling and mitigation of areas delineated by the proofroll to require mitigation.

Each lift of compacted fill should be tested, evaluated, and reworked as necessary until approved by the Geotechnical Engineer prior to placement of additional lifts. Each lift of fill should be tested for density and water content at a frequency of at least one test for every 2,500 square feet of compacted fill in the building areas and 5,000 square feet in pavement areas, with at least two tests per lift. One density and water content test should be performed for each lift for every 100 linear feet of compacted utility trench backfill, with at least two tests per lift.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer's evaluation of subsurface conditions, including assessing variations and associated design changes.

DRILLED PIER FOUNDATIONS

We recommend the proposed Band Classroom addition and Addition on South Side of Classroom D Building be supported on drilled pier foundations bearing in the moderately hard to hard, gray shale bedrock. It will be necessary for pier excavations to fully penetrate any overlying highly weathered shale and weathered shale to encounter the recommended bearing material. Close observation by the Geotechnical Engineer should be performed during construction to evaluate that suitable bedrock is encountered and sufficiently penetrated.

Design and construction recommendations for pier foundations are presented in the following paragraphs.

Drilled Pier Design Parameters

Description		Design
Foundation type		Straight shaft drilled piers
Bearing material		Moderately hard to hard, gray, shale
Depth bearing material encountered [1] **(approx. relative elevation)**	**Band Classroom Addition**	13.5 to 18 feet (82.5 to 89 feet)
	Addition on South Side of Classroom D Building	13.5 to 17.5 feet (82.5 to 86 feet)

Description	Design
Net allowable end bearing pressure [2]	50,000 psf
Allowable skin friction [3]	3,500 psf
Minimum pier diameter	18 inches
Minimum pier spacing [4]	3 pier diameters center-to-center
Minimum grade beam depth [5]	24 inches
Estimated total settlement	1/2 inch or less

1. Depth to recommended bearing material below the ground surface at our borings. Approximate elevation of bearing material is relative to Terracon's arbitrary benchmark elevation of 100.0 feet.
2. Piers should extend at least 2 feet into the gray, moderately hard to hard, shale bedrock to use the recommended net allowable end bearing pressure. The net allowable bearing pressure is the pressure at the base of the piers in excess of the adjacent overburden pressure.
3. The recommended skin friction is for that length of drilled pier extending more than 2 feet into the recommended bearing material. Skin friction can be used to provide additional capacity in compression and resistance to uplift loads.
4. Minimum pier spacing to reduce overlapping bearing stresses and for constructability.
5. Minimum depth applies to grade beams along the perimeter and in unheated areas for frost protection.

Drilled Pier Construction Considerations

A heavy-duty pier drilling rig equipped with a rock auger will be needed to penetrate the shale bedrock.

Zones of highly weathered shale and weathered shale ranging from about 3 to 5 feet thick were encountered above the shale bearing stratum at some of the boring locations. Drilled piers will need to extend completely through the highly weathered shale and weathered shale to encounter the moderately hard to hard shale bearing material. Terracon should observe all pier installations to verify that the recommend bearing materials are encountered and sufficiently penetrated.

Based on the results of the borings, it should be anticipated that temporary casing will be required to complete pier excavations. A sufficient head of plastic concrete having a minimum slump of about 6 inches should be maintained inside the casing during withdrawal to reduce the potential for concrete arching and the influx of soil and water into the pier excavation. Placement of loose soil backfill should not be permitted around the casing prior to removal.

All loose or disturbed material and water should be removed from pier excavations prior to concrete placement. Concrete should be on-hand and ready for placement immediately after the pier excavation is completed.

FLOOR SLABS

Design parameters for building floor slabs are presented in this section and consider that the requirements for **Earthwork** have been followed. Specific attention should be given to positive drainage away from the structure.

Floor Slab Design Recommendations

Item		Description
Floor slab support	**Band Classroom Addition**	30-inch Low Volume Change (LVC) fill zone [1]
	Addition on South Side of Classroom D Building	12-inch Low Volume Change (LVC) fill zone [1]

1. To help provide more uniform slab support, we recommend a Low Volume Change (LVC) fill layer be constructed below building floor slabs. LVC fill material should consist of approved materials conforming to the recommendations presented **Fill Material Types** within **Earthwork**. The thickness of the LVC fill zone does not include the thickness of any granular leveling material below the floor slab. The on-site soils should be undercut sufficiently to allow for construction of the LVC fill zone.

The use of a vapor retarder should be considered beneath concrete slabs on grade covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

LATERAL EARTH PRESSURES

We anticipate the building could contain stem walls (i.e., below-grade building walls) along the sides of the building where the retained materials will be under the building floor slab. Earth pressures exerted on the walls are dependent on the height and stiffness of the walls, type and density of backfill materials, and imposed surface loads. Recommended design parameters to evaluate lateral earth pressures for design of below-grade walls are presented in the following table.

Description	Design
Design Equivalent Fluid Pressure – At-Rest Pressure Condition [1]	70 pcf
At-Rest Pressure Coefficient [2]	0.6

1. The equivalent fluid pressure value assumes an at-rest pressure condition where the walls are restrained and cannot move sufficiently to mobilize shear strength of the soil. The recommended equivalent fluid

pressure value assumes a level backfill condition, triangular pressure distribution, no surcharge loads, and no hydrostatic pressures behind the walls.

2. At-rest pressure coefficient can be used to compute lateral earth pressures imposed by uniform surcharge loads behind the walls.

SEISMIC CONSIDERATIONS

The seismic design requirements for buildings and other structures are based on Seismic Design Category. Site Classification is required to determine the Seismic Design Category for a structure. The Site Classification is based on the upper 100 feet of the site profile defined by a weighted average value of either shear wave velocity, standard penetration resistance, or undrained shear strength in accordance with Section 20.4 of ASCE 7 and the International Building Code (IBC). Based on the soil/bedrock properties encountered at the site and as described on the exploration logs and results, it is our professional opinion that the **Seismic Site Classification is D**. Subsurface explorations at this site were extended to a maximum approximate depth of 19 feet. The site properties below the boring depth to 100 feet were estimated based on our experience and knowledge of geologic conditions of the general area. Additional deeper borings or geophysical testing may be performed to confirm the conditions below the current boring depth.

PAVEMENTS

Pavement Sections

To improve longer-term pavement support, we recommend that a minimum 12-inch thick layer of select fill be constructed beneath the pavement sections. The on-site soils should be undercut sufficiently to construct the select fill layer. The select fill should consist of an Imported Low Volume Change material meeting the criteria stated in section **Fill Material Types** within **Earthwork**.

Typical, minimum alternative pavement sections are outlined in the sections below. The pavement sections assume that automobile parking pavements will be traveled only by automobiles and drive lane pavements will be traveled by no more than 5 trucks per day having a gross weight of 50,000 pounds or equivalent trafficking. If heavier or more frequent truck traffic is expected, Terracon should be contacted to review the pavements sections and, if necessary, to modify the section thickness. Periodic maintenance should be planned to extend the pavement life. Other pavement sections could be considered.

The following table provides options for AC and PCC Sections:

MINIMUM PAVEMENT RECOMMENDATIONS		
	Drive Lanes	**Automobile Parking**
Pavement Section I		
Asphaltic Concrete Over Aggregate Base Over Select Fill	2.0” Type “C” Asphaltic Concrete [1, 2]	3.0” Type “C” Asphaltic Concrete [1, 2]
	2.5” Type “A” Asphaltic Concrete [1, 2]	6.0” Aggregate Base [1]
	6.0” Aggregate Base [1]	12.0” Select Fill
	12.0” Select Fill	
Pavement Section II		
3,500 psi Air Entrained Portland Cement Concrete Over Select Fill	6.0" Concrete	5.0" Concrete
	12.0” Select Fill	12.0” Select Fill

1. Oklahoma Department of Transportation Standard Specifications
2. Type “C” asphaltic concrete is equivalent to Type “S5” PG 64-22 OK and Type “A” asphaltic concrete is equivalent to Type “S3” PG 64-22 OK.

NOTE: We recommend that 7-inch thick reinforced concrete pads be provided in front of and beneath trash receptacles. The dumpster trucks should be parked on the rigid concrete pavement when the trash receptacles are lifted. The concrete pads should be supported on at least 4 inches of ODOT Type “A” aggregate base over 12 inches of select fill.

Pavement Drainage

Pavements should be sloped to provide rapid drainage of surface water. Water allowed to pond on or adjacent to the pavements could saturate the subgrade and contribute to premature pavement deterioration.

Pavement Maintenance

The pavement sections represent minimum recommended thicknesses and, as such, periodic maintenance should be anticipated. Therefore, preventive maintenance should be planned and provided for through an on-going pavement management program. Maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment. Maintenance consists of both localized maintenance (e.g. crack and joint sealing and patching) and global maintenance (e.g. surface sealing). Preventive maintenance is usually the priority when implementing a pavement maintenance program. Additional engineering observation is recommended to determine the type and extent of a cost-effective program. Even with periodic maintenance, some movements and related cracking may still occur and repairs may be required.

INTERACTION BETWEEN NEW AND EXISTING STRUCTURES

Excavations made near existing structures should be made with care so the support of existing foundations, pavements, slabs, etc. is not adversely affected. A sufficient clear distance should be maintained between new and existing foundations to reduce the potential for overlapping bearing stresses and additional settlement of existing foundations. Connections between new and existing buildings should be designed to tolerate the anticipated differential movements.

GENERAL COMMENTS

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client, and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location

of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES

Field Exploration

Number of Borings	Boring Depth (feet)	Location
4 (B-1 to B-4)	18.7 to 18.8	Band Classroom Addition
2 (B-5 and B-6)	18.7 to 18.8	Addition on South Side of Classroom D Building
2 (B-7 and B-8)	3.5 to 4.5	Pavement Areas

Boring Layout and Elevations: We used a handheld GPS equipment with an estimated horizontal accuracy of +/-25 feet and measured from existing reference features to locate borings in the field. Terracon determined relative ground surface elevations at the boring locations using a surveying level and rod. The floor slab at a doorway along the east side of the existing building located west of boring B-1 was used as benchmark. The benchmark was assigned an arbitrary elevation of 100.0 feet. The ground surface elevations at the borings, rounded to the nearest 0.5 feet, are shown near the top of the boring logs. The locations and elevations of the borings should be considered accurate only to the degree implied by these methods.

Subsurface Exploration Procedures: We advanced the borings with an ATV-mounted rotary drill rigs using continuous flight augers and rotary cutting bits. Split-barrel samples were obtained in the borings. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon is driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths.

The sampling depths, penetration distances, and other sampling information were recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for testing and classification by a geotechnical engineer. Our exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials encountered during drilling and our interpretation of the subsurface conditions between samples. Final boring logs were prepared from the field logs. The final boring logs represent the geotechnical engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

Laboratory Testing

The project engineer reviewed the field data and assigned various laboratory tests to better understand the engineering properties of the various soil and rock strata as necessary for this project. The following tests were performed.

- Water content
- Atterberg limits
- Percent material passing the No. 200 sieve

The laboratory testing program included examination of soil samples by an engineer. Based on the material's texture and plasticity, we described and classified the soil samples in accordance with the Unified Soil Classification System.

Rock classification was conducted using locally accepted practices for engineering purposes; petrographic analysis may reveal other rock types. Rock core samples typically provide an improved specimen for this classification. Boring log rock classification was determined using the Description of Rock Properties.

SITE LOCATION AND EXPLORATION PLANS

Contents:

Site Location Plan
Exploration Plan

SITE LOCATION

Webster High School Classroom Additions ■ Tulsa, Oklahoma
March 14, 2022 ■ Terracon Project No. 04225018

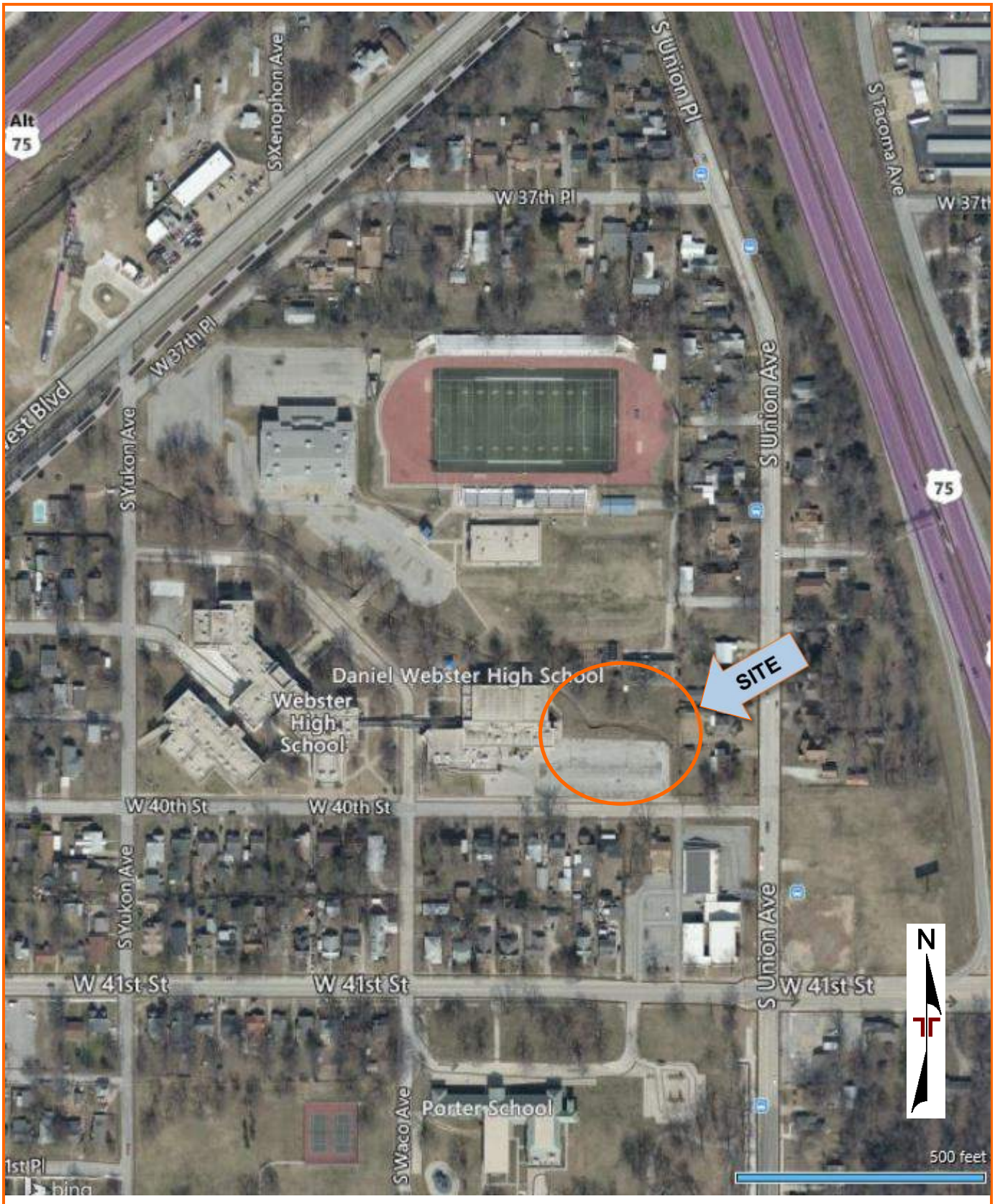


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Terracon GeoReport

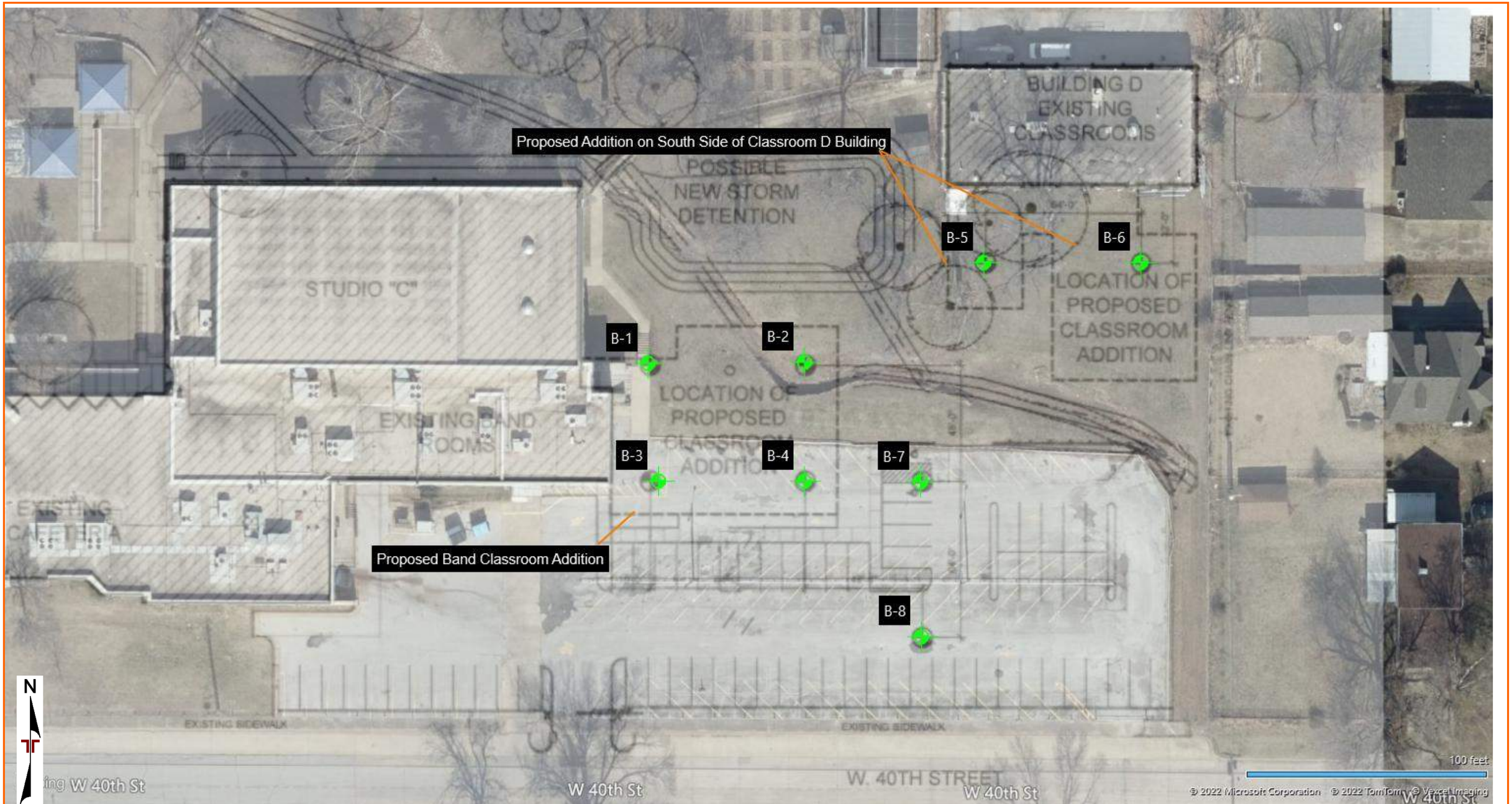


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXPLORATION RESULTS

Contents:

Boring Logs (B-1 to B-8)

Note: All attachments are one page unless noted above.

BORING LOG NO. B-1

PROJECT: Webster High School Classroom Additions

CLIENT: GSHELMS & Associates, LLC
Jenks, OK

SITE: 1919 West 40th Street
Tulsa, OK

LOCATION See Exploration Plan

Latitude: 36.1059° Longitude: -96.0130°

Approximate Surface Elev.: 100.0 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI
6" Topsoil **LEAN CLAY (CL)**, dark brown, medium stiff		18	2-2-2 N=4	21.8	
2.0	98+/-				
LEAN CLAY (CL), reddish brown, medium stiff		18	2-3-3 N=6	20.5	33-16-17
5.0	95+/-				
LEAN CLAY (CL), brown, medium stiff			2-4-4 N=8	20.4	
9.0	91+/-	16	5-12-10 N=22	17.9	
SHALEY LEAN CLAY (CL), with sandstone seams, yellowish brown and gray, very stiff					
13.5	86.5+/-				
SHALE+, gray, hard		1	50/2"	5.6	
18.7	81.5+/-	1	50/1"	6.5	
Boring Terminated at 18.7 Feet					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

+Classification estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method:
Power Auger

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
9522 E 47th Pl, Ste D
Tulsa, OK

Boring Started: 02-22-2022 | Boring Completed: 02-22-2022

Drill Rig: CME 750 / ATV | Driller: TS

Project No.: 04225018

BORING LOG NO. B-2

PROJECT: Webster High School Classroom Additions

CLIENT: GSHELMS & Associates, LLC
Jenks, OK

SITE: 1919 West 40th Street
Tulsa, OK

LOCATION See Exploration Plan

Latitude: 36.1059° Longitude: -96.0128°

Approximate Surface Elev.: 98.5 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
		6" Topsoil					
		LEAN CLAY WITH SILT (CL), dark brown, soft to medium stiff	16	0-2-4 N=6	18.9		
2.0	96.5+/-						
		LEAN CLAY (CL), dark brown, soft, wet	18	0-1-2 N=3	30.2		88
5.0	93.5+/-						
		LEAN CLAY (CL), dark brown with brown, soft, wet	16	0-2-2 N=4	25.8		
8.5	90+/-						
		LEAN CLAY (CL), yellowish brown and gray, medium stiff	18	2-3-3 N=6	23.0		
13.5	85+/-						
		SHALE+, gray, moderately hard	2	50/3"	14.1		
18.8	79.5+/-						
		Boring Terminated at 18.8 Feet	2	50/3"	12.7		

DEPTH (Ft.): 5, 10, 15

WATER LEVEL OBSERVATIONS: ▽ ▽

SAMPLE TYPE: ⊠

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

+Classification estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method:
Power Auger

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *13.5 feet while drilling*

▽ *13 feet after boring*

Terracon
9522 E 47th Pl, Ste D
Tulsa, OK

Boring Started: 02-22-2022 | Boring Completed: 02-22-2022

Drill Rig: CME 750 / ATV | Driller: TS

Project No.: 04225018

BORING LOG NO. B-3

PROJECT: Webster High School Classroom Additions

CLIENT: GSHELMS & Associates, LLC
Jenks, OK

SITE: 1919 West 40th Street
Tulsa, OK

LOCATION See Exploration Plan

Latitude: 36.1057° Longitude: -96.0130°

Approximate Surface Elev.: 102.5 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI
		4" Asphalt				
		SILTY LEAN CLAY (CL-ML), dark brown, medium stiff	16	2-2-3 N=5	20.9	26-19-7
2.0	100.5+/-					
		LEAN CLAY (CL), reddish brown and brown, medium stiff	18	2-3-3 N=6	21.3	32-17-15
5.0	97.5+/-					
		LEAN CLAY (CL), yellowish brown, medium stiff	17	2-2-3 N=5	22.1	
8.5	94+/-					
		WEATHERED SHALE+, olive brown, soft	12	16-50/6"	14.3	
13.5	89+/-					
		SHALE+, gray, moderately hard	2	50/3"	7.7	
18.7	84+/-					
		Boring Terminated at 18.7 Feet	0	50/2"		

DEPTH (Ft.): 5, 10, 15

WATER LEVEL OBSERVATIONS

SAMPLE TYPE

PERCENT FINES

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

+Classification estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method:
Power Auger

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
9522 E 47th Pl, Ste D
Tulsa, OK

Boring Started: 02-22-2022 | Boring Completed: 02-22-2022

Drill Rig: CME 750 / ATV | Driller: TS

Project No.: 04225018

BORING LOG NO. B-4

PROJECT: Webster High School Classroom Additions

CLIENT: GSHELMS & Associates, LLC
Jenks, OK

SITE: 1919 West 40th Street
Tulsa, OK

LOCATION See Exploration Plan

Latitude: 36.1058° Longitude: -96.0128°

Approximate Surface Elev.: 100.5 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI
		4" Asphalt				
		FILL - SILTY LEAN CLAY, dark brown	15	2-1-2 N=3	23.6	
2.0	98.5+/-					
		LEAN CLAY (CL), reddish brown and brown, medium stiff	18	2-2-2 N=4	22.1	32-18-14
			11	2-3-3 N=6	20.9	
8.5	92+/-					
		SHALEY LEAN CLAY (CL), with sandstone seams, olive brown and yellowish brown, stiff	14	3-4-6 N=10	12.4	
13.5	87+/-					
		WEATHERED SHALE+, olive brown, soft	6	50/6"	16.5	
18.0	82.5+/-					
18.7	82+/-	**SHALE+**, gray, hard	1	50/2"	6.7	
		Boring Terminated at 18.7 Feet				

DEPTH (Ft.): 5, 10, 15

WATER LEVEL OBSERVATIONS: ▽ 18 feet while drilling; ▽ 17.5 feet after boring

SAMPLE TYPE: split spoon

PERCENT FINES

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

+Classification estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method:
Power Auger

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *18 feet while drilling*

▽ *17.5 feet after boring*

Terracon
9522 E 47th Pl, Ste D
Tulsa, OK

Boring Started: 02-22-2022 | Boring Completed: 02-22-2022

Drill Rig: CME 750 / ATV | Driller: TS

Project No.: 04225018

BORING LOG NO. B-5

PROJECT: Webster High School Classroom Additions

CLIENT: GSHELMS & Associates, LLC
Jenks, OK

SITE: 1919 West 40th Street
Tulsa, OK

LOCATION See Exploration Plan

Latitude: 36.1060° Longitude: -96.0125°

Approximate Surface Elev.: 99.5 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description
		6" Topsoil
1.5	98+/-	**FILL - SILTY LEAN CLAY**, dark brown
		LEAN CLAY (CL), reddish brown and brown, medium stiff
5.0	94.5+/-	
		LEAN CLAY (CL), yellowish brown, medium stiff, wet
8.5	91+/-	
9.5	90+/-	**LEAN CLAY (CL)**, with sand seams and trace sandstone fragments, stiff
		HIGHLY WEATHERED SHALE+, olive brown, soft
13.5	86+/-	
		SHALE+, gray, moderately hard to hard
18.7	81+/-	
		Boring Terminated at 18.7 Feet

DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
		18	2-3-3 N=6	14.6		
		13	3-3-4 N=7	21.4	31-19-12	
5		13	2-2-3 N=5	21.7		
		18	2-5-31 N=36	14.3		
10						
		0	50/3"	10.6		
15						
		2	50/2"	23.2		

WATER LEVEL OBSERVATIONS: ▽ 11 feet while drilling; ▽ 13.5 feet after boring

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

+Classification estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method:
Power Auger

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

Terracon
9522 E 47th Pl, Ste D
Tulsa, OK

Boring Started: 02-22-2022 | Boring Completed: 02-22-2022

Drill Rig: CME 750 / ATV | Driller: TS

Project No.: 04225018

BORING LOG NO. B-6

PROJECT: Webster High School Classroom Additions

CLIENT: GSHELMS & Associates, LLC
Jenks, OK

SITE: 1919 West 40th Street
Tulsa, OK

LOCATION See Exploration Plan

Latitude: 36.1060° Longitude: -96.0123°

Approximate Surface Elev.: 100.0 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
6" Topsoil **SILTY LEAN CLAY (CL)**, dark brown and brown, medium stiff, wet					
2.0	98+/-		18	1-2-3 N=5	23.7
LEAN CLAY (CL), reddish brown, medium stiff			18	3-2-3 N=5	21.9
5.0	95+/-	5			
LEAN CLAY (CL), yellowish brown, soft, wet			16	0-1-2 N=3	
8.5	91.5+/-				
LEAN CLAY WITH SAND (CL), trace sandstone fragments, yellowish brown and gray, stiff		10	16	4-5-6 N=11	19.6
14.5	85.5+/-		17	7-21-50/5"	18.1
WEATHERED SHALE+, olive brown, soft		15			
17.5	82.5+/-				
SHALE+, gray, moderately hard					
18.8	81+/-		2	50/3"	14.1
Boring Terminated at 18.8 Feet					

ATTERBERG LIMITS: LL-PL-PI

PERCENT FINES

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

+Classification estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method:
Power Auger

Abandonment Method:
Boring backfilled with soil cuttings and bentonite chips upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

11 feet while drilling

13.5 feet after boring

Terracon
9522 E 47th Pl, Ste D
Tulsa, OK

Boring Started: 02-22-2022

Boring Completed: 02-22-2022

Drill Rig: CME 750 / ATV

Driller: TS

Project No.: 04225018

BORING LOG NO. B-7

PROJECT: Webster High School Classroom Additions

CLIENT: GSHELMS & Associates, LLC
Jenks, OK

SITE: 1919 West 40th Street
Tulsa, OK

LOCATION See Exploration Plan

Latitude: 36.1058° Longitude: -96.0126°

Approximate Surface Elev.: 99.5 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	GRAPHIC LOG	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	4" Asphalt **FILL - SILTY LEAN CLAY**, dark brown, wet									
2.0	97.5+/-					16	1-2-2 N=4	24.5		
	LEAN CLAY (CL), reddish brown, medium stiff, wet					18	2-2-3 N=5	23.2		
3.5	96+/-									
	Boring Terminated at 3.5 Feet									

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

+Classification estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method:
Power Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
9522 E 47th Pl, Ste D
Tulsa, OK

Boring Started: 02-22-2022 | Boring Completed: 02-22-2022

Drill Rig: CME 750 / ATV | Driller: TS

Project No.: 04225018

BORING LOG NO. B-8

PROJECT: Webster High School Classroom Additions

CLIENT: GSHELMS & Associates, LLC
Jenks, OK

SITE: 1919 West 40th Street
Tulsa, OK

LOCATION See Exploration Plan

Latitude: 36.1056° Longitude: -96.0126°

Approximate Surface Elev.: 100.0 (Ft.) +/-

GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
		4" Asphalt **SILTY LEAN CLAY (CL)**, dark brown, soft, wet								
	2.0	98+/-			X	18	1-1-2 N=3	22.4		
		LEAN CLAY (CL), reddish brown, stiff								
	4.5	95.5+/-			X	18	3-4-5 N=9	19.9		
		Boring Terminated at 4.5 Feet								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

+Classification estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method:
Power Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
9522 E 47th Pl, Ste D
Tulsa, OK

Boring Started: 02-22-2022 | Boring Completed: 02-22-2022

Drill Rig: CME 750 / ATV | Driller: TS

Project No.: 04225018

SUPPORTING INFORMATION

Contents:

General Notes
Unified Soil Classification System
General Notes – Sedimentary Rock Classification

Note: All attachments are one page unless noted above.

GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

SAMPLING


Auger


Split Spoon


Shelby Tube


Macro Core


Ring Sampler


Rock Core


Grab Sample


No Recovery

WATER LEVEL


Water Initially Encountered


Water Level After a Specified Period of Time


Water Level After a Specified Period of Time

Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.

FIELD TESTS

(HP)	Hand Penetrometer
(T)	Torvane
(b/f)	Standard Penetration Test (blows per foot)
(PID)	Photo-Ionization Detector
(OVA)	Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

LOCATION AND ELEVATION NOTES

Unless otherwise noted, Latitude and Longitude are approximately determined using a hand-held GPS device. The accuracy of such devices is variable. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance Includes gravels, sands and silts.			CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance			
Descriptive Term (Density)	**Standard Penetration or N-Value Blows/Ft.**	**Ring Sampler Blows/Ft.**	**Descriptive Term (Consistency)**	**Unconfined Compressive Strength, Qu, psf**	**Standard Penetration or N-Value Blows/Ft.**	**Ring Sampler Blows/Ft.**
Very Loose	0 - 3	0 - 6	Very Soft	less than 500	0 - 1	< 3
Loose	4 - 9	7 - 18	Soft	500 to 1,000	2 - 4	3 - 4
Medium Dense	10 - 29	19 - 58	Medium-Stiff	1,000 to 2,000	4 - 8	5 - 9
Dense	30 - 50	59 - 98	Stiff	2,000 to 4,000	8 - 15	10 - 18
Very Dense	> 50	≥ 99	Very Stiff	4,000 to 8,000	15 - 30	19 - 42
			Hard	> 8,000	> 30	> 42

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 15
With	15 - 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY

Major Component of Sample	Particle Size
Boulders	Over 12 in. (300 mm)
Cobbles	12 in. to 3 in. (300mm to 75mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm
Silt or Clay	Passing #200 sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 5
With	5 - 12
Modifier	> 12

PLASTICITY DESCRIPTION

Term	Plasticity Index
Non-plastic	0
Low	1 - 10
Medium	11 - 30
High	> 30

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]					Soil Classification	
					Group Symbol	Group Name [B]
Coarse Grained Soils: More than 50% retained on No. 200 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	$Cu \geq 4$ and $1 \leq Cc \leq 3$ [E]		GW	Well-graded gravel [F]
			$Cu < 4$ and/or $1 > Cc > 3$ [E]		GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH		GM	Silty gravel [F,G,H]
			Fines classify as CL or CH		GC	Clayey gravel [F,G,H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	$Cu \geq 6$ and $1 \leq Cc \leq 3$ [E]		SW	Well-graded sand [I]
			$Cu < 6$ and/or $1 > Cc > 3$ [E]		SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH		SM	Silty sand [G,H,I]
			Fines classify as CL or CH		SC	Clayey sand [G,H,I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots on or above "A" line [J]		CL	Lean clay [K,L,M]
			PI < 4 or plots below "A" line [J]		ML	Silt [K,L,M]
		Organic:	Liquid limit - oven dried	< 0.75	OL	Organic clay [K,L,M,N]
			Liquid limit - not dried			Organic silt [K,L,M,O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above "A" line		CH	Fat clay [K,L,M]
			PI plots below "A" line		MH	Elastic Silt [K,L,M]
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay [K,L,M,P]
			Liquid limit - not dried			Organic silt [K,L,M,Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.

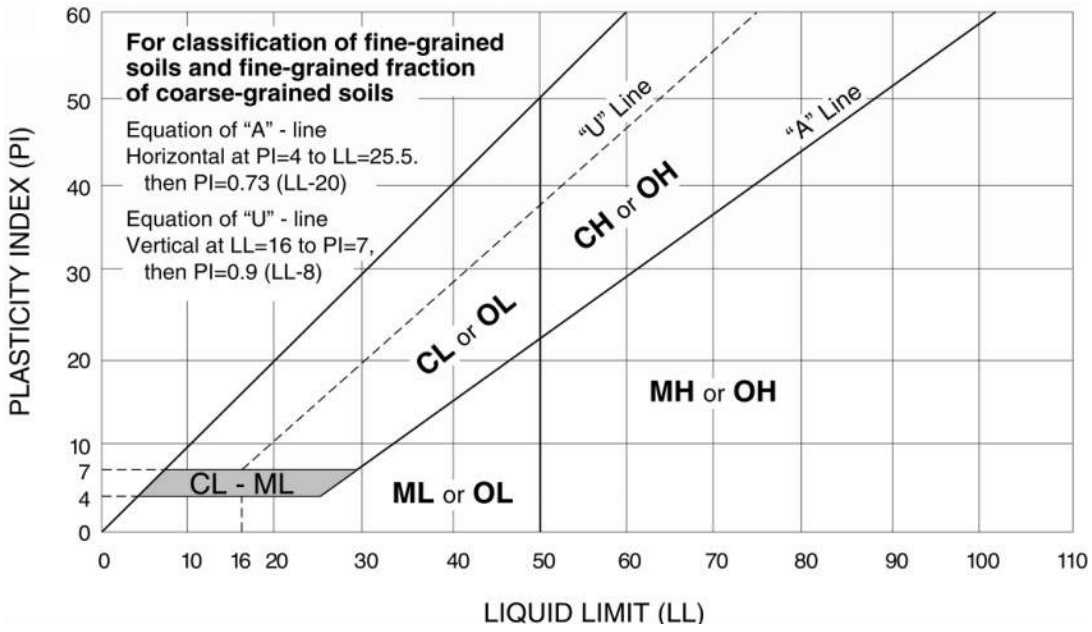


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Exhibit C-2

GENERAL NOTES

Sedimentary Rock Classification

DESCRIPTIVE ROCK CLASSIFICATION:

Sedimentary rocks are composed of cemented clay, silt and sand sized particles. The most common minerals are clay, quartz and calcite. Rock composed primarily of calcite is called limestone; rock of sand size grains is called sandstone, and rock of clay and silt size grains is called mudstone or claystone, siltstone, or shale. Modifiers such as shaly, sandy, dolomitic, calcareous, carbonaceous, etc. are used to describe various constituents. Examples: sandy shale; calcareous sandstone.

LIMESTONE	Light to dark colored, crystalline to fine-grained texture, composed of $CaCo_3$, reacts readily with HCl.
DOLOMITE	Light to dark colored, crystalline to fine-grained texture, composed of $CaMg(CO_3)_2$, harder than limestone, reacts with HCl when powdered.
CHERT	Light to dark colored, very fine-grained texture, composed of micro-crystalline quartz ($Si0_2$), brittle, breaks into angular fragments, will scratch glass.
SHALE	Very fine-grained texture, composed of consolidated silt or clay, bedded in thin layers. The unlaminated equivalent is frequently referred to as siltstone, claystone or mudstone.
SANDSTONE	Usually light colored, coarse to fine texture, composed of cemented sand size grains of quartz, feldspar, etc. Cement usually is silica but may be such minerals as calcite, iron-oxide, or some other carbonate.
CONGLOMERATE	Rounded rock fragments of variable mineralogy varying in size from near sand to boulder size but usually pebble to cobble size (½ inch to 6 inches). Cemented together with various cementing agents. Breccia is similar but composed of angular, fractured rock particles cemented together.

PHYSICAL PROPERTIES:

DEGREE OF WEATHERING

Slight	Slight decomposition of parent material on joints. May be color change.
Moderate	Some decomposition and color change throughout.
High	Rock highly decomposed, may be extremely broken.

HARDNESS AND DEGREE OF CEMENTATION

Limestone and Dolomite:

Hard	Difficult to scratch with knife.
Moderately Hard	Can be scratched easily with knife, cannot be scratched with fingernail.
Soft	Can be scratched with fingernail.

Shale, Siltstone and Claystone

Hard	Can be scratched easily with knife, cannot be scratched with fingernail.
Moderately Hard	Can be scratched with fingernail.
Soft	Can be easily dented but not molded with fingers.

Sandstone and Conglomerate

Well Cemented	Capable of scratching a knife blade.
Cemented	Can be scratched with knife.
Poorly Cemented	Can be broken apart easily with fingers.

BEDDING AND JOINT CHARACTERISTICS

Bed Thickness	Joint Spacing	Dimensions
Very Thick	Very Wide	> 10′
Thick	Wide	3′ - 10′
Medium	Moderately Close	1′ - 3′
Thin	Close	2″ - 1′
Very Thin	Very Close	.4″ - 2″
Laminated	—	.1″ - .4″

Bedding Plane	A plane dividing sedimentary rocks of the same or different lithology.
Joint	Fracture in rock, generally more or less vertical or transverse to bedding, along which no appreciable movement has occurred.
Seam	Generally applies to bedding plane with an unspecified degree of weathering.

SOLUTION AND VOID CONDITIONS

Solid	Contains no voids.
Vuggy (Pitted)	Rock having small solution pits or cavities up to ½ inch diameter, frequently with a mineral lining.
Porous	Containing numerous voids, pores, or other openings, which may or may not interconnect.
Cavernous	Containing cavities or caverns, sometimes quite large.

Terracon

July 8, 2022

GS Helms & Associates, LLC
424 East Main Street
Jenks, Oklahoma 74119

Attn: Mr. Greg Helms
P: (918) 583-5300
E: greg.helms@gshelms.com

Re: Addendum to Geotechnical Engineering Report
Modifications to Earthwork Recommendations – Band Classroom Addition
Webster High School Classroom Additions
Tulsa, Oklahoma
Terracon Project No. 04225018

Dear Mr. Helms:

On June 24, 2022, Terracon, GS Helms, and Nabholz had a tele-meeting in which the grading plan dated June 14, 2022 and construction sequencing was discussed. Based on the information discussed during that meeting, we are submitting this addendum to our March 14, 2022 Geotechnical Engineering Report to present modifications to the earthwork recommendations for the planned Band Classroom Addition.

Based on the Grading Plan (sheet C5.3) dated June 14, 2022, the Band Room building has a design finished floor elevation of 655 feet. Fill depths up to about 12 feet above existing grade will be required to reach the final floor slab subgrade elevation. The deepest fills will occur within the northeastern of building area where it is located over the existing drainage channel. In addition to the fills placed above the existing grades, we anticipate that additional fill thickness up to approximately 8.5 feet will be placed to backfill undercuts that are made to remove unsuitable soils in the vicinity of the existing drainage channel. As discussed in our geotechnical report, boring B-2 which was located near the existing drainage channel encountered approximately 8.5 feet low strength, unstable soils that are not suitable for support of new fills and floor slabs and therefore, would require full-depth removal. In summary, fill depths up to approximately 20 feet are anticipated to reach the final floor slab subgrade level.

We understand the following construction sequencing will occur to grade the building pad:

- Install the storm drain box located near the northeast corner of the building and place backfills associated with installation of the box, and perform the undercut and backfill procedure associated with removal of unsuitable soils in the vicinity of the existing drainage channel
- Perform subgrade preparation and place fills to grade the building area and surrounding area up the top of grade beam elevation, approximately 647.7 feet

- Install drilled pier foundations and grade beams, and walls around the building perimeter
- Backfill inside of the perimeter building walls to bring the building area up to the final floor slab subgrade elevation (approx. 654.3 feet)

We provide the following earthwork recommendations for the Band Classroom addition based on the grading plan and construction sequencing.

Earthwork Recommendations – Band Classroom Addition

Earthwork should begin with performing the recommendations presented in the **Site Preparation** subsection of the **Earthwork** section of our March 14, 2022 Geotechnical Engineering Report. This includes undercutting the full-depth of low strength, unstable soils such as those encountered in boring B-2 to a depth of about 8.5 feet. As discussed previously, boring B-2 was located near the existing drainage channel. Removal of the low strength, unsuitable soils should occur beneath the building area and extending laterally at least 10 feet beyond the building limits. All fill used to backfill the undercut to remove unsuitable soils and extending up to elevation 642 feet should consist of an approved ODOT Type A aggregate base.

After completing the **Site Preparation** subsection recommendations and backfilling the undercuts required to remove unsuitable soils, the building area should be filled up to the top of grade beam elevation using an approved, locally available broken shale. The shale material should be broken-down and thoroughly blended to develop a well-graded predominately soil-like mixture having a plasticity index of 18 or less, at least 15 percent fines (material passing the No. 200 sieve, based on dry weight), and maximum rock size of about 3 inches.

After the perimeter building walls have been built, fill placement inside of the walls will be performed to complete construction of the building pad. This fill, up to 30 inches below the final floor slab subgrade level, should be constructed using an approved ODOT Type A aggregate base. Fill used for the upper 30 inches of the building pad should consist of LVC material as defined in our geotechnical report. Alternatively, aggregate base could be used for the top 30 inches of the building pad in lieu of LVC material, if desired.

The recommendations presented in the **Fill Compaction Requirements** subsection of the **Earthwork** section of our March 14, 2022 Geotechnical Engineering Report should be followed for placement and compaction of the aggregate base, broken shale, and LVC fill materials discussed in this letter. Per the table in that report subsection, fill placed below elevation 650.3 feet (corresponds to 4 feet below final building subgrade) should be compacted to at least 98 percent of the material's standard Proctor maximum dry density, while fills above elevation 650.3 feet should be compacted to at least 95 percent.

To satisfy the recommendations in the **Floor Slabs** section of our March 14, 2022 Geotechnical Engineering Report, there should be at least 30 inches of LVC material in-place below the building

floor slab. It may be necessary to perform some undercutting at the location of the existing stairway into the building to allow for placement of the 30-inch thick LVC zone.

Terracon should provide observation and testing during subgrade preparation and fill construction to verify that the intentions of our recommendations are met.

Based on performing the earthwork recommendations presented, herein, we anticipate post-construction floor slab settlement could be on the order of ½ inch or less.

Provided the earthwork recommendations presented, herein, are carried-out successfully, the settlement monitoring recommended in our March 14, 2022 Geotechnical Engineering Report should not be required provided the anticipated floor slab settlement can be tolerated.

All other recommendations presented in our March 14, 2022 Geotechnical Engineering Report that have not been specifically amended herein remain applicable.

General Comments

This letter has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made.

We trust this report provides you with the information you require at this time. Please contact us with any questions.

Sincerely,
Terracon
Cert. of Auth. #CA-4531 exp. 6/30/23

Bradley M. Watts, P.E.
Oklahoma No. 16526

CONSTRUCTION MANAGER'S MANUAL

Project: Webster High School – Band Room & Green House Additions w/ Site Improvements

Issue Date: 9/20/2022

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1.00 INVITATION TO BID

Nabholz Construction Corporation (herein after referred to as "Nabholz" or "Construction Manager") is accepting specialty contractor and supplier proposals for the below referenced project. All proposals or bids received shall be submitted in accordance with the requirements of the Construction Manager's Manual (the "CM Manual"). Plans and bidding documents will be available via internet link, or at various reprographic locations. Bidders should contact Nabholz for access to bidding documents.

Bid Packages will be due at the time and date listed below. Additional instructions and details pertaining to bid submission are listed herein.

.01 Project Information

Project Name:	Webster High School – Band Room & Green House Additions w/ Site Improvements
Nabholz Job Number:	03-22-2360
Jobsite Address:	1919 West 40th Street, Tulsa, OK 74107
Job Description:	Band Room, Green House, & Site Improvements
LEED Certification:	N/A
Approximate Construction Start:	Fall 2022
Approximate Construction Finish:	Spring 2024
Are BIM/VDC Practices Required?	No
Is this a "Nothing Hits the Floor" Project?	Yes
Is this a CCIP Project? (Contractor Controlled Insurance Program)	No
Is this an OCIP Project? (Owner Controlled Insurance Program)	No
Is this job prevailing wage?	No
Is this job taxable?	No

.02 Bidding Procedure

Bid Date:	10/13/2022
Bid Time:	2:00pm
Bid Submission Procedure:	Bids should be delivered in a sealed envelope to 3027 S New Haven, 4th Floor (Bond Department).
Private or Public Opening:	Public
Bid Security Required:	Bid Security for proposals greater than $50,000 – 5% Bid Security. Dual Obligees are Tulsa Public Schools and Nabholz Construction Corporation.
Bid Opening Location:	3027 S New Haven, 4th Floor (Bond Department)
RFI/Bid Question Deadline:	2:00 PM on 10/5/2022
RFI/Bid Question Process:	Bidders shall submit questions in writing (email is preferred) by the established deadline. Questions should reference specific details, plan sheets, specifications, or bid manual sections.

.03 Prebid Meeting

Prebid Meeting Date:	9/27/2022 & 9/28/2022
Prebid Meeting Time:	3:30 PM
Prebid Meeting Location:	Webster High School (Room # TBD)
Is the Prebid Mandatory?	Attendance is Mandatory

.04 Project Team Information

Nabholz Office:	10319 E. 54th St. – Tulsa, OK 74146
Nabholz Project Manager:	Kolton Gariss, kolton.gariss@nabholz.com
Nabholz Superintendent:	Monty Baker
Nabholz Estimator(s):	Danny Duncan, danny.duncan@nabholz.com
Architect:	GS Helms & Associates
Architect Contact:	Brian Jeffers
Architect Address:	424 E Main St, Jenks, OK 74037

.05 Site Specific Safety Considerations

Project Safety Considerations	1. Occupied school
(in addition to Nabholz Safety Standards)	2.
	3.
	4.
	5.
	6.
	7.

Construction Manager will use the standard Master Contract, Project Contract, and any amendments thereto, collectively, (the "Subcontract"), for all Subcontractors. Construction Manager will use standard Purchase Order ("PO") for all Suppliers. Copies of these documents are available in electronic or hard copy upon request. We may also require performance and payment bonds for Subcontractors using Consensus 706 and 707 by an acceptable surety company or require other forms of surety.

Job Conditions and Job Safety in accordance with all safety regulations, including, federal (OSHA), state, and local, Construction Manager policy, and Subcontract or Purchase Order shall be required of all personnel on the Project including Subcontractors, Suppliers, and second tier Subcontractors and Suppliers. Reference Site-Specific Safety Considerations (Section 1.05 of this Manual) and Nabholz Safety Standards (Section 5.02 of this Manual). In addition, Construction Manager will enforce a NO SUBSTANCE ABUSE policy, and will not permit the use of tobacco on the Project site.

Construction Manager is an AA/EOE. All Women Owned Businesses (WBE), Minority Owned Businesses (MBE), and Disadvantaged Business Enterprises (DBE), including women, minority, disabled or veteran-owned business, are encouraged to submit a proposal or bid.

2.00 BIDDING INSTRUCTIONS AND SUPPLEMENTAL INFORMATION

.01 Instructions to Bidders

The following instructions apply to all proposals.

1. All bids shall be submitted on the bid form found in section 3.00 of this manual, inclusive of the scope of work specified in the applicable bid package.
2. Bid security in the form of a certified check, cashier's check or bid bond equal to 5% of the bid are required for subcontractor proposals over $50,000, unless stated otherwise in section 1.02.
3. Bidders must fulfill prequalification requirements in accordance with CM's trade contractor procurement policy prior to the award of any Bid Package contract. Prequalification Questionnaires and applicable supporting documents are required annually and are available at https://www.nabholz.com/trade-contractors/ or by contacting the Construction Manager's ("CM's") office.
4. Modification to Bid Packages may be cause for rejection of proposal.
5. Bidders warrant they have visited the Project site prior to submission of proposals or have attended the pre-bid meeting(s) for the purpose of understanding and accepting all conditions in and around the Project site.
6. Bidders warrant that proposals are submitted in accordance with the requirements of CM Manual and Contract Documents. Bidders also warrant that proposals are submitted in accordance with the specification sections and drawings relating to the scope of the Bid Package.
7. Bidders must submit questions in writing to the CM no later than seven (7) days prior to the Bid Date or by the established RFI deadline. Responses to Bidders' RFI(s) will be distributed in the form of an Addendum or Clarification to all Bidders. Addenda may be issued during the bidding period. Bidders must acknowledge all addenda on the Form of Proposal. Addenda become part of the Contract Documents.
8. Bidders must, immediately notify CM in writing of errors, omissions, discrepancies, or noncompliance with applicable codes and regulations within the Contract Documents or any work which will not fit or properly function if installed as indicated in the drawings and specifications. This requirement does not relieve the Architect of design or professional service responsibilities.
9. Bidders must comply with all federal, state, local laws, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Subcontract or Purchase Order ("PO") throughout. Statutes will be deemed to be included in the Subcontract or PO, the same as though herein written out in full.
10. Subcontracts and PO will be awarded based on the lowest responsible qualified proposal, provided it is in the best interest of the Owner and/or CM. The Owner and/or CM reserves the right to reject any and all proposals and to waive any informality in the proposals.
11. To determine the lowest responsible qualified proposal, the CM will evaluate proposals based on the following considerations:

a. Total amount of Bidders' proposal, including Base Bid and Alternate Bids;
b. Acknowledgement of issued Addenda;
c. Bidders' bonding rate and capacity;
d. Sufficiency of Bidders' financial resources;
e. Evaluation of Bidder's labor rates;
f. Bidders' ability to perform in accordance with the Contract Documents;
g. Bidders' ability to perform without delay or interference to other trades or scopes of work;
h. Bidders' history of performance on previous projects with CM or Owner;
i. Responsibility and reputation of Bidders;
j. Evaluation of Bidders' safety record;
k. Bidder's history of compliance with applicable laws, codes, and regulations;
l. Quality and availability of Bidders' personnel and resources; and
m. Amount and nature of Bidders' current or pending litigation.

12. Bidders bonding capacity and rate will be evaluated by CM and Owner. The cost of providing Bidders Performance and Payment Bonds may be added to Base Bid to assist in evaluating the lowest responsible qualified proposal. **The cost of providing Bidders Performance and Payment Bonds should be included in Base Bids for all Bidders whose proposal will exceed $50,000**. Bidders will be required to use the ConsensusDocs 706 and 707 for bonds, and to provided maintenance bond coverage as required by law in a form acceptable to CM. https://www.nabholz.com/bidding-and-contract-documents/.
13. CM may perform an investigation of Bidders' financial condition. Bidders agree to assist in any such investigation, which may include a request for Bidders most recent audited or reviewed financial statements, a review of Bidders "Business Information Report" as prepared by Dun & Bradstreet, Inc., or discussions with Bidders' surety and banking agents.
14. **Bidders are required to provide a price for each specified Alternate Bid, Unit Price, or Price Breakout that affects Bidders' Bid Package.**
15. **Bidders are required to provide unit prices for all labor classifications that apply to Bidder's Bid Package.** Labor unit prices will be used to calculate labor for all change order requests.
16. The Contract Documents will include all documents identified as Contract Documents in the Agreement between the Construction Manager and Owner, The Master Contract & Project Contract between Construction Manager and Subcontractor, as well as the following attachments and any Addenda and Supplementary Conditions.
    a. Exhibit A – Bid Package Description
17. All attachments and exhibits to the Contract between Construction Manager and Owner shall be recognized by Subcontract or PO between Bidders and Construction Manager.
18. Bidders' proposal shall include, but not limited to, the following costs:
    a. All applicable Sales Tax and Freight on Board to Project site unless stated otherwise in the trade specific Bid Package.
    b. Prevailing wage rates and documentation if required by Contract Documents.

c. Employee orientation, safety training, infection control training, and photo ID badging, as required.
d. Attendance at preconstruction and project coordination meetings, as required by specifications and Construction Manager's Quality Management System ("QMS"). Subcontractor is required to send foreman, project manager or owner to all weekly Project site coordination meetings pertaining to the Scope of Work and/or as required by Construction Manager's Project Superintendent. Employees attending meetings must have the authority to make commitments on Subcontractor's resources (manpower, equipment, tools, etc.) to maintain Project Schedule or meet milestone dates.
e. Delivery of submittals, including but not limited to shop drawings, product data, samples, mock-ups, operating service and maintenance manuals, Material Safety Data Sheets (MSDS), and other documents and submittal materials required by the specifications.
f. All product testing documentation required by specifications, including test certificates
g. Coordination for field testing and inspections required by specifications and Construction Manager's QMS. Laboratory testing by others; any re-testing required due to initial failed testing under Scope of Work is the responsibility of Subcontractor. This requirement does not apply to air test & balance tests
h. Hook-up and consumption charges for temporary utility and telephone services for Bidders' trailers and sheds, including maintenance of temporary services and removal of services when no longer needed.
i. Task lighting and special electrical service requirements, including but not limited to:
    i. Electrical Subcontractor will provide temporary power to accommodate the use of power tools, lighting, and masonry saws.
    ii. Temporary electrical outlets will be spaced so that the entire area of construction can be reached by power tools on a single 100-foot extension cord; and
    iii. General temporary illumination will be maintained at a level of 5 foot-candles.
j. Telephones, computers, and internet access.
k. Drinking water and ice.
l. Storage sheds, office trailers, and labor sheds.
m. Portable, gas-driven welders.
n. All parking for employees shall be coordinated with Construction Manager's Project Superintendent at Bidders' expense.
o. All material handling equipment, including but not limited to hoisting with certified operators, bracing, shoring, scaffolding as necessary to move materials and complete Scope of Work.
p. Daily clean up and removal of all identifiable debris, including but not limited to:
    i. Site Cleanup. Subcontractor shall keep the Project site and work areas clean at all times and must sweep each work area and remove all debris prior to discontinuing work in each area. If the Subcontractor fails to immediately

commence compliance with cleanup duties within forty-eight (48) hours after written notification from the Contractor of noncompliance, the Contractor may implement appropriate cleanup measures without further notice and deduct the cost thereof from any amounts due or to become due the Subcontractor under this Contract. Unless otherwise specified or required by law or regulation, all debris will be sorted as required and deposited on the Project site at a location designated by the project superintendent. Subcontractor shall comply with Contractor's on-site recycling and refuse programs. Subcontractors shall follow any Nabholz sustainability plans and programs regardless of whether the job is certified by the U.S. Green Building Council, Green Globes, or any other building certification entity. Temporary protection of work and stored materials. Protect adjacent materials and finishes. Damage caused by performing this work will be the responsibility of this trade contractor.

q. Weather protection as required to protect and perform the Work unless specifically excluded in Bid Package.
r. All applicable trade permits, licenses, and inspection fees, including bonds required for the Scope of Work.
s. Engineering layout, professional surveys, grade control and field dimensions associated with the Scope of Work.
t. Touch-up painting of any prefinished items as required.
u. Dewatering of all excavations associated with the Scope of Work, as required, preserving structural integrity and workability.
v. Provide enclosures, temporary heat, blankets, additives, etc. as needed to protect Work and materials from cold weather conditions.
w. Removal of existing materials in existing facilities, if considered part of the Scope of Work and legally dispose of offsite.
x. Provide and install firestopping at penetrations in fire walls resulting from Work in accordance with specifications and code requirements. Allow 5-10% destructive testing. Obtain approved submittal before installing firestopping.

19. Bidders shall strictly comply with Construction Manager's safety policies and OSHA safety regulations. Construction Manager's complete Safety Standards can be reviewed at Construction Manager's offices or https://www.nabholz.com/bidding-and-contract-documents/. Hard hats and safety glasses, and high-visibility clothing are mandatory for all Project site employees during all phases of the project and must be worn at all times. Prior to working on a Construction Manager's Project, the viewing of Construction Manager's Safety Video by the construction personnel of all Bidders is a mandatory requirement. Hardhat stickers will be given to those construction workers who are confirmed to have viewed the safety video. All workers must have the current calendar year hard hat sticker on their hard hats in order to perform work on Construction Manager's Project.

20. Compliance with all requirements of Construction Manager's substance abuse and security policies.
21. Compliance with Construction Manager's insurance requirements. Reference Section 5.01 of the CM Manual.
22. Bidders' work shall strictly comply with all adopted Building Codes. Any code-related conflict in drawings and specifications shall be clarified and approved by the local Code Authority prior to installation.
23. Bidders shall be held responsible for submission of all submittals (via Procore and delivery of physical submittals as necessary) within three weeks of Notice of Intent to Award, including but not limited to shop drawings, product data, samples, mock-ups, operating, service and maintenance manuals, material safety data sheet information, and other submittals required by the specifications and Construction Manager's QMS. Submittals to be checked and signed off on by Bidders' representative indicating a review has been completed. Shop Drawings should be started upon Notice of Intent to Award and completed expeditiously to not delay construction. Coordinate with existing conditions and other Subcontractors as needed for locations, sizes and penetrations required. Color samples to be treated as part of the submittal process. All submittal packages over 10 pages must have a table of contents.
24. Bidders shall provide closeout documents per Contract Documents and Master Contract including, but not limited to, attic stock, as built drawings, testing, warranties, and equipment operation manuals before Substantial Completion as a prerequisite to Final Payment. Provide equipment operation instructions to Owner representative, as required. Attic stock is to be delivered in individually labeled and unopened boxes. There should also be a table of contents as the first page of all closeout packets.
25. Bidders shall provide warranty from date of Substantial Completion of Subcontractor's Work and for the duration per specification. All Warranty and call-back Work resulting from the Scope of Work shall be at no cost to the Owner or Construction Manager. Temporary use of equipment during construction will not affect the Warranty or call-back periods required by the specifications.
26. Bidders shall provide labor warranty from substantial completion for the duration of one year unless otherwise noted in the contract documents. All Warranty and call-back Work resulting from the Scope of Work shall be at no cost to the Owner or Construction Manager.
27. Bidders may not remove or replace its Superintendent or Foreman without prior written consent from Construction Manager.
28. Bidders shall coordinate delivery of required materials associated with the Bid Package. Bidders shall provide equipment and personnel necessary to unload, stack, protect, store, and move materials on Project site. Bidders shall inventory all delivered items and inspect for damage or missing items. Note damaged or missing items on the bill of lading. Construction Manager is not responsible for damaged or misplaced materials or equipment. Bidders shall file all damage claims with insurance carrier(s). Placement of staged items shall be coordinated with Construction Manager's Project Superintendent.
29. Stored materials are to be protected from heat and humidity as required by the manufacturer. All materials must be tagged with Project and Construction Manager's name. The items above are subject to

the specifications and Owner requirements. Coordinate location of Project site storage containers with Project Superintendent.

30. Bidders shall coordinate Work with the Construction Manager and other trades affecting their Scope of Work.
31. **Bidders shall contact the Project Superintendent if the substrate is unacceptable before installation of the Scope of Work. Installation of materials over substrate implies acceptance of substrate.**
32. Time is of the essence. Provide a detailed schedule in bar chart format for the Scope of Work within 10 days of receiving Notice of Intent to Award. Comply with the Project Schedule furnishing necessary resources, including overtime, to maintaining project schedule. Should Bidders fall behind schedule due to conditions within Bidders' control, Bidder shall implement whatever means are necessary to accelerate the Bidders' Scope of Work until it is in compliance with the schedule. The cost of accelerating the Work shall be borne by the Bidders. Certain areas may be completed earlier than originally indicated on schedule. Subcontractor must be prepared for any minor adjustments to the schedule as Work progresses.
33. Time lost due to weather conditions must be made up by Bidders.
34. Bidders shall comply with the established work hours or Owner-specified durations necessary to minimize impact on Owner operations.
35. Construction Manager maintains ownership of all schedule free float.
36. Bidders shall sequence Work as directed by Construction Manager.
37. Bidders must be and have been regularly engaged in Work to be performed for the past 5 years using at least partially their own workforce skilled in that type of work. Project site foreman must be employed directly by Subcontractor and professionally qualified for Work to be performed with at least 10 years' experience.
38. Bidders must participate and comply with the Construction Manager's QMS as relevant to the Scope of Work.
39. Punch lists issued by Construction Manager, Architect, or Owner will be completed within fourteen (14) calendar days from the date of issue. If Bidders fails to comply with this requirement, Construction Manager reserves the right to perform the Work for the Bidders and back-charge the Bidders for the cost of the Work.
40. Prior to commencing work, bidders must provide company specific safety plan and silica exposure plan to superintendent, in either digital or physical copy.

.02.0 Bid Affidavits

.02.1 Felony and Sex Offender Affidavit

(TO BE SUBMITTED WITH BID)

STATE OF_____)
) ss
COUNTY OF_____)

_____of lawful age, being first duly sworn on oath says that_____is the agent authorized by the Contractor to bind the Contractor to the terms and conditions of this Affidavit. Affiant further states that the Contractor will make all possible efforts and provisions to ensure that any employee or representative sent on school premises for the purposes of delivery, services, work or for any other purpose, is not in violation of the State of Oklahoma Laws reproduced below. Affiant further states that each and every Subcontractor, Sub-subcontractor, Material Supplier or any other entity performing work, services or any other task, or supplying any material, equipment or other items for the Project, has signed a like affidavit maintained the Contractors Project File.

State of Oklahoma Law states:

A. No person or business having a contract with a school or school district for services to be performed during normal school hours shall allow any employee to work on school premises if such employee is convicted in the state, the United States or any other state of:
    1. Any sex offense subject to the Sex Offenders Registration Act in this state or subject to another state's or federal sex offender registration provisions; or
    2. Any felony offense except as provided in subsection C of this section or when ten (10) years has elapsed since the date of the criminal conviction or the employee has received a presidential or gubernatorial pardon for criminal offense
B. Every person or business having a contract for services with a school district where such services are to be performed on the school premises during normal school hours shall be required to sign a statement declaring that no employee working on school premises under the authority of such person or business is in violation of the provisions of this section.
C. The provisions of this section shall not apply to volunteers, persons performing community service hours under court order or persons performing services under a supervised work release program. Provided, however, persons performing community service hours or services under work release shall not be allowed to work on school premises at any time after having been convicted of any offense state in paragraph 1 of subsection A of this section (70 O.S. ss 101.48).

It is unlawful for any person registered pursuant to the Sex Offenders Registration Act to work with or provide services to children or to work on school premises, or for any person or business who offers or provides services to children or contract for work to be performed on school premises to knowingly and willfully allow any employee to work with children or to work on school premises who is registered pursuant to the Sex Offenders Registration Act. Upon conviction for any violation of the provisions of this subsection, the violator shall be guilty of a misdemeanor punishable by a fine not to exceed One Thousand Dollars ($1,000.00). In addition, the violator may be liable for civil damages (57 O.S. ss 589)

(Project Name)

DATED this_____day of_____,20_____.

_____
Contractor

_____ _____
By Title

Attest:_____

Subscribed and sworn to before me this__

Day of_____, 20_____.

_____
Notary

Public My Commission Expires: _____

.02.2 Business Relationships Affidavit

(TO BE SUBMITTED WITH BID)

STATE OF: _____

COUNTY OF: _____

_____, of lawful age, being first duly sworn, on oath, says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any partnership, joint venture, or other business relationship presently in effect or which existed within one (1) year prior to the date of this statement with the Architect, Engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidder and any officer or director of the Architect or Engineer or other party to the project as follows:

Affiant further states that the names of all persons having such business relationships and the positions they hold with their respective companies or firms are as follows:

(If none of the business relationships herein and above-mentioned exist, affiant should so state.)

Subscribed and sworn to before me this_____day of_____, 20_____

Notary Public _____

My Commission Expires: _____

.02.3 Non-Collusion Affidavit

(TO BE SUBMITTED WITH BID)

SECTION 00150 - NON-COLLUSION AFFIDAVIT

STATE OF OKLAHOMA)
) ss.
COUNTY OF Tulsa)

_____ , of lawful age, being first duly sworn, on oath says that (she)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any state official or employee as to quantity, quality, or price in any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

Subscribed and sworn to before me this _____ day of _____, 2010.

_____
Company Representative

_____
Notary Public

My Commission Expires:

_____

00150-1

.03.0 Post-Bid Affidavits

.03.1 Affidavit for Final Payment

(TO BE SUBMITTED AFTER AWARD)

STATE OF_____)

) ss

COUNTY OF_____)

The undersigned, being first duly sworn, testifies as follows:

That Affiant is the_____of _____

(Officer (Company)

And that in signing and delivery of this affidavit he is acting for and on behalf of said company. That said company is the Contractor

engaged in the construction of:

_____

(Project Name)

_____

(Project Location)

for the Awarding Public Agency of the State of Oklahoma (Owner) pursuant to a written contract entered into with the Awarding Public Agency (Owner). that the construction of said Project has been fully and finally completed in accordance with the written Contract, and all amendments thereto, if any. The company represents that there are no existing judgments, claims, accounts, liens, or other similar type of obligations outstanding and unpaid arising under said Contract or from labor or materials having been furnished for or delivered to said Project. Further, the company represents that all persons or entities furnishing labor or materials used in said project, or under said Contract, have been paid in full.

_____

Contractor or Supplier

_____

By Title

Attest:_____

Subscribed and sworn to before me this _____ day of_____, 20____.

_____

Notary Public

My Commission Expires:_____

CERTIFICATE OF APPROVAL

The undersigned, agent or Attorney-in-Fact for_____, Surety Company,

Acting for an on behalf of said Surety Company, acknowledges having seen the above affidavit executed by _____further that the undersigned hereby approved the affidavit and directs that the Owner of said project is hereby authorized to make final payment under the contract to thecontractor.

Surety Company specifically releases the Awarding Public Agency of the State of Oklahoma (Owner) from any responsibility should any unpaid accounts or claims arise against contractor for labor or material furnished under said Contract or delivered and used in said Project.

_____

(Attorney-In-Fact for Surety Company)

(Attach a Certified Copy of Power-of-Attorney)

.03.2 Declaration Regarding Prohibition of Sex Offenders and Convicted Felons on School Premises

(TO BE SUBMITTED AFTER AWARD)

STATE OF_____)
) ss
COUNTY OF_____)

_____("Contractor") hereby acknowledges that it has a contract with Nabholz Construction Corporation for services to be performed during normal school hours on Webster High School premises. Contractor declares that it has verified and will continue to verify that none of its employees working on school premises during normal school hours shall have been convicted, entered a plea of guilty or a plea of nolo contendere, or received a suspended sentence for a crime or an attempt to commit a crime in the State of Oklahoma, the United States, or any other state for any sex offense subject to a Sex Offenders Registration Act or any felony offense within the last ten (10) years unless such an employee has received a presidential or gubernatorial pardon. This restriction does not apply to persons who have been convicted of a felony within then (10) years and who are volunteers, who are performing community service hours under court order, or who are performing services under a supervised work release program.

Contractor acknowledges that, pursuant to 57 O.S. Section 589, it is unlawful for any person who is registered pursuant to the Sex Offenders Registration Act to work with children or to work on school premises.

DECLARATION BY VENDOR

The undersigned_____represent that he/she is the Owner or an officer of _____, who has the authority to make this declaration to the Awarding Pubic Agency, as required by Section 6-101.48 of title 70 of the Oklahoma State Statutes.

I declare that no employee working on school premises during normal working hours under the authority of the above- named company or business has been convicted in this State, United States or another state of any sex offense subject to the Sex Offenders Registration Act or is subject to another state's or the federal sex offender registrations provisions. I further declare that no employee working on school premises during normal working hours under the authority of the above-named company or business has been convicted of a felony offense within the past ten (10) years in this State, the United States, or another state.

I further understand that Title 57, Oklahoma Statutes, Section 589 provides as follows, to wit:

It is unlawful for any person registered pursuant to the Sex Offenders Registration Act to work with or provide services to children or to work on school premises, or for any person or business who offers or provides services to children or contracts for work to be performed on school premises to knowingly and willfully allow any employee to work with children or to work on school premises who is registered pursuant to the Sex Offenders Registration Act. Upon conviction for any violation of the provision of the subsection, the violator shall be guilty of a misdemeanor punishable by a fine not to exceed One Thousand Dollars ($1,000). In addition, the violator may be liable for civil damages.

DATED this_____day of_____, 20_____.

_____

Contractor

_____ _____

By Title

Attest:_____

Subscribed and sworn to before me this_____

Day of_____, 20_____.

_____

Notary

Public My Commission Expires: _____

.03.3 Certification of Compliance with Asbestos Restrictions

(TO BE SUBMITTED AFTER AWARD)

STATE OF_____)

) ss

COUNTY OF_____)

The undersigned Contractor, of lawful age, being first duly sworn, on oath says that:

Building materials or products incorporated or installed in the construction of will be free of asbestos or asbestos products of any kind.

Certification of Compliance with Asbestos Restrictions will be included in any sub-contract connected with the performance of work for this project.

DATED this_____day of_____, 20_____.

_____

Contractor or Supplier

_____ _____

By Title

Attest:_____

Subscribed and sworn to before me this_____day

of_____, 20_____.

_____

Notary Public

My Commission

Expires:_____

.03.4 Competitive Bid and Contract Affidavit

(TO BE SUBMITTED AFTER AWARD)

STATE OF: _____

COUNTY OF: _____

For purposes of competitive bids, I certify:

1. I am the duly authorized agent of_____, the bidder submitting the competitive bid which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and state officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any contract pursuant to the bid to which this statement is attached;

2. I am fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and have been personally and directly involved in the proceedings leading to the submission of such bid; and

3. Neither the bidder nor anyone subject to the bidder's direction or control has been a party;

    a. to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding,

    b. to any collusion with any state official or employee as to quantity, quality or price in the prospective contract, or as to any other terms of such prospective contract, nor

    c. in any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

4. I certify, if awarded the contract, whether competitively bid or not, neither the contractor nor anyone subject to the contractor's direction or control has paid, given or donated or agreed to pay, give or donate to any officer or employee of the State of Oklahoma any money or other thing of value, either directly or indirectly, in procuring the contract to which this statement is attached.

_____

Signature

Subscribed and sworn to before me this_____day of_____, 20____

Notary Public_____

My commission expires: _____

NOTE: Each Competitive Bid submitted to a County, School District or Municipality must be accompanied with the above Affidavit as required by 74 O.S. 1976 85.24

.03.5 Invoice Affidavit

(TO BE SUBMITTED AFTER AWARD)

STATE OF_____)
) ss
COUNTY OF_____)

The undersigned (Architect, Contractor, Supplier Engineer), of lawful age, being first duly sworn, on oath, says that this invoice or claim is true and correct. Affiant further states that the (work, services, or materials) as shown by this invoice or claim have been (completed or supplied) in accordance with the plans, specifications, orders, or requests furnished the affiant. Affiant further states that (s) he has made no payment directly or indirectly to any elected official, officer, employee of the State of Oklahoma, any county or sub-division of the state, or employee of the Awarding Public Agency (Owner), of money or any other thing of value to obtain payment of the invoice or procure the contract or purchase order pursuant to which an invoice isrequired.

_____
Contractor or Supplier

_____
By Title

Attest:_____

Subscribed and sworn to before me this _____day of _____, 20____.

_____
Notary Public

My Commission Expires:_____

****

_____
(Architect, Engineer or other Supervisory Official)

_____
By Title

Attest:_____

Subscribed and sworn to before me this_____day of_____, 20_____.

_____
Notary Public

My Commission Expires:

_____

3.00 BID PACKAGES AND BID FORMS

.01 General Scope Requirements

All trade specific bid packages shall be inclusive of the General Scope Requirements listed below.

1. Refer to Instructions for Bidders, for additional general scope requirements.
2. **Master Contract** – All subcontractors and suppliers must have an executed master contract with Nabholz to do work with Nabholz. Project specific contracts and purchase orders are based on the master contract. Master contract has precedence over project specific contract, purchase orders, trade scopes, preconstruction manual and/or general requirements. Copy of Master Contract is available upon request.
3. **Project Specific Contract** – This contract will be executed between Nabholz and subcontractor or supplier and will reference specific project, construction documents, scope of work, duration, and other pertinent information. If conflict exists between specifications, drawings, addenda, trade scope or contract, most stringent requirement prevails. Copy of project specific contract is available upon request.
4. **Performance and Payment Bond** – Subcontractors are to include the cost of performance and payment bonds in their proposal. Performance and Payment Bonds to be on Consensus Doc Forms 706 & 707.
5. **Insurance** – Subcontractor must have the following Insurance Limits:

Commercial General Liability	
Limit Each Occurrence	$2,000,000
General Aggregate	$2,000,000
Products/Completed Operations Aggregate	$2,000,000
Automobile Insurance	
Combined Single Limit	$2,000,000
"Any Auto" Coverage	
Worker's Compensation Insurance	Per Statute
EL Each Accident	$1,000,000
EL Disease – EA Employee	$1,000,000
EL Disease – Policy Limit	$1,000,000

The Certificate Holder should be: Nabholz

Please provide the following for General Liability:

- Contractual Liability Coverage
- Per Project Aggregate
- Additional Insured Endorsement (CG2010 and G2037 or Equivalent. Wording should provide coverage not only for ongoing operations but also for completed operations. Vicarious liability exclusion is NOT acceptable. A copy should be included with the certificate of insurance.

- Additional insured wording as follows: “Nabholz Construction Corporation, its parent and affiliated companies, employees, agents, and principles; Owner and others as required by Prime Contract are named as additional insured.”
- Insurance is primary and non-contributory.
- A Waiver of Subrogation applies.

Please provide the following for Commercial Automobile:

- Additional Insured Endorsement
- Waiver of Subrogation Endorsement

If permitted by law, a Waiver of Subrogation in favor of Nabholz applies for Worker’s Compensation.

6. **Liquidated Damages** – Each trade contractor is required to perform their work in a timely manner so as not to impede construction progress leading to late completion of project. If work performed by this trade contractor does not conform to CM schedule based on contractual completion date and the CM is charged liquidated damages by the Owner, this trade contractor may be liable for up to $500 liquidated damages per calendar day for each calendar day CM was delayed by the performance of this trade contractor.
7. **Change Orders** – Any work that changes subcontractor or suppliers contract scope must be approves in writing before commencement. Cost of change to be broken down and documented as detailed by CM, reference Subcontractor C.O. Request Breakdown Form. Any work disputed is to be performed by subcontractor or supplier on a documented time and material basis so as not to hold up construction progress subject to future reconciliation. Subcontractor agrees to furnish labor, materials, tools, equipment, supplies, insurance, bonds, etc. , required for additional work, for which no pre-agreed price has been fixed, for net costs of all labor, materials, etc. , furnished plus ten percent (10%) total mark-up for overhead and profit of the subcontractor, unless otherwise noted in the contract documents.
8. **Permits/Fees** – Provide all permits, inspections, fees, bonds, and licenses required to do this work.
9. **Taxes** – To be per trade scope.
10. **Qualifications** – Subcontractors must be and have been regularly engaged in work to be performed for the past 5 years using at least partially their own work force skilled in that type of work. Onsite foreman must be employed directly by subcontractor and professionally qualified for work to be performed with at least 10 years’ experience. Must be able to show successful completion on past projects of similar size, complexity, and nature to work being bid. Must also be able to demonstrate sufficient and qualified labor available to perform project in accordance with project requirements.
11. **Construction Documents** – Trade Contractors and Suppliers are responsible for all items within their scope of work no matter where shown in drawings, specifications, or addenda.
12. **Pay Applications** – Initial succeeding pay application to be broken down by work scope and second tier subs and suppliers. Costs being applied are subject to construction manager approval and documentation requested. Payment may be expected 10 days after Nabholz receives payment from owner. Second tier

liens must be provided as requested. Pay Application's schedule of values breakdown must be submitted and approved by the CM prior to submission of the first pay application. All Pay Applications must be submitted on the Nabholz Construction Format emailed with contracts. Pay Application are due on the 20th of each month. The pay applications are NOT to be forecasted to the end of the month (Billing period is 21st – 20th).

13. **Trade Package Allowances** – All trade package allowance use must be approved by CM; any unused trade package allowance returns to the CM. Clean up labor allowance to be $17.00/hour minimum including burden.
14. **Work in Trade Scope** – Work included in trade scopes consists of trade scope requirements and that included in the referenced specification sections.
15. **Trade Package Coverage** – If work requirement in a specific trade package is also covered in another trade package that does not negate the responsibility to perform that work within the original trade package.
16. **Stored Materials** – Provided that the Prime Contract between Owner and Construction Manager allows for payment of off-site stored materials, Subcontractor/Supplier must ensure that the following conditions are met before payment is released.
    - Receipt of documentation noting off-site stored material location, site contact, and inspection hours of the storage facility.
    - Receipt of off-site stored material insurance certification, for location where off-site material is stored with Additional Insured to match the project insurance requirements. Coverage must include replacement value for all loss from any cause, including loss during transportation from the off-site storage facility to the project site.
    - Receipt of date-stamped digital photos showing that the off-site materials are stored in a secure facility where the items are protected from the elements, theft and vandalism.
    - Receipt of date-stamped digital photos showing that the off-site materials are segregated from the common stock and are clearly marked and identified as being specifically for the project requiring materials.
    - Receipt of Unconditional/Conditional Lien Releases for the materials being stored.
    - Receipt of copies of actual invoices for the off-site materials being stored and billed. No mark-up by Subcontractor is allowed on off-site stored materials.

If Subcontractor/Supplier fails to comply with the requirements outlined in this Off-Site Stored Material Section, or in the event of Subcontractor/Supplier default, Construction Manager shall have free access to enter Subcontractor's/Supplier's premises and to take possession of and utilize, sell, lease or otherwise dispose of the property in such manner as Construction Manager, in its sole discretion, may elect.

Subcontractor/Vendor shall warrant and defend the sale of the property hereby made against all and every person whomever lawfully claiming the same or any part thereof.

Subcontractor/Vendor shall protect and bear the risk of loss or damage to such property until final completion and acceptance by Owner in accordance with the terms of the Contract Documents. Subcontractor/Vendor, on behalf of its insurance companies insuring the property against loss, waives right of subrogation against Construction Manager.

17. **Schedule** – Completing your scope of work in a timely manner is imperative in meeting the construction completion date. Schedule requirements include the following:
    - Working with the project manager, providing work sequence, durations and anticipated manpower for your scope of work including periodical updates.
    - Onsite foreman for your scope of work to attend weekly jobsite meetings assisting CM superintendent in scheduling your work for following six weeks.
    - Provide additional manpower and overtime work as required by CM to make up for work behind schedule.
    - If a weekday is lost to inclement weather, Saturday will be worked as make up day.
    - 40-hour work week included as required at no additional cost.

Subcontractor to notify CM ASAP if lack of manpower availability is foreseen to meet schedule requirements. Saturdays to be worked if weather delay occurs during current or past week.

18. **Quality Management**
    - All work to be performed by experienced workmen per industry trade association standards, applicable codes and standard practice.
    - Verify actual conditions acceptable as proceeding with you work constitutes acceptance of existing conditions.
    - Inspect all material and equipment as they arrive at the project site or storage location for compliance with contract documents, submittals, codes and actual building conditions. Make sure deliveries have not been damaged.
    - Before work begins request and attend pre-installation conference including Nabholz, Architect and Owner at their discretion. Required attendance by trade contractors project foreman and project manager. Penalties of $1,000 for not attending this meeting.
    - Competent and experienced person from subcontractor's firm to be responsible for quality control pertaining to their scope of work.
    - Each contractor to provide list of inspections required for their scope of work and maintain documentation of inspection logs.
    - Each contractor to participate in Nabholz Quality Management System as relevant to their scope of work.
19. **Submittals** – Provide submittals required by construction documents within three weeks of notice of intent to award contract. Submittals to be checked and signed off on by trade contractor's rep indicating such. Shop drawings should be started upon notice of intent to award contract and completed expeditiously so as not to delay construction. Coordinate with existing conditions and other trade

contractors as needed for locations, sizes, and penetrations required. Color samples to be treated as part of the submittal process. Electronic submittals are acceptable in CM approved format contingent upon architect approval.

20. **Office Trailers** – Subcontractor shall be responsible for all office trailers and storage sheds (including utility hook-up, internet, and consumption charges) required by their operations.
21. **Cleanup** – All waste and debris generated under this trade package must be cleaned up and disposed of on a daily basis and as directed by the construction manager. Keep storage area neat and orderly. Subcontractor shall be responsible for cleaning of streets and site paved drives when mud, dirt, or dust is caused by their scope of work. Subcontractor shall maintain their work areas broom clean.
22. **Supervision** – Bidder shall provide a competent jobsite representative or superintendent at all times when any work under this package is being performed. This individual shall be present for weekly jobsite meetings and represent the bidder in order to commit resources to the project. Onsite superintendent or foreman may not be replaced or removed without CM consent.
23. **Coordination Meetings** – Subcontractor required to send foreman, project manager or owner to all weekly jobsite coordination meetings pertaining to their work and/or as required by project superintendent. Owner's rep must have authority to make manpower and equipment commitments to meet schedule.
24. **Background Check** – Subcontractors are responsible to have done background checks on all their jobsite personnel to ensure no sex offenders or convicted felons are put on school premises.
25. **Safety** – Provide and maintain all safety requirements per OSHA and Nabholz safety policy including hard hats, safety glasses, shoring, scaffolding, reinforcing, excavations, lighting, fall protection, etc. Repair and/or replace safety railing, barricades and other items removed and/or damaged while performing your work.
26. **Existing Conditions** – Attend pre-bid meeting or schedule site visit through construction manager before bidding project to ensure familiarity with existing conditions.
27. **Demolition** – Remove existing materials in existing facilities normally considered part of this scope and dispose of offsite legally.
28. **Layout** – Provide field engineering required for all layout, locations and elevations needed for work under this trade scope. Provide professional engineer where required by contract documents for layout and to provide initial baseline.
29. **Deliveries** – Coordinate all deliveries prior to delivery with superintendent and provide onsite representative and equipment necessary to off load and inventory materials. Deliveries to be coordinated with owner's schedule if applicable.
30. **Protection** – Protect adjacent materials and finishes; damage caused by performing this work will the responsibility of this trade contractor. Provide temporary protection for your work.
31. **Substrate** – Installation of materials over substrate implies acceptance of substrate. Contact superintendent if substrate is unacceptable BEFORE installation of your product.

32. **Hoisting/Scaffold** – Provide bracing, shoring, scaffold and equipment necessary to get material where needed and for installation required.
33. **Dewatering** – All excavations associated with this package as required preserving structural integrity and workability.
34. **Cold Weather Provisions** – Provide enclosures, temporary heat, blankets, additives, etc. as needed to protect work and materials from cold and as required to meet schedule and contract obligations.
35. **Drinking Water** – Subcontractor shall be responsible for supplying drinking water and cups for their employees. Subcontractor shall provide a waste receptacle to receive all used cups and debris.
36. **Power and Fuel** – Subcontractor shall be responsible for all power and fuel requirements associated with welders and other specialty equipment used during the performance of their work.
37. **Testing** – Laboratory testing by others; any re-testing required due to initial failed testing under this scope of work is the responsibility of the trade contractor. Air test and balance not part of this item. Provide ACI certified technician to take concrete cylinders.
38. **Penetration Firestopping** – All trades to provide and install specified firestopping and/or sealant at penetrations in fire or smoke walls, floors, ceilings, etc. resulting from their work in accordance with specifications and code requirements. Allow for 5-10% destructive testing. Obtain approved submittal before installing firestopping/sealants.
39. **Alcohol/Drugs/Firearms** – Bidder shall note that the use of alcohol, drugs, and firearms on the project is strictly prohibited. This is a zero (0) tolerance requirement, and if Bidder, its employees and/or subcontractors violate these restrictions, they will be prohibited from working on this project. Banishment of the Bidder's employees and/or subcontractors form the project shall not relieve the Bidder's responsibility for maintaining the schedule and completing the work of their contract.
40. **Tobacco Use** - In accordance with Oklahoma State Law as described in Oklahoma Statutes. Title 21 and Title 63 smoking, the use of tobacco, or the use of products containing tobacco in any form is prohibited on any property owned or leased by a public-school district. This rule also applies to Nabholz charter or private school projects.
41. **Owner Occupied Site** – Avoid interaction and harassment of owner's employees, students, teachers and/or staff. All questions or comments from such should be referred to project superintendent. Subcontractor employees show violate the requirement may be removed from the jobsite by the project superintendent.
42. **Traffic Control** – Bidder shall be responsible for all traffic control, barricades and flagmen required by all governing authorities during the performance of the work of this bid package.
43. **Noise Level** – Construction activities that generate noise levels objectionable students, onsite owner personnel or surrounding neighbors must be scheduled with CM superintendent. Same applies to acidic or testing schedules.
44. **Prefabrication** – Nabholz is not responsible for prefabricated assemblies that do not work due to changed field conditions, owner changes, construction document errors, or for any other reason.

45. **Flammable Materials** – shall not be disposed of in onsite dumpster. These materials must be removed daily from site and disposal of property.
46. **As-Built Drawings** – Bidder shall maintain as-built drawings that reflect any changes in the design made by the Bidder during construction.
47. **Closeout** – Provide closeout documents per construction documents including attic stock, as-built drawings, testing, warranties and equipment operation manuals before substantial completion as prerequisite to final payment. Provide equipment operation instructions to owner rep as required. Attic stock is to be delivered in individually labeled and unopened boxes. There should also be a table of contents as the first page of all closeout packets.
48. **Warranty** – Provide warranty from date of substantial completion and of duration per specifications. Warranty calls made in conjunction with this work, including those not responsible of this work, are at no cost to owner or construction manager. Temporary use of equipment during construction will not affect warranty period required by the specifications. Labor warranty shall be a year from substantial completion unless otherwise noted in the contract documents.
49. **Punch Lists** – Punch list items must be corrected within 10 working days unless constrained by back ordered material. CM may correct work after 10 working days at trade contractors' cost.
50. All Subcontractors and Suppliers will be required to write a site-specific safety plan to address Nabholz 12 Commitments To Live By (C2LB).
51. The Project will be staged on an existing, occupied, operating school campus. Avoid interaction with owner's employees, students, teachers and/or staff. Any harassment of personnel listed above will not be tolerated. All questions or comments from such should be referred to Project Superintendent. Violation of this requirement will not be tolerated and may be grounds for immediate dismissal from Project and/or legal action.
52. Deliveries of building materials will give right of way to school bus traffic during drop-off and pick-up times.
53. Construction Manager will coordinate with the school's Principal to work within academic and testing schedules.
54. Prior to award, Subcontractors will be required to complete the Declaration Regarding Prohibition of Sex Offenders and Convicted Felons on School Premises form located in Section 3.02 or such declarations otherwise required by the Owner.
55. Pay particular attention to any section calling for delegated design or licensed engineer drawings within your trade package. You will be held responsible for that.
56. Each trade package is responsible for providing Tyvek butyl tape at each penetration made by this trade in the Tyvek wrap penetration.
57. Each trade package is responsible for removing Insulated Concrete Form Foam as required to complete their installation. Including removal of foam where required to anchor directly to the concrete. Only remove foam where required. Excessive foam removal will require replacement of foam at the expense

of the responsible trade package. Coordinate installation requirements with ICF contractor for any required embeds or in-wall reinforcement requirements.

58. The contractors responsible for the construction of all safe room enclosure elements listed in the Quality Assurance Plan & Contractor's Responsibilities on G1.8 shall abide by said plan & responsibilities.
59. All trades to include multiple mobilizations as required.
60. All work not in areas C & D(Band Room Addition & Greenhouse Addition) will be performed from June 2023-August 2023. Include an extra crew and extra mobilization for this work.
61. All contractors must sign-in at mandatory pre-bid walks to bid.

.02 Bid Form - Webster High School

Date of Bid _____

Submitting Company ("Bidder")

Company Name_____

Project State License Number_____

Company Representative

Name_____

Email Address_____

Cell Phone_____

Scope of Work

Bid Package Number_____

Bid Package Description_____

Addenda / CM Clarification

Bidder acknowledges receipt of the following:

Addendum #_____ Dated _____	CM Clarification #_____ Dated _____
Addendum #_____ Dated _____	CM Clarification #_____ Dated _____
Addendum #_____ Dated _____	CM Clarification #_____ Dated _____
Addendum #_____ Dated _____	CM Clarification #_____ Dated _____
Addendum #_____ Dated _____	CM Clarification #_____ Dated _____
Addendum #_____ Dated _____	CM Clarification #_____ Dated _____

Base Bid

By submitting this proposal form, bidder acknowledges receipt of and compliance with Nabholz minimum insurance requirements, Master Contract Agreement, Project Contract Agreement, Performance and Payment Bond requirements, Purchase Order, CCIP Program Addendum, and Safety Standards.
Bidder agrees to complete the Scope of Work listed below for a lump sum of:

Words _____Dollars $ _____

The lump sum bid price above INCLUDES all insurance premiums necessary to meet the insurance requirements and premiums for the Performance, Statutory (Payment), and Defect bonds required for this project (bonds are required for all contracts that are $100,000 or more).

Alternates

1. Alternate 1: Provide DEDUCTIVE cost to omit the Cafeteria Eating Island, including the millwork and soffit structure.
   Refer to Sheet AC1.2 for additional information regarding the work required in this Alternate.

   Add/Deduct $ _____

2. Alternate 2: Provide DEDUCTIVE cost to provide Polycarbonate Panels at the new Green House structures in lieu of the Acrylic Panels identified for the Base Bid.
   Refer to Section 131230 – Green House Systems for additional information regarding this Alternate.

   Add/Deduct $ _____

3. Alternate Description Add/Deduct $ _____

4. Alternate Description Add/Deduct $ _____

Voluntary Alternates

1. _____ Add/Deduct $ _____

2. _____ Add/Deduct $ _____

Unit Pricing

Where applicable to Scope of Work, provide the following unit prices, which will be used to adjust contract amount for changes to Scope of Work.

1. Undercut and remove from site existing unsuitable measured as in-place yardage. $_____ / cuyd
2. Fill with specified Type A aggregate. $_____ / cuyd
3. Provide 10lbs of additional floor patch above the quantities identified in the Bid Package, measured per bag $_____ / bag
4. Provide ceiling replacement of acoustical ceiling system in existing building, measured per square foot. $_____ / sqft
5. Additional LF of a temp wall to ceiling as listed in bid the drywall bid package $_____ / LF
6. Add casing at 18” dia. drilled piers, measured per linear foot. $_____ / LF

7. Add casing at 24” dia. drilled piers, measured per linear foot. $_____ / LF
8. Add casing at 36” dia. drilled piers, measured per linear foot. $_____ / LF
9. Add depth at 18” dia. drilled piers, measured per linear foot. $_____ / LF
10. Deduct depth at 18” dia. drilled piers, measured per linear foot. $_____ / LF
11. Add depth at 24” dia. drilled piers, measured per linear foot. $_____ / LF
12. Deduct depth at 24” dia. drilled piers, measured per linear foot. $_____ / LF
13. Add depth at 36” dia. drilled piers, measured per linear foot. $_____ / LF
14. Deduct depth at 36” dia. drilled piers, measured per linear foot. $_____ / LF
15. Add for (1) standard electrical duplex receptacle within 100 ft. $_____ / EA
16. Add for (1) standard data outlet within 100 ft of final termination. $_____ / EA
17. Add for the cost to replace an individual fire suppression sprinkler head $_____ / EA

Work in Progress & Project Specific Qualifications

Bidder shall submit with their proposal a Work in Progress (WIP) Report that lists the ten (10) largest projects currently being constructed. Moreover, final evaluation of Bidder’s proposal shall be conditional on review of WIP Report, and Bidder’s experience with similar scope and projects.

Completion Time

All Work shall be completed within the schedules prepared by and agreed to by Nabholz. Bidder shall provide adequate manpower and submit documentation for approval necessary to work within the timeframe scheduled. Estimated time period for construction is December 2022-March 2024.

Bid Security

Bid Security is required for subcontract proposals greater than $50,000 – 5% Bid Bond. Obligee is Nabholz Construction Corporation.

Bidder must include the cost of a Performance and Payment Bond in their bid and meet the requirements set forth in the “Project Contract” if their bid includes installation labor of any kind. Failure to do so may result in bid being deemed “non-responsive” and result in disqualification.

Verification Information Required

Indicate the percentage rate for the bond cost. _____. Cost shall be included in Base Bid.

Name of Surety Agent _____

Surety Agent Phone Number _____

Acceptance of Contract Forms

Bidder acknowledges that they have reviewed and accept the Contract Performance and Administration, Sample Master Contract, Sample Project Contract, Payment and Performance Bonds, Sample Purchase Order, Contractor-Controlled Insurance Program Addendum to Master Contract and the Nabholz Safety Standards forms linked in Section 6.04. Proposed modifications must be submitted with bid.

Signature

Bidder agrees that this proposal remains valid for a period of 60 days. Bidder understands that Nabholz and the Owner reserve the right to reject any or all bids. Bidder acknowledges Nabholz minimum insurance requirements and understands that the Master Contract shall be the basis of any contract offered by Nabholz Construction to Bidder. Proposed modifications of Master Contract language must be submitted with bid. Attach additional sheets if necessary. Upon receipt of notice of acceptance of bid, Bidder agrees to execute and return the contract and required insurance certificates within two weeks of notification.

By _____ **Title** _____

Printed name of individual signing this proposal _____

Contact phone number _____

Date _____

END OF PROPOSAL FORM

.03 Combination Bid Form

Combination Bid Packages Discount

Bidder proposes a reduced total price for the acceptance of a combination of its proposals for multiple Bid Packages as compared to the sum of its proposals for individual Bid Packages' base bid prices. Bid Packages to be combined for the reduced total price are listed below.

It is understood, that for this combination price to be considered, Bidder must separate sealed proposals for each individual Bid Package included in the combination and must include this discount form in at least one of the sealed proposal envelopes. It is also understood, that even though Bidder has proposed combination pricing, Bidder may only be awarded one or more contracts based on its individual Bid Package proposals if determined to be more advantageous to the Owner.

"Note: The combination bid packages discount price does not take precedence over the individual bid package proposals. Bidders are still required to submit a proposal for each applicable bid package."

Combined Bid Package Numbers: _____, _____, & _____.

Bidder agrees to complete the above combination of Scopes of Work (base bid) for a lump sum of:

$_____Dollars ($_____)
(Indicate amount in both words and figures. In case of discrepancy, amount shown in words will govern.)

Signature

Bidder agrees that this proposal remains valid for a period of 60 days. Bidder understands that Nabholz and the Owner reserve the right to reject any or all bids. Bidder acknowledges Nabholz minimum insurance requirements and understands that the Master Contract shall be the basis of any contract offered by Nabholz Construction to Bidder. Proposed modifications of Master Contract language must be submitted with bid. Attach additional sheets if necessary. Upon receipt of notice of acceptance of bid, Bidder agrees to execute and return the contract and required insurance certificates within two weeks of notification.

By _____ **Title** _____

Printed name of individual signing this proposal _____

Contact phone number _____

Date _____

END OF PROPOSAL FORM

02.0 Demolition

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Division 02 – Existing Conditions
- Section 260450 – Electrical Demolition

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Subcontractor must comply with all environmental laws during demolition.
2. Subcontractor must provide containers and transportation for all demo debris removal for all demolition.
3. Include all road clean-up required by demolition activities.
4. Provide all barricades, traffic control and flagmen required by demolition activities.
5. All asbestos materials will be abated and removed by the Owner outside of the scope of this contract.
6. All materials removed under this scope of work will be disposed of on a daily basis. Any materials to be salvaged shall be turned over to the Owner and delivered to a location on site as designated by the Owner. Reasonable care shall be exercised in removing any and all items to be retained.
7. Protect adjacent materials, finishes and structures. Damage of such will be repaired at the expense of the demolition contractor.
8. Ensure utilities are disconnected prior to the commencement of demolition activities.
9. Coordinate demolition sequence with the project superintendent.
10. Include all necessary temporary waterproofing for exterior walls and roof to prevent entry of water into the existing building. Temporary shelters and partitions must be maintained under this bid package until new construction allows for removal, or as dictated by the Construction Manager.
11. Include all means and measure to protect existing finishes, materials, structures and equipment from damage and dust due to demolition activities. Damage of such will be repaired at the expense of the demolition contractor.
12. Remove building foundations below grade as required by contract documents. Backfill and compact to bring up to the elevation of the surrounding grade.
13. Include all temporary shoring and bracing of any structures or devices which are affected by demolition activities. When necessary, engineering of shoring/bracing plan to be included in this package.
14. Demolition must be performed in strict coordination with Mechanical and Electrical trades and in strict accordance with the Owner to minimize disturbances or interruptions to operations. Note that

demolition of electrical, plumbing, mechanical and fire sprinkler services is not included in this bid package and is included with those trades in their respective bid packages.
15. Leave job site “shovel clean” in areas of building demolition.
16. Leave jobsite “broom clean” in areas of interior demolition.
17. Include sanding, adhesive and mastic removal at existing floors to bare concrete.
18. Include watering of debris before, during and after demolition as needed to keep the dust to a minimum.

Section B: Project Specific Requirements:

1. Include all demolition general notes and keynotes.
2. Include all demolition
3. Salvage lockers as shown on AA1.1.
4. Bidder is responsible for all transportation of salvage and return to owner items.
5. Place flooring protection over all existing to remain floors. Flooring contractor will remove the protection.
6. Demolish wall tile that receives new wall tile. This includes walls that don’t show to demo wall tile.
7. Protect adjacent surfaces during demo. Any damages that occur during demo will be repaired at the expense of this contractor.
8. Demolish all MEP fixtures that demo and don’t salvage. MEP trade will disconnect and make safe.
9. Include keynotes 1, 3, & 7 on AC0.4.
10. Include all wall demo/cutting as needed for new layout.
11. Demo countertops that receive new countertops and backsplashes. Protect millwork that remains.
12. Include shoring design as specified in 024119.
13. Coordinate building D tie-in to Greenhouses with the Greenhouse contractor.
14. Include a $5,000 clean up allowance. All allowance usage must be approved by Nabholz.

Section C: Project-Specific Exclusions:

1. Site demolition unless explicitly called out in section A or B.
2. Electrical demo unless noted in section B.
3. Flooring demolition.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1

END OF BID PACKAGE

02.1 Asbestos Abatement

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Division 2 – Existing Conditions

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Refer to Section 3, *Instructions for Procurement*, for general requirements.
2. Note that your participation will include, but not be limited to, the following activities.
3. compliance with and protection of Erosion and Sedimentation Control Plan
4. separation of construction debris into waste and recycling containers provided by Construction Manager
5. documentation of recycled content of installed materials
6. protection of stored or installed absorptive materials from moisture damage
7. In accordance with Oklahoma State Law, smoking, the use of tobacco, or the use of products containing tobacco in any form is prohibited within any public building or fuel center.
8. Subcontractor agrees to follow all safety procedures and safety regulations of Nabholz, including those that are more stringent than Subcontractor's own safety policy or OSHA standards.
9. All employees must wear hard hats, eye protection, and high visibility vests at all times on site.
10. Deliveries of building materials will give right of way to public traffic.
11. Subcontractor is responsible for the protection of the SWPPP devices in place. If Subcontractor is required to move a SWPPP device in order to complete work, Subcontractor must replace that device as installed. Coordinate removal and replacement of SWPPP device with Project Superintendent.
12. Construction Manager will provide layout to building corners. Subcontractor is responsible for layout beyond these points.
13. Coordinate on-site employee parking with Project Superintendent.
14. Coordinate location of on-site storage containers with Project Superintendent.
15. Employees shall avoid all types of harassment. Employees who violate this requirement may be removed from the jobsite by Project Superintendent.
16. Subcontractor will actively participate in the Nabholz Quality Management System.
17. Subcontractor agrees to follow the Project Schedule and meet the milestone dates as indicated in the attached schedule. Certain areas may be made earlier than originally indicated on Schedule. Subcontractor must be prepared for any minor adjustments to the Schedule as work progresses.
18. Subcontractor must attend weekly coordination meetings. Employees attending meetings must have the authority to make commitments on manpower to maintain Project Schedule or meet milestone dates.

Section B: Project Specific Requirements:

Bidder agrees to fully comply with all Federal, State and Local Authorities having jurisdiction over Asbestos Work.

1. Provide all: material, labor, equipment, tools, consumables, permits, reporting, inspections, monitoring and testing to complete the hazardous material abatement within buildings and building systems.
2. Proper disposal of all hazardous materials
3. All air quality testing and reporting
4. Demolition and abatement of all flooring per plans. This includes glue and all other adhesives and materials need to be removed to complete the abatement process.
5. Demolish all flooring that receives a new floor. This includes floors that aren't referenced on the demo plans.
6. Demolish all floor base that receives new floor base.

Section C: Project-Specific Exclusions:

1. None

Section D: Project Alternates:

1. None

Section E: Unit Pricing:

1. None

END OF BID PACKAGE

03.0 Concrete

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 023610 – Termite Control
- Section 032000 – Reinforcement Steel
- Section 033000 – Cast in Place Concrete
- Section 036000 – Non-Shrink Grout
- Section 321313 – Concrete Paving
- Section 079000 – Joint Sealants

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Prepare and construct all building concrete assemblies, including but not limited to drilled piers, wall and column foundations, pile caps, footings and mats, grade beams, slabs on grade, ramps, trenches, pits, equipment pads, below-grade walls, structural slabs, columns, beams, and slabs on deck as indicated in the construction documents. Prepare and construct all site concrete assemblies, including but not limited to concrete paving, drainage swales, curbs and gutters, curb inlet caps, pedestrian paving, steps, ramps, stoops, mow strips, equipment and transformer pads, light pole bases, light bollard bases, flag bases, site foundations and slabs as indicated in the construction documents.
2. Furnish and install all expansion and construction joints including keyways, dowels and saw cutting as required.
3. Include all associated excavation, backfill, and compaction (both interior and exterior perimeters). Remove spoils off-site unless Construction Manager indicates they can remain onsite.
4. Backfill compaction must meet requirements of specifications.
5. Include formwork, bedding and leveling materials, reinforcing steel and mesh, tie wire, bolsters and supports, void forms, board insulation, concrete ready-mix, methods of conveyance (i.e. pumps, buggies), admixtures, curing and hardening compounds, concrete accessories, joints and weeps, sleeves, drain boxes and covers, filter fabrics and moisture membranes, finishing, and rubbing.
6. Install all embedded items (including bollards, sleeves, bolts) furnished by others.
7. Furnish, install, and compact gravel base at concrete flatwork where required.
8. Provide and install truncated warning devices if required.
9. Provide integrally colored concrete if required by construction documents.
10. Provide termite treatment in accordance with specifications.

11. Grout all base plates as required.
12. Contractor to set elevation of one nut per base plate prior to finalizing work.
13. Install and maintain a designated concrete wash down area.
14. Provide all cold weather and/or hot weather protection as required to maintain Project Schedule in accordance with ACI standards.
15. Provide generator power if electric is not readily available.
16. Unless more stringent requirements are specified, maintain maximum flatness tolerance of 1/8 inch in 10 feet for all floor slabs.
17. Final surfaces shall be as specified and free from cracks, voids, and spalls. Positive drainage of water shall be provided on traffic surfaces, without ponds or water stands. Should final surfaces contain any of the above mentioned, items shall be repaired at no additional cost to the Owner.
18. Replace grades to original condition in affected areas adjacent to work performed.
19. Concrete curing shall be in accordance with the construction documents and ACI.
20. Include temporary shoring of metal deck as required to support concrete materials.
21. Include foundation layout with base line established by professional surveyor. Check and maintain survey control points and layout anchor bolts.
22. Coordinate with plumbing and electrical trades regarding work that is under or in concrete.
23. Coordinate city inspections.

Section B: Project Specific Requirements:

1. Include all delegated design required in contract documents.
2. Include requirements under the Quality Assurance Plan & Contractor's Responsibilities on sheet G1.8.
3. Include mobilization to replace concrete pavement and sidewalk associated with utility work crossing 40th Street. Concrete replacement must be done in accordance with CoT standards.
4. Cut back existing asphalt with curb and gutter replacement 1'. Prep subgrade out 1' to meet existing asphalt.
5. All work associated with the northwest parking lot and buildings A & B will be completed during the summer of 2023. Include an extra crew and mobilization to complete this work in this time frame.
6. Remove and replace sidewalks referenced on C3.1.
7. Provide and install curb inlet tops.
8. Include main road repair in 2/C4.4. Demo, repair subgrade, and replace.
9. Include dewatering as necessary.
10. Include all general structural notes on S0.1 relating to this scope.
11. Bidder to supply and install vapor barrier under slab, following manufacturer's recommendation to seal at all penetrations and perimeter. This includes required tapes, seals, and terminations if not specifically shown in construction documents.
12. Upon completion of concrete flatwork and removal of forms, backfill to finished concrete. This includes but is not limited to sidewalks, curb and gutters, drives, pavement, walls, etc.
13. Include all general details on S0.2.
14. Infill steps at keynote 2 on AC0.1.
15. Include the Geotechnical Report and Addendum to the Geotechnical Report in this scope.
16. This scope will be responsible for all fill above grade beam elevation at the band room building pad as described in the geotechnical report.
17. Include coordination of all third-party testing.
18. Include concrete pour back necessary for gas line installation shown on C6.0. Earthwork to demo and fill with gravel. Remove gravel, prep subgrade, and replace concrete.

19. Include all fill and aggregate associated with exterior concrete stairs.
20. Include notch into existing building and drilled dowels into existing building.
21. Include lintel header shown in detail 2 on S1.2.
22. Furnish and install felt bond breaker in detail 3 on S1.2.
23. Install trench drains for greenhouses provided by plumber. Coordinate slopes and elevations with plumber.
24. Bidder to include LVC and crushed stone subgrade at building D and greenhouses.
25. Replace concrete stairs as shown on AS0.3 & AS0.5. Include extra mobilization for this work.
26. Include concrete pad for heat pump. Coordinate locations with HVAC contractor.
27. Include concrete pad for water heaters. Coordinate location with plumber.
28. Include concrete pads for exterior cleanouts. Coordinate locations with plumber.
29. Include generator and transformer concrete pad. Coordinate location and size with electrician.
30. Install ADA and parking signage include concrete base as shown in detail 3 on C8.1.
31. Include $5,000 allowance for issues brought by unknown existing conditions. All allowance usage must be approved by Nabholz.
32. Include the installation, demo, and haul off of 100sqft mockup referenced in the concrete specifications.
33. Include an allowance in bid price for 2,000 pounds of reinforcing steel to be fabricated and placed as directed by Architect or Engineer. Allowance is to include, but not limited to, material, detailing, fabrication, shipping, installation, overhead and profit.

Section C: Project-Specific Exclusions:

1. ICF walls and ICF wall reinforcement.
2. Project specific exclusion 2.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1

END OF BID PACKAGE

03.5 Insulating Concrete Forming (ICF)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 031119 – Insulating Concrete Forming
- Section 032000 – Reinforcing Steel
- Section 079000 – Joint Sealants

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Furnish and install insulated concrete formed walls as indicated in the contract documents
2. Furnish and install all expansion and construction joints including keyways, dowels and saw cutting as required.
3. Install all embedded items furnished by others.
4. Provide all cold weather and/or hot weather protection as required to maintain Project Schedule in accordance with ACI standards.
5. Provide generator power if electric is not readily available.
6. Concrete curing shall be in accordance with the construction documents and ACI.
7. Include temporary shoring of walls as required to support concrete materials.
8. Include layout with base line established by professional surveyor. Check and maintain survey control points and layout anchor bolts.
9. Coordinate with mechanical, plumbing, and electrical trades regarding work that goes through concrete walls. Coordinate block outs as needed.
10. Provide all reinforcing requirements incorporated in the ICF walls.
11. Provide ACI certified personnel to take concrete cylinders as required.
12. Examine and accept installed work of other trades prior to installation. Start of installation will be construed as subcontractor's acceptance of substrates.
13. Protect and clean concrete slab on grades from concrete leaks or splatter.
14. Provide all necessary surface preparation include sealing cracks and voids to prevent leakage.
15. Coordinate and install embedded items with the associated trades to determine correct elevations and locations.
16. Coordinate with concrete trade partner regarding placement of rebar dowels in concrete slab.
17. Provide all hoisting, pump trucks and required OSHA certified scaffolding to complete the ICF walls.
18. Furnish and install ICF manufactured bucks to ensure openings are square and plumb and ready to receive window, doors or louvers.

19. Include delegated design as specified in the construction documents to meet specified design loads.
20. Furnish, install, and dispose of concrete cleanout as shown in civil drawings.

Section B: Project Specific Requirements:

1. Include items listed under Quality Assurance Plan & Contractor's Responsibilities on sheet G1.8.
2. Coordinate embeds with furnishing contractor.
3. Include on site meetings to coordinate with trades that interface with ICF walls.
4. Clean top of slab prior to starting ICF installation.

Section C: Project-Specific Exclusions:

1. Sales tax.

Section D: Project Alternates:

1. None.

Section E: Unit Pricing:

1. See bid form.

04.0 Masonry

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Division 4 – Masonry
- Section 072100 – Thermal Insulation
- Section 079000 – Joint Sealants
- Section 081113 – Hollow Metal Doors and Frames

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Provide and construct all masonry assemblies as indicated and specified in the construction documents.
2. Perform all work from approved shop drawings and/or product data. Confirm that you have the latest approved "field use" drawings prior to start of work.
3. Provide a sample mock-up panel as soon as possible, in a location as directed by the Project Superintendent. The panel will clearly show all CMU, grout, reinforcing, anchoring, seismic (if required) ties, flashing, brick and mortar (per required color selection(s), and other materials as required for a complete review and approval of the quality of finished product.
4. Coordinate all lay down and staging areas with Project Superintendent at least 48 hours in advance of all material deliveries.
5. Provide all layout and field measurements for this work including layout for embedded items.
6. Prepare and clean footings (as required) prior to starting masonry work.
7. Layout, drill, and epoxy reinforcing at masonry walls when shown on the contract documents.
8. Provide shoring and bracing of walls, masonry lintels, and bond beams to facilitate this work.
9. Coordinate with other trades as required for block outs, cutouts, and the installation of access doors and plumbing fixture chairs.
10. Coordinate location and placement of steel embeds with structural steel erection subcontractor.
11. Provide standard and special shaped masonry units, mortar, grout, knock-out panels, reinforcing steel, precast, masonry joint reinforcing, anchors, ties, embedded flashing, and other masonry accessories as may be required to complete the masonry assemblies as detailed and specified.
12. Include all rigid insulation behind masonry as required.
13. Install weather barrier flashing provided by others at each masonry tie or penetration.
14. Furnish and install cavity wall insulation when shown in contract documents.
15. Provide all anchor and attachment to structural members as required per the contract documents.

16. Set hollow metal frames furnished by others. Including grouting of frames as required.
17. Install steel lintels and embed plates furnished by others.
18. Include protection of masonry cells and cavity between masonry walls from infiltration of moisture at the end of each work day. Protect space between masonry and sheathing.
19. Cover and protect all slab areas that will receive special finishes as directed by Construction Manager.
20. Repair divots bigger than 1/2" in diameter and patch block as directed by Construction Manager.
21. Include rubbing of exposed unit masonry and final cleaning.
22. Provide all cold-weather and hot-weather protection per construction documents necessary to maintain Project Schedule.
23. Include flue liners, ash dumps and fireplace units if required.
24. Install HM door frames and grouting in masonry applications. The door frames will be furnished by others.

Section B: Project Specific Requirements:

1. Include masonry design criteria on S0.4.
2. Include masonry associated with north entry brick planters shown on AS0.3. Include extra mobilization for this work.
3. Remove, pressure wash clean, store, and reinstall existing wall stone caps as shown on AS0.3. Pressure wash stone caps on AS0.4.
4. Bead blast existing granite stairs. Epoxy grout all chipped units & seal all cracks & joints with silicone as shown on AS0.3 & AS0.4.
5. Remove, clean, and store granite steps at building C. Place those stairs at north entry stairs as shown on AS0.3.
6. Grout cracked units on AS0.3.
7. Include all CMU & brick infill. This includes interior and exterior.
8. Include all reinforcement. Include drill and epoxy of reinforcement into existing slab.
9. Include installation of grout filled frames and sealants as shown. Frames to be provided by others.
10. Infill all CMU walls where wall mounted items are removed and not replaced.
11. Patch brick where existing items are removed and not replaced.
12. Install masonry lintels and reinforcement according to masonry reinforcement details.
13. Include cast stone windowsills.
14. Provide and install one layer of vapor barrier building wrap on all exterior CMU locations below roof.
15. Insulate according to thermal insulation specification all 8" CMU un-reinforced cells.
16. Include drilling and patching as needed to grout fill frames.
17. Ensure storefront and glass protection provided and installed by glazer stays intact while masonry is ongoing. Remove protection after the completion of this scope.
18. Protect adjacent finishes from excess mortar. Clean all areas that may be stained as a result of this work.
19. Include the installation, demo, and haul off of 4' x 4' sample wall referenced in masonry specifications.
20. Remove ICF insulation as needed to complete this scope of work. Coordinate removal with ICF contractor.

Section C: Project-Specific Exclusions:

2. Project specific exclusion 2.

Section D: Project Alternates:

2. Provide voluntary alternate price on the bid form for cold weather provisions, including temporary heat, enclosures, blankets, tenting, and other means necessary to maintain schedule in cold weather.

Section E: Unit Pricing:

2. Unit Price 1.

END OF BID PACKAGE

05.2 Structural and Miscellaneous Steel (Supply & Installation)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Division 5 - Metals

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. All steel work shall be fabricated and erected from approved shop drawings. Confirm that you are working from the latest approved "field use" drawings prior to start of work.
2. Supply & Erect all structural and miscellaneous steel furnished in this bid package.
3. Include all freight to the jobsite and off-loading of materials. Coordinate the delivery schedule and all lay down and staging areas with Project Superintendent at least 48 hours in advance of all material deliveries.
4. Protect surfaces from welding equipment and activities.
5. Provide temporary bracing and shoring as needed to perform this scope of work.
6. Include all materials and equipment for stud welding if required including power source.
7. Include base plate elevations.
8. All steel exposed to view shall be oil free, have welds ground smooth, and be of sufficient quality for an exposed and finished surface.
9. Provide copies of current welder's certifications prior to the start of any work. Keep those records on file at the job trailer and keep them current at all times.
10. Fabricate and deliver all structural steel columns, beams, tube framing, brace frames, gusset plates, bridging, joists, decking, edge and other angles, bent plates, connectors, studs, and fasteners as indicated in the construction documents.
11. Fabricate and supply anchor bolts, loose lintels, wheel guards, railings, and pipe bollards as indicated in the construction documents.
12. Furnish and install all rough hardware, bearing and leveling plates, miscellaneous steel trim, shelf and relief angle, tread plate and supports, railings and handrails and metal pan stairs.
13. Furnish and install elevator pit ladder, hoist beam, and sump pit grate.
14. Furnish and install miscellaneous framing/support for mechanical, plumbing, and electrical equipment.
15. Fabricate and deliver metal deck closures.
16. Provide all sleeve anchors and any anchors that connect steel to other materials.
17. Include prime painting (galvanized where required by the bid documents) and touch-up (where required) as indicated in the construction documents.

18. This package shall be responsible for transferring all submittals and shop drawings owner rights and copyrights for this project to Nabholz should this package be transferred to another company on the basis of default, without delay, in accordance with the Master Contract between Nabholz and the awarded bidder.
19. This package shall secure all primary structural steel from service centers in lieu of directly from steel mills in order to secure schedule unless otherwise noted by CM. If CM accepts alternate pricing below on the basis of allowing the awarded bidder to utilize steel mills, and the awarded bidder becomes behind schedule, the awarded bidder will be required to procure steel from service centers at their own expense (even if the awarded bidder had already placed orders with mills).

Section B: Project Specific Requirements:

1. Include all delegated design required in contract documents.
2. Contractor should furnish and install all safety railings per OSHA requirements at elevated floors. This should include complete exterior perimeter and all interior openings. Remove railings when directed by the construction manager. Grind surface smooth and prime paint as needed.
3. Include all structural notes on S0.1 relating to this scope.
4. Include coordination of all third-party testing.
5. Include all steel embeds to be installed by others.
6. Provide all equipment necessary for unloading and full erection/installation of structural and miscellaneous steel. Include mobilizations to unload any steel that arrives early.
7. Furnish and install all misc steel shown in documents, including those not shown in the structural drawings.
8. Include all thread and adhesive with screens as shown on S3.1 at all similar locations in drawings.
9. Furnish and install threaded adhesive expansion anchors and steel angle for FEMA louver as required (ref AC7.3). Coordinate locations with HVAC contractor.
10. Include all metal roof decking.
11. Include all steel involved in roofing penetrations.
12. Include steel FEMA shield on AC5.3.
13. Furnish all steel lintels. Install by others unless documents call for welded connections.
14. Include all steel channels.
15. Include plate at CMU openings as shown in detail 7 on AC7.2.
16. Remove ICF insulation as needed for this scope. Coordinate removal with ICF contractor.
17. Include an allowance in the bid price for 2,000 pounds of miscellaneous structural steel to be fabricated and placed as directed by Architect or Engineer. Allowance is to include, but not limited to, material, detailing, fabrication, shipping, installation, overhead and profit.

Section C: Project-Specific Exclusions:

1. Project specific exclusion 1.

Section D: Project Alternates:

1. Alternate #1 Provide, fabricate, powder coat, and set in place all steel tubing referenced in Alternate 1 on AC1.2.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

07.0 Waterproofing, Dampproofing, Joint Sealants

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 071713 - Bentonite Waterproofing
- Section 072510 – Weather Barrier
- Section 075000 – Traffic Bearing Membrane
- Section 079000 – Joint Sealants
- Section 321373 – Concrete Paving Joint Sealants

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Provide weather-tight storage and heat to protect materials from freezing.
2. Provide all necessary surface preparation.
3. Provide waterproofing system(s) for below-grade surfaces, including membrane, flashing, protection board, rigid insulation, and drainage mat as required by the construction documents.
4. Provide dampproofing for below-grade and above-grade surfaces where unexposed to view per construction documents.
5. Provide all joint sealants required or indicated at exterior and interior masonry constructed walls and partitions.
6. Provide water-repellent and elastomeric coatings for exposed concrete and masonry surfaces. Clean surfaces prior to commencement of work per construction documents.
7. Provide joint sealants and incidentals as necessary and per the bid documents at building exterior to secure a water-tight building envelope.
8. Include joint sealants in and surrounding site paving.
9. Confirm that materials furnished for this Bid Package are compatible with other materials furnished for other Bid Packages.

Section B: Project Specific Requirements:

1. Include traffic bearing weatherproof coatings.
2. Include all backer rod and sealant.
3. Include backer rod and sealant at all dissimilar materials joints.
4. Include all joint sealants and waterproofing between existing buildings and new buildings.

5. Include anti-graffiti coating.
6. Include fluid applied weather barrier.
7. Include water block mastic on AC3.2.
8. Include 10’ x 10’ weather barrier mock-up according to specifications.
9. Include 10’ x 10’ traffic bearing membrane field sample as stated in the traffic bearing membrane specifications.
10. Include joint sealants mockup as noted in the specifications.
11. Protect surrounding finishes from excess coating. Clean any excess coating from surrounding structure.

Section C: Project-Specific Exclusions:

1. Project specific exclusion 1.
2. Project specific exclusion 2.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

07.3 Roofing, Flashing, Sheet Metal

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 035210 – Lightweight Concrete Deck & Insulation System
- Section 074100 – Metal Panels
- Section 075110 – Multi Ply Cold Process Built-Up Roofing System
- Section 076200 – Sheet Metal Flashing and Trim
- Section 079000 – Joint Sealants
- Section 107315 – Aluminum Canopies

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Confirm that materials furnished for this Bid Package are compatible with other materials furnished for other Bid Packages.
2. Should the roofing product manufacturer require standard details that conflict with the contract documents, drawings, details, or notes, Subcontractor must immediately notify Construction Manager in writing with a proposed method of resolution.
3. Review, approve, and accept all subsurfaces prior to installation.
4. All work shall, as a minimum, comply with industry accepted “best practices” and with the SMACNA “Architectural Sheet Metal Manual” criteria.
5. Comply with all wind uplift requirements of Owner and Owner agents.
6. Coordinate all deliveries of material with Project Superintendent. Secure, store, and protect all materials from weather.
7. Provide hoisting for materials provided in this Bid Package.
8. Provide a complete watertight roof system with related tapered insulation, flashing and counter flashing, coping, scuppers, expansion joints, ballast, gutters and downspouts, and caulking.
9. Provide manpower or safety barriers below all roof penetrations for protection of others during kettle discharge operation. Provide daily reports showing kettle discharge temperatures.
10. Provide a complete insulation system to provide positive drainage to roof drain, and to prevent ponding of water on roof surface. Provide tapered crickets at rooftop units, equipment, and roof perimeter.
11. Provide roof system that meets minimum insulation value as specified. Clearly confirm the minimum “R” value rating on shop drawings.

12. Cover all insulation installed each day. Do not shake out or leave unprotected any insulation which may become wet with dew or rainfall.
13. Coordinate all metal flashing and trim so that metal products match in color to the metal roof copings, flashing and trim.
14. Provide pitch pockets and flashing for miscellaneous penetrations of the roof.
15. Provide roof expansion joints and covers.
16. Provide walk-pads from roof access points to all rooftop equipment.
17. Provide all miscellaneous roof accessories.
18. Install roof drains provided by plumbing subcontractor and set clamping rings. Coordinate with plumbing subcontractor for the proper installation of this work.
19. Coordinate with the HVAC and plumbing subcontractors to ensure that proposed locations of plumbing vents and rooftop equipment do not conflict with roofing manufacturer warranty requirements.
20. Immediately clean all areas or surfaces soiled by roofing operations.
21. Prior to demobilization, Subcontractor agrees to coordinate with Project Superintendent for the purpose of conducting a waterproof test.
22. All warranties must be signed by the roofing manufacturer's representative.
23. All accessories shall meet the performance specifications in the construction documents.
24. Supply and deliver canopies as indicated and specified in the construction documents.
25. All material will be handled, inventoried and protected this contractor until installation of the system. This site has limited space, thus there will not be an option for site storage until install.
26. All warranties shall commence on the date of Substantial Completion of the Project.

Section B: Project Specific Requirements:

1. Provide roof access and roof ladders in their entirety shown in detail 4 on AC5.9. Seal all anchor penetrations.
2. Include full roofing inspection of existing buildings being tied into.
3. Provide all metal work, flashing, coping, scuppers, gutters, downspouts, and trim shall be pre-finished as noted in the specifications.
4. Provide all soffits and fascia, including all trim.
5. Provide all required roof blocking including top of parapets and back of parapet walls.
6. Furnish and install built up membrane system, lightweight concrete, cover board, cant, and roof insulation for a complete system.
7. Coordinate block-outs for HVAC duct/equipment with HVAC contractor.
8. Include roof patching on existing buildings as required from mechanical demo and new layout. Coordinate penetrations with HVAC and plumbing contractor.
9. Include all gutters, downspouts, and splash blocks. Include all associated flashing.
10. Include removable lead screens with gutter as required.
11. Tie-in downspouts to stub ups from storm drain as shown. Pre-finished cast metal adapter provided by utility contractor.
12. Furnish and install parapet wall and all metal caps and flashing.
13. Furnish and install all roof curbs and insulations at roof penetrations.
14. Mop-in new roofing membrane to the existing roofing membrane, remove existing gravel to tie-in work and re-gravel.
15. Include vapor barrier, fire retardant plywood sheathing, insulation, and all necessary for a full parapet wall system.

16. Include all blocking, flashing, insulation, vapor barrier, exp joint flashing, and sealant to complete detail 5 on AC5.7.
17. Include hat channels and metal panels.
18. Include crickets at rooftop equipment as shown.
19. Furnish and install all canopy assemblies, include mounting brackets, rods, fasteners, facia, trims, break metal, gutters, downspouts, and other facets of the canopies for a complete installation.
20. It is this subcontractor's responsibility to install all required "in wall supports "during the framing stage of the project to ensure accurate placement and sizing.
21. Include all metal transitions and sealants prevent water infiltration between the building and the canopy, even if not specifically shown on the contract documents. Final approval of connection to the building to be approved by the architect.
22. Finishes to be provided as outlined in the documents. If they are deemed "custom colors" by the manufacturer, they are to be provided as such with no additional costs to the owner.
23. Include all details on AC5.9.
24. Provide and install all lead flashing, caps, flanges, and mastic in detail 1 on AC5.9.
25. Bidder to include band room ramp concrete, wire mesh, and all associated reinforcement as shown on S1.3.
26. Provide and install termination bar, fastener, flashing, and all associated sealants in detail 5 on AC3.2. Traffic-bearing weatherproof coating by others.
27. Include metal flashing at louver head, jambs, and sills as shown in detail on AC7.3.
28. Remove ICF insulation as needed for this scope of work. Coordinate removal with ICF contractor.

Section C: Project-Specific Exclusions:

1. Project specific exclusion 1.
2. Project specific exclusion 2.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

08.2 Coiling Doors and Service Doors

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 083300 – Rolling Fire Door
- Section 083350 – Tornado Resistant Coiling Door

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Furnish and install all overhead doors, frames, controls, and accessories for a fully functional, completely operating system.
2. Include all necessary materials and anchors in order to connect the door track and door components to the building structure.
3. Provide all necessary blocking or supports that may be required for this work that is not shown on drawings.

Section B: Project Specific Requirements:

1. Provide all fire door accessories, including but not limited to fusible link.
2. Coordinate power requirements with electrical and low voltage sub-contractors. Wiring of door to incoming power by electrician and low voltage wiring integration by low-voltage sub-contractor. All other wiring by coiling door contractor.
3. Include all requirements under the Quality Assurance Plan & Contractor's Responsibilities on sheet G1.8.
4. Include all rolling fire doors.
5. Furnish and install FEMA rated coiling shutter and frame. Include all accessories and hardware for a complete system.
6. Remove ICF insulation as needed for this scope. Coordinate removal with ICF contractor.
7. Include greenhouse garage door.
8. Include battery back-up system per specifications.
9. Provide all metal flashing, sealants, tape, or any other product shown at this scope's openings.
10. Include requirements under the Quality Assurance Plan & Contractor's Responsibilities on sheet G1.8.
11. Provide access panels as needed for each door provided. Install by framing package.

Section C: Project-Specific Exclusions:

1. Project specific exclusion 1.
2. Project specific exclusion 2.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

08.3 Storefront, Glass, Glazing

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 072510 – Weather Barrier
- Section 079000 – Joint Sealants
- Section 084113 – Entrances and Storefronts
- Section 088000 – Glass & Glazing

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Verify actual field measurements from installed rough openings.
2. Clearly identify all tolerance requirements on dimensioned shop drawings. Initiate on-site coordination meetings with the Project Superintendent to ensure the proper fit and scheduling of this work with the work of others.
3. Clearly dimension stile heights and widths on shop drawings.
4. Furnish and install required scaffolding in strict accordance Construction Manager's safety policy. Comply with tie-off rules when working higher than 6 feet above grade. Provide necessary grade work as required to accommodate areas with steep slopes for erection of scaffolding systems
5. Provide hoisting and material handling.
6. Provide any blocking required for the installations associated with this package that may not be shown on the drawings.
7. Provide all aluminum and glass storefront systems, curtainwall systems, and entrances.
8. Provide all sills, trims, transoms, cladding, etching, associated exterior caulking, sealants, and adhesives, weather stripping, brake metal, etc.
9. Provide all miscellaneous flashings integral with storefront, curtainwall, or entrance systems.
10. Include steel reinforcement within aluminum framing if required.
11. Include fire safing insulation at floors if required for work covered by this trade scope.
12. Cores will be provided by Hardware supplier
13. Furnish and install aluminum metal, wood, plastic or clad windows including weather stripping, hardware, misc. related aluminum, trim, thresholds, anchors, bracket attachments, sealants and other accessories necessary for a complete installation.
14. Provide all glass products according to glass type schedules in the documents and as required by Code.
15. Furnish and install glass at hollow metal window frames and doors, wood frames and doors, plastic laminate doors and FRP doors. Include all sealants and gaskets.

16. Provide all non-framed glass mirrors.
17. Include final adjusting per contract documents.
18. Remove all labels and stickers from all components after installation.
19. Include final cleaning and install security tape across windows immediately after installation.
20. Prior to final Application for Payment, schedule and perform for Construction Manager a water (hose) infiltration test on all exterior work deemed complete and ready for Owner acceptance.

Section B: Project Specific Requirements:

1. Provide all glass components within finish carpentry and millwork assemblies.
2. Provide glass protection as requested on all installed work.
3. Provide an allowance for $3,500 to be used for misc. brake metal requirements. Use of this allowance must be approved by Nabholz.
4. Include all "security glazing" as shown in the door and hardware schedule.
5. Include mapes panels, and operable windows on AC3.1.
6. Include all weather barrier sealants and tapes associated with scopes openings.
7. Provide protection for all storefront aluminum and glass.
8. This contractor to supply all power supply equipment or low voltage transformers for access control, mag locks, hold pens, etc. Include final termination of low voltage.
9. Remove ICF insulation as needed for this scope of work. Coordinate removal with ICF contractor.
12. Provide all metal flashing, sealants, tape, or any other product shown at this scope's openings.
13. Include sound control window systems and associated components.
14. Include final clean of all windows. Interior and exterior. Scheduling at the discretion of site superintendent.

Section C: Project-Specific Exclusions:

1. Glass in wood doors and hollow metal doors.
2. Aluminum doors and frames integral with premanufactured greenhouse.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

09.0 Light Gauge Framing, Drywall, Acoustical

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 054000 – Cold-Formed Metal Framing
- Section 061000 – Rough Carpentry
- Section 061643 – Exterior Gypsum Sheathing
- Section 072100 – Thermal Insulation
- Section 078443 – Joint Firestopping
- Section 079000 – Joint Sealants
- Section 081113 – Hollow Metal Doors and Frames
- Section 083110 – Access Doors and Frames
- Section 092116 – Gypsum Board Assemblies
- Section 095113 – Suspended Acoustical Ceilings
- Section 097700 – Fiberglass Reinforced Panels
- Section 102600 – Wall Protection Panels
- Section 134800 – Sound Control Door Systems
- Section 134813 – Manufactured Sound & Vibration Control Components

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Except where found to be in conflict with contract documents, adhere to requirements of the latest edition of the U.S. Gypsum Handbook for installation of gypsum board materials. Advise Construction Manager of all such discrepancies or conflicts in writing immediately.
2. Coordinate with pre-engineered metal building contractor all miscellaneous steel installations that are integral with light gauge framing systems. Coordinate with other trades for installations encapsulated by drywall or drop ceilings. Coordinate any and all framing inspections with local jurisdictions.
3. Include layout for metal stud walls and ceilings.
4. Furnish and install all load-bearing and light-gauge steel studs and joists, steel runner, lintels, clip angles, hold-downs, furring channels, brackets, Z-furring, reinforcement, fasteners, and other accessories as required by the construction documents and as required for a complete metal framing system.

5. Include taping and finishing of drywall surfaces to a level 4 finish unless otherwise noted.
6. Install all framed openings and block-outs in drywall partitions, ceilings, furrdowns, and enclosures as required for the work of other trades.
7. Provide sheathing and gypsum board, moisture-resistant board, drywall control joints, acoustical caulking, high impact gypsum, shaftwall, weather resistant barriers and tile backerboard.
8. Provide UL listed fire rated assemblies as shown.
9. Furnish and install all firestopping, sealant or caulking in fire rated walls, fire rated enclosures above light fixtures, fire safe insulation if required and fire stop between floors. Excludes MEPF penetrations.
10. Furnish only weather barrier material at brick ties.
11. Furnish and install weather barrier system on exterior sheathing. Including window flashing per manufacturer's recommendations.
12. Inspect all penetrations through the weather barriers system for proper sealing and bring all non-conforming penetrations to the attention of the superintendent.
13. Provide expansion joints in walls and ceiling joint systems as shown or required by industry standards.
14. Furnish and install FRP and accessories where required.
15. Furnish and install all batt, blanket type and acoustical insulation per construction documents.
16. Insulate at steel beams where shown on construction documents.
17. Furnish and install board insulation (except where installed by concrete and masonry bid packages).
18. Provide complete suspended ceiling framing systems, including all furring channels, hanger rods, flat hangers, wire, grid system, axiom trim, grid wires for light fixtures and other accessories.
19. Maintain true and level ceilings at heights indicated in the construction documents.
20. Coordinate installation of sprinkler heads, light fixtures, speakers, HVAC devices, access doors, and other appurtenances in ceilings.
21. Acoustical sound panels to be provided and installed per construction documents.
22. Provide all blocking (plywood, lumber, or metal strap) for millwork, doors, windows, frames, louvers, toilet accessories, marker boards, aluminum storefront systems, toilet partitions, fire extinguishers, panel boards for telephone system, or Owner-furnished items.
23. Set and install hollow metal frames (provided by others) in metal framing systems, wood stud framing walls and CMU walls.

Section B: Project Specific Requirements:

1. Include allowance for documented cleanup labor at 2 hour/$1,000 of bid value. Anticipated labor rate for cleanup is $16.50 per hour including burden.
2. Provide tackable wall surface.
3. Contractor should carry an allowance of $2,500 to provide and install all required access panels. Coordinate quantity and location with Construction Manager.
4. Include all standard structural details on S0.3.
5. Include framing and blocking for all roof curbs and parapet walls.
6. This scope responsible for all framing, floor joists, metal deck, and angles at band room interior ramp as shown on S1.3.
7. Bidder to include ceiling demo as required.
8. Remove and replace existing ceiling grid and tiles as required for MEP work. Reference MEP drawings for new MEP work.
9. Cut back ceiling grid and tile and retie in grid and tile where new walls are installed to deck.

10. Furnish and install all wall protection. Include all wall prep (skim coating, primer, etc..) required to install wall protection. Include all Schluter systems for wall protection as shown on AC9.1.
11. Install all access doors/panels provided by others.
12. Provide and install access panels in millwork.
13. Skim coat and patch existing gypsum board and plaster walls where existing items were removed and won't be replaced.
14. Ensure ceiling tie-in Is at the same height as existing.
15. Include absorptive tile and acoustical ceiling cloud in its entirety.
16. Include items in schedule as specified on AC1.6.
17. Remove ICF insulation to extend walls to concrete and fire seal as shown in AC2.1. Reference ICF insulation manufacturer recommendations and specifications prior to insulation removal.
18. Remove ICF insulation as needed to complete this scope of work.
19. Include framing and gyp board for FEMA shutter as drawn in detail 1 on AC7.4.
20. Furnish and install fiberglass reinforced panels and all associated hardware and accessories.
21. Include all specified adhesives to adhere gyp board directly to ICF concrete. Remove ICF insulation as necessary.
22. Include all vibration absorption material integral with this scope of work.
23. Install all hollow metal frames that are not grout filled. This includes FEMA rated frames and frames in ICF, CMU, and concrete wall openings.

Section C: Project-Specific Exclusions:

1. Project specific exclusion 1.
2. Project specific exclusion 2.

Section D: Project Alternates:

1. Alternate #1: All framing, plywood, and hardware associated with alternate #1..

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

09.2 Tile and Commercial Flooring

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 093013 – Porcelain/Ceramic/Quarry Tile
- Section 096513 – Resilient Base and Accessories
- Section 096516 – Resilient Homogenous Vinyl Sheet Flooring
- Section 096519 – Resilient Tile Flooring
- Section 096800 - Carpet

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Furnish to Construction Manager a seaming layout plan for approval by Architect.
2. Inspect substrates prior to installation. The start of installation of floor covering will be construed as the applicator's acceptance of the finish floor surface conditions.
3. Perform moisture test and give results to construction manager prior to commencement of work.
4. Provide all surface preparation, leveling, bonding agents and adhesive, carpet tack strips, patterns, transition strips, and other accessories required.
5. Furnish and install all carpet and padding.
6. Furnish and install all resilient flooring and resilient base including treads and risers, transition strips, and stair nosings.
7. Furnish and install porcelain, ceramic, quarry, stone and marble tile.
8. Provide and install pre-formed cove base outside corners.
9. Furnish and install thin brick pavers.
10. Provide and install all floor-to-floor expansion joint covers as required.
11. Include waterproofing at showers or shower pans.
12. Provide initial cleaning of resilient materials, carpet, and tile upon completion of installation in strict accordance with the manufacturer's recommendations.
13. Remove visible adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet manufacturer. Remove protruding yarns from carpet surface.
14. Protect flooring against mars, marks, indentations, and other damage from construction. Use protection methods indicated or recommended by tile manufacturer.
15. Provide "extra stock" materials as identified in the construction documents.

16. Surface preparation, provide and install up to 1 lb. of floorstone per 30SF of flooring. Floorstone not used in one area may be added to another area. Prime surfaces per mfg.'s directions if required.
17. Furnish and install minor floor patching of slab at the following rates:
    - Resilient or sheet vinyl flooring- One 10lb bag of patch for every 300sf of new construction and 200sf of remodel (used to skim coat)
    - Carpet- One 10lb bag of patch for every 500sf of new construction and 400sf of remodel.
    - Ceramic- One 10lb bag of patch for every 200sf of new construction and 100sf of remodel.
18. The patch materials shall meet every flooring manufacturer's requirements for the project. The quantities shall be held as an allowance and returned to the owner at the end of the project if not used. Document and coordinate all usage with the onsite superintendent.
19. Install floor protection for all materials during and after installation. Remove protection when directed by construction manager.

Section B: Project Specific Requirements:

1. Include allowance for documented cleanup labor at .5 hour/$1,000 of bid value. Anticipated labor rate for cleanup is $16.50 per hour including burden.
2. Remove flooring protection placed by demolition contractor on existing to remain floors. Timing is at the discretion of site superintendent.
3. Include floor protection for all newly installed floors.
4. Include wall tile.
5. Prep concrete floor to receive floor tile where lockers were removed.
6. Include all flooring, base, and transitions. Match existing where shown.
7. Include all flooring and base referenced in elevation views.
8. Confirm all flooring patterns are constructable per manufacturers recommendations and instructions.
9. Include sealed concrete. Including in the greenhouse.

Section C: Project-Specific Exclusions:

1. Project specific exclusion 1.
2. Project specific exclusion 2.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

09.4 Painting and Wallcovering

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 099000 – Paints and Coatings

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Include surface preparation.
2. Preparation – before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of various coatings, remove oil and grease before cleaning. Do not begin to apply paint until unsatisfactory conditions have been corrected and surfaces are thoroughly dry. Remove efflorescence before painting cementations and masonry materials. Prepare and paint all miscellaneous metals include handrails, stairs, ladders and metal flashing which are not pre-finished.
3. Protect all adjacent surfaces against painting.
4. Provide all interior and exterior painting and staining of all surfaces shown to be field finished. Scope includes, but is not limited to, gypsum board, doors, frames, millwork, wood surfaces, metals, exposed concrete, and CMU.
5. Include painting of open structure ceilings as noted on finish schedule.
6. Paint mechanical and electrical equipment, ductwork, conduit and piping as required.
7. Include glaze coatings as needed.
8. Includes touch up of walls, ceilings, and all other painted surfaces as required by industry standards.
9. Include interior caulking at hollow metal frames, window frames, storefront frames, sills, millwork, and other beauty caulking as needed.
10. Furnish and install wall fabrics and cork wall coverings.
11. Include painted graphics.
12. Include painting of exterior steel lintels
13. Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of the same material are applied. Tint undercoats to match the color of the finish coat but provide sufficient difference in the shade of undercoats to distinguish each separate coat.

Section B: Project Specific Requirements:

1. Include allowance for documented cleanup labor at .5 hour/$1,000 of bid value. Anticipated labor rate for cleanup is $16.50 per hour including burden.
2. Include allowance of $3,500 to skim coat existing walls needing paint.

3. Include all finish schedules as it relates to paintings & wallcoverings.
4. Paint plaster as referenced in the reflected ceiling plans.
5. Include epoxy wall paint.
6. Include all paint referenced in interior and exterior elevations.
7. Prime and paint steel ladder to match building metal wall panels.
8. Paint gas piping and attachments as shown on AC1.10 & AC2.1.
9. Paint shutter steel guide angles, shutter sill, and anchors.
10. Paint exposed concrete to match door frame color where required.
11. CMU walls to be block filled to match all adjacent finishes. The finish will need approval from architect and CM.

Section C: Project-Specific Exclusions:

1. Wall protection and corner guards.
2. Project specific exclusion 2.

Section D: Project Alternates:

1. Provide alternate price on Lump Sum Proposal form for field finishing wood doors in lieu of prefinished wood doors.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

10.0 Doors, Frames, Hardware (Supply & Installation)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 081113 – Hollow Metal Doors and Frames
- Section 081416 – Flush Wood Doors
- Section 081613 – FRP Flush Doors
- Section 087100 – Door Hardware
- Section 087150 – Finish Hardware Schedule
- Section 134800 – Sound Control Door Systems

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. This is an all-inclusive bid package. Supplier agrees to furnish and install ALL items covered by the Sections referenced above and described herein.

Doors, Frames and Hardware

2. Include cost of freight to jobsite. Coordinate all lay down and staging areas with Project Superintendent at least 48 hours in advance of all material deliveries.
3. Any discrepancy between the hollow metal, hardware and wood door schedules shall be immediately brought to the attention of Project Superintendent.
4. Furnish, deliver, and install all hollow metal frames and mullions, including all anchors and accessories.
5. Furnish, deliver, and install all hollow metal doors, wood doors and accessories.
6. Furnish, deliver, and install FRP and laminate doors to jobsite.
7. All materials must be individually wrapped and protected, and clearly labeled and tagged.
8. All frames and doors must be rated as required and carry the appropriate underwriter's label.
9. All doors must be pre-machined for finish hardware, undercut (as required), and pre-finished (if required by construction documents).
10. Include door cutouts, view lite kits, grilles, and stops.
11. Include all transoms and side panels as required.
12. Furnish, deliver, and install all finish hardware, including cylinders for aluminum or glass doors.
13. Furnish, deliver, and install temporary construction cores.
14. Include provisions for final keying. Include cost for coordination meeting with Owner Representative(s).
15. Provide low voltage transformers and wiring required for mag locks, hold opens, etc.

16. All accessories shall meet the performance specifications in the construction documents.
17. All material will be handled, inventoried, and protected by Construction Manager. Construction Manager will provide a secure lockup for storage.
18. Supply all material, equipment, and associated specialties hardware to provide a complete installation.
19. Furnish, deliver, and install all mounting devices, accessories and fasteners required for complete installation.
20. Coordinate wall blocking requirements with the construction manager.
21. Contractor to verify blocking locations in drywall partitions to ensure proper anchorage. Blocking provided and installed by others.
22. For all products use specified manufacturer unless otherwise noted.
23. All warranties shall commence on the date of Substantial Completion of the Project.

Section B: Project Specific Requirements:

1. Furnish and install all FEMA Doors, frames, controls, and accessories for a fully functional, completely operating system.
2. Include an allowance of $10,000 for FEMA doors, frames, and controls issues.
3. Include all necessary materials to connect doors to structure.
4. Provide all necessary blocking or supports that may be required for this work that is not shown on drawings.
5. All hardware supply and install for aluminum storefront and curtain walls is to be provided by other bid package. Include cores only.
6. This contractor is to field verify existing door frames prior to ordering materials and providing submittals/shop drawings.
7. All doors with glass are to be ordered as pre-installed prior to being delivered at jobsite.
8. A mandatory pre-bid attendance will be required to bid this project.
9. FEMA doors including hardware to be installed by mfg. certified or approved installer.
10. Include all glass in hollow metal doors and wood doors.
11. Remove ICF insulation as needed for this scope of work. Coordinate removal with ICF contractor.
12. Provide all metal flashing, sealants, tape, or any other product shown at this scope's openings.
13. This contractor to supply all power supply equipment or low voltage transformers for access control, mag locks, hold pens, etc. Include final termination of low voltage.
14. Supply and install cores and locks for doors provided by greenhouse manufacturer.
15. Include requirements under the Quality Assurance Plan & Contractor's Responsibilities on sheet G1.8.
16. Add TPS standard magnetic lock to existing doors B104C, B104D, B104E, B104F. Tie into new access control system for these doors. Provide all required wiring harnesses, power transfers, etc. for a complete correctly functioning system.
17. Include all sound control door systems and associated hardware as referenced in the specifications.
18. Provide and install all hollow metal window frames.

Section C: Project-Specific Exclusions:

1. Rolling Fire Doors
2. Tornado Resistant Coiling Door

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

10.1 Building Specialties (Supply & Installation)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 101100 – Visual Display Units
- Section 101700 – Toilet Partitions
- Section 102800 – Toilet Accessories
- Section 104413 – Fire Extinguisher and Cabinets

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. All accessories shall meet the performance specifications in the construction documents.
2. This is an all-inclusive bid package. Supplier agrees to furnish all items covered by the Sections referenced above and describe herein.
3. Furnish all toilet compartments, screens, accessories, and hardware as indicated and specified.
4. Furnish all toilet and bath accessories and hardware as indicated and specified.
5. All material will be handled, inventoried, and protected by Construction Manager. Construction Manager will provide a secure lockup for storage.
6. All warranties shall commence on the date of Substantial Completion of the Project.
7. All accessories shall meet the performance specifications in the construction documents.
8. Supply all portable fire extinguishers and fire extinguisher cabinets as indicated and specified.
9. Supply all material, equipment, and associated hardware to provide a complete installation
10. Coordinate type and capacity of fire extinguishers with fire protection cabinets to ensure fit and function.
11. All fire extinguishers are to be tagged by this contractor.
12. All material will be handled, inventoried, and protected by Construction Manager. Construction Manager will provide a secure lockup for storage.
13. Provide maintenance data of fire protection cabinets and fire extinguishers to be included in maintenance manuals.
14. All warranties shall commence on the date of Substantial Completion of the Project. Install all curtain tracks, curtain carriers, cubicle curtains, toilet compartments, urinal screens, shower dividers, grab bars, sanitary-napkin vendor, sanitary-napkin disposal unit, mirror unit, fold down purse shelf, shower curtain rod, shower curtain, folding shower seat, surface soap dish, towel pin, electrical hand dryer, utility shelf, and mop and broom holders.

15. Install fire extinguishers and cabinets. Coordinate type and capacity of fire extinguishers with fire protection cabinets to ensure fit and function.
16. Coordinate layout and installation of projection screens with adjacent construction, including ceiling suspension systems, light fixtures, HVAC equipment, fire-suppression system, and partitions.
17. Install visual display surfaces. Keep perimeter lines straight, level, and plumb. Provide grounds, clips, backing materials, adhesives, brackets, anchors, trim, and accessories necessary for complete installation.

Section B: Project Specific Requirements:

1. Include work noted in Floor Plan Notes and Keynotes.
2. Include accessories at each bathroom per specifications.
3. Install owner provided soap dispensers. Assume 1 soap dispenser for each sink.
4. Furnish and install all toilet and building specialties referenced in floor plans, notes, schedules, and specifications.
5. Include all mirrors.
6. Include all specialties schedules and specialties in interior elevations.
7. Include new trash receptacles as shown.
8. Install owner furnished monitors.
9. Provide and install privacy screen in receiving prep room D105.
10. Furnish and install all visual display boards.

Section C: Project-Specific Exclusions:

1. None

Section D: Project Alternates:

1. None

Section E: Unit Pricing:

1. None

END OF BID PACKAGE

10.3 Signage (Supply & Install)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 101420 – Aluminum Lettering
- Section 104300 – Interior Signage

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Furnish and install signage that complies with the ADA-ABA Accessibility Guidelines.
2. Provide dimensional characters from specified manufacturer.

Section B: Project Specific Requirements:

1. Furnish and install all FEMA signage.
2. Include exterior signage.
3. Include mock-up referenced in the specifications.

Section C: Project-Specific Exclusions:

1. Project exclusion 1.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

12.0 Window Treatment

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 124920 – Manual Roller Shades

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Furnish and install material, equipment, and associated hardware to provide a complete installation for window treatments.
2. Field verify dimensions prior to fabrication and delivery of window treatment. Dimensions will not be guaranteed.
3. Provide special warranty for each section of this package, as specified; commencing on the date of substantial completion of the project.

Section B: Project Specific Requirements:

1. Furnish and install all roller shades.

Section C: Project-Specific Exclusions:

1. Project specific exclusion 1.
2. Project specific exclusion 2.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

2. Unit Price 1.

END OF BID PACKAGE

13.1 Pre-Manufactured Greenhouse (Supply & Install)

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Section 131230 – Green House Systems

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Provide job-specific shop drawings and calculations stamped by a professional engineer registered in the state of Oklahoma, product data, and samples for review and approval.
2. Fabricate, deliver, and erect pre-manufactured greenhouses. Scope shall include, but not be limited to: all aluminum tubing connectors, brackets, and fasteners for entire structures. All acrylic glazing roof and wall panels. All motorized vents and louvers and exhaust fans. All individual evaporative cooling units. All motorized heat and shade retention systems. All intermediate wall partitions. All aluminum gutters and down spouts. All entry and overhead doors, frames, and hardware, excluding lock cylinders. Furnish miscellaneous framing/support for mechanical, plumbing, and electrical equipment.
3. All greenhouse components shall be fabricated from approved shop drawings and design engineering calculations included with this bid package. It is incumbent upon this Supplier to confirm that he has the latest approved “field use” drawings prior to start of his work.
4. Anchor bolt layout and bolts will require early approval and delivery to accommodate concrete phase of work.
5. Include all freight to jobsite. Coordinate all lay down and staging areas with Project Superintendent at least 48 hours in advance of all material deliveries. Coordinate delivery schedule with Project Superintendent.

Section B: Project Specific Requirements:

1. This bid package shall be a complete and turnkey greenhouse structure.
2. Include installation of greenhouse and all associated components.
3. Other bid packages will be providing the following to support the greenhouse: Concrete floor slabs and above slab services for final connection to water gas, and electric supply.
4. Furnish and install items in equipment list on AD1.4 labeled “by Greenhouse Contractor”.
5. Furnish all anchor bolts and any other embedded items required for greenhouse system.
6. Include all doors, frames, hardware, and accessories listed in drawings and hardware schedule that are integral with this greenhouse.

Section C: Project-Specific Exclusions:

1. None.

Section D: Project Alternates:

1. Alternate 2: Polycarbonate glazing.

Section E: Unit Pricing:

1. None.

END OF BID PACKAGE

22.1 Plumbing

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 032000 – Reinforcing Steel
- Section 033000 – Cast in Place Concrete
- Section 078443 – Joint Firestopping
- Section 079000 – Joint Sealants
- Section 083110 – Access Doors and Frames
- Division 22 – Plumbing
- Section 231123 – Facility Natural Gas Piping
- Section 334100 – Storm Utility Drainage Piping

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. In the case of discrepancy between drawings, specifications, codes, local and state laws, ordinances, or contract documents, the most stringent governs.
2. Because of the drawing scales it is not possible to indicate all fittings and accessories that may be required. Include any and all fittings, offset, valves, etc., for a complete system.
3. Include temporary water supply.
4. Include water and sewer connections to the job trailer as required.
5. Plumbing contractor is to lay out all lines and elevations associated with this scope of work.
6. It is the responsibility of the plumbing contractor to verify the locations of all existing utilities and services as indicated on the drawings that are to be tied into prior to submitting a bid proposal. Failure to do so will result in the plumbing contractor assuming responsibility for any deviations of existing utilities from the construction documents.
7. Furnish all pipe bedding, cushion materials, and thrust blocks per construction documents.
8. Provide gradation plan if required. Check all sewer line gradations with existing utilities prior to installation to ensure the required flow is achieved.
9. Upon completion of plumbing contactor's underground work, plumbing contractor is responsible to re-grade area, back fill, and compaction to restore slopes and elevations to prevent standing water. Remove all spoils off site. Restore areas to the same state or better before work was commenced.
10. Dewater excavations associated with this trade as required to preserve structural integrity and workability.

11. Include removal and replacement of concrete and masonry as required to tie into existing services and utilities.
12. Verify locations of services prior to submitting a bid proposal.
13. Prior to placement of the concrete slab, all stub ups are to be capped to prevent any concrete debris from falling into sanitary waste and vent lines. After installation of all concrete slabs on grade provide camera inspections of all sanitary sewer and vent lines to verify that lines are free and clear of debris.
14. Furnish and install complete plumbing system per construction documents.
15. Include complete sanitary sewer system.
16. Include all natural gas piping required for this scope of work.
17. Furnish and install all domestic water piping required to complete this scope of work.
18. Include any utility company fees, impact costs, metering or vault costs Include penetration sleeves, saw cutting, and coring required for this scope of work.
19. Furnish on site storage as required by the construction manager for the storage of fixtures and equipment.
20. Include a plumbing representative to be on site during slab pours to ensure plumbing lines remain in place.
21. Include all hoisting and scaffolding as required.
22. Furnish and install all plumbing fixtures including but not limited to urinals, urinal carriers, toilets, sinks and drinking fountains.
23. Include shower and bath units including shower pans as required.
24. Include backflow preventers and tests.
25. Tie new sanitary sewer lines in the existing sanitary sewer system per construction documents.
26. Include selective demolition required to install work in existing building. Remove plumbing items per plumbing plans shown to be removed and legally dispose of off site. Cap existing lines.
27. Include all associated blocking, anchors, stenciling and tagging for this scope of work.
28. Include pipe supports associated with this scope of work. All miscellaneous steel, uni-strut, all thread rod and accessories required for pipe support, wall or floor penetrations and blocking as required.
29. Coordinate with other trades to locate sleeves and to ensure plumbing does not interfere with any other items.
30. Include all plumbing identification including color coding, stencil, labels tags, etc. per construction documents.
31. Include cutting, coring and patching required for plumbing installations.
32. Coordinate requirements for access doors needed for access to plumbing installation. Access panels to be provided and installed by drywall contractor.
33. Install flashing or sealant at each exterior weather barrier penetration per weather barrier manufacturer's recommendation.
34. Include all final connections to Owner-furnished equipment.
35. Include final plumbing connections to laboratory equipment, food service equipment and casework. Coordinate with those trades for tie-in of plumbing items relating to those trade.
36. Furnish and install all appliance related plumbing as required.
37. Supply roof drains to be installed by roofing contractor. Include roof drain piping and connection to roof drains.
38. Furnish and install solid and/or grease intercepts per construction documents.
39. Include fire-stopping for penetrations created by this scope of work.
40. Include sealants (color selected by Architect) around all plumbing fixtures, sinks and lavatories.
41. Provide video scoping of all sanitary sewer lines to the outside of building prior to substantial completion and correct any blockages or deficient piping found.
42. Include cleaning, purging and flushing of all lines when complete as related to this scope of work.
43. Ensure all equipment has adequate maintenance access when in place.

44. Clean up waste and debris generated by this scope of work and dispose on a daily basis and as directed by the construction manager.
45. Include documented instructional training to the owner's representative regarding the operation and maintenance of the plumbing systems.
46. All warranties for fixtures, devices, and equipment begin at date of Substantial Completion of Project.

Section B: Project Specific Requirements:

1. Include allowance for documented cleanup labor at 1 hour/$1,000 of bid value. Anticipated labor rate for cleanup is $16.50 per hour including burden.
2. This scope is responsible for gas, sewer, and water lines until 5' outside of building. Include all existing building penetrations and weatherproofing associated.
3. Disconnect and make safe plumbing items to be demolished.
4. Include removal and replacement of any items on walls to receive new wall treatment.
5. Include extending and/or modifying existing plumbing to accept new wall at all existing walls that are to receive new framing and drywall.
6. Provide all final plumbing connections as required to equipment furnished and installed by this bid package and other bid packages.
7. Furnish and install roofing manufacturer approved protective material under supports added on roof.
8. All plumbing items that are to be removed and salvaged are to be stored and protected by this bidder.
9. Protect all materials before, during and after installation.
10. Include all concrete cutting, core drilling, demolition, and **all pour back** as needed for installation of new plumbing shown on architectural and plumbing drawings. All trenches to be a minimum of 24" wide.
11. Include tracing of under slab lines existing restrooms.
12. This scope is responsible for sand-mud trap from building to sand-mud trap and stub out the other side. Earthwork/Utility contractor beyond.
13. Provide trench drain for greenhouses as shown in detail 5 on S1.4. Coordinate slopes and elevations with concrete package.
14. Include demolition of plumbing piping and fixtures per plans. Cap existing plumbing lines per plans.
15. Include installation of isolation valves over Spring Break to allow for water shut down at construction areas only during construction. This is to avoid excessive water shutdown for the whole building during construction.
16. Cut back and cap plumbing from fixtures to be removed and not replaced.
17. Include all hardware to run gas piping down exterior wall shown on AC1.10.
18. Coordinate penetrations through ICF walls and FEMA plates with appropriate contractor as necessary. Include specified sealants and firestopping systems as required.
19. Remove ICF insulation as needed for this scope. Coordinate removal with ICF contractor.
20. Include all plumbing general notes, general demolition notes, keynotes, and schedules.
21. Provide all access panels for the scope. Installation by framer.
22. Furnish and install all condensate piping, insulation, and supports. Coordinate with HVAC contractor.
23. Coordinate plumbing for EWCs with electrician.
24. Include all greenhouse plumbing.
25. Provide, where directed by the General Contractor, two (2) 3/4" water hydrants to be used during construction. Remove from the job site upon completion of the Work.
26. Include emergency shower/eyewash station in its entirety. Privacy screen by others.

Section C: Project-Specific Exclusions:

1. Painting.
2. Project specific exclusion 2.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

23.1 Heating, Ventilation, Air Conditioning

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 078443 – Joint Firestopping
- Section 079000 – Joint Sealants
- Section 083110 – Access Doors and Frames
- Section – Mechanical

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. HVAC contractor to provide equipment and ductwork shop drawings for coordination with other trades. Shop drawings are to include the locations and sizes of all duct work, equipment and equipment maintenance access.
2. Provide layout locations as needed for roof curb, exhaust fans, vents etc. during steel erection phase.
3. In the case of discrepancy between drawings, specifications, codes, local and state laws, ordinances, or contract documents, the most stringent governs.
4. Include all selective demolition required to install work in the existing building. Remove all HVAC items per HVAC or demolition plans and legally dispose of off site.
5. Furnish and install a complete HVAC system.
6. Scope includes, but is not limited to equipment, supports, anchors, curbs, flashings, piping, duct work, insulation, controls, stenciling and labeling, VFD's, equipment disconnect switches, air venting devices, air exhausting devices, flow switches, dampers, diffusers, detectors, interconnection of instrumentation I/O control wiring systems, fuels, refrigerants and lubricants, supports for mechanical equipment, and other materials and devices as required for a complete HVAC system as per plans and specifications.
7. Because of the drawing scales it is not possible to indicate all fittings and accessories that may be required. Include any and all fittings, offset, valves, etc., for a complete system.
8. Provide conditioned air at the earliest possible date, as directed by Construction Manager, including all temporary and final air filters as required.
9. Coordinate requirements for access doors needed for access to HVAC installation. Access panels to be provided and installed by drywall contractor
10. Provide all sleeves, blocking, coring, and other associated caulking required for this scope of work.
11. Provide the necessary temporary air filters materials over permanent return air grills at all entrances to return air ducts weekly or as needed.
12. Include concrete cutting, coring and patching as required for the mechanical scope of work.
13. Include Automatic Temperature Controls and interlock wiring including control components and complete control wiring system in strict accordance with construction documents.

14. Furnish and install motor controllers and starters for mechanical equipment as specified.
15. Include roof curbs and penetration enclosures as required and per the roofing manufacturer's requirements to preserve the roof warranty.
16. Furnish and install louvers, access doors, grilles, and vents as required for this scope of work.
17. Include condensate piping.
18. Provide air filters including spare air filters for HVAC equipment. Furnish, install and maintain temporary filters during construction operations.
19. Furnish, install and maintain all roof penetrations, openings and curbs associated with this scope of work until all equipment has been installed and flashed in permanently. Remove and dispose of covers at the completion of work.
20. Include fire-stopping, fire sealing and caulking for penetrations created by this scope of work.
21. Duct detectors are to be furnished by the electrical contractor, installed by this scope of work, and terminated by the electrical contractor. Coordinate with the electrical contractor for wiring and terminations.
22. Coordinate with the electrical contractor for the location, size and installation of disconnects. The electrical contractor is to furnish and install disconnects. The locations are to be provided by the HVAC contractor.
23. Coordinate with food service or laboratory contractor for tie-in locations of mechanical items relating to their equipment.
24. Include all final connections to Owner-furnished equipment.
25. HVAC contractor shall provide the kitchen hood fire suppression system per plans and specifications.
26. Include testing, adjusting and balancing per contract documents.
27. Include Commissioning per construction documents as required.
28. Include documented instructional training to the owner's representative regarding the operation and maintenance of the plumbing systems.
29. All warranties for fixtures, devices, and equipment begin at date of Substantial Completion of Project.
30. Include warranty per construction documents on all equipment regardless if used temporarily during construction for climatization.

Section B: Project Specific Requirements:

1. Include $10,000 for temporary heat or air conditioning.
2. Include allowance for documented cleanup labor at 1 hour/$1,000 of bid value. Anticipated labor rate for cleanup is $16.50 per hour including burden.
3. Tie-up mechanical fixtures where ceilings show to be demolished.
4. Include multiple mobilizations including crane/boom truck mobilizations as required. Crane and boom trucks are to remain on paved surfaces (there will not be crane pads built for installation of equipment).
5. Disconnect and make safe HVAC items as required to be demolished.
6. Include removal and replacement of any items on walls to receive new wall treatment.
7. Include adjustment of supply and return air devices as required for new layouts.
8. Furnish and install roofing manufacturer approved protective material under supports added on roof.
9. Include relocation of existing T-stats as required for new layouts.
10. Include all field verifications of existing roof hood/curbs. This contractor is to field verify existing roof hood/curbs prior to ordering materials and providing submittals/shop drawings. All existing roof hood/curbs must be field verified to confirm compatibility with new equipment called out to be installed on existing hood/curbs. Coordinate verifications with construction manager and roofer. All discrepancies shall be identified immediately via RFI. Cost of this verification shall be included in base bid.

11. All items that are to demolished and salvaged are to be stored and protected by this bidder.
12. Protect all materials before, during, and after installation.
13. Include all concrete cutting, core drilling, and demolition as needed for this scope including accommodations for concrete roof decks.
14. Ensure all remaining mechanical units are off and/or have temporary air filters during construction.
15. Demo existing RTUs, exhaust fans and associated items as indicated.
16. Include temporary support of air devices called out to remain.
17. Remove portion of duct work for demolition and reinstall as shown on AC0.1.
18. Include FEMA louvers/damper system, accessories, hardware, and anchors to attached to structure. This should be a complete system.
19. Coordinate block-outs for HVAC duct/equipment with roofer.
27. Coordinate penetrations through ICF walls and FEMA plates with appropriate contractor as necessary. Include specified sealants and firestopping systems as required.
20. Include all HVAC general notes, general demolition notes, keynotes, and schedules.
21. Furnish and install heat pump system in its entirety.
22. Provide access panels for this scope. Installation by framer.
23. Include all mechanical connections for greenhouse. Equipment provided by greenhouse manufacturer.
24. Remove ICF insulation as needed to complete this scope of work. Coordinate removal with ICF contractor.
25. Include requirements under the Quality Assurance Plan & Contractor's Responsibilities on sheet G1.8.

Section C: Project-Specific Exclusions:

1. Condensate piping.
2. All mechanical equipment in greenhouse is provided by greenhouse manufacturer.
3. Paint.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

26.2 Electrical

As noted below, Subcontractor shall be responsible for the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Furnish all labor and supervision required to complete the work of this package. Unless noted otherwise, furnish all equipment, materials, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 078443 – Joint Firestopping
- Section 079000 – Joint Sealants
- Section 083110 – Access Doors and Frames
- Division 26 – Electrical
- Section 270528 – Pathways for Communications Systems

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Provide all site power and/or lighting electrical work.
2. Provide all site trenching and duct banks needed for electrical and communication underground raceways and/or cables.
3. Provide any electrical meter fees or impact cost required by the local electrical service provider.
4. Provide any conduit, pull strings, j-boxes etc. for any Division 26, 27, or 28 empty raceway systems as required per plans and specifications.
5. Provide any building primary/secondary electrical switchgear, panels, emergency power and/or generator systems as per plans and specifications.
6. Provide all raceway, wiring and terminations of VFD's, motor controllers, dampers and/or starters that are furnished and installed by HVAC Subcontractor.
7. Provide any grounding systems, lightning protection systems, and certifications as required per plans and specifications.
8. Provide all temporary lighting and power distribution in buildings as required for construction activities.
9. Provide all final connections and terminations for Owner Furnished Equipment.
10. Provide all final electrical connections and terminations as required to equipment furnished and installed by other bid packages.
11. Provide equipment and device testing, checkout and/or load studies as required per plans and specifications.
12. Provide training of Owner's staff on electrical equipment.
13. Provide all raceway, wire, termination, poles, light fixtures, and grounding for site lighting. Concrete pole bases will be provided by others.
14. Deposit dirt spoils in area on site designated by the Project Superintendent.
15. In the case of difference between drawings, specification, codes local & state laws, ordinances or contract documents, the most stringent governs.

16. All warranties for fixtures, devices, equipment, and gear begin at the date of the Project's Substantial Completion.
17. Include primary and secondary electrical service with manholes or pullboxes as required, re-grade area, back fill and compaction to restore slopes and elevations to prevent standing water. Remove all spoils off site. Restore areas to the same state or better before work was commenced.
18. Furnish and install concrete where required to encase electrical services or other electrical items.
19. Include utility fees for new or relocated transformers.
20. Include all necessary items and coordinate with the fire alarm contractor to ensure a complete and operable fire alarm system as it related to the electrical scope of work.
21. Include security systems, telephone, intercom addressable speakers call system, public address system, telephone, data and computer networking, per code and construction documents.
22. Include uninterruptable power supply system.
23. Include low voltage wiring at magnetic hold opens (coordinate with door and hardware suppliers).
24. Duct detectors are to be furnished by the electrical contractor, installed by this scope of work, and terminated by the electrical contractor.
25. Provide electrical for infrared flush valves and hand dryers.
26. Furnish and install disconnects at HVAC units and fans as indicated on mechanical drawings. Coordinate with HVAC contractor for disconnect locations.
27. Make electrical connections to lab equipment, food service equipment, casework, mechanical equipment, A/V equipment, cubicles and owner furnish equipment.
28. Furnish, install, maintain and remove temporary electrical services in accordance with OSHA requirements. Include temporary power to job trailer.
29. Include fire stopping and/or fire sealing at all fire walls and caulking of all electrical penetrations.
30. Include all sleeves and core drilling required.
31. Include all electrical identification including color coding, stencil, labels tags, etc. per construction documents.
32. Include the demolition of all electrical items shown to be removed and legally dispose of offsite. Disconnect power to areas to be renovated as directed by superintendent.
33. Include temperature control wiring and auxiliary interlock control wiring.
34. Verify breaker and wire size for HVAC equipment within the equipment manufacturers specifications, notify the electrical engineer and adjust as needed.
35. Make required electrical connections and install conduit in slab at own risk as plumbing coring later of lab casework may cut conduit.
36. Install flashing or sealant at each exterior weather barrier penetration per weather barrier manufacturer's recommendation.
37. Coordinate requirements for access doors needed for access to Plumbing installation. Access panels to be provided and installed by drywall contractor

Section B: Project-Specific Requirements

1. Furnish and install two (2) minimum support wires from building structure to each electrical recessed fixture located in tee bar grid system.
2. Include emergency generator including fuel.
3. Include disconnect and make safe of site electrical as needed for site demolition.
4. Remove, store, and relocate existing light poles as shown.
5. Include all electrical demo that is within or connecting to a building. Provide blank plates for anything demolished and not replaced.
6. Provide anchor bolts for relocated light poles.
7. Re-lamp existing fixtures as required.
8. Coordinate pathways in aluminum storefronts with storefront contractor.

9. Repair metal baseplates on existing light fixtures on AS0.3.
10. Include removal and replacement of any items on walls to receive new wall treatment.
11. Furnish and install roofing manufacturer approved protective material under supports added on roof.
12. Include verification of existing conditions as noted in Electrical Outline Specifications and notify CM immediately upon discovery of issues.
13. Include removal of conductors no longer serving equipment per Electrical Outline Specifications.
14. Install labeling as noted in Electrical Outline Specifications
15. Electrical contractor to provide conduit, pull strings, j-boxes etc. for Divisions 26, 27, 28.……
16. Include relocation of existing outlets as required for new millwork.
17. Demo abandoned wiring, conduit, and wire mold from walls in remodeled areas.
18. Coordinate with utility companies as needed for this scope of work.
19. All items that are to demolished and salvaged are to be stored and protected by this bidder.
20. Protect all materials before, during and after installation.
21. Include all concrete cutting, core drilling, and demolition as needed for this scope. Include pour back and reinforcing at areas demolished.
22. Raise and protect existing lights before ceilings are demolished, replace after new ceiling is installed.
23. Coordinate with millwork bidder for installation of electrical outlets at backsplash locations.
24. Include extending existing electrical and low voltage devices to accept new wall at all existing walls that are to receive new framing and drywall.
25. Temporary electrical outlets will be spaced so that the entire area of construction can be reached by power tools on a single 100-foot extension cord
26. General temporary illumination will be maintained at a level of 5 foot-candles.
27. Provide cover plates at all devices that are to be removed.
28. Remove and salvage light referenced in keynote 6 on AC0.4.
29. Demo can lights referenced in AC0.5.
30. Include all emergency lighting and exit signs.
31. This contractor is to carry at $10,000 allowance in their base bid for low voltage/communications coordination. This $10,000 will be used at the construction managers discretion.
32. Provide power, and all rough-in for coiling doors package.
33. Coordinate penetrations through ICF walls and FEMA plates with appropriate contractor as necessary. Include specified sealants and firestopping systems as required.
34. Include all power, lighting, and electrical general notes, general demolition notes, keynotes, and schedules.
35. Include power to all mechanical equipment.
36. Contractor to refer to architectural drawings for demolition coordination.
37. Electrical contractor shall supervise demolition of electrical work as indicated on the drawings.
38. Contractor shall keep a record of light fixtures removed. Include the type of fixture, number of lamps in each fixture, and ballast type of all fixtures removed. Categorize the fixtures removed by name. Submit counts to engineer of record upon completion of demolition.
39. Emergency ventilation switch to be provided and installed by this contractor. Reference Keynote M11 on C-MP102.
40. Include power for fire/smoke dampers.
41. Provide access panels for this scope. Installation by framer.
42. Provide power for all access control, automatic operators, hold opens, etc. Provide pathways for low voltage. Operator contractor will terminate low voltage.
43. Remove ICF insulation as needed to complete this scope of work. Coordinate removal with ICF contractor.
44. Include all electrical in greenhouse. Coordinate with greenhouse manufacturer and installer.
45. Include panel keying per specifications.

46. Include battery inverters.
47. Furnish and install all occupancy sensors, vacancy sensors, and any other lighting accessories. Include adjusting occupancy and vacancy sensors to owner/architects' approval.

Section C: Project-Specific Exclusions

1. Light pole bases.

Section E: Alternate Pricing

1. Project specific alternate 1.

Section F: Unit Pricing

1. Not applicable

END OF PACKAGE

31.1 Earthwork, Storm Drainage, Site Utilities

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 024119 – Selective Demolition
- Section 032000 – Reinforcing Steel
- Section 033000 – Cast in Place Concrete
- Division 22 – Plumbing (Site)
- Section 231313 – Facility Natural Gas Piping (Site)
- Section 260450 – Electrical Demolition (Site)
- Section 311000 – Site Clearing
- Section – 311100 – Stormwater Pollution Prevention Plan
- Section 312000 - Earth Moving
- Section 321313 – Concrete Paving
- Section 334100 – Storm Utility Drainage Piping

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

Earthwork and Storm Drainage

1. Coordinate the procurement of all paperwork, permits, fees, and bonds necessary for the work covered under this agreement, bearing all cost associated.
2. Professional surveyor to establish benchmarks, set lines and levels to layout building(s) and parking under this scope of work. Provide all site layout and engineering required including maintenance of such.
3. Maintain storm water prevention plan in accordance with requirements of the local jurisdiction(s).
4. Provide erosion control, maintenance of positive site drainage, and dewatering as it relates to the work. Maintain positive site drainage.
5. Provide all barricades, excavation protection, traffic control, and flagmen as necessary for the work.
6. Include all applicable taxes for this scope of work.
7. Locate existing utilities and structures prior to commencement of work. Damage to existing utilities and structures as a result of this work will be paid for by the sitework contractor.

8. Do not interrupt existing utility serving occupied or operating facilities, except when authorized in writing by Owner and authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to governing authorities.
9. Provide all site demolition (including saw cutting) and removal from site. Demolition includes, but is not limited to asphalt paving, base, concrete paving, curbs, walks, poles bases, stairs, ramps, retaining walls, and foundations. Provide demolition of all abandoned or terminated underground utility lines and structures.
10. Provide, maintain, and remove protection around all trees to be saved using orange safety netting.
11. Provide all site clearing, grubbing, tree and stump removal, hauling, and dumping.
12. Strip, store, and protect topsoil. Replace and grade to within (±) .10 feet. Remove excess topsoil from site or stockpile in a location as directed by Construction Manager.
13. Provide watering/water trucks as required to provide compaction and to control dust.
14. All grading, cut, fill, disking and or processing, compaction to 95% standard optimum density (or as otherwise specified). Grades to be provided to (+/-) .10 feet of specified subgrade. Provide import of necessary fill or hauling of excess cut if necessary. Excessive slopes shall be laid back at a 2:1 slope as required.
15. Final grading and topsoil replacement to be done after all trades are finished. Fill all ruts, back of curbs, sidewalk edges, paving edges and against buildings. Provide suitable topsoils to specified topsoil depth. Topsoil shall be equivalent to clean sandy loam if site topsoil is insufficient or unsuitable. Seed as required by construction documents. All areas disturbed by construction activities shall be re-graded and backfilled.
16. Coordinate soils testing with Project Superintendent and testing agency.
17. Pay for any retesting in the event of failed compaction test.
18. Provide test certificates for offsite fill if used.
19. Provide and install all storm sewer including related concrete structures.
20. Provide a complete storm drainage piping system. Curb inlet tops will be provided by others.
21. Grated inlets to be completed as part of this package.
22. At future storm drain inlet locations, temporary enclosures may be necessary to maintain water flow and to avoid debris in piping.
23. Provide as-built site drawings documented by professional surveyor.
24. Geotechnical Report is part of this trade package.

Site Utilities

25. All permits, fees, and right of way bonds required to form this work.
26. Field engineering and site layout required to perform this scope of work.
27. Verify locations of existing utilities and services prior to commencement of work.
28. Include necessary traffic and dust control including signage and barricades required.
29. Provide complete underground system from utility service main to location at building or as noted.
30. Provide all excavation and backfill required for underground utilities.
31. Clean up site and adjoining streets while working onsite. Power wash all paving, drives and walks at the end of project. Remove and legally dispose off site of all debris associated with this trade package. Do not use dumpsters.
32. Sewer line complete – Furnish and install all materials including structures and sleeves required, tie in to building sewer.
33. Water main complete – Furnish and install all materials including connection to city service, hydrants, thrust blocks, etc.
34. Water Supply Fire Line complete – Furnish and install all materials for a complete connection to service lines and into building with 12” stub up above finish floor. Include flange for final connection by Fire Suppression Contractor.
35. Gas main and meter complete – furnish and install including connection to utility service.

36. Furnish and install concrete structures as required for site utilities.
37. Furnish and Install backflow preventers and testing.
38. Repair paving and sidewalks including re-striping where needed.
39. All cutting, patching, excavation, backfill and boring as required to construct utility lines.
40. Dewatering of the excavations associated with this scope of work as required. Preserve structural integrity and workability.
41. Clean and flush all lines when complete.
42. Dispose of all spoils offsite.

Section B: Project Specific Requirements:

1. Trade package to include $10,000 as an allowance for temporary gravel drives. This is in addition to the entrances already called out in the drawings.
2. Trade package to include $8,000 as a street cleaning allowance.
3. Include plumbing license in accordance with CoT for site utilities.
4. Include all permitting associated with IDP work.
5. Provide, install, and maintain all erosion control in accordance with the construction documents, erosion control plan, stormwater pollution plan, and the City of Tulsa standards and specifications.
6. Include Geotechnical Report and Addendum to the Geotechnical Report in this scope.
7. Include all proofrolling, site preparation, and coordination with Geotechnical Engineer as stated in the Geotechnical Report.
8. Include all notes on C1.0.
9. Include all site demolition including site concrete.
10. Relocate signs as shown in civil drawings.
11. Clean out existing utility structures of debris as shown in the civil drawings.
12. Include all general demolition notes.
13. Include all construction entrances referenced in the construction documents.
14. Remove and replace grass pave as shown on page C3.2 & C4.2 including concrete curb.
15. Remove pedestrian bridge shown on page C3.3.
16. Protect and store all items shown to remove and relocate as required.
17. Include paving/sidewalk removal and replacing the paving/sidewalk subgrade associated with utility work crossing 40th Street. Concrete to replace paving. Follow any CoT standards when preparing subgrade for pavement.
18. Include asphalt paving and concrete paving demo as shown on C3.3 in two phases.
19. Include additional mobilization to demo remaining asphalt paving and concrete paving shown on C3.3 after job trailer and lay down yard materials are removed. Scheduling will be at discretion of the site superintendent.
20. Include block retaining walls referenced in 4/C8.1 including all fill, pad, filter fabric, and drainage. Include design and engineering referenced in 4/C8.1. Guardrail by others.
21. Include asphalt paving subgrade on C4.3.
22. Include temporary gravel fill to existing paving of all utility excavations in paving areas.
23. Bidder to run storm piping that connects to downspouts to the buildings and extend above grade for future connections.
24. Bidder to provide powder coated downspout boots shown in detail 3 on C8.2.
25. Bidder shall run gas, sewer, and water lines to 5’ outside building, for plumber to connect.
26. Bidder shall take gas line from meter to 5’ outside buildings for plumber to run to buildings.
27. Include pipe fence demo.

28. Include concrete curb installation at grass pave referenced on C4.2.
29. Include clay trench plug in general utility note 11.
30. Saw cut and demo concrete paving and sidewalk as needed for gas line installation on C6.0. Fill excavation to paving elevation with gravel. Concrete to replace sidewalk and paving.
31. Core and grout RCB for 8" storm connection.
32. Include concrete and rebar associated with cleanouts, drain basins, inlets, and pipe trenches.
33. Include concrete and rebar associated with drain basin system in 11/C8.1.
34. Include junction box as shown in detail 5 on C8.2 in its entirety.
35. Include Grate Drop Inlet in detail 4 on C8.2 in its entirety.
36. Include steel pipe at headwall as shown in detail 2 on C8.3.
37. Include flap gate at manhole.
38. Include general structural notes on S0.1 relating to this scope.
39. This scope will remove unusable soils referenced at the band room addition in the geotechnical report. This scope will fill undercut area in band room building pad up to grade beam elevation as described in the geotechnical report. Concrete package will be responsible for additional fill up to floor slab.
40. This scope responsible for final grade outside of building pad at both buildings.
41. Include coordination of all third-party testing.
42. Plumber is responsible for sand-mud trap from building to sand-mud trap and stub out the other side. This scope beyond.
43. Demolish and haul off the north concrete stairs in their entirety including handrails as shown on DS0.3.
44. This scope will be responsible for cut of unsuitable soils and fill up to LVC at greenhouse building pad. Concrete responsible for LVC and aggregate base.
45. Repair subgrade for north entry concrete stairs including compacted fill, filter fabric, crushed stone, and aggregate base. Include french drain system shown in AS0.6.
46. Include all soils, plantings, and mulch.
47. Demo stairs, landing, handrails, and all foundation walls/footings at band room tie-in shown on AC0.4.
48. Assume extra mobilization for all work in the northwest parking lot & buildings A & B to be done during the summer of 2023.
49. Contractor shall direct all work with utility companies through TPS personnel, Mr. Tracy DeLaughter (918) 746-6890. Contractors shall not contact utility companies directly without prior approval of owner.

Section C: Project-Specific Exclusions:

1. Electrical disconnect/make safe.
2. Project specific exclusion 2.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

32.1 Asphalt Paving

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 024119 – Selective Demolition
- Section 032000 – Reinforcing Steel
- Section 321216 - Asphalt Paving
- Section 321313 – Concrete Paving

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Provide barricades, excavation protection, traffic control, and flagmen as necessary for this work.
2. Repair and fine grade sub-grade ready to accept base course.
3. Asphalt and gravel base quantities are to be all inclusive in this package. Quantities will not be qualified and increased at a later date. Factor all necessary material to totally complete this scope.
4. Provide and install aggregate base and asphalt pavement as indicated and specified in the construction documents.
5. Provide all road clean-up required by activities of this work.
6. Coordinate with sidewalk contractor (by others) for concrete ramp and curb transition. Provide the gutter portion of the curb and gutter at ramp locations, with the curb terminated where top of ramp starts.
7. Provide and install all striping and traffic signage and ADA signage.

Section B: Project Specific Requirements:

1. Include 5% of trade package amount for an oil increase allowance.
2. Include multiple mobilizations as required.
3. Include parking bumpers.
4. Include full depth asphalt out 1’ from new curb & gutter. Confirm subgrade prepped by concrete before laying asphalt.
5. At utility excavations in northwest parking lot, remove temporary gravel fill, prep subgrade, and lay full depth asphalt.
6. Include tack coat between layers.
7. Earthwork to do aggregate base at parking lot on C4.3. Confirm elevations before asphalt installation.

8. Assume extra mobilization for all work in the northwest parking lot to be done during the summer of 2023.
9. Reference detail 3 on C4.4 for middle school parking lot mill and overlay.

Section C: Project-Specific Exclusions:

1. Project specific exclusion 1.
2. Project specific exclusion 2.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

32.5 Fencing

SCOPE OF WORK

Subcontractor or Supplier agrees that the Base Bid amount entered above includes the following project-related activities and Scope of Work in accordance with the requirements of the specifications, drawings, and CM Manual. Unless noted otherwise subcontractor will furnish all equipment, materials, labor, supplies, tools, scaffolding, hoisting, transportation, unloading, and handling necessary for the proper installation and completion of this work.

APPLICABLE SPECIFICATIONS

- Division 0 – Procurement and Contracting Requirements
- Division 1 – General Requirements
- Section 036000 – Non-Shrink Grout
- Section 055200 – Stainless Steel Pipe and Tube Railings
- Section 323113 – Chain Link Fences and Gates

All General Scope Requirements as outlined in Section 3.01.

Section A: Trade- Specific Requirements

1. Provide barricades, excavation protection, traffic control, and flagmen as necessary for this work.
2. Provide all layout and field measurements.
3. Furnish and install all materials necessary for a complete fencing system as shown in the construction documents.
4. Provide any concrete necessary to complete this work.
5. Furnish all hardware necessary to complete this work.

Section B: Project Specific Requirements:

1. Furnish and install all handrails/guardrails including coring and grouting upon completion. Include welding, grinding of rails after install to an acceptable finish.
2. Provide all gates as shown in the construction documents.
3. Provide and install post, and chain “latch” welded to post as shown in detail 6 On AS0.2.

Section C: Project-Specific Exclusions:

1. Project specific exclusion 1.
2. Project specific exclusion 2.

Section D: Project Alternates:

1. Alternate 1.

Section E: Unit Pricing:

1. Unit Price 1.

END OF BID PACKAGE

4.00 SCHEDULE

1. All activities related to Bidder's Scope of Work shall be completed within the schedules prepared by and agreed to by Construction Manager. All Subcontractors and Suppliers shall procure materials and provide the manpower necessary to meet the Project Construction Schedule. Estimated time periods for construction are:

    a. Earthwork & Site Utilities: December 2022 - March 2023
    b. Exterior Shell & Skin: April 2023 - June 2023
    c. Interior Finishes: June 2023- December 2023
    d. Site Improvements: June 2023 – July 2023
    e. Project Completion: December 2023

2. A Preliminary Construction Schedule will be provided to all Subcontractors and Suppliers with Project Contracts. Meetings will then be held with all Subcontractors and Suppliers for the purpose of receiving and coordinating input relating to duration and scheduling of project activities, which will be used to produce the actual Project Construction Schedule.

3. All Subcontractors and Suppliers shall be ready to commence work as required by the Project Construction Schedule and immediately upon receiving Notice to Proceed; and receipt from Subcontractor of executed Master and Project Contract Documents, Insurance that complies with Nabholz requirements, and Performance and Payment bonds (if required). In addition, all Subcontractors and Suppliers shall be prepared to provide shop drawings and/or submittals immediately upon award of contract and in no case no later than 30 days after award of contract.

5.00 OTHER FORMS

.01 Insurance Requirements

CONSTRUCTION MANAGER WILL NOT AUTHORIZE PAYMENTS TO SUBCONTRACTOR UNLESS SUBCONTRACTOR'S CURRENT CERTIFICATE OF INSURANCE AND CERTIFICATE OF SAFETY AND HEALTH IS ON FILE AND APPROVED.

FOLLOWING ARE MINIMAL INSURANCE REQUIREMENTS FOR SUBCONTRACTORS. WHERE THESE GENERAL REQUIREMENTS ARE LESS THAN THE REQUIREMENTS SET BY THE CONTRACT DOCUMENTS, THE CONTRACT DOCUMENTS WILL PREVAIL.

1. **Commercial General Liability**, no less than:

Each occurrence:	$2,000,000
General aggregate (project specific):	$2,000,000
Products/completed operations aggregate:	$2,000,000

Policy shall contain no less than the following:

a. Policy form ISO CG 00 01, or equivalent.
b. Coverage shall be primary and non-contributory.
c. ISO standard severability of interest's clause and separation of insureds clause.
d. Claims-made policies are not acceptable
e. Policy shall contain no EIFS exclusion.
f. Policy shall contain no subsidence or earth movement exclusions.
g. Policy shall contain no prior work exclusions.
h. Policy shall contain no cross-liability exclusion, except for Named Insureds.
i. Policy shall contain no breach of contract exclusions.
j. Policy shall contain no action-over or similar employee-injury exclusion.
k. Policy shall contain no exclusion for work from heights.
l. Policy shall contain no exclusions for occurrences causing continuous or progressively deteriorating injury or damage.
m. Policy shall contain no exclusion for damage to work performed by subcontractors on your behalf.
n. Any professional liability exclusion must contain an exception for construction means and methods.
o. ISO CG 24 04, or equivalent endorsement form waiving subrogation.

p. ISO CG 20 10 10 01 and CG 20 37 10 01, or equivalent blanket additional insured endorsement(s) for ongoing and completed operations. Additional insured status shall not be limited to comparative negligence or vicarious liability of the Construction Manager, or respondeat superior liability for the acts or omissions of Subcontractor. In the event this requirement is not permitted by state law, the provision shall be interpreted and applied to the extent permitted by applicable law. Regardless of the form of endorsement used, it shall require the maximum scope of coverage allowed under law.

q. Additional insured endorsements shall accompany Certificate of Insurance.

2. Commercial Automobile Liability Insurance, no less than:

Combined single limit:	$2,000,000

Policy shall contain no less than the following:

a. Coverage for "any auto," including owned, non-owned, and hired motor vehicles.
b. Additional insured endorsement or omnibus clause.
c. Waiver of subrogation endorsement.
d. ISO CA 20 70, if Subcontractor's work will be performed within 50 feet of a railroad.
e. ISO CA 99 48 10 01 and MCS-90, if Subcontractor's work involves the transport of pollutants.

3. Workers' Compensation and **Employer's Liability Insurance**, no less than:

Workers' Compensation:	Per Statute
EL Each Accident	$1,000,000
EL Disease – EA Employee	$1,000,000
EL Disease – Policy Limit	$1,000,000

Policy shall contain no less than the following:

a. Other States coverage shall be included.
b. Jones Act coverage shall be included, if applicable.
c. USL&H coverage shall be included, if applicable.
d. Policy shall contain a Voluntary Compensation Endorsement (or equivalent) providing coverage for executive officers, partners, and sole proprietors if coverage is not otherwise scheduled on the workers' compensation policy.
e. Waiver of subrogation endorsement, if permitted by law.
f. Alternate Employer Endorsement of NCCI Form WC 00 03 01 A, if Subcontractor uses an employee leasing firm or will supply equipment with an operator.
g. Maritime Coverage Endorsement, if applicable.

4. **Umbrella Liability or Excess Liability Insurance**, no less than:

Each Occurrence	$1,000,000
General Aggregate	$1,000,000

If Subcontractor uses Umbrella or Excess Liability Insurance to arrive at the limits required herein for Commercial General Liability, Automobile Liability, or Employer's Liability insurance, such insurance shall follow-form with any primary policies and must retain a minimum limit of $1,000,000 after accounting for partial application of its limits to underlying policies.

5. **Pollution Liability Insurance**

Pollution Liability Insurance is required if Subcontractor will be performing mechanical, electrical, plumbing, drilling/subsurface activities, demolition, drywall/insulation, building envelope system, moisture barrier protection application, environmental remediation, or if Subcontractor will be handling, disposing, or installing hazardous materials or pollutants. If applicable, limits shall be no less than:

Each Occurrence	$2,000,000
General Aggregate	$2,000,000

Policy shall contain no less than the following:

a. Coverage may be provided on a Pollution Liability policy or endorsement to Commercial General Liability policy that provide coverage for bodily injury and property damage arising from a sudden or gradual pollution event in connection with Subcontractor's activities and those activities of its subcontractors.
b. Coverage shall protect against the actual or alleged liability and costs arising from the sudden, gradual, and accidental release or discharge or pollutants.
c. Contractual liability coverage shall apply.
d. Policy shall have no exclusions for silica, mold, or fungi.
e. Policy shall contain no cross-suits exclusions, except for Named Insureds.
f. Coverage shall be primary and non-contributory.
g. Additional insured endorsement, including competed operations.
h. Waiver of subrogation endorsement.

6. **Professional Liability Insurance**

Professional Liability Insurance is required if Subcontractor's Scope of Work includes any professional, design, or engineering service responsibility, including delegated design-assist or design review responsibilities. If applicable, limits shall be no less than:

Each Claim	$1,000,000
Annual Aggregate	$2,000,000

Policy shall contain no less than the following:

a. Coverage for claims that arise from the actual or alleged negligent acts, errors, or omissions of Subcontractor or any entity for which the Subcontractor is legally responsible, in the provision of professional services. Insurance shall be obtained by the party performing the professional, design, engineering, or delegated design-assist service.
b. Policy shall not exclude coverage related to the scope of services being provided, third-party bodily injury and property damage, pollution conditions arising out of professional services, delays in project completion and cost overruns, mold or microbial matter, or design-build or contractor-driven projects.
c. Waiver of subrogation endorsement.

7. Asbestos or Lead Abatement Liability Insurance

Asbestos or Lead Abatement Liability is required if Subcontractor's Scope of Work includes asbestos or lead abatement. If applicable, limits shall be no less than:

Each Occurrence	$5,000,000

8. Protection and Indemnity Insurance

Protection and Indemnity Insurance is required if Subcontractor's Scope of Work involves the use of watercraft. Coverage shall apply to all crew members as well passengers. If applicable, limits shall be no less than $5,000,000, or the value of the watercraft, whichever is greater.

9. Contractors Equipment Floater Insurance

Policy shall contain no less than the following:

a. Coverage shall apply to all equipment utilized by the Subcontractor in the performance of the Subcontract and all equipment rented or leased to the Construction Manager by the Subcontractor as part of the Subcontract.
b. Limits of liability shall be not less than the replacement value of Subcontractor's owned, rented, leased, or borrowed equipment, except such items which are included in and remain part of the permanent construction.
c. Waiver of subrogation endorsement

10. Riggers Liability Insurance

Riggers Liability Insurance is required if Subcontractor's Scope of Work involves conveying the property of others by hoist, crane, or mobile equipment to facilitate its installation. If applicable, limits shall be no less than:

Each Occurrence	$1,000,000
General Aggregate	$1,000,000

Policy shall contain no less than the following:

a. Coverage may be provided through a Riggers Liability Insurance policy, endorsement to Commercial General Liability policy, or through an Installation Floater policy.
b. If coverage is provided by an endorsement to an existing Commercial General Liability policy, the endorsement must delete the exclusion of personal property in the insured's care, custody or control and delete the exclusion of "that particular part of real property" on which the Named Insured is performing operations.
c. If coverage is provided by an Installation Floater insurance policy, an endorsement to cover loss of property of others must be included.
d. Increased limits may be required depending on the value of property or equipment being lifted or moved for Owner or others.
e. Waiver of subrogation endorsement

11. Cyber Liability Insurance

Cyber Liability Insurance is required if Subcontractor will have access to any person's or organization's confidential or personal information. If applicable, limits shall be no less than:

Each Claim	$1,000,000
Aggregate	$2,000,000

Policy shall contain no less than the following:

a. Coverage shall apply to claims involving privacy violations (including alleged violations of any federal, state, local or foreign privacy protection laws and regulations), information theft, damage to or destruction of electronic information, infringement of intellectual property, intentional and/or unintentional release of confidential or private information, alteration of electronic information, extortion, and network security arising from Subcontractor's work.
b. Coverage shall include expenses of notifying affected individuals/entities and providing credit monitoring or similar services for those affected.

12. Electronic Data Liability Insurance

Electronic Data Liability Insurance is required if Subcontractor's work is in or adjacent to a server room or data center. If applicable, limits shall be no less than:

Each Claim	$1,000,000

Policy shall contain no less than the following:

a. Coverage shall be provided on an Electronic Data Liability ISO CG 00 65 12 07 or on a Commercial General Liability policy endorsed with ISO CG 07 37 04 13.

b. Coverage shall be primary and non-contributory.
c. Additional insured endorsement shall be provided.

13. Drone Liability Insurance

Drone Liability Insurance is required if drones will be used by Subcontractor or on Subcontractor's behalf. Coverage shall apply to any owned, leased, borrowed, rented, or hired unmanned aircraft. If applicable, limits shall be no less than:

Each Occurrence/ Combined Single Limit –	
Bodily Injury and Property Damage	$1,000,000
Personal Injury	$1,000,000

14. Boiler and Machinery Insurance.

Boiler and Machinery Insurance is required if Subcontractor's work involves installation, maintenance, or any work involving boilers, machinery, or refrigeration units. If applicable, limits shall not be less than:

Each Occurrence	$1,000,000

15. Motor Trucker Cargo and/or Warehouseman's Legal Liability Insurance

Motor Trucker Cargo and/or Warehouseman's Legal Liability Insurance is required if Subcontractor's Scope of Work involves moving, transportation, and/or storage of Owner's property.

If applicable, policy shall contain no less than the following:

a. Limits shall not be less than the replacement value of the property, artifacts, equipment and/or material.
b. White such property is in the care, custody, and control of Subcontractor, coverage shall include loading, unloading, transportation, and return of said artifacts, equipment, and/or material up to the acceptance by Owner.
c. Policy shall have no exclusion or contain an endorsement limiting coverage with respect to fine arts, historic documents, antiques, or breakage.

16. Railroad Protective Liability Insurance

Railroad Protective Liability Insurance is required if Subcontractor's Scope of Work is within 50 feet of a railroad, including without limitation WMATA, VRE, etc. Limits and terms of coverage shall be set forth by the railway operator.

17. Builders Risk Insurance

Builders Risk Insurance may be provided by Owner or Construction Manager; however, Subcontractor has the option to purchase and maintain, at its own cost and expense, any supplementary property

insurance that Subcontractor deems necessary to protect Subcontractor's interest in the Work, including without limitation of offsite stored materials and materials in transit.

18. Other Insurance

Other Insurance coverages may be required based on Subcontractor's Scope of Work.

19. Additional Insured Entities.

Each insurance policy (except for workers' compensation and employer's liability insurance) shall include the following entities as additional insured parties:

a. Nabholz Construction Corporation, its parent, subsidiary, related and affiliated companies
b. Project Owner
c. Project Architect and Engineers
d. Each of their respective employees, agents, members, officers, managers, and principals
e. Others as required by the Contract Documents

20. Subcontractor must maintain insurance throughout the duration of the Project and such time Subcontractor may be held legally liable for its Work, including the warranty period, or for such longer period as may be required under the terms of the Contract Documents.

21. If permitted by law, the certificate of insurance must include a 30-day written cancellation notice.

22. See sample certificate of insurance at https://www.nabholz.com/bidding-and-contract-documents/

.02 Example Contracts, Forms, and Other Documents

The following documents are available at https://www.nabholz.com/bidding-and-contract-documents/ and should be reviewed prior to bid submission:

1. Contract Performance and Administration
2. Sample Master Contract
3. Sample Project Contract
4. Sample Performance and Payment Bonds
5. Sample Purchase Order
6. Sample Certificate of Insurance
7. Contractor-Controlled Insurance Program Addendum to Master Contract
8. Safety Standards

.04 Nothing Hits the Floor

Nothing Hits the Floor is an initiative to improve productivity, reduce waste and construction debris, improve housekeeping, and enhance worker safety on the project. Subcontractor agrees to actively participate in the program, which includes but is not limited to the following activities:

1. All materials brought into the building shall immediately be loaded onto wheeled carts or dollies to allow easy movement and facilitate organization within the work areas.
2. Flow of work activities shall be planned to minimize or eliminate off-cuts, debris, and excess materials from piling up on the floor. Waste and recycling containers in the building shall be wheeled to facilitate efficient placement and ease of debris transport.
3. All work areas shall be kept clean and well organized, and shall be broom swept, with no materials left on the floor at the end of the work day.
4. All materials small tools are to be neatly stored and organized and work areas kept free of waste, debris, surplus equipment and surplus materials.
5. Subcontractor shall participate, at Construction Manager's discretion, in a project-wide cleanup effort to maintain housekeeping of common areas.
6. Right-time material deliveries are encouraged. Materials delivered to jobsite shall be incorporated into the Work within 10 days of delivery. Materials stored on site shall be roped off and labeled with Subcontractor's name, Subcontractor's Foreman's name and phone number, and the date of material delivery.
7. Whenever feasible, assembly of components shall be accomplished at tabletop height to encourage more ergonomically correct posture for craftsmen.
8. Wherever feasible, Subcontractor shall unpackage materials and dispose of packaging waste at his own shop.
9. Wherever feasible, Subcontractor shall endeavor to utilize cordless tools to eliminate the trip hazards associated with electrical extension cords.
10. Wherever feasible, and with the prior approval of the Construction Manager, Subcontractor shall endeavor to prefabricate components off-site in a warehouse or other controlled environment to eliminate jobsite cut-off debris, improve quality, and reduce safety hazards.

1 SEPTEMBER 2022

ADDENDUM 02 to the Bidding Documents for:

WEBSTER HIGH SCHOOL BAND ROOM & GREEN HOUSE ADDITIONS

Project Number 21-030000

Drawings Dated 14 June 2022

The contents of this ADDENDUM 02 supersede and supplement all portions of the above referenced bidding documents (*including project manual and **all** associated drawing sets*) with which ADDENDUM 02 conflicts.

NOTES:
The revisions to city comments are addressed in this addendum.

PROJECT MANUAL

None.

DRAWINGS

C1.0, GENERAL NOTES
Item 1. IDP Description added.

C3.1, DEMOLITION & EROSION CONTROL PLAN
Item 1. Hatched areas of pavement removal.

C3.2, DEMOLITION & EROSION CONTROL PLAN
Item 1. Area inlet called out to be removed.

C3.3, DEMOLITION & EROSION CONTROL PLAN
Item 1. Extents of sanitary removal updated.

C4.1, SITE PLAN
Item 1. Sidewalk along northwest edge and easement and new driveways called out to be part of IDP permit.

C5.1, GRADING PLAN
Item 1. New sidewalk and driveway grading – to be done under IDP permit.

C5.2, GRADING PLAN
Item 1. 100 year and 500 year water surface elevations updated.
Item 2. Manhole raised to berm elevation (655.75) to provide 1’ of freeboard above pond.

C5.3, GRADING PLAN
Item 1. Grading adjusted to match existing sidewalk.
Item 2. Junction structure 2 raised to 635.17.

C5.4, EXISITNG DRAINAGE PLAN
Item 1. Entire sheet updated.

C5.5, PROPOSED DRAINAGE PLAN
Item 1. Entire sheet updated.

C5.6, DETAILED DRAINAGE PLAN

Item 1. Entire sheet updated.

C6.1, UTILITY PLAN

Item 1. Public storm extensions called out under IDP permit.

C6.2, UTILITY PLAN

Item 1. TR of manhole 9 updated.
Item 2. Manhole 9 to have 24” flap gate installed on the western line.

C6.3, UTILITY PLAN

Item 1. 8” sanitary line (under IDP permit) rerouted.
Item 2. Fire hydrant connection location (under IDP permit) relocated.
Item 3. RCB callout updated to callout both RCB details sheets, curtain wall, and reference steel pipe anchor detail.

C7.0, UTILITY PROFILES

Item 1. 50 feet added past the headwall and the outlet structures in profiles 1 and 4.
Item 2. 100 and 500 year water surface elevations updated.
Item 3. TR of Manhole 9 raised to 655.75.
Item 4. TR of Junction Structure 2 raised to 645.17.

C7.1, STORM DETAILS

Item 1. Flap gate added to Storm Manhole 9.

C7.2, SANITARY PROFILES AND DETAILS

Item 1. Entire sheet updated.

C8.1, DETAILS

Item 1. 10 - Concrete curb at fire lane detail updated.

C8.2, DETAILS

Item 1. 4 – 4 grate drop inlet detail updated
Item 2. 5 – 3’x10’ junction box detail updated.

ATTACHMENTS

Full Set

END OF ADDENDUM 02

GENERAL:

CONDUCT SITE CLEARING OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS,STREETS,WALKS AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION. STREETS AND ROADWAYS SHALL BE THOROUGHLY CLEANED AND/OR SWEPT ON A DAILY BASIS OR MORE FREQUENTLY AS REQUIRED BY THE GOVERNING AUTHORITY. RESTORE DAMAGED IMPROVEMENTS TO ORIGINAL CONDITION AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.

THE CONTRACTOR SHALL PROVIDE DUST CONTROL MEASURES IN ACCORDANCE WITH LOCAL AUTHORITIES.

ALL STREET SURFACES, DRIVEWAYS, CULVERTS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS.

UNLESS SPECIFIED OTHERWISE, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CITY OF TULSA STANDARDS, OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY STANDARDS AND OKLAHOMA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND/OR THE APPROPRIATE LOCAL AUTHORITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS, PERMIT FEES, LICENSES, LICENSE FEES, AND TAP FEES, ETC.

ALL ELEVATIONS IN PAVED AREAS ARE TOP OF FINISHED PAVEMENT UNLESS OTHERWISE NOTED.

RELOCATION OF ANY UTILITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF THE APPROPRIATE UTILITY COMPANY AND/OR REGULATORY AGENCY. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM ENGINEER BEFORE ANY UTILITY RELOCATION.

NO DIMENSION MAY BE SCALED. REFER UNCLEAR ITEMS TO THE ENGINEER FOR INTERPRETATION.

OKIE:

ALL CONTRACTORS SHALL NOTIFY UTILITY COMPANIES AND GOVERNMENT AGENCIES IN WRITING OF THE INTENT TO EXCAVATE NO LESS THAN 72 HOURS PRIOR TO SUCH EXCAVATION (EXCLUSIVE OF SATURDAYS, SUNDAYS AND HOLIDAYS) AND CALL "OKIE" AT 1-800-522-6543.

EXISTING UTILITY LOCATIONS SHOWN SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. LOCATIONS OF UNDERGROUND UTILITIES ON THESE DRAWINGS ARE APPROXIMATE ONLY AND BASED ON ACTUAL FIELD LOCATIONS OF VISIBLE STRUCTURES AND PLAN COMPUTATIONS.

SITE WORK AND GRADING:

ALL FEATURES OF THIS PROJECT INCLUDING, BUT NOT LIMITED TO, SIDEWALKS AND CURB RAMPS SHALL COMPLY WITH THE AMERICAN DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES, AND THE INTERIM FINAL RULES FOR PUBLIC RIGHT-OF-WAY, PUBLISHED IN THE FEDERAL REGISTER, SEPTEMBER 2010. WHERE SPATIAL LIMITATIONS OR EXISTING FEATURES WITHIN THE LIMITS OF THE PROJECT PREVENT FULL COMPLIANCE WITH THIS ACT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF SUCH FEATURES. THE CONTRACTOR SHALL NOT PROCEED WITH ANY ASPECT OF THE WORK WHICH IS NOT IN FULL COMPLIANCE WITH THE ADA WITHOUT PRIOR, WRITTEN PERMISSION FROM THE ENGINEER. ANY WORK WHICH IS NOT PERFORMED WITHIN THE GUIDELINES OF THE ADA, FOR WHICH THE CONTRACTOR DOES NOT HAVE WRITTEN APPROVAL, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

CROSS SLOPES FOR SIDEWALKS SHALL NOT EXCEED 1:50
RAMP SLOPES SHALL NOT EXCEED 1:12
GRADES EXCEEDING 5% WILL BE TREATED AS A RAMP SLOPE

FINISHED SUBGRADE SURFACE SHALL NOT BE MORE THAN 0.1 FEET ABOVE OR BELOW ESTABLISHED FINISHED SUBGRADE ELEVATIONS AND ALL GROUND SURFACES SHALL VARY UNIFORMLY BETWEEN INDICATED ELEVATIONS. FINISHED DITCHES SHALL BE GRADED TO ALLOW FOR PROPER DRAINAGE WITHOUT PONDING AND IN A MANNER THAT WILL MINIMIZE EROSION.

GEOTECHNICAL:

GEOTECHNICAL REPORT PROVIDED BY TERRACON CONSULTANTS, INC., DATED MARCH 14, 2022.

SURVEY:

EXISTING TOPOGRAPHY IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED BY SISEMORE & ASSOCIATES, DATED APRIL 6, 2022.

Chiseled Square	Benchmark	Benchmark
ELEV=664.82	ELEV=644.67	ELEV=641.39
N=409239.83	N=408132.23	N=407336.34
E=2554577.45	E=2555808.05	E=2555892.67

EROSION CONTROL NOTES:

ALL EROSION CONTROL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE EROSION CONTROL PLAN, STORMWATER POLLUTION PLAN, AND CITY OF TULSA STANDARDS AND SPECIFICATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A STABILIZED CONSTRUCTION ENTRANCE, AND FOR CLEANING OF VEHICLE WHEELS IN ACCORDANCE WITH THE CITY OF TULSA STANDARDS AND SPECIFICATIONS.

SILT FENCES: PLACEMENT OF SILT FENCES SHALL BE AS SHOWN ON THE DEMOLITION & EROSION CONTROL PLAN. FENCING WHICH BECOMES DAMAGED SHALL BE REPLACED PROMPTLY. DEPOSITS OF SILT WHICH BUILD UP BEHIND DIKES MAY BE DISKED INTO THE SITE BEFORE PLACEMENT OF TEMPORARY COVER. AFTER TEMPORARY COVER IS PLACED OR AFTER LANDSCAPING COMMENCES, SILT SHALL BE REMOVED AND DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

TEMPORARY EROSION CONTROL:

ALL DISTURBED EARTH SURFACES WHICH ARE NOT PAVED OR BUILDING PADS SHALL BE LANDSCAPED OR REVEGETATED WITH A TEMPORARY COVER, DEPENDING ON THE PLANTING SEASON, AS OUTLINED BELOW.

PLANT TYPE	PER ACRE	PER 1000 SQ. FT.	PLANTING DATE	DEPTH OF SEEDING
ANNUAL RYEGRASS	40 LBS.	0.9 LBS.	09/05-11/30	¼ INCH
ELBON RYE	2 BU.	3.0 LBS.	08/15-11/30	2 INCH
WHEAT	2 BU.	3.0 LBS.	08/15-11/30	2 INCH
OATS	3 BU.	2.5 LBS.	08/15-11/30	2 INCH
SORGHUMS	60 LBS.	1.4 LBS.	03/01-09/15	2 INCH
SUDAN GRASS	60 LBS.	1.4 LBS.	04/01-09/15	2 INCH

PRIOR TO SEEDING, NEEDED EROSION CONTROL PRACTICES SHALL BE INSTALLED.

THE SUBGRADE SHALL BE LOOSENED EVENLY TO A DEPTH OF 2 TO 3 INCHES AND 10-20-10 FERTILIZER (10 LBS. PER 1000 SQ. FT. OR 450 LBS. PER ACRE) SHALL BE MIXED WITH THE LOOSENED SOIL BY DISKING OR OTHER SUITABLE MEANS.

SOIL SHALL BE TESTED AND LIME TREATED IF REQUIRED BY TESTING FIRM.

SEEDS MAY BE DRILLED OR BROADCAST UNIFORMLY.

SEEDING IMPLEMENTS SHOULD BE USED AT RIGHT ANGLES TO THE SLOPE TO MINIMIZE EROSION.

MULCH SHALL BE USED ON ALL SLOPES GREATER THAN 5 PERCENT OR AS NEEDED.

THE AREA SHALL BE WATERED DAILY OR AS OFTEN AS NECESSARY TO MAINTAIN ADEQUATE SOIL MOISTURE UNTIL THE PLANTS EXCEED 1 INCH IN HEIGHT.

AS-BUILTS:

THE CONTRACTOR SHALL KEEP ON SITE A CURRENT SET OF THE APPROVED CONSTRUCTION WORKING DRAWINGS AT ALL TIMES. THE CONTRACTOR SHALL MARK (IN RED INK) ALL APPROVED CHANGES INCURRED FOLLOWING ISSUANCE OF THE INITIAL DRAWINGS. THESE CHANGES MAY BE INITIATED FROM FIELD CONDITIONS OR CHANGES MADE BY THE DESIGN ENGINEER. EXCEPT FOR MINOR FIELD ADJUSTMENTS, ALL CHANGES SHALL BE REVIEWED AND AGREED TO BY THE DESIGN ENGINEER PRIOR TO FINAL APPROVAL OF THE PROJECT. THE CONTRACTOR SHALL SUBMIT THE WORKING DRAWINGS TO THE ENGINEER OF RECORD (DESIGN ENGINEER) AFTER FINAL INSPECTION OF PROJECT TO SERVE AS A BASIS FOR DEVELOPMENT OF RECORD DRAWINGS.

PERMANENT EROSION CONTROL PRACTICES:

BERMUDA GRASS SOLID SLAB SOD SHALL BE USED ON THIS PROJECT IN ALL DISTURBED AREAS.

LAWN AREAS SHALL BE FERTILIZED ACCORDING TO TIME OF INSTALLATION

MAY 1 - AUGUST 31: APPLY 16-8-8 FERTILIZER AT A RATE OF SIX (6) POUNDS PER 1000 SQ FT TO LAWN AREAS

SEPTEMBER 1 - APRIL 30: APPLY 10-20-10 FERTILIZER AT A RATE OF TEN (10) POUNDS PER 1000 SQ FT TO LAWN AREAS

TOP SOIL SHALL BE PROVIDED AND LOOSENED EVENLY TO A DEPTH OF 2 TO 3 INCHES AND FERTILIZER SHALL BE MIXED WITH THE LOOSENED SURFACE SOIL BY DISKING OR OTHER SUITABLE MEANS.

TOP SOIL SHALL BE TESTED FOR pH AND SHALL BE TREATED WITH LIME AS REQUIRED.

THE AREA SHALL BE WATERED DAILY OR AS OFTEN AS NECESSARY TO MAINTAIN ADEQUATE SOIL MOISTURE UNTIL FINAL ACCEPTANCE OR ONE MONTH.

SODDED AREAS SHALL BE PREPARED AND PLACED IN ACCORDANCE WITH CITY OF TULSA SPECIFICATIONS. STAKE SOD ON SLOPES GREATER THAN 4:1.

NOTE: CITY OF TULSA LANDSCAPING ZONING CODE IS NOT APPLICABLE FOR SECTION 65.040 STREET TREES, 65.050 INTERIOR PARKING LOT LANDSCAPING, AND 65.060 VEHICULAR USE AREA BUFFERS.

BEFORE YOU DIG 800-522-6543 OKIE CALL OKIE

CAUTION

NOTICE TO CONTRACTOR

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1

IDP DESCRIPTION

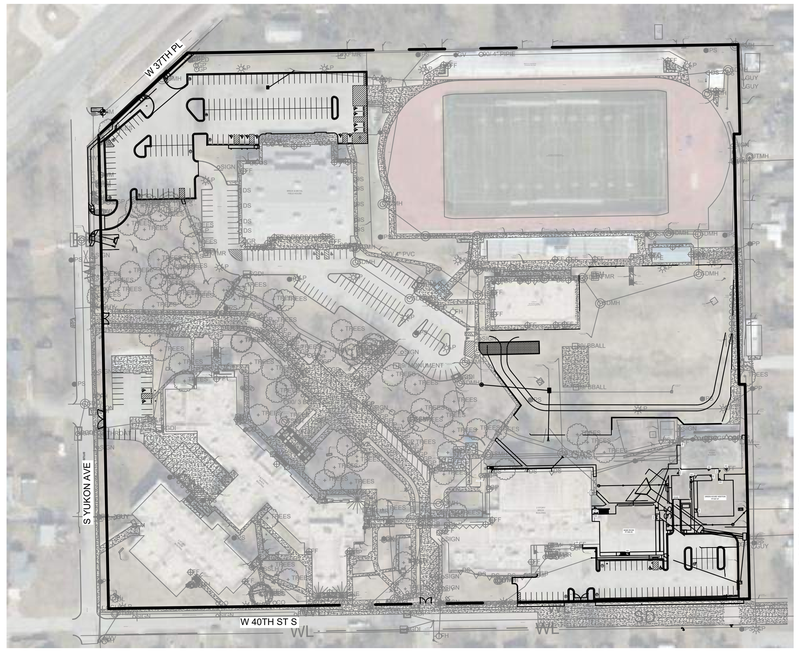
- ADDED VOLUME TO EXISTING DETENTION POND
- EXTENSION OF PUBLIC STORM SEWER
- 8" PRIVATE SANITARY SEWER CONNECTION
- NEW FIRE HYDRANT
- CURB AND GUTTER, SIDEWALK, AND DRIVEWAYS.
- ADJUST SANITARY MANHOLE TO GRADE.

Construction Plans for

WEBSTER HIGH SCHOOL

BAND ROOM & GREEN HOUSE ADDITIONS

1919 WEST 40TH STREET
TULSA, OK 74107



LEGAL DESCRIPTION

LOTS 4 TO 23 INCLUSIVE BLOCK 1. LOTS 7 TO 26 INCLUSIVE BLOCK 2. ALL OF BLOCK 3. ALL OF BLOCK 4. AND LOTS 8 TO 27 INCLUSIVE BLOCK 5. OF CLINTON HOMESITES ADD. TO RED FORK, TULSA COUNTY, OKLAHOMA INCLUDING

WEST 38TH STREET VACATED FROM EAST SIDE OF SOUTH YUKON AVE. TO CENTER LINE OF ALLEY AT EAST PROPERTY LINE.

WEST 39TH STREET, VACATED FROM EAST SIDE OF SOUTH YUKON AVE TO CENTER LINE OF ALLEY AT EAST PROPERTY LINE.

SOUTH WACO AVE. FROM N. LINE OF W 38TH ST. TO N. LINE OF W 40TH ST.

AND ALL EASEMENTS IN BLOCKS 1-2-3-4-5 AS SHOWN ON THE PLAT.

IMPERVIOUS AREA TABLE

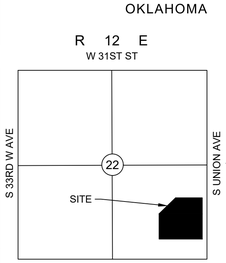
TOTAL DISTURBED AREA	3.41 ACRES
EXISTING IMPERVIOUS AREA	93,528.40 SF
PROPOSED IMPERVIOUS AREA	105,803.22 SF
INCREASE IN IMPERVIOUS AREA	12,274.82 SF

120 0 60 120
1" = 120'

LIST OF SHEETS

C1.0	GENERAL NOTES
C2.0	SURVEY
C2.1	SURVEY
C2.2	SURVEY
C2.3	SURVEY
C3.0	OVERALL DEMOLITION & EROSION CONTROL PLAN
C3.1	DEMOLITION & EROSION CONTROL PLAN
C3.2	DEMOLITION & EROSION CONTROL PLAN
C3.3	DEMOLITION & EROSION CONTROL PLAN
C4.0	OVERALL SITE PLAN
C4.1	SITE PLAN
C4.2	SITE PLAN
C4.3	SITE PLAN
C4.4	SITE PLAN
C5.0	OVERALL GRADING PLAN
C5.1	GRADING PLAN
C5.2	GRADING PLAN
C5.3	GRADING PLAN
C5.4	EXISTING DRAINAGE AREA MAP
C5.5	PROPOSED DRAINAGE AREA MAP
C5.6	DETAILED DRAINAGE AREA MAP
C6.0	OVERALL UTILITY PLAN
C6.1	UTILITY PLAN
C6.2	UTILITY PLAN
C6.3	UTILITY PLAN
C7.0	STORM PROFILES
C7.1	STORM DETAILS
C7.2	SANITARY PROFILES AND DETAILS
C7.3	WATER PROFILE
C8.0	DETAILS
C8.1	DETAILS
C8.2	DETAILS
C8.3	DETAILS

TULSA COUNTY
OKLAHOMA



Location Map

LEGEND

660	EXISTING MAJOR CONTOUR	BM	BENCH MARK	BC	BOT OF CURB
662	EXISTING MINOR CONTOUR	CO	CLEANOUT	CI	CAST IRON
660	NEW MAJOR CONTOUR		DOWN GUY	CLR	CLEAR
662	NEW MINOR CONTOUR	EP	EMERGENCY PHONE	CJ	CONSTRUCTION JOINT
X	FENCE	FO	FIBER OPTIC MANHOLE	CPP	CORRUGATED POLYPROPYLENE PIPE
T	TELEPHONE OVERHEAD	FDC	FIRE DEPT CONNECTION	DB	DRAINAGE BASIN
W	POWER LINE OVERHEAD	FH	FIRE HYDRANT	DIP	DUCTILE IRON PIPE
G	GAS LINE		GAS / OIL WELL	DGDI	DOUBLE GRATE CURB INLET
O	OIL LINE	GM	GAS METER	DO	DOOR OPENING
PUG	POWER UNDERGROUND	LP	LIGHT POLE	EJ	EXPANSION JOINT
TUG	TELEPHONE UNDERGROUND		LIGHT POLE	EL	ELEVATION
TVUG	TV UNDERGROUND	P	POWER MANHOLE	FF	FINISH FLOOR
W	WATER LINE		POWER POLE	FG	FINISH GRADE
SS	SANITARY SEWER LINE	PB	PULL BOX	FL	FLOWLINE
	FLOW LINE DITCH	SS	SANITARY MANHOLE	HB	HOSE BIB
	ODOT TEMPORARY SILT FENCE	ST	STEAM MANHOLE	HDPE	HIGH DENSITY POLYETHYLENE
SF	SILT FENCE	S	STORM MANHOLE	IRR	IRRIGATION
	PROPERTY LINE	T	TELEPHONE MANHOLE	IST	INLET SEDIMENT TRAP
		TPED	TELEPHONE PEDESTAL	LF	LINEAR FEET
		XFMR	TRANSFORMER PAD	OHD	OVERHEAD DOOR
			VALVE		
		WH	WATER HYDRANT		
		WM	WATER METER		
			WATER WELL		
		LS	LIFT STATION MANHOLE		

PAVT	PAVEMENT
PE	POLYETHYLENE
PVC	POLY VINYL CHLORIDE
R	RADIUS
RD	ROOF DRAIN
R/W	RIGHT OF WAY
RCP	REINF CONCRETE PIPE
RJ	RESTRAINED JOINT
SGDI	SINGLE GRATE CURB INLET
SF	SQUARE FEET
SJ	SAW JOINT
TC	TOP OF CURB
TG	TOP OF GRATE
TOF	TOP OF FOOTING
TP	TOP OF PAVEMENT
TR	TOP OF RIM
TS	TOP OF SIDEWALK
TW	TOP OF WALL
UNO	UNLESS NOTED OTHERWISE

ENGINEER'S STATEMENT

BY MY SIGNATURE ON THESE CONSTRUCTION DOCUMENTS, I HEREBY CERTIFY THAT I AM FAMILIAR WITH THE ADOPTED ORDINANCES AND REGULATIONS OF THE CITY OF TULSA GOVERNING THE ITEMS IN THE IDP DESCRIPTION; THAT THESE PLANS HAVE BEEN PREPARED UNDER MY DIRECT SUPERVISION; AND THAT THE ABOVE AND FOREGOING PLANS COMPLY WITH ALL GOVERNING ORDINANCES AND THE ADOPTED STANDARDS OF THE CITY OF TULSA TO THE BEST OF MY KNOWLEDGE AND BELIEF.

UTILITIES NOTE

CONTRACTORS SHALL DIRECT ALL WORK WITH ALL UTILITY COMPANIES THROUGH TPS PERSONNEL, MR. TRACY DELAUGHTER (918-746-6890). CONTRACTORS SHALL NOT CONTACT UTILITY COMPANIES DIRECTLY WITHOUT PRIOR APPROVAL OF OWNER.

COT UTILITIES:

ENGINEERING SERVICES
CHRIS KOVAC
UTILITIES COORDINATION MANAGER
2317 S JACKSON AVE, SUITE S-206
TULSA, OKLAHOMA 74107
918.596.9649
CKOVAC@CITYOFTULSA.ORG

FIRE:

CITY OF TULSA FIRE DEPARTMENT
FIRE MARSHAL, RICK BRUDER
1760 NEWBLOCK PARK DRIVE
TULSA, OKLAHOMA 74127
918.596.5584

GAS:

OKLAHOMA NATURAL GAS COMPANY
ATTN: BRANDON RAINBOLT
918.947.7098
BRANDON.RAINBOLT@ONG.COM

TELEPHONE:

AT&T COMMUNICATION INC.
ATTN: KEVIN BENDER
5305 EAST 71ST STREET
TULSA, OKLAHOMA 74135
918.859.9147

CABLE TELEVISION:

COX COMMUNICATIONS
ATTN: CRAIG BARNES
11811 E. 51ST STREET S.
TULSA, OKLAHOMA 74146
918.286.4754

ELECTRIC:

AEP/PUBLIC SERVICE COMPANY OF OKLAHOMA
ATTN: STEVE WILLIAMS
5223 SOUTH GARNETT
TULSA, OKLAHOMA 74146
918.250.7716

ENGINEER:

JORDAN RODICH, P.E.
WALLACE DESIGN COLLECTIVE
123 MARTIN LUTHER KING JR BLVD
TULSA, OKLAHOMA 74103
918.584.5858

OWNER:

TULSA PUBLIC SCHOOLS
MR. TRACY DELAUGHTER
3027 S NEW HAVEN
TULSA, OK 74114
918-746-6890

PROPERTY NOT WITHIN CITY OF TULSA REGULATORY FLOODPLAIN
FEMA PANEL # 40143C0332L

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

LICENSED PROFESSIONAL ENGINEER — JORDAN RODICH — 26548 — OKLAHOMA — 9/1/2022

PROJECT NO.:	21-030000
FILE:	C1.0
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
GS HELMS + ASSOCIATES
ph: 918.298.7257
wb: gshelms.com
424 e. main st.
jenks, ok 74037

wallace design collective
wallace design collective, pc
structural · civil · landscape · survey
123 north martin luther king jr. boulevard
tulsa, oklahoma 74103
918.584.5858 · 800.364.5858

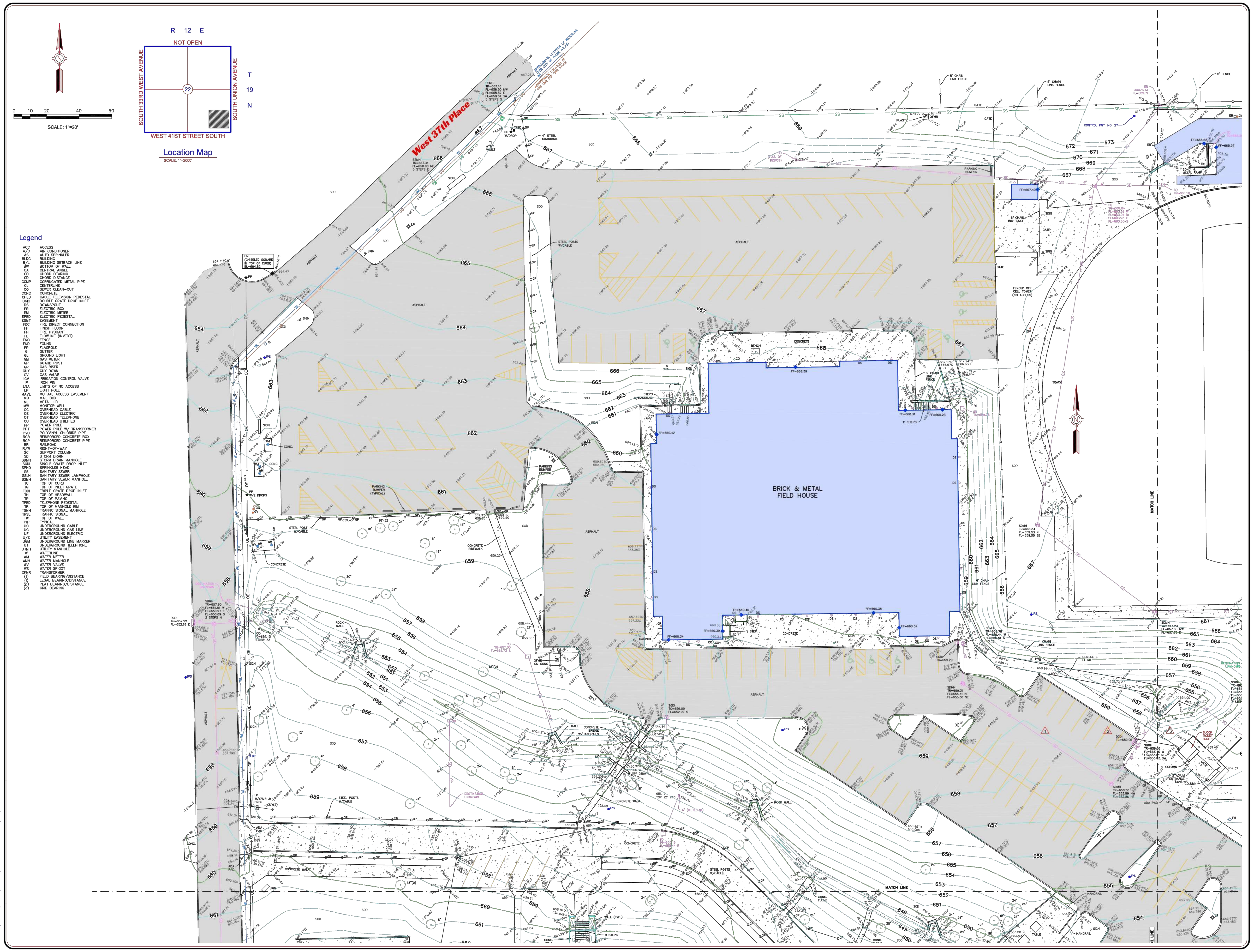
OKLAHOMA CA #1460 EXP DATE: 6/30/23

GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

PROJECT TITLE: TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE: GENERAL NOTES

SHEET NUMBER: C1.0



Topographic Survey
of
Part of the SE/4 SE/4
Section 22, T-19-N, R-12-E
City of Tulsa, Tulsa County, Oklahoma

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REVISION	BY	DATE

FILE: 1912.2200	SURVEY BY: CM/GT
ORDER: 16358.06	DRAWN BY: MK
BOOK:	CHECKED BY: SAC
DATE: 4/6/2022	SCALE: 1"=20'

SISEMORE & ASSOCIATES
Surveying ~ Civil Engineering ~ Land Planning
6660 South Sheridan Road, Suite 210 - Tulsa, Oklahoma 74133
Phone: (918) 665-3600 Fax: (918) 665-8668
C.A. No. 2421 Exp. Date 6/30/23
(www.sisemoreandassociates.com)

SHEET
1 OF 5

THIS SHEET IS FOR THE CONVENIENCE OF THE CONTRACTOR. IT IS INTENDED FOR GENERAL SURVEY INFORMATION ONLY. WALLACE DESIGN COLLECTIVE HAS NOT CONFIRMED ITS ACCURACY. SURVEY INFORMATION WAS REPRODUCED BY ELECTRONIC TRANSFER FROM THE SURVEYOR. ORIGINAL SURVEY DRAWINGS AVAILABLE FROM THE SURVEYOR.

GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

PROJECT NO.:	21-030000
FILE:	C2.0
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

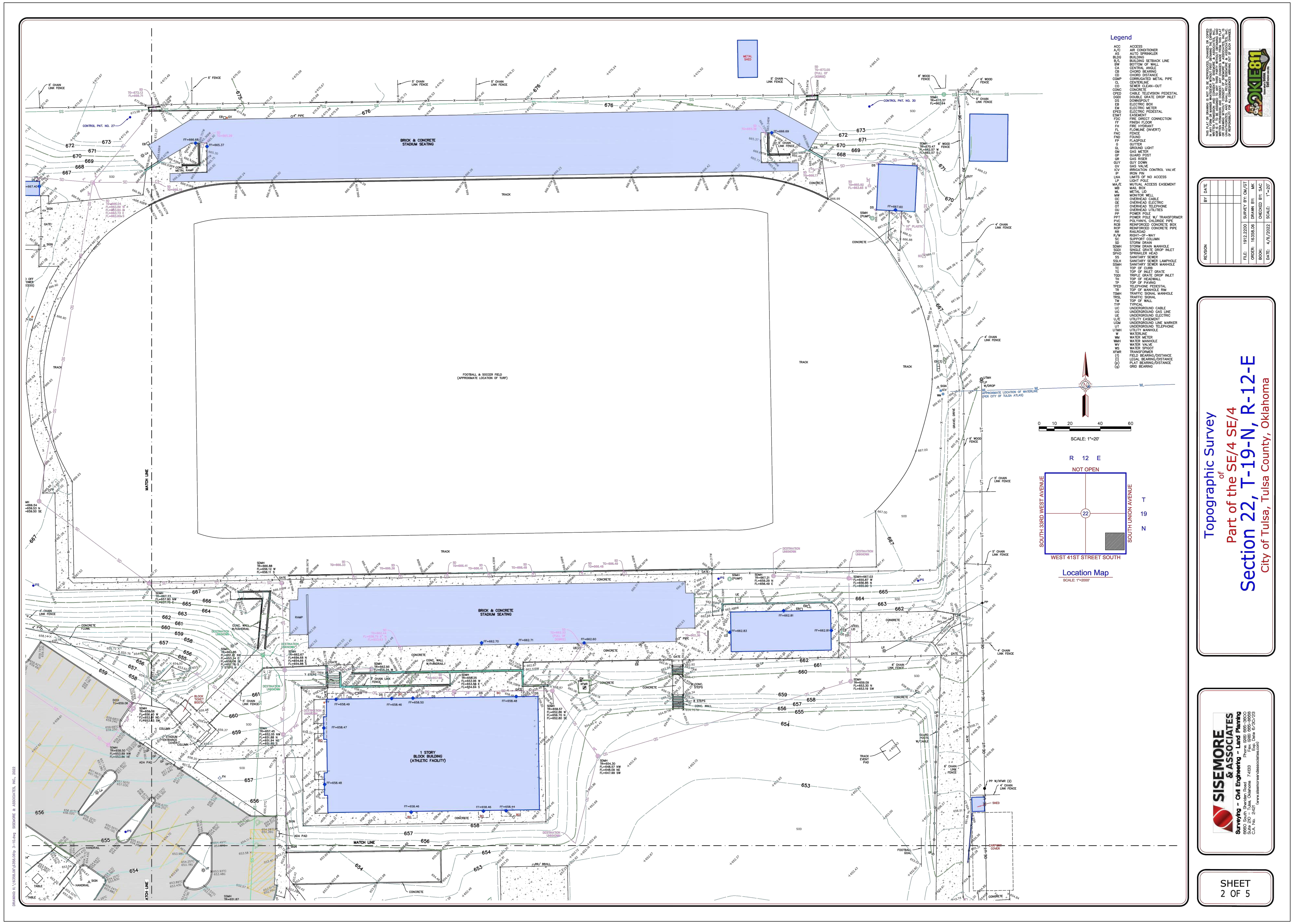
ARCHITECT:
GS HELMS + ASSOCIATES
ph: 918.298.7257
wb: gshelms.com
424 e. main st.
jenks, ok 74037

wallace design collective
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
SURVEY

SHEET NUMBER:
C2.0



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SEALS:

PROJECT NO.:	21-030000
FILE:	C2.1
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
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tulsa, oklahoma 74103
918.584.5858 · 800.364.5858
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
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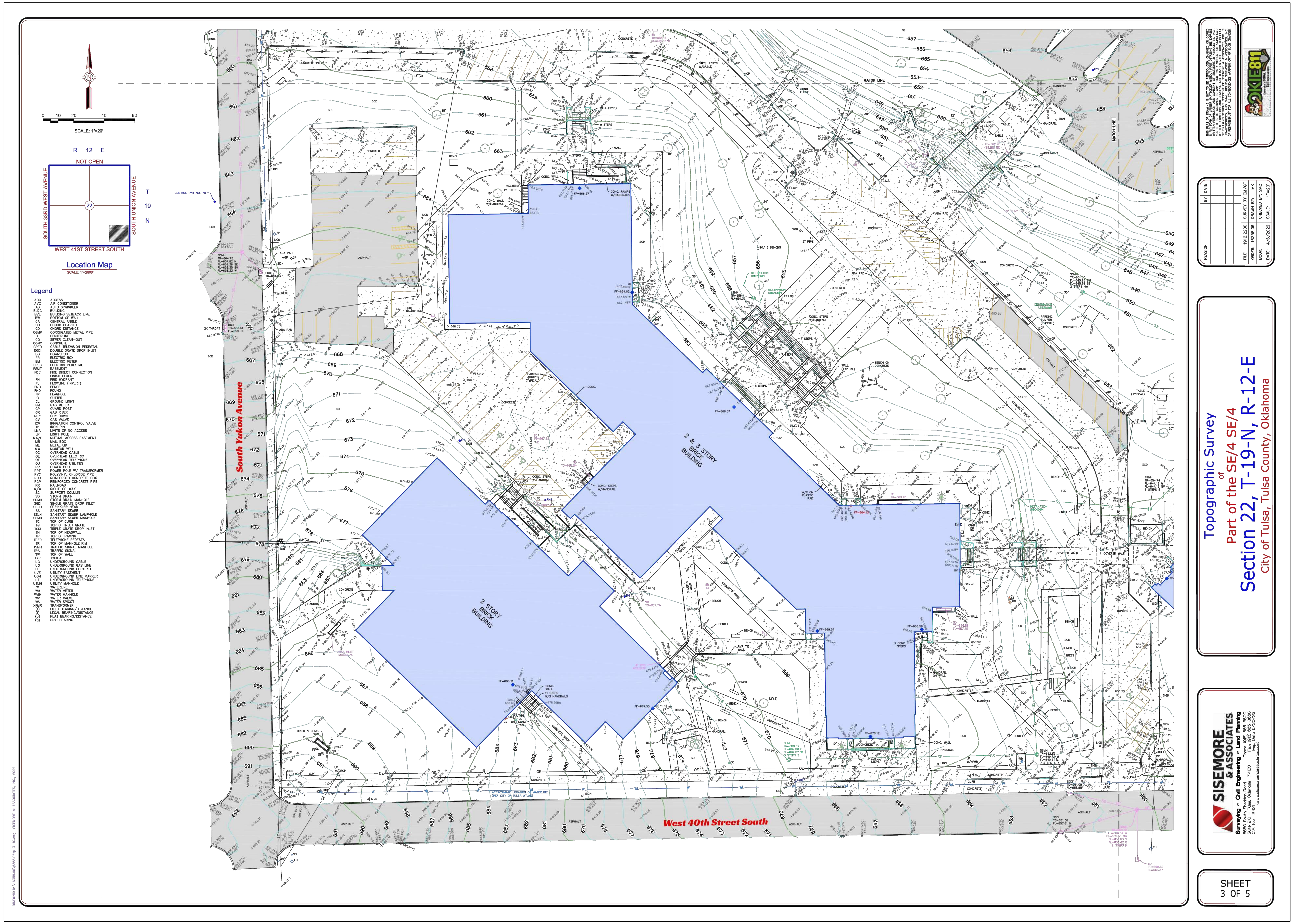
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
SURVEY

SHEET NUMBER:
C2.1



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#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

PROJECT NO.:	21-030000
FILE:	C2.2
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

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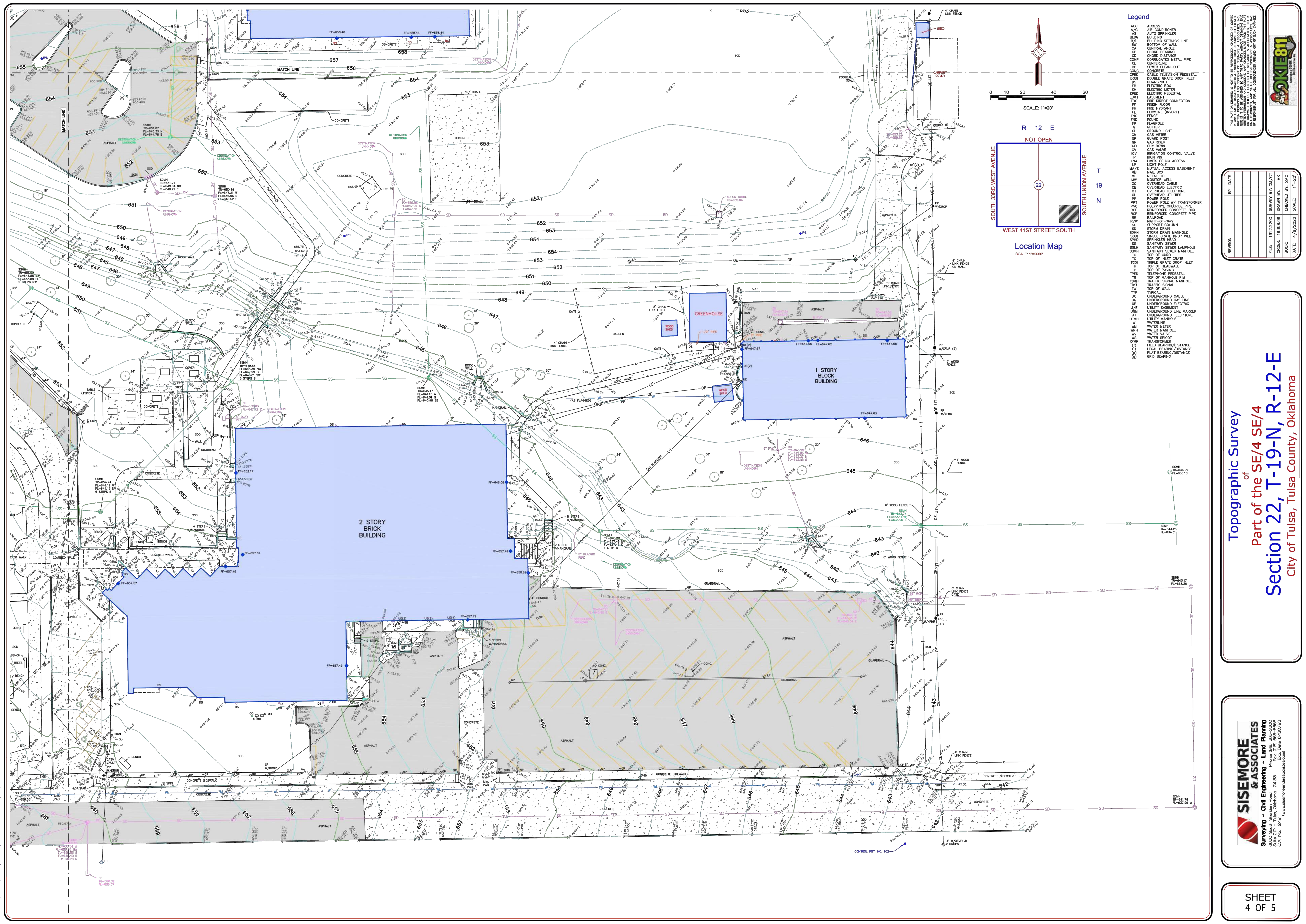
918.584.5858 · 800.364.5858
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
SURVEY

SHEET NUMBER:
C2.2



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GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

PROJECT NO.:	21-030000
FILE:	C2.3
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:

GS HELMS + ASSOCIATES

ph: 918.298.7257
wb: gshelms.com

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OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:

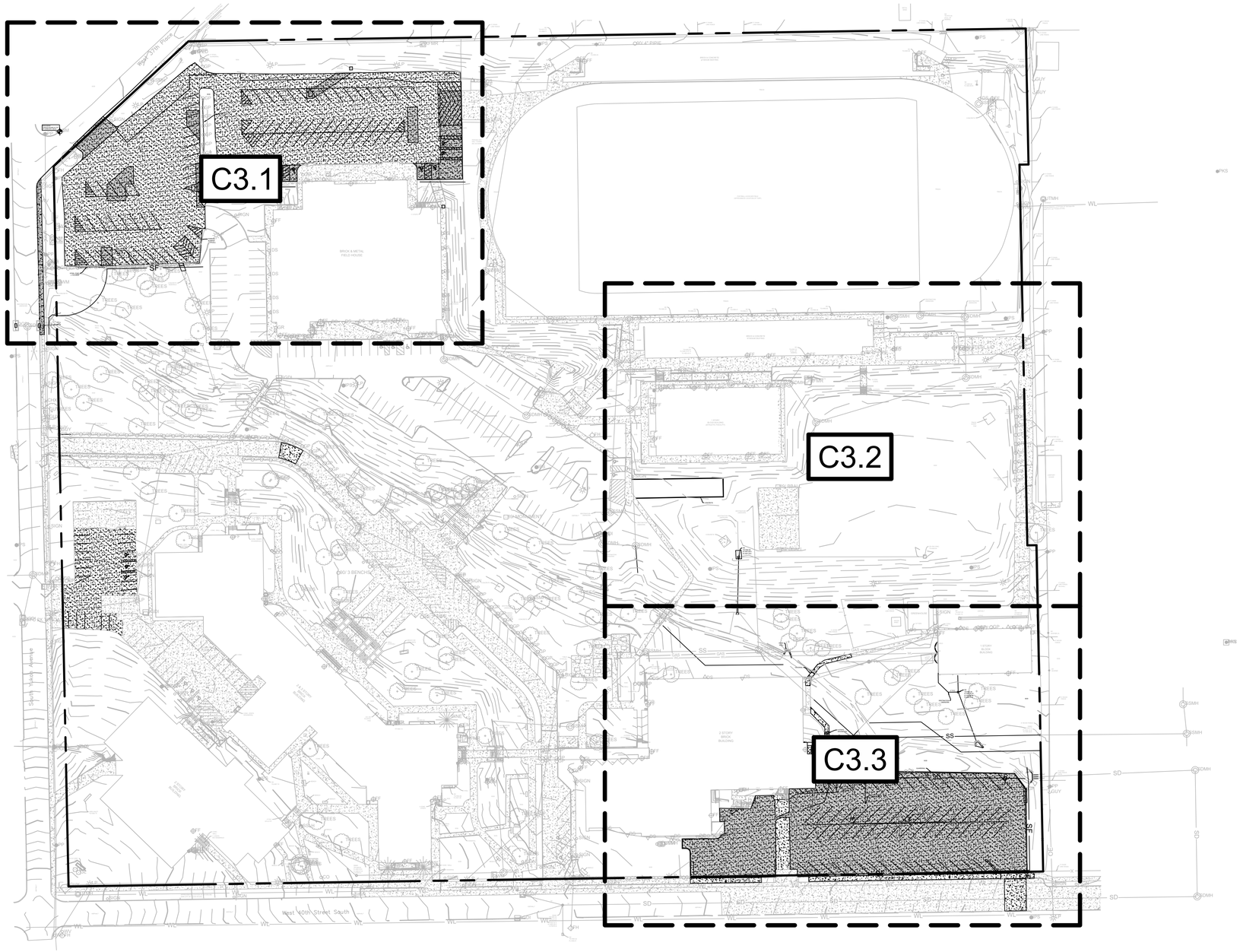
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:

SURVEY

SHEET NUMBER:

C2.3



GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

BEFORE YOU DIG CALL OKIE 1-800-522-OKIE

CAUTION
NOTICE TO CONTRACTOR

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#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

LICENSED PROFESSIONAL ENGINEER
JORDAN RODICH
26548
OKLAHOMA
9/1/2022

PROJECT NO.:	21-030000
FILE:	C3.0
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

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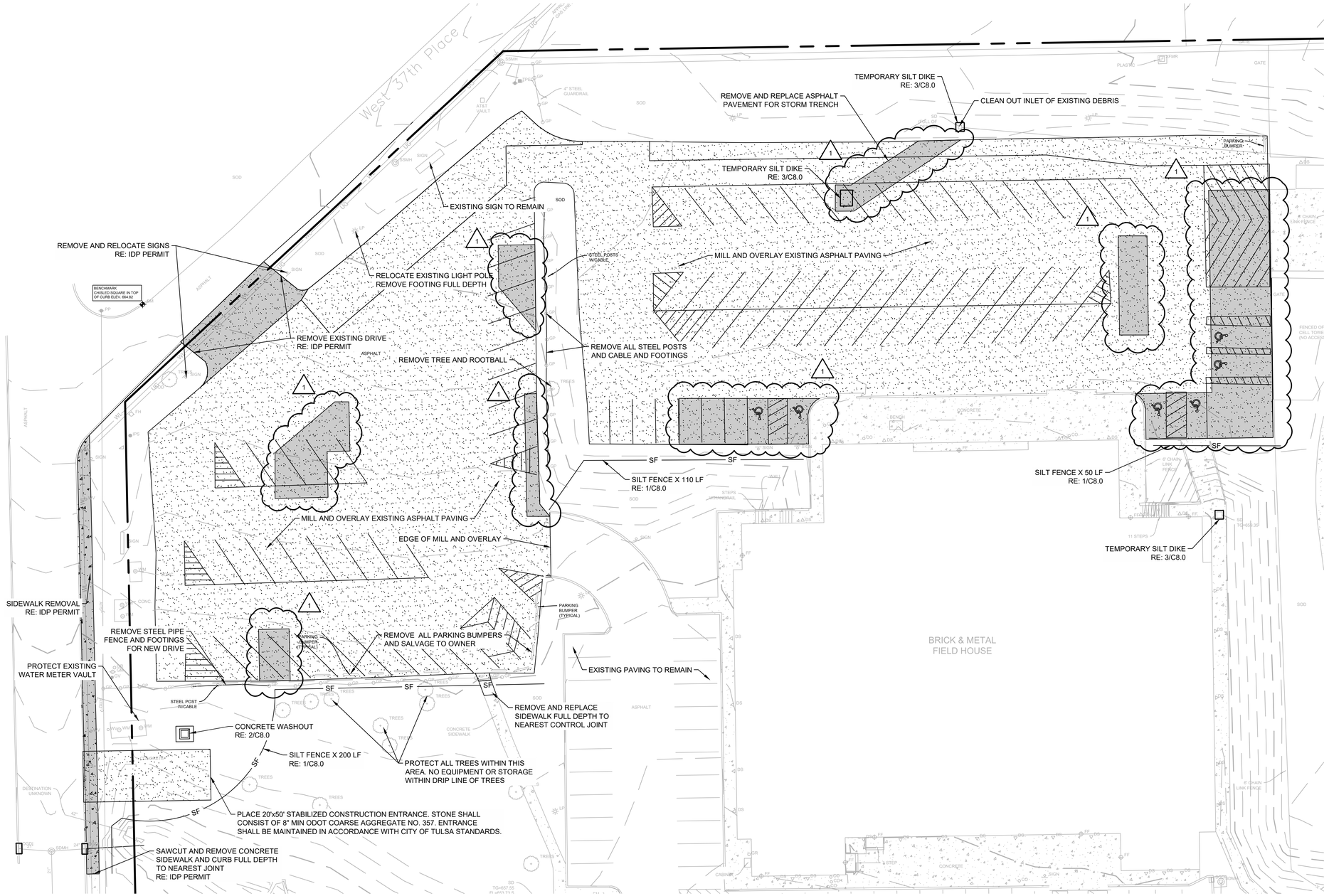
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
OVERALL DEMOLITION & EROSION CONTROL PLAN

SHEET NUMBER:
C3.0



GENERAL DEMOLITION NOTES

1. ALL CONCRETE AND ASPHALT NOTED FOR REMOVAL SHALL BE SAW CUT FULL DEPTH AND REMOVED OFF SITE.
2. CONTRACTOR SHALL PROTECT ALL SURVEY CONTROL POINTS.
3. CONTRACTOR SHALL REMOVE ALL WASTE MATERIALS OFF SITE.
4. ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, FENCING, TREES, ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED & DISPOSED OF OFF SITE. ALL COST SHALL BE INCLUDED IN BASE BID.
5. WITH PRIOR APPROVAL, CONTRACTOR MAY ESTABLISH AN ON-SITE STAGING AREA. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING STAGING AREA TO ITS ORIGINAL CONDITION. SECURITY OF STAGING AREA SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. ON-SITE VEGETATION SHALL BE PROTECTED AS NOTED. IN DESIGNATED PROTECTION AREAS WHERE THE CONTRACTOR DOES NOT PROTECT VEGETATION AS NOTED, CONTRACTOR SHALL RESTORE VEGETATION TO EXISTING CONDITION AT NO ADDITIONAL EXPENSE TO THE OWNER, TO THE SATISFACTION OF THE ARCHITECT.
7. CONTRACTOR SHALL PROTECT ALL ABOVE GROUND UTILITY FEATURES NOT BEING REMOVED INCLUDING, BUT NOT LIMITED TO, MANHOLES, VALVES, AND INLETS. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR OR REPLACE THE EXISTING STRUCTURE AS NECESSARY.
8. TOPSOIL STOCKPILES AND DISTURBED PORTIONS OF THE SITE, WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 14 DAYS SHALL BE STABILIZED IMMEDIATELY WITH TEMPORARY SEED AND MULCH PER SPECIFICATIONS ON THE GENERAL NOTES AND STORMWATER POLLUTION PREVENTION PLAN.
9. CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL DURING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LANE CLOSURES, DETOURS, ETC. BOTH VEHICULAR AND PEDESTRIAN.
10. CONTRACTOR SHALL PROVIDE TEMPORARY UTILITY SERVICE IF REQUIRED.
11. CONTRACTOR SHALL ENSURE CONSTRUCTION SITE HAS POSITIVE DRAINAGE THROUGHOUT THE DURATION OF CONSTRUCTION.
12. SIX (6) FOOT CHAINLINK CONSTRUCTION FENCE SHALL BE MAINTAINED AND SECURED AROUND PERIMETER OF CONSTRUCTION SITE FOR DURATION OF PROJECT.
13. PRIOR TO UTILITY DEMOLITION COORDINATE WITH AUTHORITY HAVING JURISDICTION.
14. UTILITIES BEING REMOVED OR RELOCATED SHALL BE ISOLATED AND SERVICE DISCONNECTED PRIOR TO ANY DEMOLITION.
15. NO UTILITY INTERRUPTIONS WILL BE ALLOWED WITHOUT CONSENT OF THE OWNER. CONTRACTOR SHALL NOTIFY THE OWNER AND ARCHITECT A MINIMUM OF FOUR WORKING DAYS PRIOR TO THE REQUESTED SHUT DOWN.

LEGEND

- REMOVE CONCRETE PAVEMENT
- REMOVE ASPHALT PAVEMENT
- MILL AND OVERLAY ASPHALT PAVEMENT

CAUTION

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES.

BEFORE YOU DIG 1-800-522-OKIE CALL OKIE

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

JORDAN RODICH 26548 LICENSED PROFESSIONAL ENGINEER OKLAHOMA
9/1/2022

PROJECT NO.:	21-030000
FILE:	C3.1
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
GS HELMS + ASSOCIATES
ph: 918.298.7257
wb: gshelms.com
424 e. main st.
jenks, ok 74037

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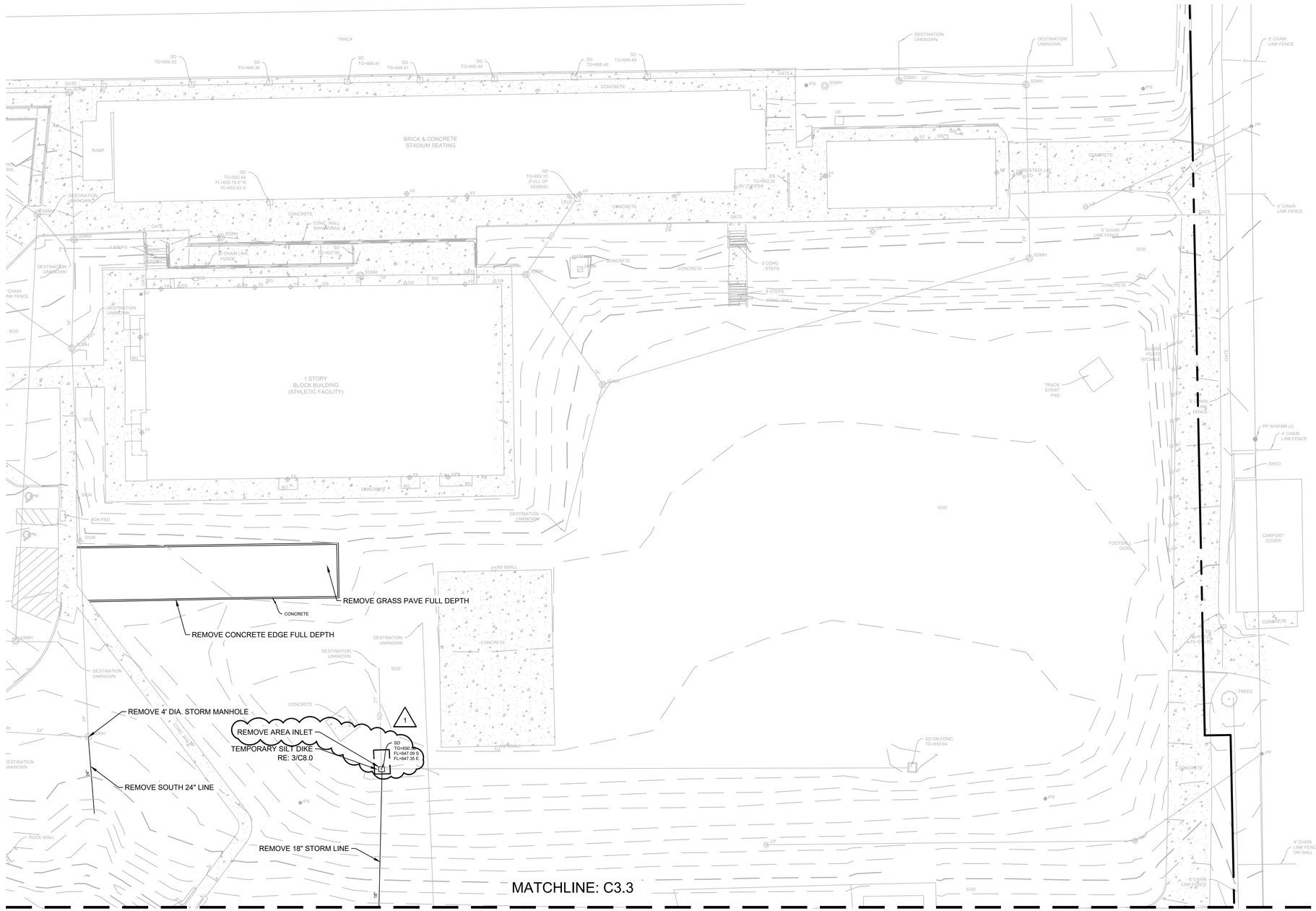
wallace design collective, pc
structural · civil · landscape · survey
123 north martin luther king jr. boulevard
tulsa, oklahoma 74103
918.584.5858 · 800.364.5858

OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
DEMOLITION & EROSION CONTROL PLAN

SHEET NUMBER:
C3.1



20 0 10 20

1" = 20'

GENERAL DEMOLITION NOTES

1. ALL CONCRETE AND ASPHALT NOTED FOR REMOVAL SHALL BE SAW CUT FULL DEPTH AND REMOVED OFF SITE.
2. CONTRACTOR SHALL PROTECT ALL SURVEY CONTROL POINTS.
3. CONTRACTOR SHALL REMOVE ALL WASTE MATERIALS OFF SITE.
4. ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, FENCING, TREES, ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED & DISPOSED OF OFF SITE. ALL COST SHALL BE INCLUDED IN BASE BID.
5. WITH PRIOR APPROVAL, CONTRACTOR MAY ESTABLISH AN ON-SITE STAGING AREA. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING STAGING AREA TO ITS ORIGINAL CONDITION. SECURITY OF STAGING AREA SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. ON-SITE VEGETATION SHALL BE PROTECTED AS NOTED. IN DESIGNATED PROTECTION AREAS WHERE THE CONTRACTOR DOES NOT PROTECT VEGETATION AS NOTED, CONTRACTOR SHALL RESTORE VEGETATION TO EXISTING CONDITION AT NO ADDITIONAL EXPENSE TO THE OWNER, TO THE SATISFACTION OF THE ARCHITECT.
7. CONTRACTOR SHALL PROTECT ALL ABOVE GROUND UTILITY FEATURES NOT BEING REMOVED INCLUDING, BUT NOT LIMITED TO, MANHOLES, VALVES, AND INLETS. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR OR REPLACE THE EXISTING STRUCTURE AS NECESSARY.
8. TOPSOIL STOCKPILES AND DISTURBED PORTIONS OF THE SITE, WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 14 DAYS SHALL BE STABILIZED IMMEDIATELY WITH TEMPORARY SEED AND MULCH PER SPECIFICATIONS ON THE GENERAL NOTES AND STORMWATER POLLUTION PREVENTION PLAN.
9. CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL DURING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LANE CLOSURES, DETOURS, ETC. BOTH VEHICULAR AND PEDESTRIAN.
10. CONTRACTOR SHALL PROVIDE TEMPORARY UTILITY SERVICE IF REQUIRED.
11. CONTRACTOR SHALL ENSURE CONSTRUCTION SITE HAS POSITIVE DRAINAGE THROUGHOUT THE DURATION OF CONSTRUCTION.
12. SIX (6) FOOT CHAINLINK CONSTRUCTION FENCE SHALL BE MAINTAINED AND SECURED AROUND PERIMETER OF CONSTRUCTION SITE FOR DURATION OF PROJECT.
13. PRIOR TO UTILITY DEMOLITION COORDINATE WITH AUTHORITY HAVING JURISDICTION.
14. UTILITIES BEING REMOVED OR RELOCATED SHALL BE ISOLATED AND SERVICE DISCONNECTED PRIOR TO ANY DEMOLITION.
15. NO UTILITY INTERRUPTIONS WILL BE ALLOWED WITHOUT CONSENT OF THE OWNER. CONTRACTOR SHALL NOTIFY THE OWNER AND ARCHITECT A MINIMUM OF FOUR WORKING DAYS PRIOR TO THE REQUESTED SHUT DOWN.

LEGEND

- REMOVE CONCRETE PAVEMENT
- REMOVE ASPHALT PAVEMENT
- MILL AND OVERLAY ASPHALT PAVEMENT

BEFORE YOU DIG 1-800-522-OKIE CALL OKIE

CAUTION

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#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

PROJECT NO.:	21-030000
FILE:	C3.2
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
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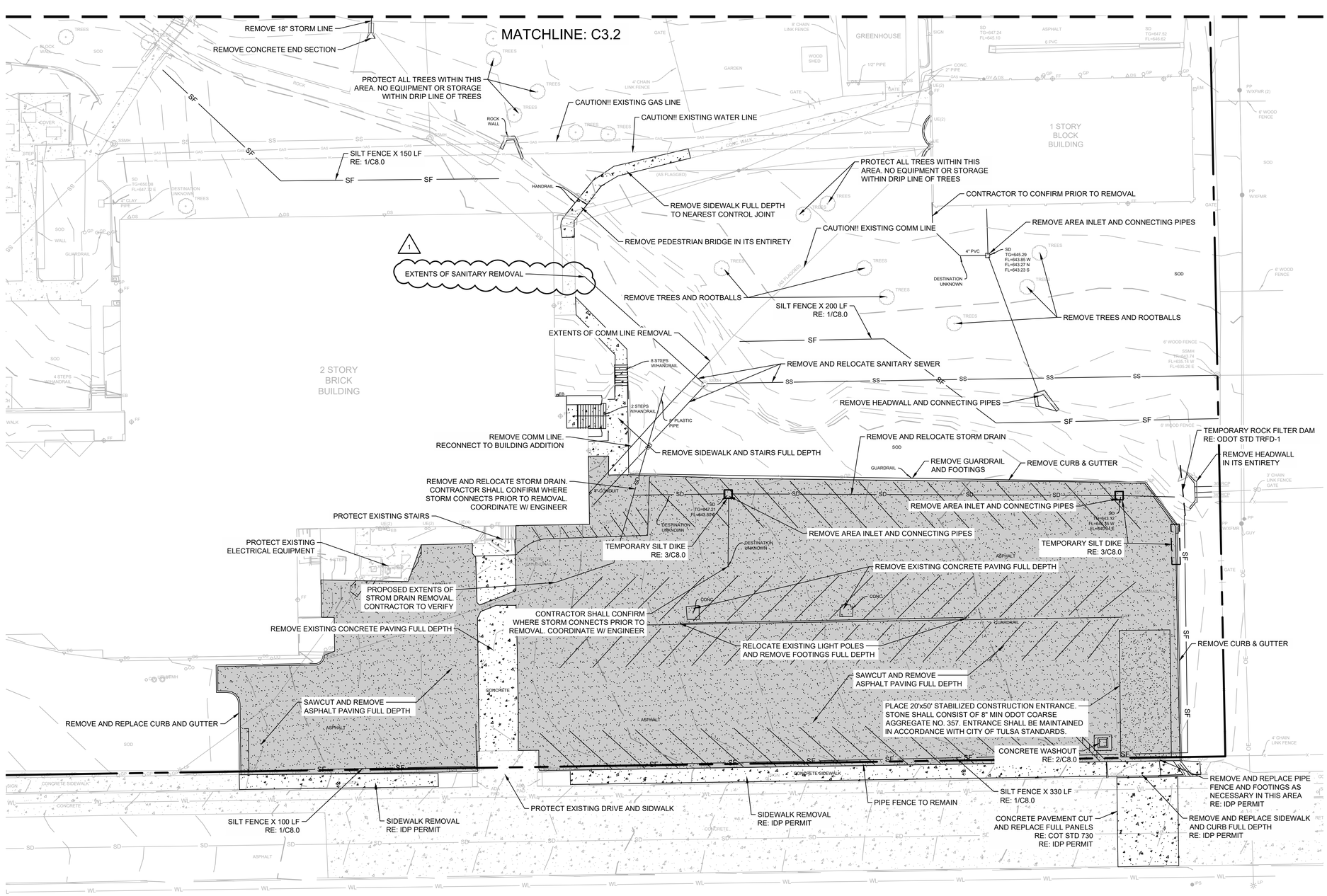
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
DEMOLITION & EROSION CONTROL PLAN

SHEET NUMBER:
C3.2



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- REMOVE CONCRETE PAVEMENT
- REMOVE ASPHALT PAVEMENT
- MILL AND OVERLAY ASPHALT PAVEMENT

BEFORE YOU DIG 1-800-522-OKIE CALL OKIE

CAUTION

NOTICE TO CONTRACTOR

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#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

JORDAN RODICH 26548 LICENSED PROFESSIONAL ENGINEER OKLAHOMA

9/1/2022

PROJECT NO.:	21-030000
FILE:	C3.3
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
GS HELMS + ASSOCIATES
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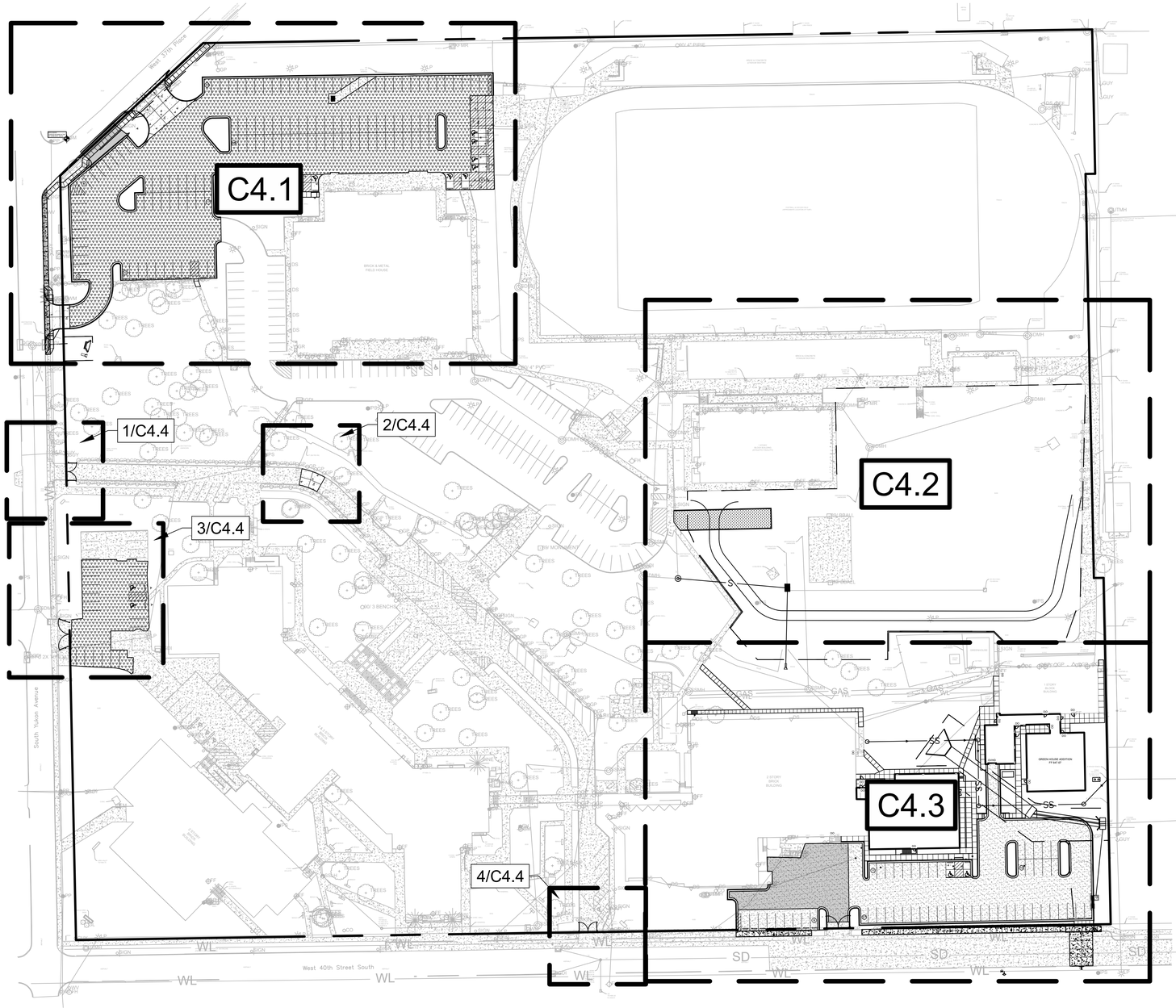
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
DEMOLITION & EROSION CONTROL PLAN

SHEET NUMBER:
C3.3



GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

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CAUTION
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1	ADDENDUM 2	9/1/2022

SEALS:

LICENSED PROFESSIONAL ENGINEER
JORDAN RODICH
26548
OKLAHOMA
9/1/2022

PROJECT NO.:	21-030000
FILE:	C4.0
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
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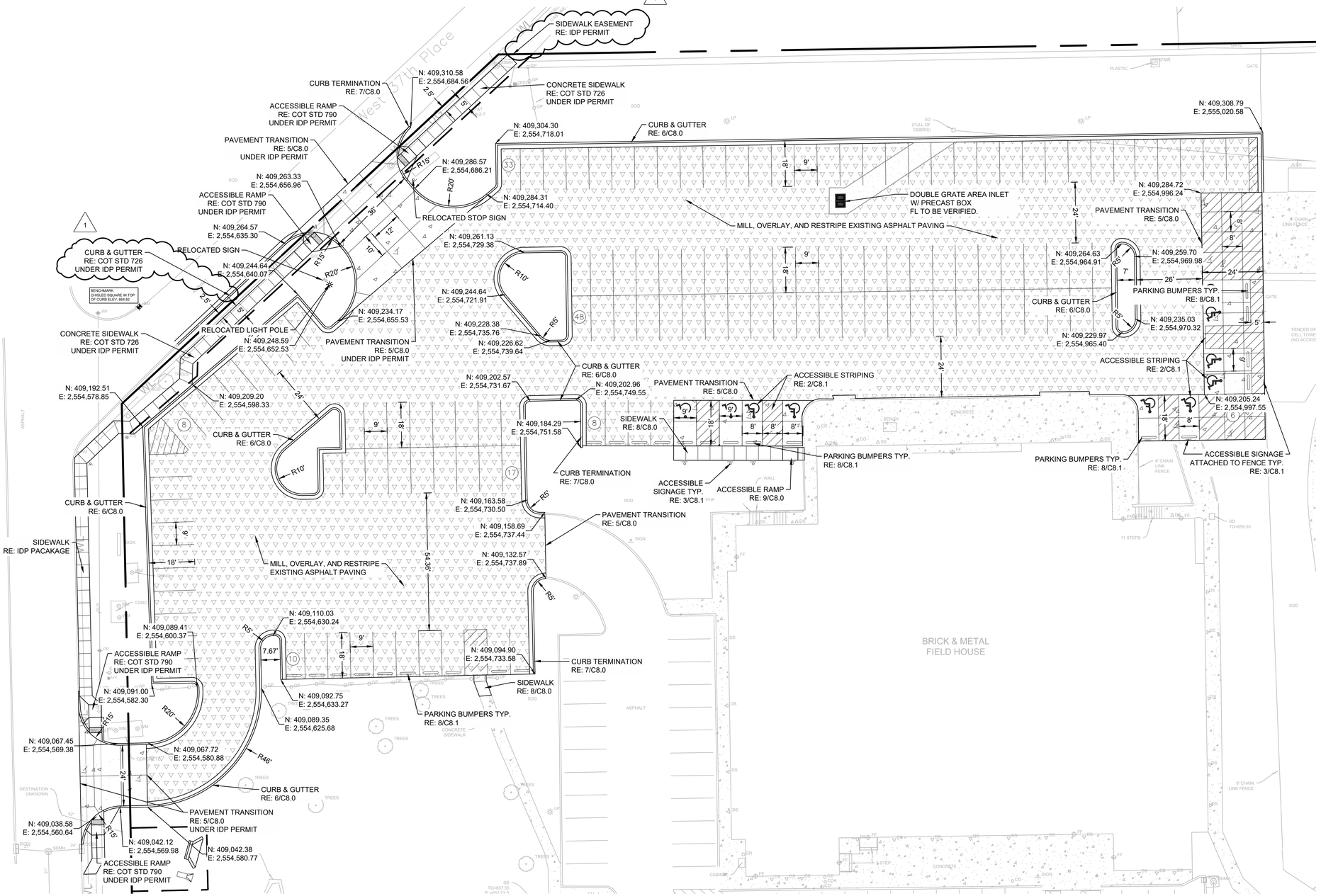
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
C4.0



GENERAL SITE NOTES

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4. REFER TO LANDSCAPE PLANS FOR GRASS, TREES AND PLANTED MATERIALS.
5. ALL DIMENSIONS AND COORDINATES ARE FROM BACK OF CURB UNLESS SHOWN OTHERWISE.
6. CONCRETE PAVING SECTIONS SHALL BE SAWCUT AT 12' MAXIMUM SPACING EACH.
7. BUILDING COORDINATES ARE TO OUTSIDE FACE OF WALL.
8. ALL SIDEWALK JOINTS SHALL BE TOOLED WITH SPACING EQUAL TO THE WIDTH OF THE SIDEWALK. RE: 8/C8.0
9. ALL NEW CONCRETE SIDEWALK SHALL HAVE ISOLATION JOINTS WHERE ABUTTING BUILDINGS, EXISTING PAVEMENT, WALLS, AND CURBS. RE: 1/C8.1
10. CONSTRUCTION JOINTS ARE TO BE DOWELED AT LOCATIONS WHERE THE CONTRACTOR STOPS PAVING AND RESUMES THE NEXT DAY. RE: 1/C8.1
11. ALL CONCRETE PAVEMENT JOINTS ARE TO BE SAW CUT AND SEALED UNLESS OTHERWISE NOTED. RE: 1/C8.1
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LEGEND

- CONCRETE PAVEMENT
  RE: 4/C8.0
- ASPHALT PAVEMENT
  RE: 4/C8.0
- HEAVY DUTY ASPHALT PAVEMENT
  RE: 4/C8.0
- 2" MILL AND OVERLAY. RE: 4/C8.0 FOR SURFACE COURSE AND TACK COAT

NOTE: CITY OF TULSA LANDSCAPING ZONING CODE IS NOT APPLICABLE FOR SECTION 65.040 STREET TREES, 65.050 INTERIOR PARKING LOT LANDSCAPING, AND 65.060 VEHICULAR USE AREA BUFFERS.

CAUTION

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GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

OKLAHOMA PROFESSIONAL ENGINEER
JORDAN RODICH
26548
9/1/2022

PROJECT NO.:	21-030000
FILE:	C4.1
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:

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OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:

TULSA PUBLIC SCHOOLS

WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS

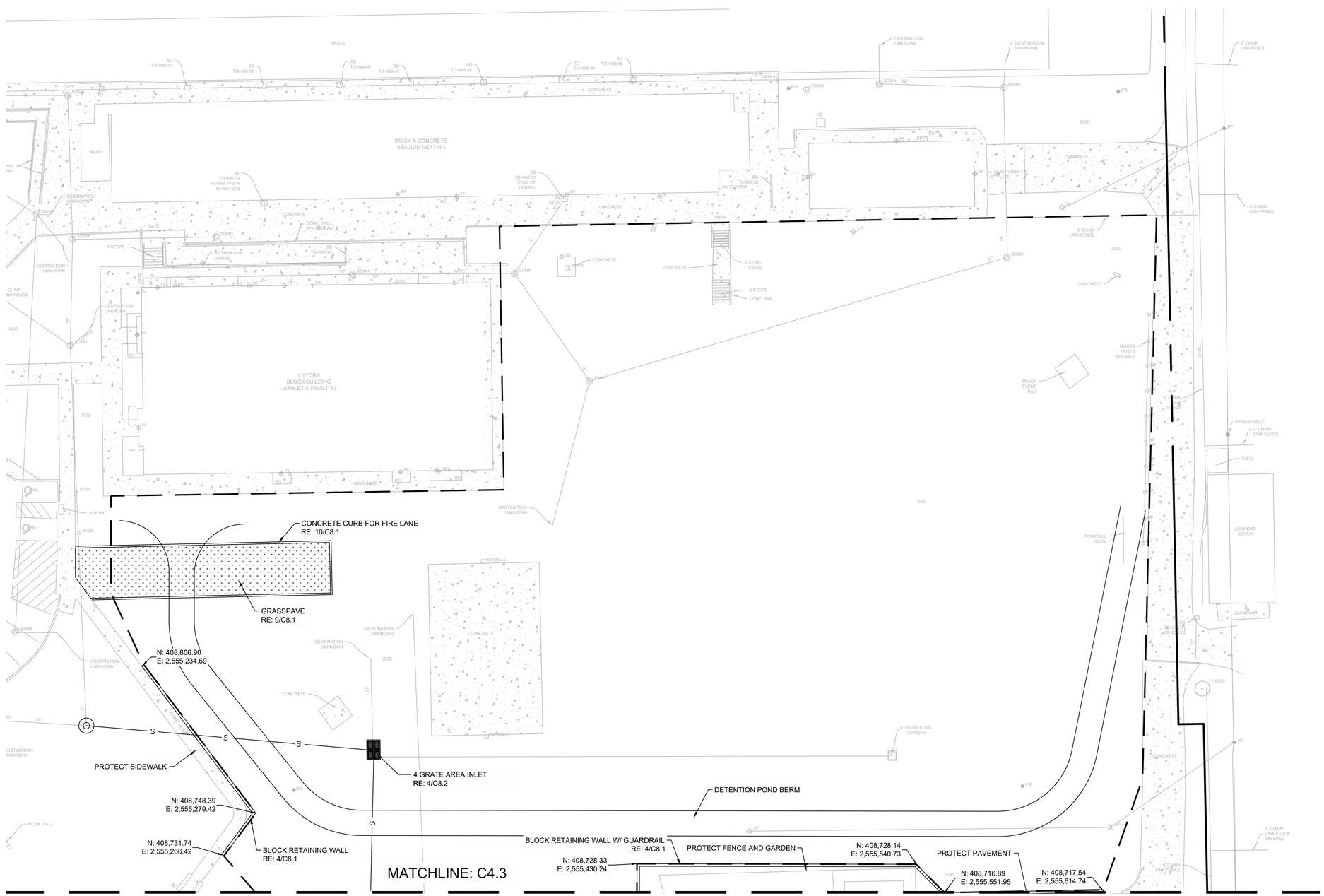
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

C4.1



10 0 5 10

1" = 10'

GENERAL SITE NOTES

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7. BUILDING COORDINATES ARE TO OUTSIDE FACE OF WALL.
8. ALL SIDEWALK JOINTS SHALL BE TOOLED WITH SPACING EQUAL TO THE WIDTH OF THE SIDEWALK. RE: 8/C8.0
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LEGEND

- CONCRETE PAVEMENT RE: 4/C8.0
- ASPHALT PAVEMENT RE: 4/C8.0
- HEAVY DUTY ASPHALT PAVEMENT RE: 4/C8.0
- 2" MILL AND OVERLAY. RE: 4/C8.0 FOR SURFACE COURSE AND TACK COAT

NOTE: CITY OF TULSA LANDSCAPING ZONING CODE IS NOT APPLICABLE FOR SECTION 65.040 STREET TREES, 65.050 INTERIOR PARKING LOT LANDSCAPING, AND 65.060 VEHICULAR USE AREA BUFFERS.

CAUTION

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GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022
#	REVISION	DATE

SEALS:

LICENSED PROFESSIONAL ENGINEER — JORDAN RODICH — 26548 — OKLAHOMA — 9/1/2022

PROJECT NO.:	21-030000
FILE:	C4.2
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:

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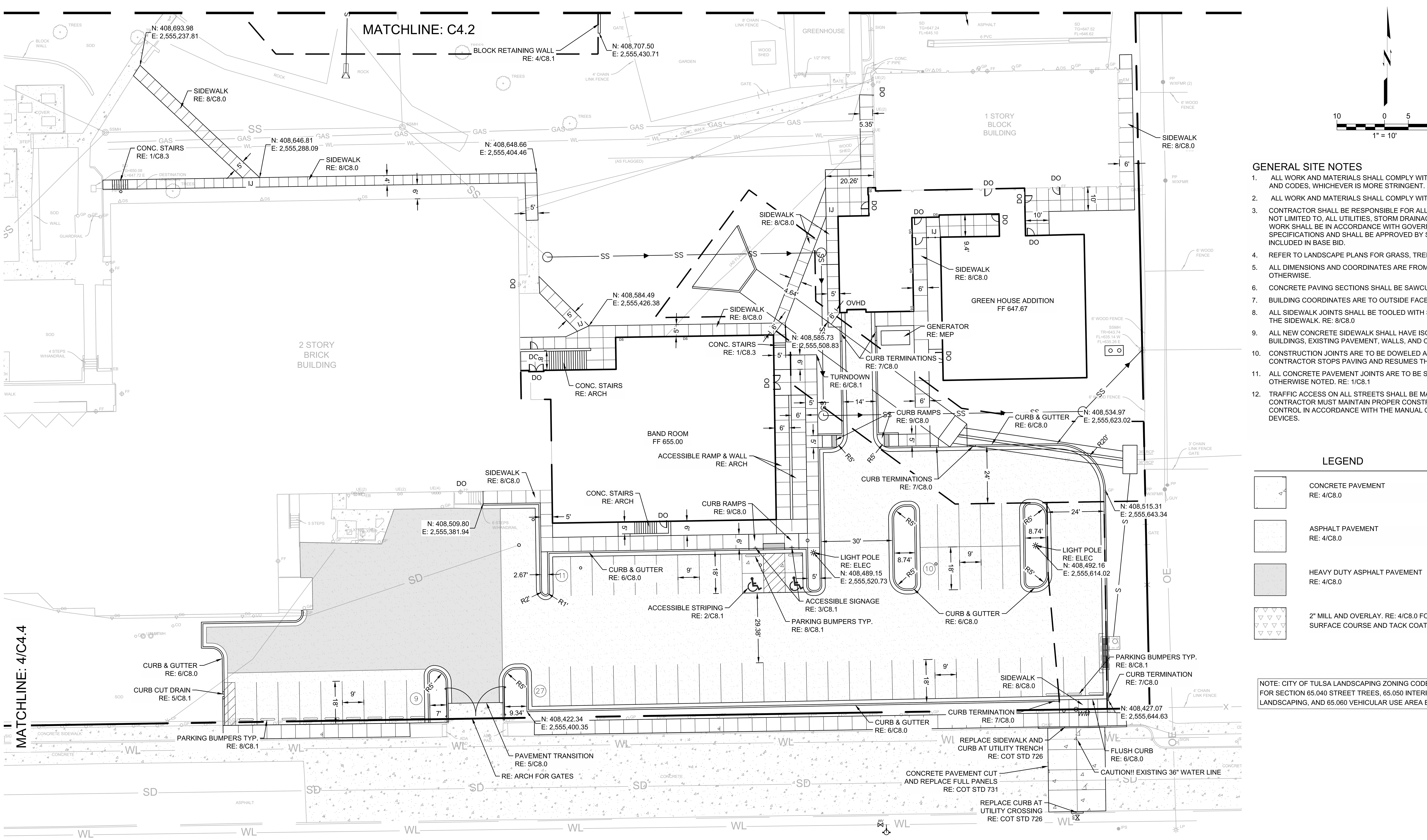
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE: TULSA PUBLIC SCHOOLS

WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE: SITE PLAN

SHEET NUMBER: C4.2



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LEGEND

CONCRETE PAVEMENT RE: 4/C8.0

ASPHALT PAVEMENT RE: 4/C8.0

HEAVY DUTY ASPHALT PAVEMENT RE: 4/C8.0

2" MILL AND OVERLAY. RE: 4/C8.0 FOR SURFACE COURSE AND TACK COAT

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#	REVISION	DATE
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1	ADDENDUM 2	9/1/2022

SEALS: LICENSED PROFESSIONAL ENGINEER JORDAN RODICH 26548 OKLAHOMA 9/1/2022

PROJECT NO.:	21-030000
FILE:	C4.3
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

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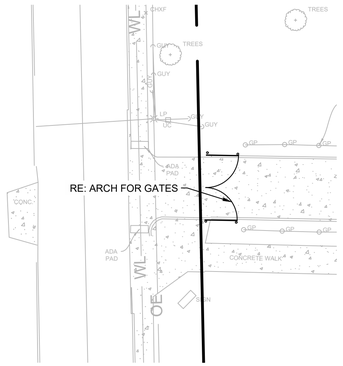
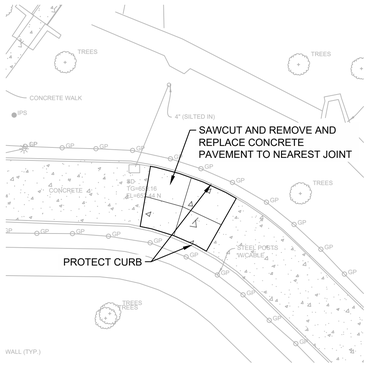
123 north martin luther king jr. boulevard
tulsa, oklahoma 74103
918.584.5858 · 800.364.5858
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
C4.3





1 WEST EXIT

SCALE: 1:20

2 MAIN ROAD PAVEMENT REPAIR

SCALE: 1:20

GENERAL SITE NOTES

1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL MUNICIPAL REGULATIONS AND CODES, WHICHEVER IS MORE STRINGENT.
2. ALL WORK AND MATERIALS SHALL COMPLY WITH O.S.H.A. STANDARDS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
4. REFER TO LANDSCAPE PLANS FOR GRASS, TREES AND PLANTED MATERIALS.
5. ALL DIMENSIONS AND COORDINATES ARE FROM BACK OF CURB UNLESS SHOWN OTHERWISE.
6. CONCRETE PAVING SECTIONS SHALL BE SAWCUT AT 12' MAXIMUM SPACING EACH.
7. BUILDING COORDINATES ARE TO OUTSIDE FACE OF WALL.
8. ALL SIDEWALK JOINTS SHALL BE TOOLED WITH SPACING EQUAL TO THE WIDTH OF THE SIDEWALK. RE: 8/C8.0
9. ALL NEW CONCRETE SIDEWALK SHALL HAVE ISOLATION JOINTS WHERE ABUTTING BUILDINGS, EXISTING PAVEMENT, WALLS, AND CURBS. RE: 1/C8.1
10. CONSTRUCTION JOINTS ARE TO BE DOWELED AT LOCATIONS WHERE THE CONTRACTOR STOPS PAVING AND RESUMES THE NEXT DAY. RE: 1/C8.1
11. ALL CONCRETE PAVEMENT JOINTS ARE TO BE SAW CUT AND SEALED UNLESS OTHERWISE NOTED. RE: 1/C8.1
12. TRAFFIC ACCESS ON ALL STREETS SHALL BE MAINTAINED AT ALL TIMES. CONTRACTOR MUST MAINTAIN PROPER CONSTRUCTION SIGNAGE AND TRAFFIC CONTROL IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

3 MIDDLE SCHOOL PARKING LOT

SCALE: 1:20

4 SOUTH ENTRANCE

SCALE: 1:20

LEGEND

◻	CONCRETE PAVEMENT RE: 4/C8.0
◻	ASPHALT PAVEMENT RE: 4/C8.0
▩	HEAVY DUTY ASPHALT PAVEMENT RE: 4/C8.0
▽	2" MILL AND OVERLAY. RE: 4/C8.0 FOR SURFACE COURSE AND TACK COAT

NOTE: CITY OF TULSA LANDSCAPING ZONING CODE IS NOT APPLICABLE FOR SECTION 65.040 STREET TREES, 65.050 INTERIOR PARKING LOT LANDSCAPING, AND 65.060 VEHICULAR USE AREA BUFFERS.

GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

CAUTION

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#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

JORDAN RODICH
26548
9/1/2022

PROJECT NO.:	21-030000
FILE:	C4.4
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:

HELMS + ASSOCIATES

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OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:

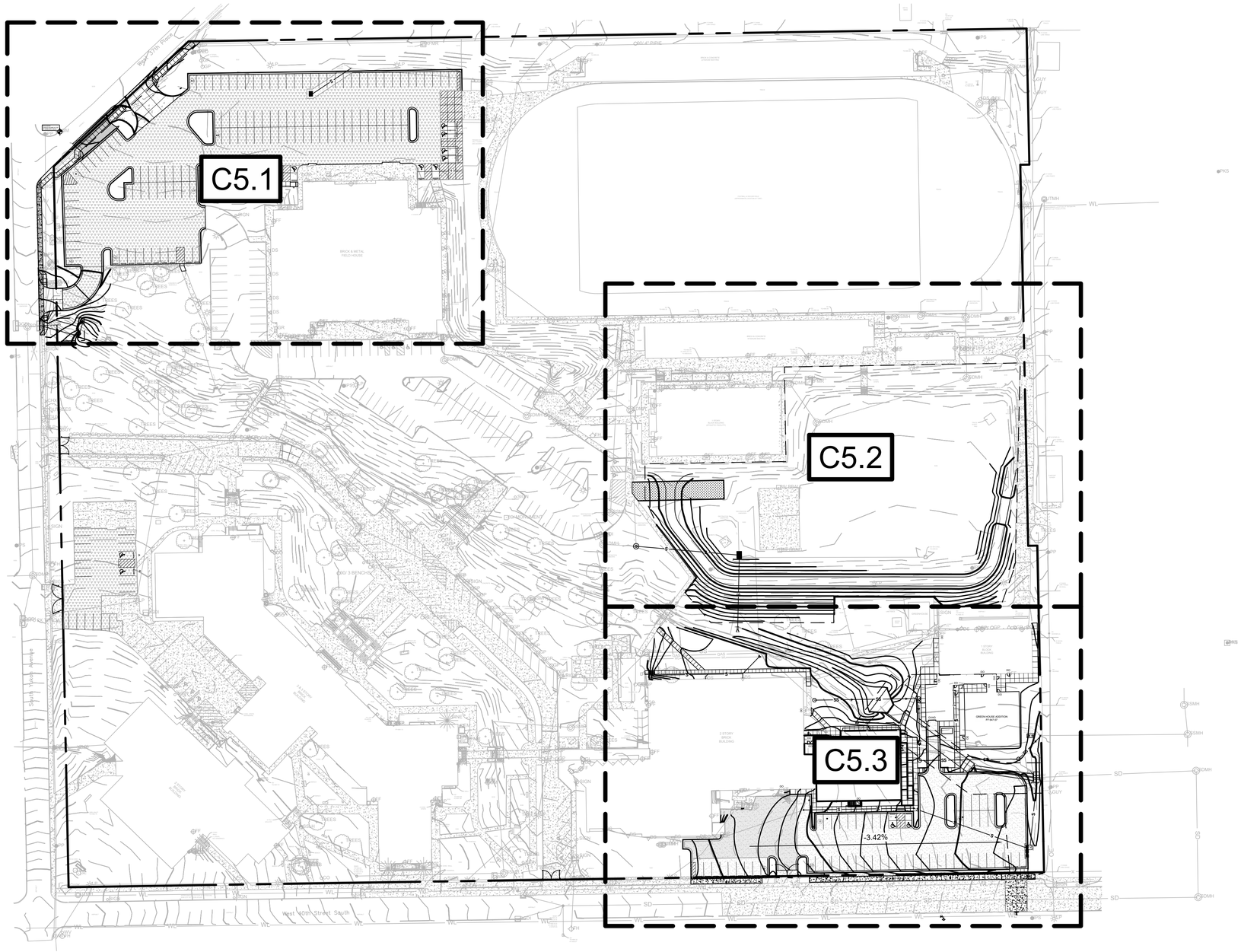
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

C4.4



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BEFORE YOU DIG CALL OKIE 1-800-522-OKIE

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1	ADDENDUM 2	9/1/2022

SEALS:
LICENSED PROFESSIONAL ENGINEER — JORDAN RODICH — 26548 — OKLAHOMA
9/1/2022

PROJECT NO.:	21-030000
FILE:	C5.0
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
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CHECKED BY:	JR
APPROVED BY:	JR

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OKLAHOMA CA #1460 EXP DATE: 6/30/23

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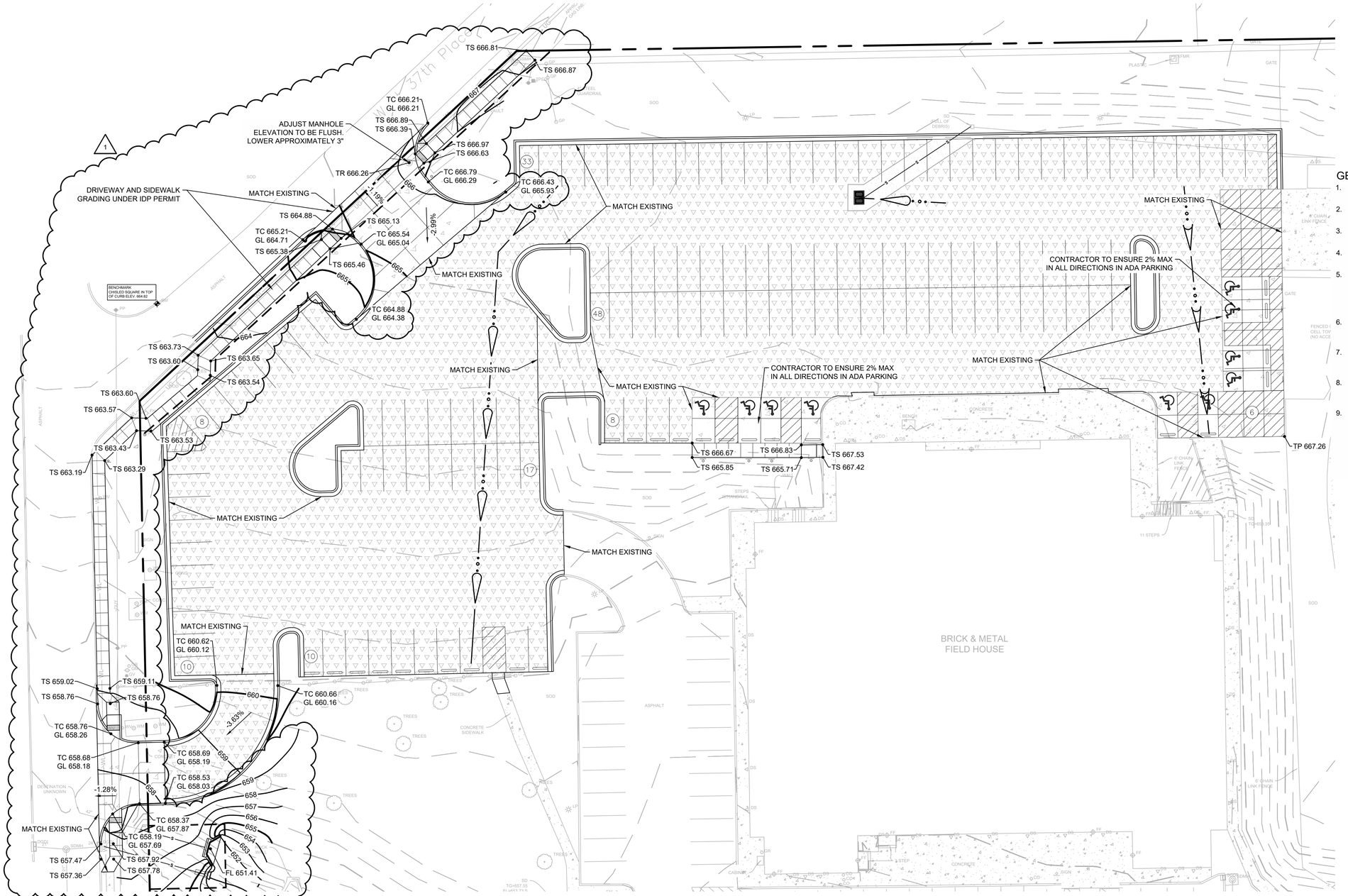
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
OVERALL GRADING PLAN

SHEET NUMBER:
C5.0



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4. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO THE SAME.
5. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY ACCESS ROADS AND SHALL MAINTAIN POSITIVE DRAINAGE OF ENTIRE SITE THROUGHOUT CONSTRUCTION AND AVOID PONDING OR RUTTING. TEMPORARY DEWATERING, INCLUDING PUMPING, MAY BE REQUIRED AND SHALL BE INCLUDED IN THE SCOPE OF WORK.
6. ALL SIDEWALKS TO HAVE MAXIMUM LONGITUDINAL SLOPE OF 5% AND MAXIMUM CROSS SLOPE OF 2%. ALL RAMPS TO HAVE MAXIMUM LONGITUDINAL SLOPE OF 8.33% AND MAXIMUM CROSS SLOPE OF 2%.
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1	ADDENDUM 2	9/1/2022

SEALS:

LICENSED PROFESSIONAL ENGINEER JORDAN RODICH 26548 OKLAHOMA 9/1/2022

PROJECT NO.:	21-030000
FILE:	C5.1
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
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OKLAHOMA CA #1460 EXP DATE: 6/30/23

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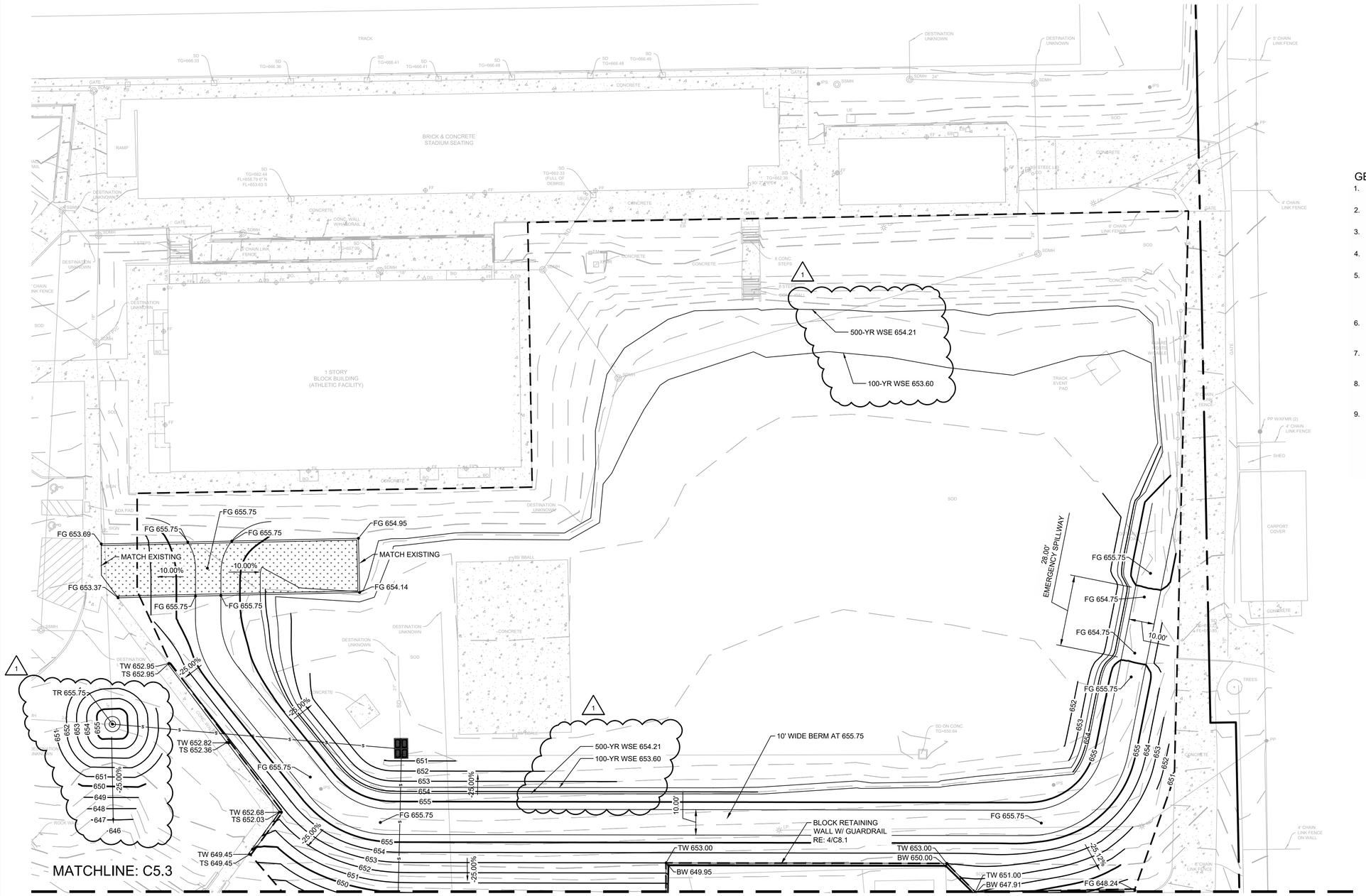
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
GRADING PLAN

SHEET NUMBER:
C5.1



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GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

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1	ADDENDUM 2	9/1/2022

SEALS:

JORDAN RODICH 26548 LICENSED PROFESSIONAL ENGINEER OKLAHOMA
9/1/2022

PROJECT NO.:	21-030000
FILE:	C5.2
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:

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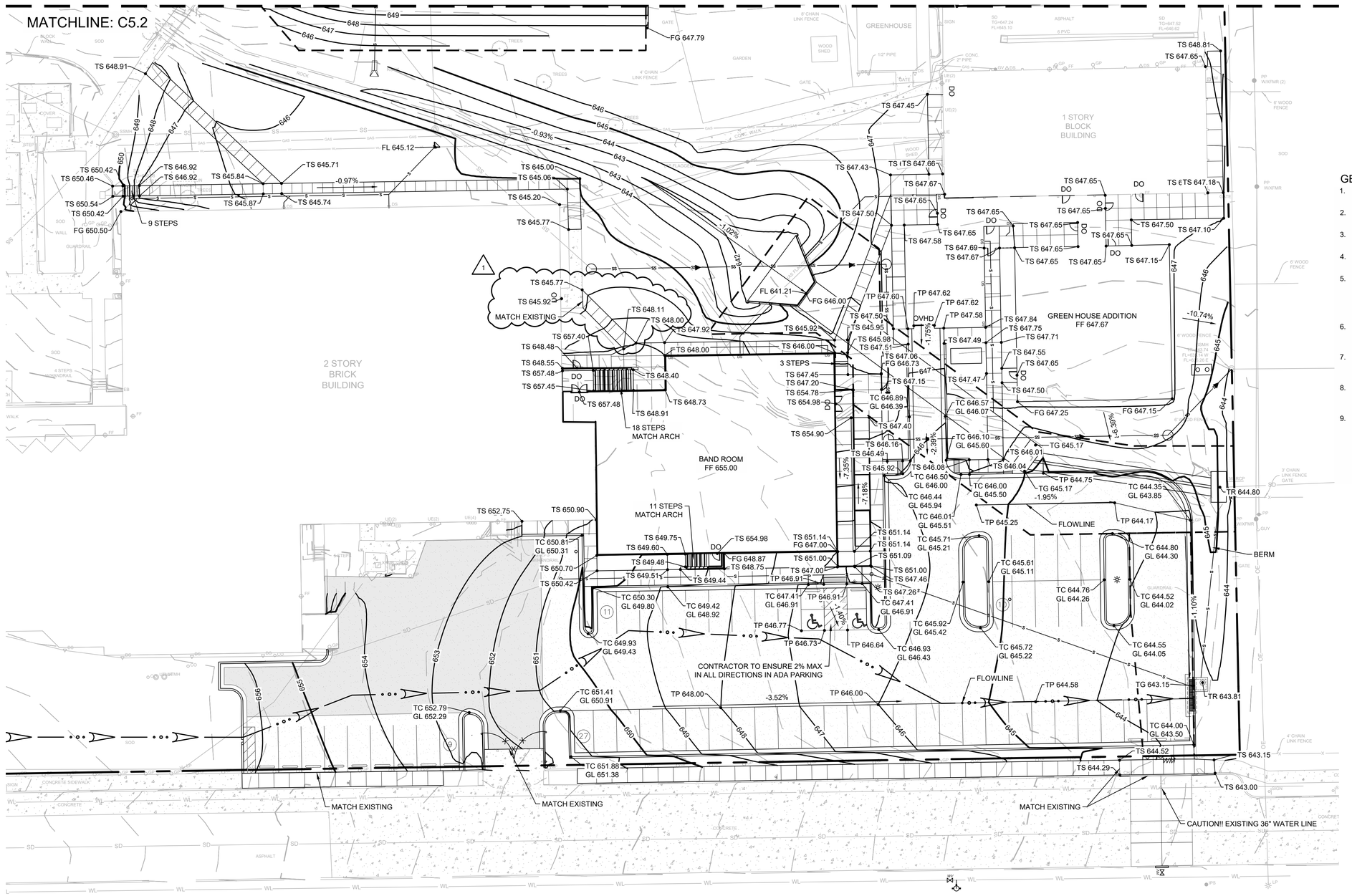
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE: GRADING PLAN

SHEET NUMBER: C5.2



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SEALS:

LICENSED PROFESSIONAL ENGINEER JORDAN RODICH 26548 OKLAHOMA 9/1/2022

PROJECT NO.:	21-030000
FILE:	C5.3
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

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TULSA PUBLIC SCHOOLS

WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS

1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:

GRADING PLAN

SHEET NUMBER:

C5.3

Legend

DRAINAGE AREA LABEL — EX-A

DRAINAGE AREA BOUNDARY

DRAINAGE AREA PATH

DRAINAGE TO DETENTION

EXISTING DRAINAGE AREA SUMMARY (SCS)

DRAINAGE AREA BASIN	DRAINAGE AREA (SQ. MI.)	DRAINAGE AREA (ACRES)	COMPOSITE CN	REACH GRASS SHEET FLOW (FEET) TR-55	SLOPE GRASS SHEET FLOW (%) TR-55	REACH GRASS SHALLOW CONCENTRATED FLOW (FEET) TR-55	SLOPE GRASS SHALLOW CONCENTRATED FLOW (%) TR-55	REACH PAVED SHALLOW CONCENTRATED FLOW (FEET) TR-55	SLOPE PAVED SHALLOW CONCENTRATED FLOW (%) TR-55	REACH CHANNEL/PIPE FLOW (FEET) TR-55	SLOPE CHANNEL/PIPE FLOW (%) TR-55	LAG TIME (MIN)	100 YR Q (CFS)	TIME TO PEAK (MIN)
EX-A1	0.073067	46.76	86.8	100	2.8%	805	4.3%			2958	1.50%	14.1	293.4	12:15
EX-A2	0.006686	4.28	98.0	20	0.50%			580	0.50%			2.8	52.70	12:04
EX-A3	0.004479	2.87	88.1			250	2.00%					1.1	36.90	12:03

EX-A2

EXISTING TRACK POND

EX-A3

EXISTING PRACTICE FIELD POND

EX-A1

100 YEAR FLOW FOOTPRINT THROUGH CHANNEL

POA-1 (DOUBLE 36")

N

100 0 50 100

1" = 100'

THE FOOTBALL FIELD DRAINAGE SYSTEM ACTS AS DETENTION WITH A MANHOLE AND A 16" ORIFICE PLATE IN THE SOUTHEAST CORNER. RE: 1/C5.4

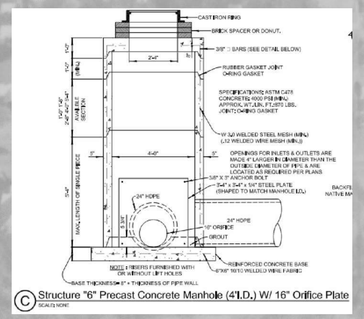
DRAINAGE FROM THERE FLOWS TO THE PIPES UNDER THE EXISTING PRACTICE FIELD POND WHERE IT BUBBLES UP INTO THE EXISTING POND AT THE SOUTHWEST INLET WHERE THERE IS A 7" ORIFICE PLATE. RE: 2/C5.4

THE EXISTING POND 100 YEAR WSE IS 653.36, AND OVERFLOWS TO W 39TH ST TO THE EAST.

EXISTING RUNOFF SUMMARY (SCS)

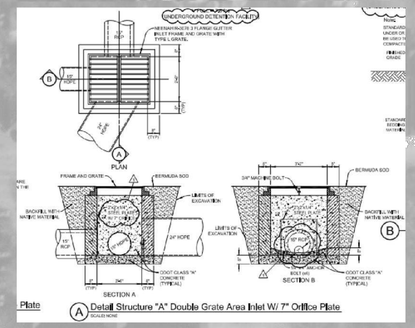
STORM EVENT	POA-1
2 Year (50%)	94.6
5 Year (20%)	140.3
10 Year (10%)	173.5
25 Year (4%)	220.8
50 Year (2%)	256.1
100 Year (1.0%)	294.2
500 Year (0.2%)	390.2

AT THE 100 YEAR STORM THIS EXISTING DOUBLE 36" DOES NOT RECEIVE ALL WATER FROM THE CREEK. IT BACKS UP THE CREEK AND EVENTUALLY OVERTOPS AND DRAINS EAST THROUGH TWO NEIGHBORS ON S. UNION AVE. THERE HAVE BEEN REPORTS OF FLOODING AT THESE HOMES.



C Structure "6" Precast Concrete Manhole (4'I.D.) W/ 16" Orifice Plate
SCALE'S NONE

1 EXISTING TRACK POND ORIFICE
SCALE: NTS



A Detail Structure "A" Double Grate Area Inlet W/ 7" Orifice Plate
SCALE'S NONE

2 EXISTING PRACTICE FIELD POND ORIFICE
SCALE: NTS

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1	ADDENDUM 2	9/1/2022

SEALS:

LICENSED PROFESSIONAL ENGINEER — JORDAN RODICH — 26548 — OKLAHOMA — 9/1/2022

PROJECT NO.:	21-030000
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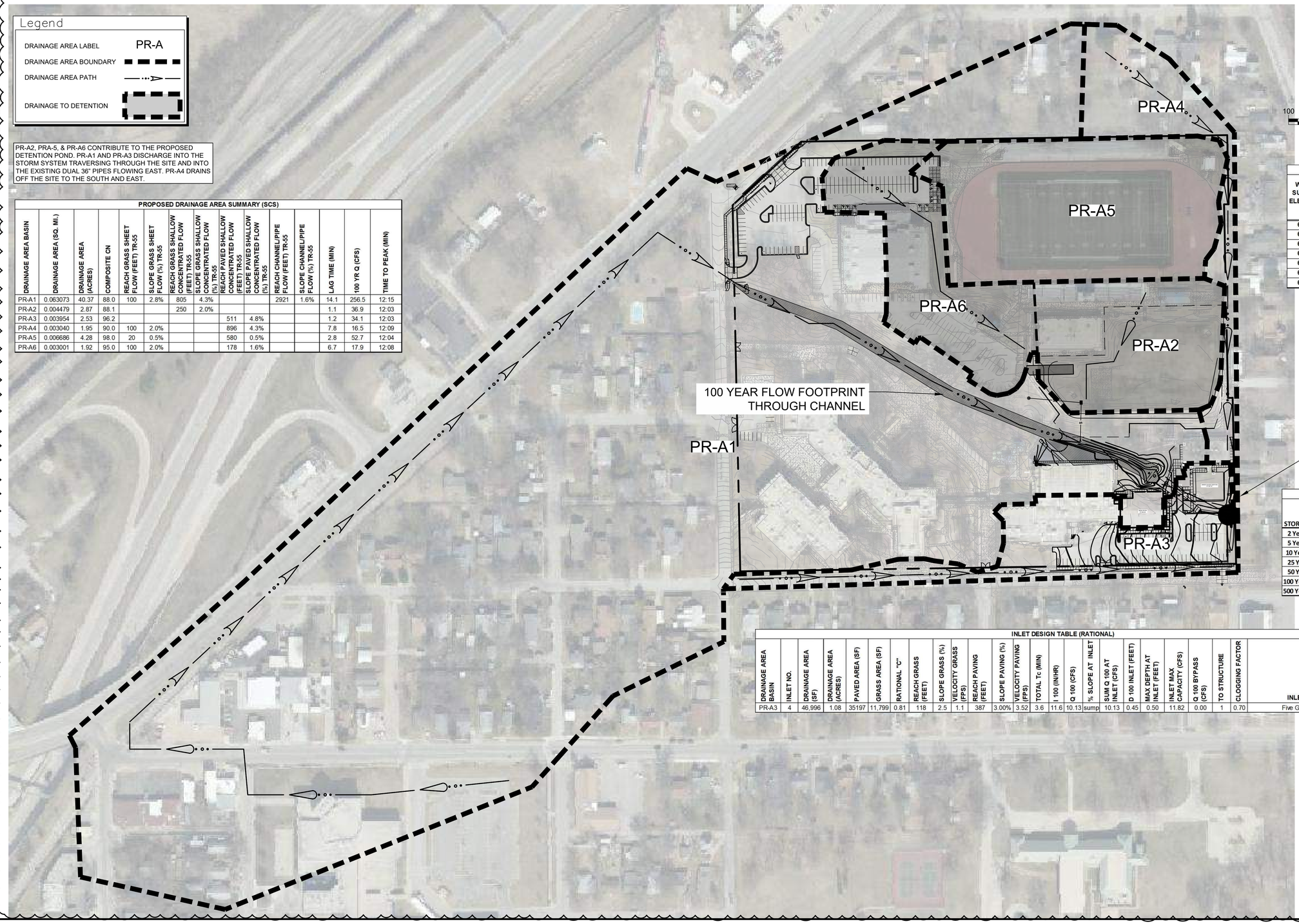
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:

EXISTING DRAINAGE AREA MAP

SHEET NUMBER:

C5.4



PR-A2, PRA-5, & PR-A6 CONTRIBUTE TO THE PROPOSED DETENTION POND. PR-A1 AND PR-A3 DISCHARGE INTO THE STORM SYSTEM TRAVERSING THROUGH THE SITE AND INTO THE EXISTING DUAL 36" PIPES FLOWING EAST. PR-A4 DRAINS OFF THE SITE TO THE SOUTH AND EAST.

PROPOSED DRAINAGE AREA SUMMARY (SCS)

DRAINAGE AREA BASIN	DRAINAGE AREA (SQ. MI.)	DRAINAGE AREA (ACRES)	COMPOSITE CN	REACH GRASS SHEET FLOW (FEET) TR-55	SLOPE GRASS SHEET FLOW (%) TR-55	REACH GRASS SHALLOW CONCENTRATED FLOW (FEET) TR-55	SLOPE GRASS SHALLOW CONCENTRATED FLOW (%) TR-55	REACH PAVED SHALLOW CONCENTRATED FLOW (FEET) TR-55	SLOPE PAVED SHALLOW CONCENTRATED FLOW (%) TR-55	REACH CHANNEL/PIPE FLOW (FEET) TR-55	SLOPE CHANNEL/PIPE FLOW (%) TR-55	LAG TIME (MIN)	100 YR Q (CFS)	TIME TO PEAK (MIN)
PR-A1	0.063073	40.37	88.0	100	2.8%	805	4.3%			2921	1.6%	14.1	256.5	12:15
PR-A2	0.004479	2.87	88.1			250	2.0%					1.1	36.9	12:03
PR-A3	0.003954	2.53	96.2					511	4.8%			1.2	34.1	12:03
PR-A4	0.003040	1.95	90.0	100	2.0%			896	4.3%			7.8	16.5	12:09
PR-A5	0.006686	4.28	98.0	20	0.5%			580	0.5%			2.8	52.7	12:04
PR-A6	0.003001	1.92	95.0	100	2.0%			178	1.6%			6.7	17.9	12:08

POND AREA SUMMARY

WATER SURFACE ELEVATION (FT)	INCR. POND VOLUME (AC-FT)	POND VOLUME (AC-FT)	POND AREA (SF)	CONTRIBUTING STRUCTURES
650.60	0.00	0.00	0	18" Orifice
651.00	0.00	0.00	72	18" Orifice
652.00	0.12	0.12	10,689	18" Orifice
653.00	0.51	0.63	33,398	18" Orifice
654.00	0.94	1.57	48,904	18" Orifice
655.00	1.20	2.77	55,360	28' Emergency Spillway
655.75	0.98	3.75	58,501	28' Emergency Spillway

DETENTION POND SUMMARY (SCS METHOD)

STORM EVENT	TOTAL DEVELOPED FLOW INTO POND (CFS)	TOTAL DEVELOPED FLOW OUT OF POND (CFS)	VOLUME DETAINED (AC-FT)	PEAK STAGE (EL)
2 Year (50%)	24.22	17.19	0.087	651.96
5 Year (20%)	33.4	17.94	0.247	652.32
10 Year (10%)	40.65	18.61	0.411	652.67
25 Year (4%)	50.24	19.43	0.669	653.1
50 Year (2%)	57.75	19.88	0.896	653.35
100 Year (1.0%)	65.75	20.33	1.134	653.6
500 Year (0.2%)	84.0	21.38	1.764	654.21

RUNOFF SUMMARY (SCS)

STORM EVENT	EXISTING RUNOFF (CFS)	PROPOSED RUNOFF (CFS)	CHANGE (CFS)
	POA-1		
2 Year (50%)	94.63	94.27	-0.36
5 Year (20%)	140.32	129.04	-11.28
10 Year (10%)	173.46	150.40	-23.06
25 Year (4%)	220.75	179.14	-41.61
50 Year (2%)	256.08	212.59	-43.49
100 Year (1.0%)	294.19	248.96	-45.23
500 Year (0.2%)	390.24	341.16	-49.08

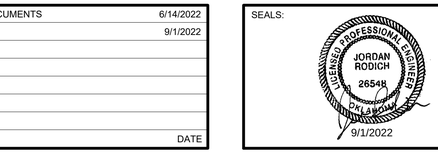
INLET DESIGN TABLE (RATIONAL)

DRAINAGE AREA BASIN	INLET NO.	DRAINAGE AREA (SF)	DRAINAGE AREA (ACRES)	PAVED AREA (SF)	GRASS AREA (SF)	RATIONAL "C"	REACH GRASS (FEET)	SLOPE GRASS (%)	VELOCITY GRASS (FPS)	REACH PAVING (FEET)	SLOPE PAVING (%)	VELOCITY PAVING (FPS)	TOTAL Tc (MIN)	I 100 (IN/HR)	Q 100 (CFS)	% SLOPE AT INLET	SUM Q 100 AT INLET (CFS)	D 100 INLET (FEET)	MAX DEPTH AT INLET (FEET)	INLET MAX CAPACITY (CFS)	Q 100 BYPASS (CFS)	TO STRUCTURE	CLOGGING FACTOR	INLET DESIGN
PR-A3	4	46,996	1.08	35197	11,799	0.81	118	2.5	1.1	387	3.00%	3.52	3.6	11.6	10.13	sump	10.13	0.45	0.50	11.82	0.00	1	0.70	Five Grate Design 5

GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:



PROJECT NO.:	21-030000
FILE:	C5.5
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
GS HELMS + ASSOCIATES
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jenks, ok 74037

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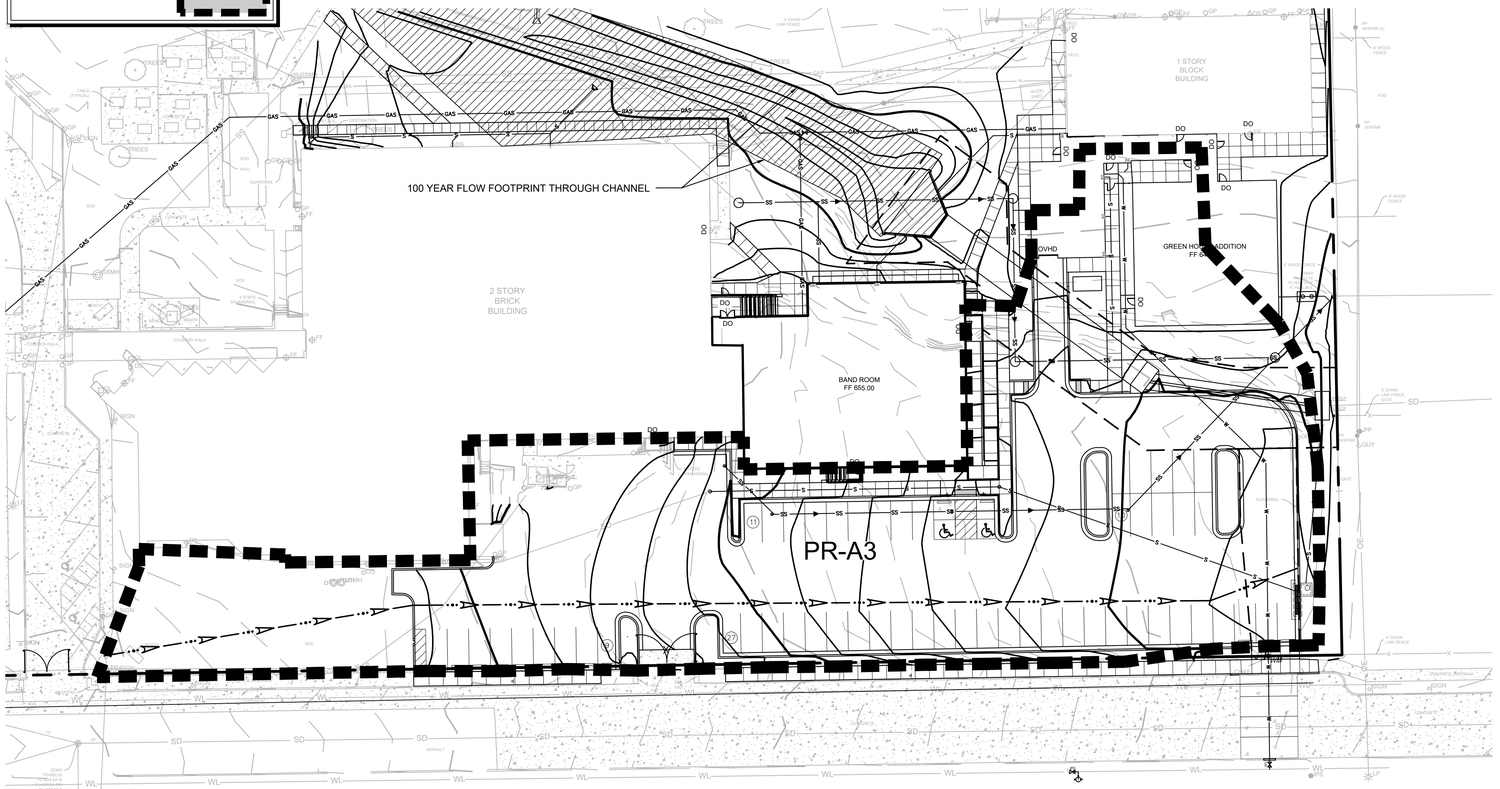
tulsa, oklahoma 74103
918.584.5858 · 800.364.5858

OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
PROPOSED DRAINAGE AREA MAP

SHEET NUMBER:
C5.5



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GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

ENGINEERED PROFESSIONAL ENGINEER
JORDAN RODICH
26548
OKLAHOMA
9/1/2022

PROJECT NO.:	21-030000
FILE:	C5.6
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

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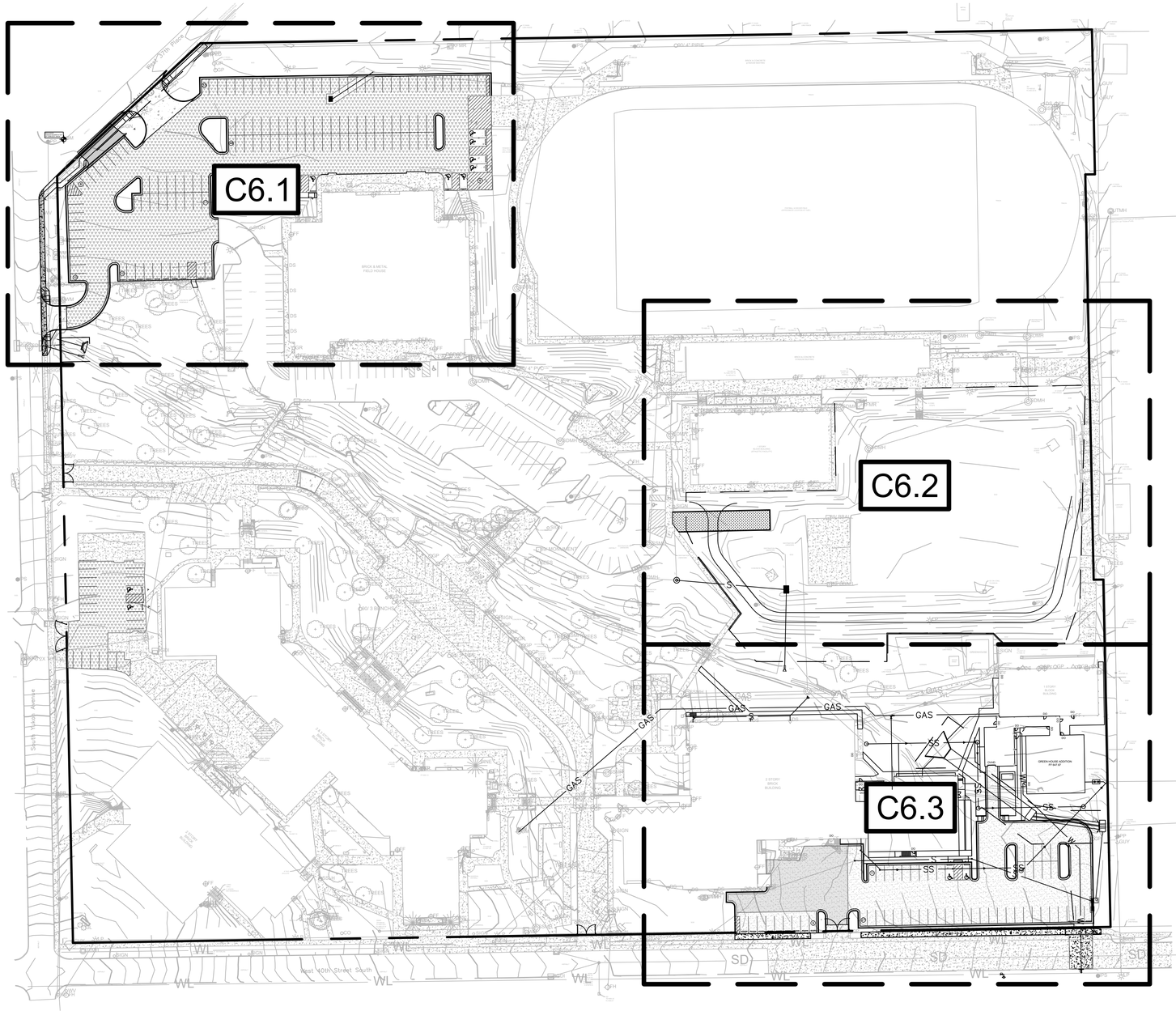
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
DETAILED DRAINAGE AREA MAP

SHEET NUMBER:
C5.6



N

60 0 30 60

1" = 60'

GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

BEFORE YOU DIG CALL OKIE 1-800-522-OKIE

CAUTION
NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES.

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

LICENSED PROFESSIONAL ENGINEER
JORDAN RODICH
26548
OKLAHOMA
9/1/2022

PROJECT NO.:	21-030000
FILE:	C6.0
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

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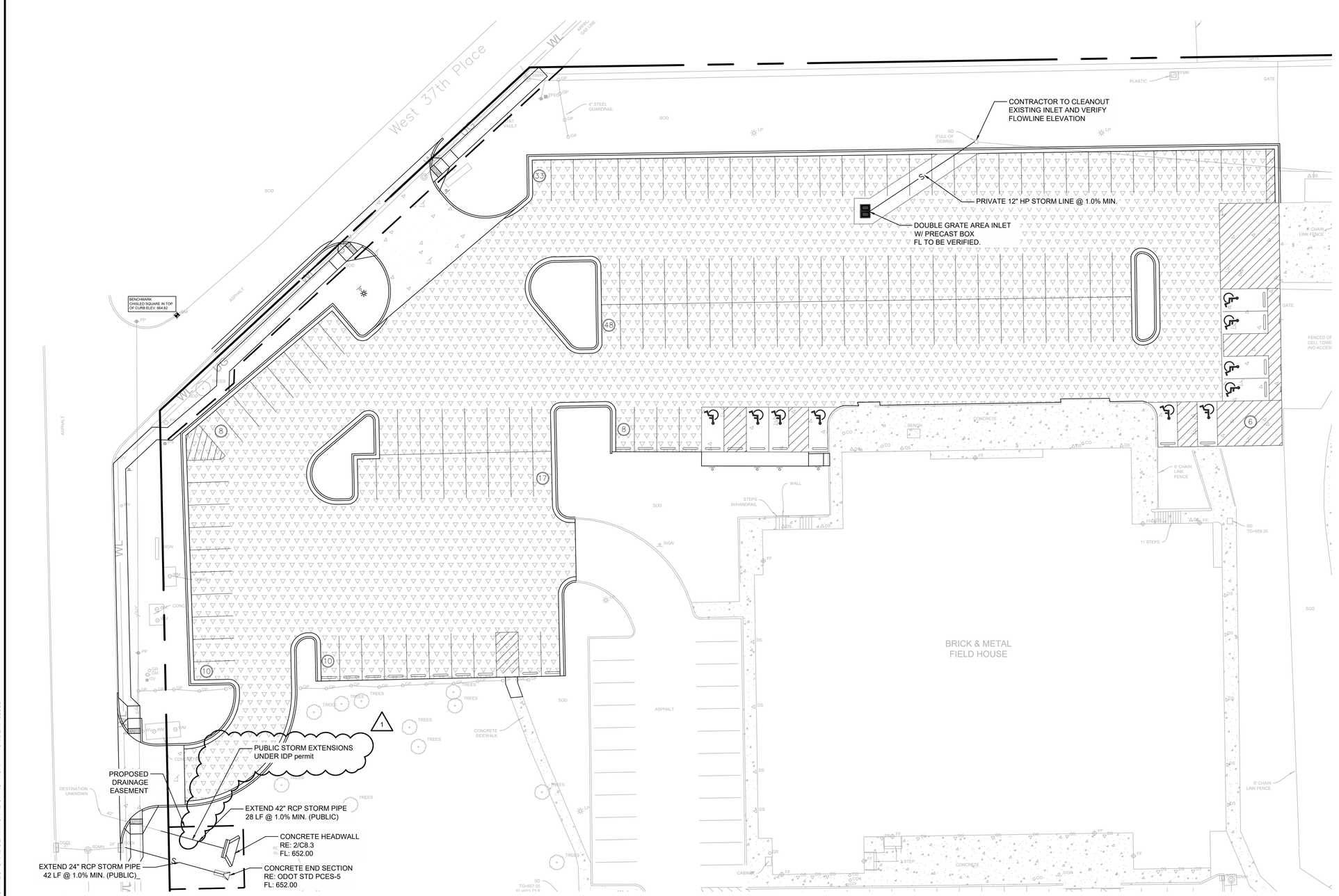
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
OVERALL UTILITY PLAN

SHEET NUMBER:
C6.0



10 0 5 10
1" = 10'

GENERAL UTILITY NOTES

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2. PRIOR TO CONSTRUCTION, LOCATION OF SITE UTILITIES SHALL BE VERIFIED BY CONTRACTOR WITH THE PROPER UTILITY COMPANY PROVIDING SERVICE.
3. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES' INSPECTORS BEFORE CONNECTING TO ANY EXISTING LINE IN ACCORDANCE WITH LOCAL REQUIREMENTS.
4. CONTRACTOR IS TO COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
5. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE SPECIFICATIONS OF THE LOCAL AUTHORITIES REGARDING TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
6. TERMINATE SERVICE PIPING 5' FROM BUILDING WALL UNTIL BUILDING PIPING SYSTEMS ARE INSTALLED. TERMINATE PIPING WITH VALVE AND CAP PLUG OR FLANGE AS REQUIRED FOR PIPING MATERIAL. MAKE CONNECTIONS TO BUILDING PIPING SYSTEMS WHEN THOSE SYSTEMS ARE INSTALLED.
7. ALL PIPING SHALL BE INSTALLED WITH A MINIMUM OF 30" OF COVER, UNLESS NOTED OTHERWISE.
8. UTILITY TRENCH DETAIL RE: 1/C8.2. STORM TRENCH DETAIL RE: 2/C8.2.
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BEFORE YOU DIG 1-800-522-OKIE CALL OKIE

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GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:
OKLAHOMA LICENSED PROFESSIONAL ENGINEER JORDAN RODICH 26548 9/1/2022

PROJECT NO.:	21-030000
FILE:	C6.1
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
GS HELMS + ASSOCIATES
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tulsa, oklahoma 74103
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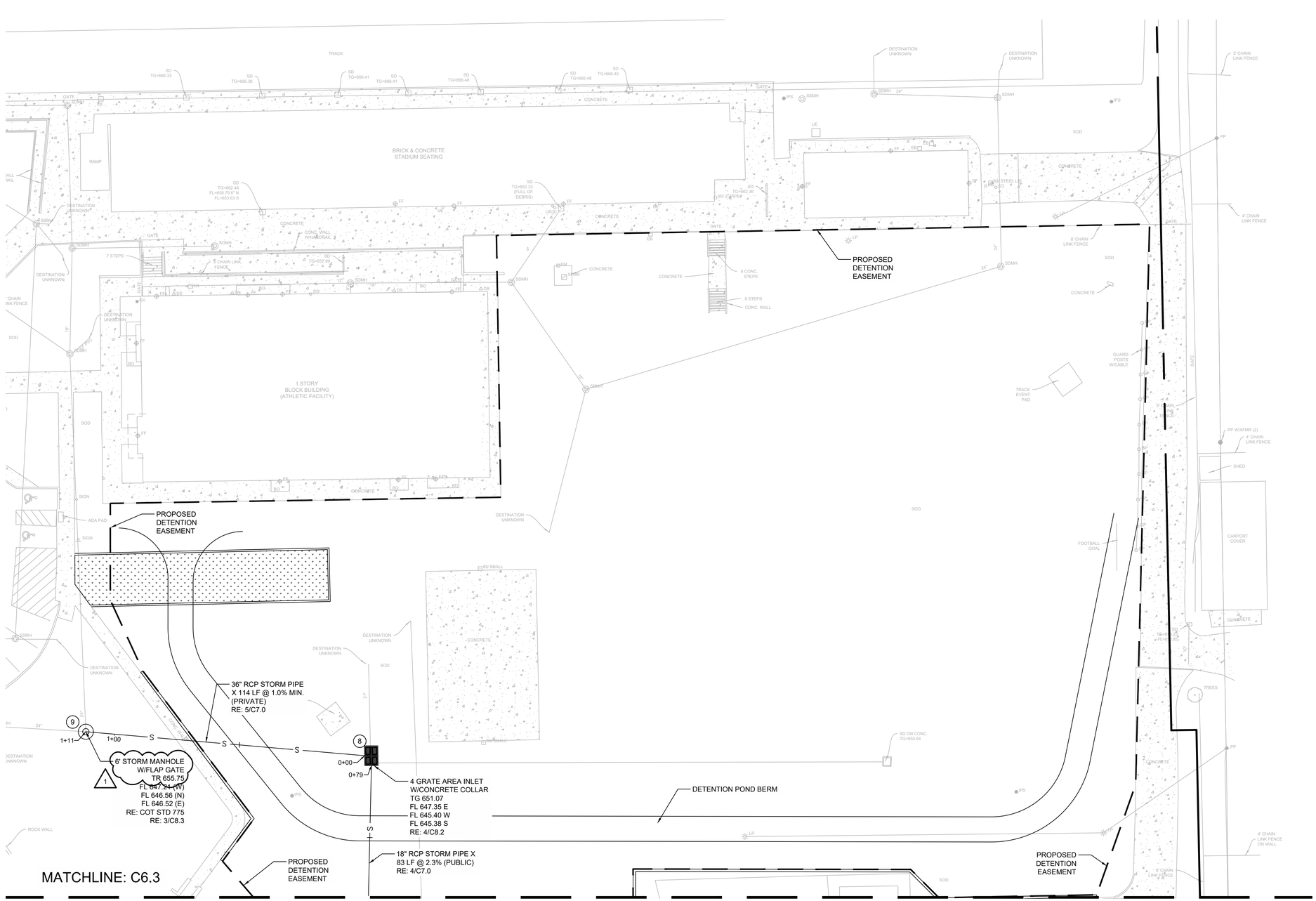
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
UTILITY PLAN

SHEET NUMBER:
C6.1



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BEFORE YOU DIG 1-800-522-OKIE CALL OKIE

GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER 02332

	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022
#	REVISION	DATE

SEALS:

LICENSED PROFESSIONAL ENGINEER JORDAN RODICH 26548 OKLAHOMA 9/1/2022

PROJECT NO.:	21-030000
FILE:	C6.2
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:

GS HELMS + ASSOCIATES

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tulsa, oklahoma 74103
918.584.5858 · 800.364.5858

OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:

TULSA PUBLIC SCHOOLS

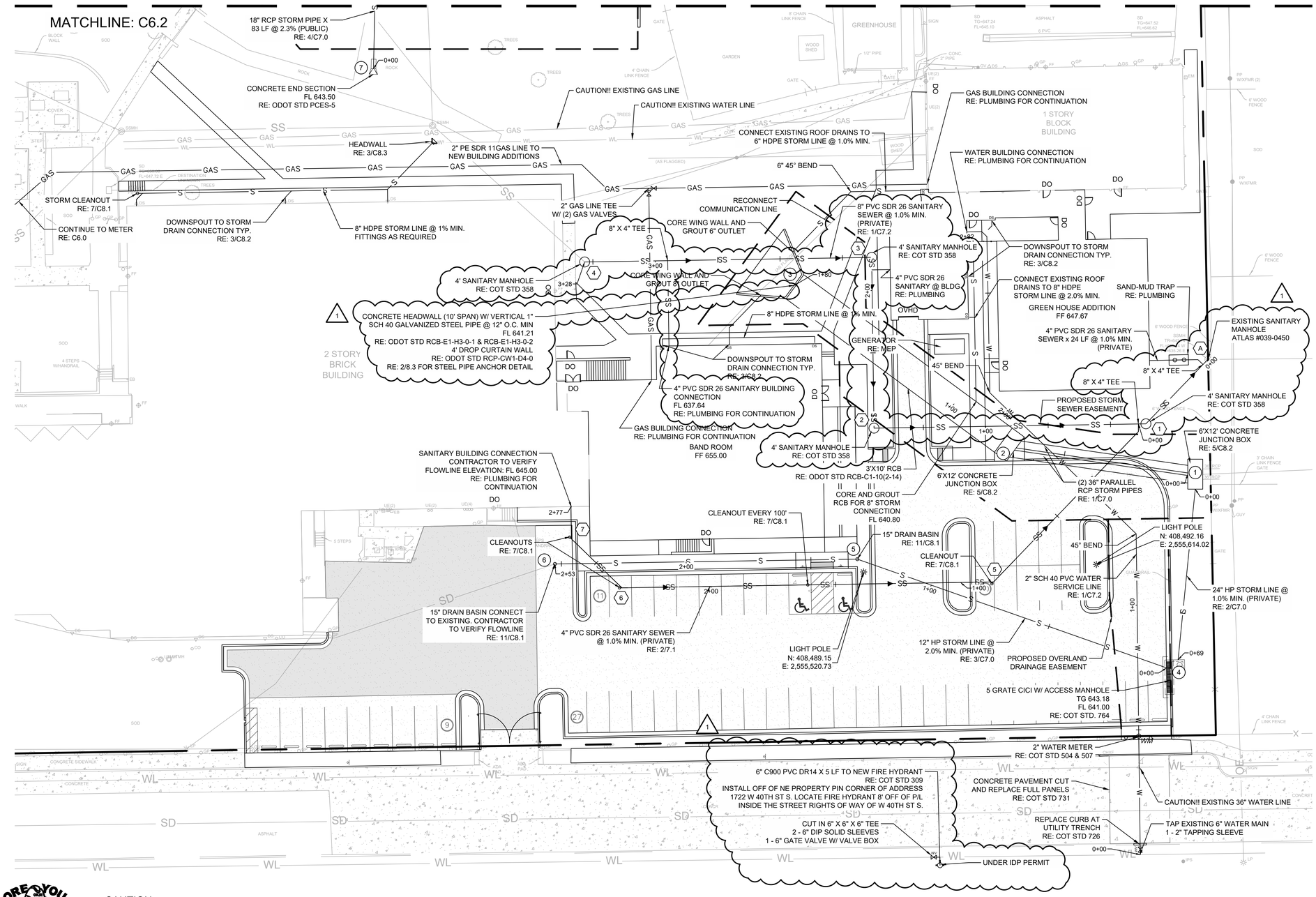
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:

UTILITY PLAN

SHEET NUMBER:

C6.2



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GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

JORDAN RODICH 26548 LICENSED PROFESSIONAL ENGINEER OKLAHOMA
9/1/2022

PROJECT NO.:	21-030000
FILE:	C6.3
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
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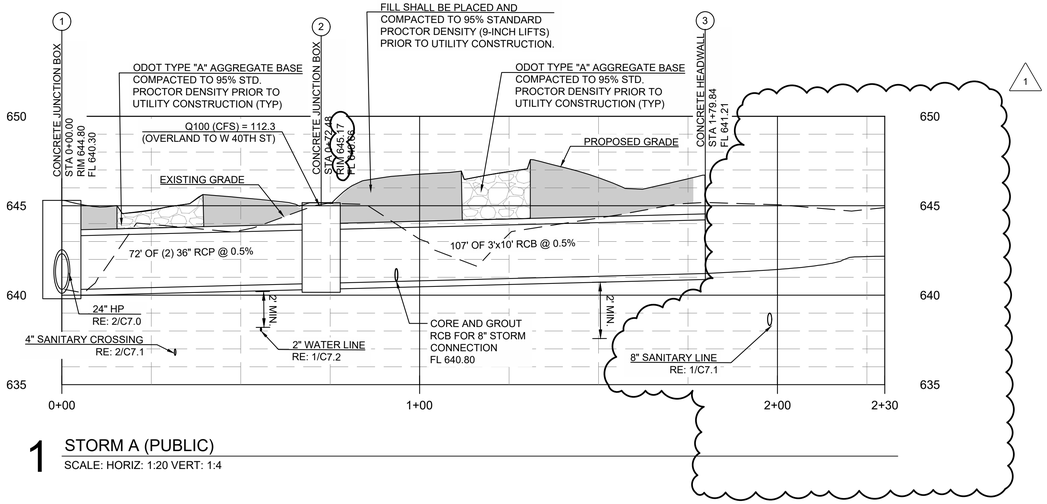
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

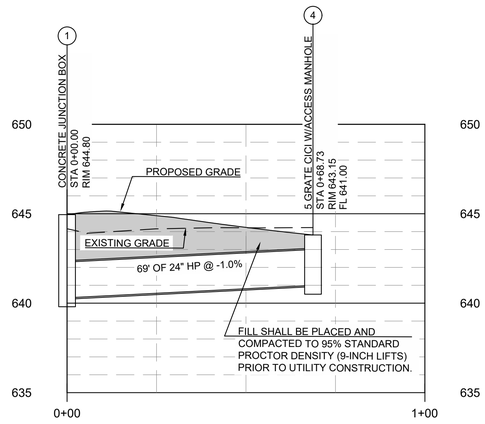
SHEET TITLE:
UTILITY PLAN

SHEET NUMBER:
C6.3



1 STORM A (PUBLIC)

SCALE: HORIZ: 1:20 VERT: 1:4

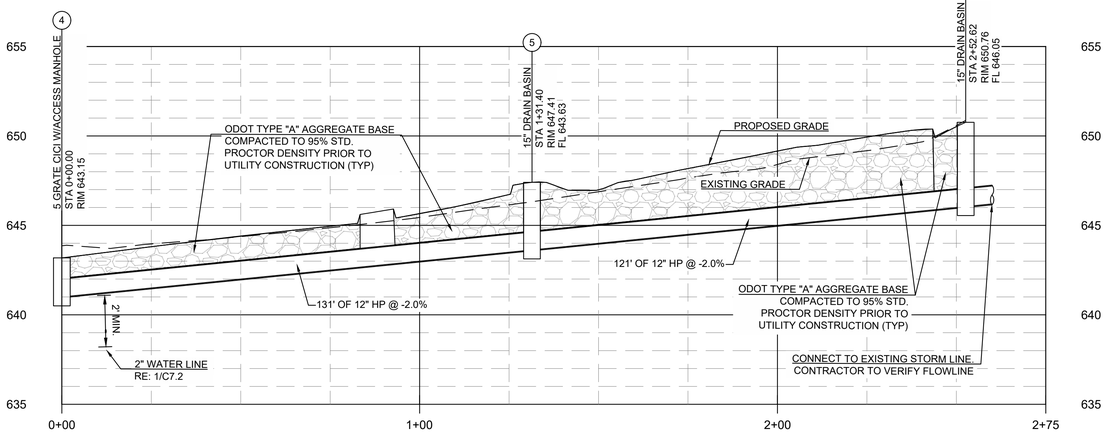


2 STORM B (PRIVATE)

SCALE: HORIZ: 1:20 VERT: 1:4

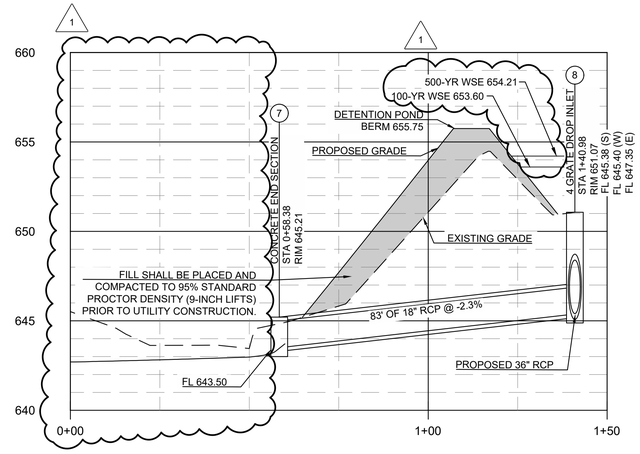
20 0 10 20
1" = 20'

4 0 2 4
1" = 4'



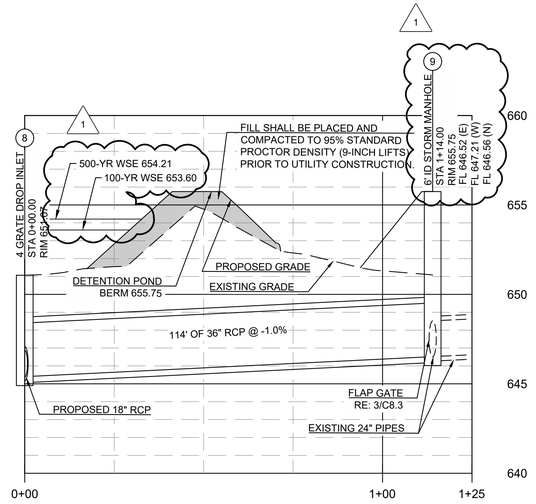
3 STORM C (PRIVATE)

SCALE: HORIZ: 1:20 VERT: 1:4



4 STORM D (PUBLIC)

SCALE: HORIZ: 1:20 VERT: 1:4



5 STORM E (PRIVATE)

SCALE: HORIZ: 1:20 VERT: 1:4

BEFORE YOU DIG 1-800-522-OKIE CALL OKIE

CAUTION
NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES.

GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER 02332

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

OKLAHOMA LICENSED PROFESSIONAL ENGINEER
JORDAN RODICH
26548
9/1/2022

PROJECT NO.:	21-030000
FILE:	C7.0
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
GS HELMS + ASSOCIATES
ph: 918.298.7257
wb: gshelms.com
424 e. main st.
jenks, ok 74037

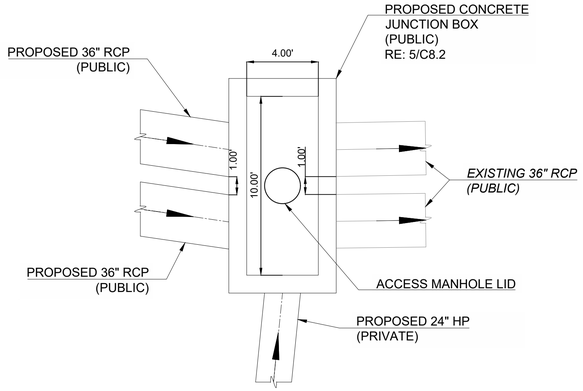
wallace design collective
wallace design collective, pc
structural · civil · landscape · survey
123 north martin luther king jr. boulevard
tulsa, oklahoma 74103
918.584.5858 · 800.364.5858

OKLAHOMA CA #1460 EXP DATE: 6/30/23

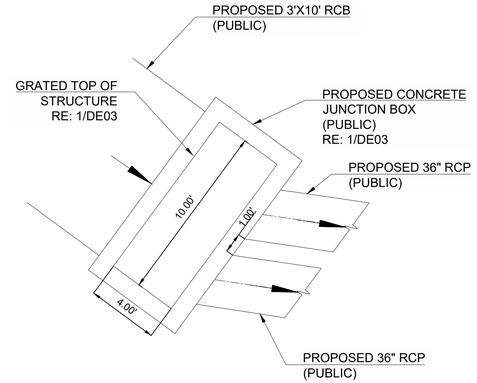
PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
STORM PROFILES

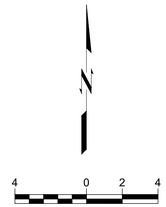
SHEET NUMBER:
C7.0

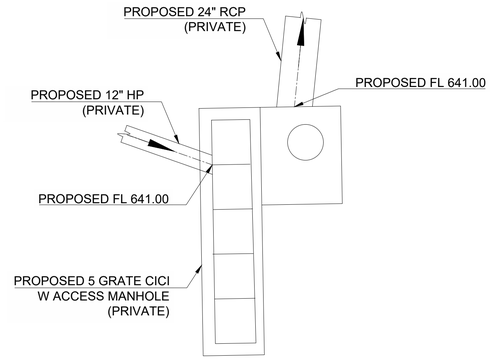


1 STORM JUNCTION BOX 1
SCALE: 1:4

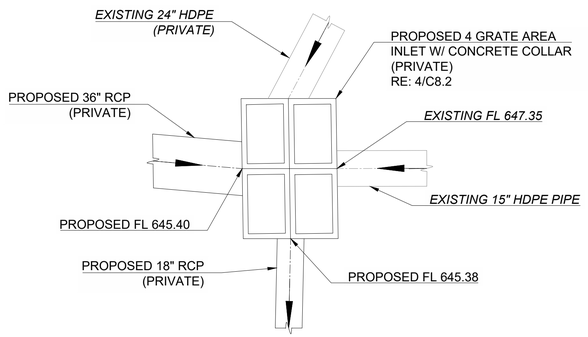


2 STORM JUNCTION BOX 2
SCALE: 1:4

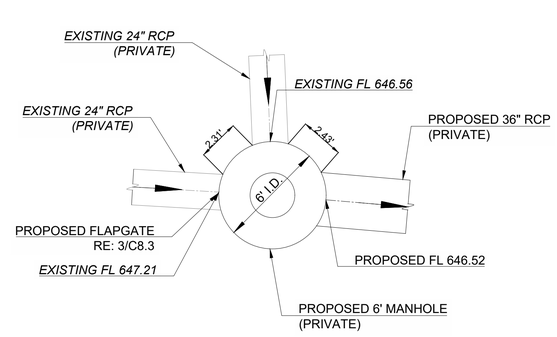




3 STORM INLET 4
SCALE: 1:4



4 STORM INLET 8
SCALE: 1:4



5 STORM MANHOLE 9
SCALE: 1:4

BEFORE YOU DIG CALL OKIE 1-800-522-OKIE

CAUTION
NOTICE TO CONTRACTOR

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GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:
LICENSED PROFESSIONAL ENGINEER
JORDAN RODICH
26541
OKLAHOMA
9/1/2022

PROJECT NO.:	21-030000
FILE:	C7.1
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
GS HELMS + ASSOCIATES
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wb: gshelms.com
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jenks, ok 74037

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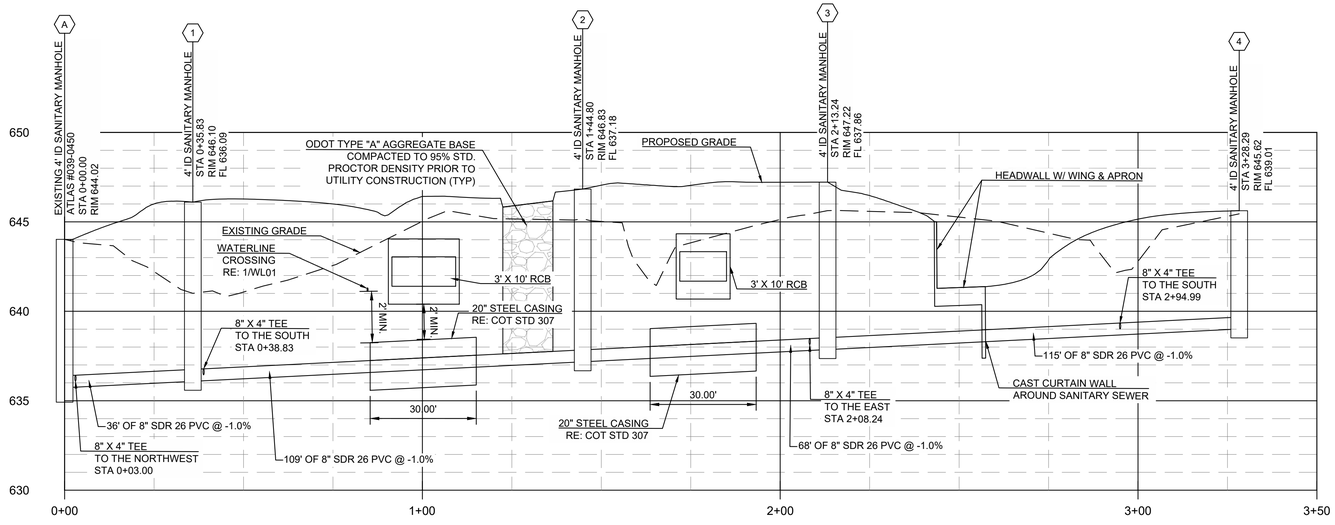
tulsa, oklahoma 74103
918.584.5858 · 800.364.5858

OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

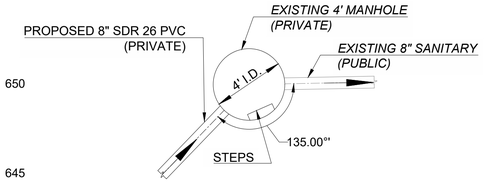
SHEET TITLE:
STORM DETAILS

SHEET NUMBER:
C7.1



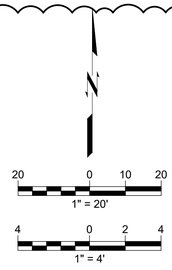
1 SANITARY A (PRIVATE)

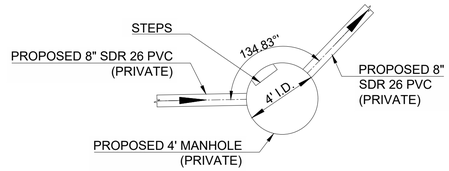
SCALE: HORIZ: 1:20 VERT: 1:4



3 SANITARY MANHOLE A

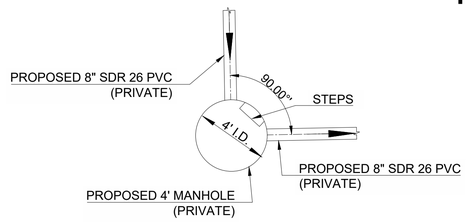
SCALE: 1:4





4 SANITARY MANHOLE 1

SCALE: 1:4

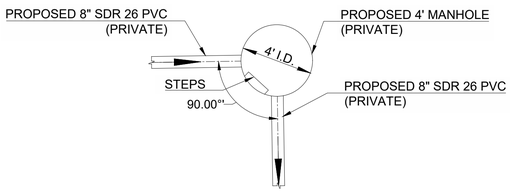


5 SANITARY MANHOLE 2

SCALE: 1:4

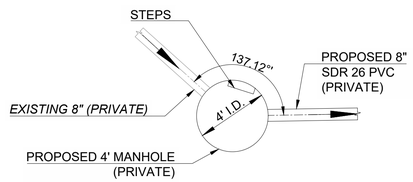
2 SANITARY B (PRIVATE)

SCALE: HORIZ: 1:20 VERT: 1:4



6 SANITARY MANHOLE 3

SCALE: 1:4



7 SANITARY MANHOLE 4

SCALE: 1:4

GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

BEFORE YOU DIG 1-800-522-OKIE CALL OKIE

CAUTION

NOTICE TO CONTRACTOR

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#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

LICENSED PROFESSIONAL ENGINEER
JORDAN RODICH
26548
OKLAHOMA
9/1/2022

PROJECT NO.:	21-030000
FILE:	C7.2
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
GS HELMS + ASSOCIATES
ph: 918.298.7257
wb: gshelms.com
424 e. main st.
jenks, ok 74037

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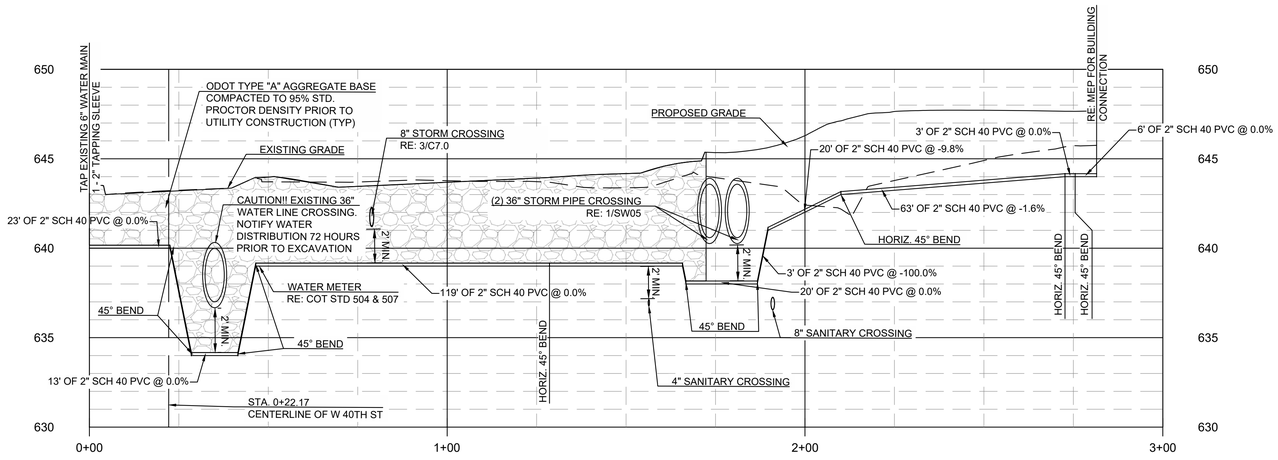
123 north martin luther king jr. boulevard
tulsa, oklahoma 74103
918.584.5858 · 800.364.5858

OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

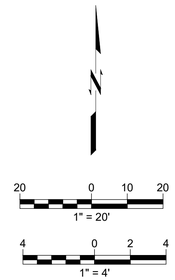
SHEET TITLE:
SANITARY PROFILES AND DETAILS

SHEET NUMBER:
C7.2



1 WATER SERVICE (PRIVATE)

SCALE: HORIZ: 1:20 VERT: 1:4



GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

BEFORE YOU DIG 800-522-OKIE CALL OKIE

CAUTION
NOTICE TO CONTRACTOR

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	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022
#	REVISION	DATE

SEALS:

LICENSED PROFESSIONAL ENGINEER
JORDAN RODICH
26548
OKLAHOMA
9/1/2022

PROJECT NO.:	21-030000
FILE:	C7.3
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
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wb: gshelms.com
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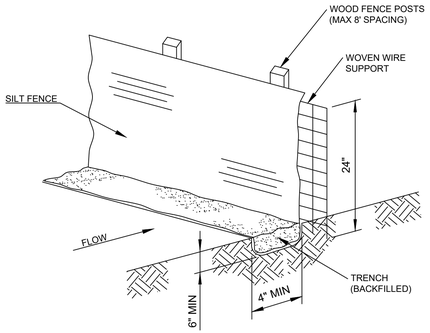
OKLAHOMA CA #1460 EXP DATE: 6/30/23

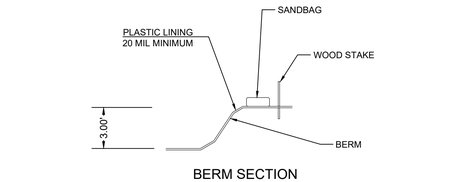
PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
WATER PROFILE

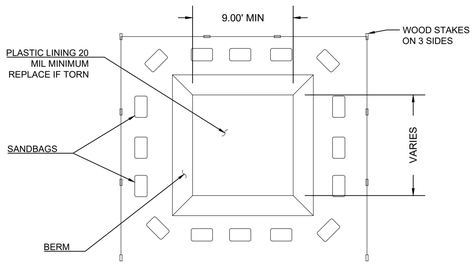
SHEET NUMBER:
C7.3



1 SILT FENCE
SCALE: NTS

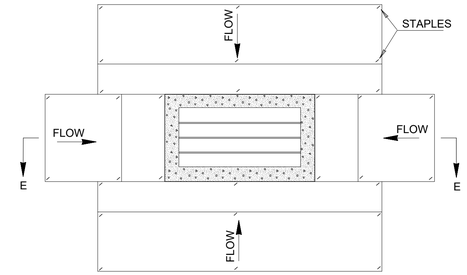


BERM SECTION

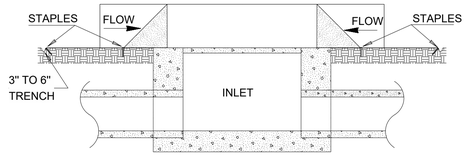


PLAN

2 CONCRETE WASHOUT PIT
SCALE: NTS

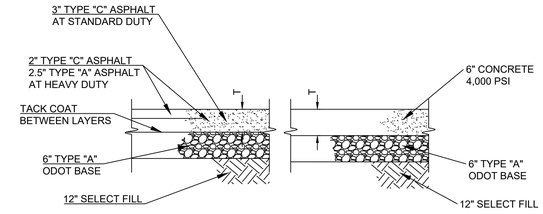


DROP INLET



SECTION E-E

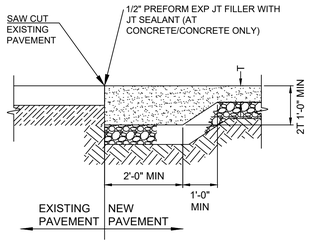
3 TEMPORARY SILT DIKE (ODOT STD TSD-2)
SCALE: NTS



ASPHALT PAVEMENT CONCRETE PAVEMENT

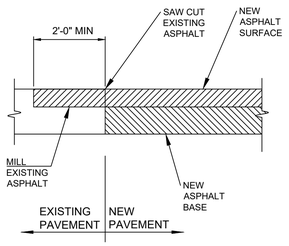
4 PAVEMENT DETAIL
SCALE: NTS

RE: PAVEMENT DETAIL FOR THICKNESS "T"



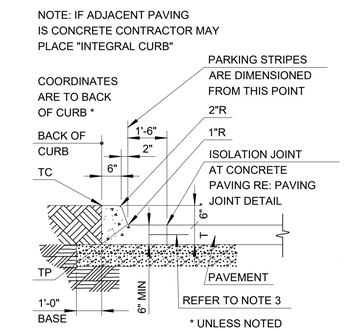
CONCRETE TRANSITION

RE: PAVEMENT DETAIL FOR THICKNESS "T"



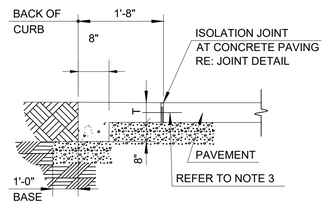
ASPHALT TRANSITION

5 PAVEMENT TRANSITION
SCALE: NTS



NOTES:
1. PLACE JOINTS IN CURB TO MATCH PAVING - 15 FEET MAX
2. RE: PAVEMENT DETAIL FOR THICKNESS "T": 6" MIN.
3. EPOXY COATED #4 X 30" DOWELS AT 30" C/C REQUIRED WHEN BARRIER CURB IS NOT PLACED INTEGRALLY WITH PAVEMENT SECTION.

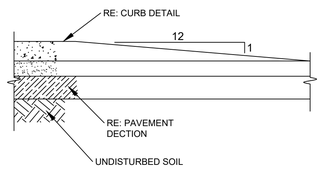
BARRIER



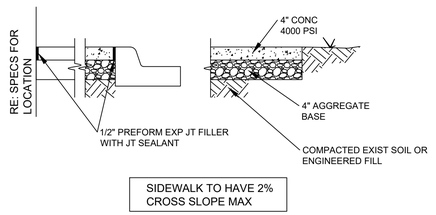
NOTES:
1. COORDINATES ARE TO BACK OF CURB
2. IF ADJACENT PAVING IS CONCRETE CONTRACTOR MAY PLACE "INTEGRAL CURB"
3. EPOXY COATED #4 X 30" DOWELS AT 30" C/C REQUIRED WHEN FLUSH CURB IS NOT PLACED INTEGRALLY WITH PAVEMENT SECTION FOR CONCRETE PAVING.
4. PLACE JOINTS IN CURB TO MATCH PAVING - 15 FEET MAX
5. RE: PAVEMENT DETAIL FOR THICKNESS "T": 6" MIN.

FLUSH

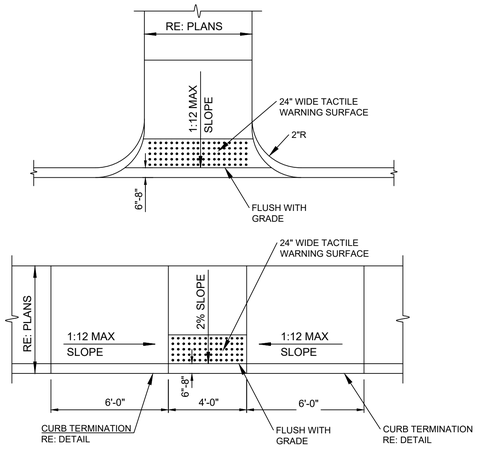
6 CURB AND GUTTER
SCALE: NTS



7 CURB TERMINATION
SCALE: NTS



8 SIDEWALK
SCALE: NTS



9 CURB RAMPS
SCALE: NTS

GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

PROJECT NO.:	21-030000
FILE:	C8.0
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

ARCHITECT:
GS HELMS + ASSOCIATES
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wb: gshelms.com
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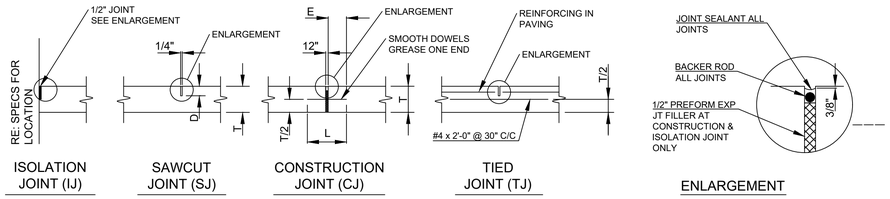
tulsa, oklahoma 74103
918.584.5858 · 800.364.5858

OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
DETAILS

SHEET NUMBER:
C8.0



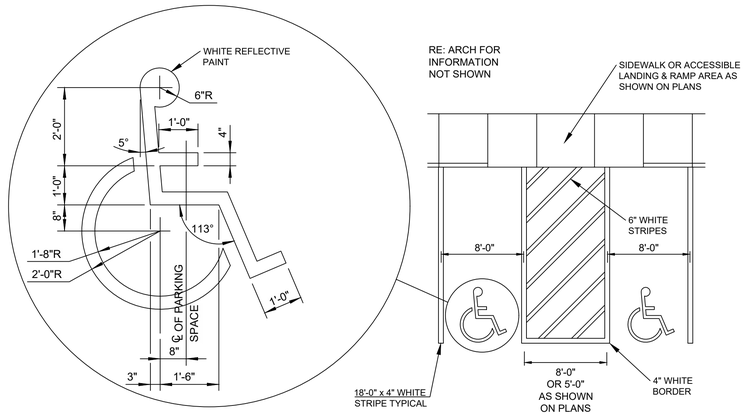
JOINTS NOT SHOWN OTHERWISE SHALL BE SAW JOINTS. SAW JOINTS SHALL BE MADE WITHIN 10 HOURS AFTER CONCRETE POUR.

CONCRETE PAVING JOINT SPACING SEE SCHEDULE

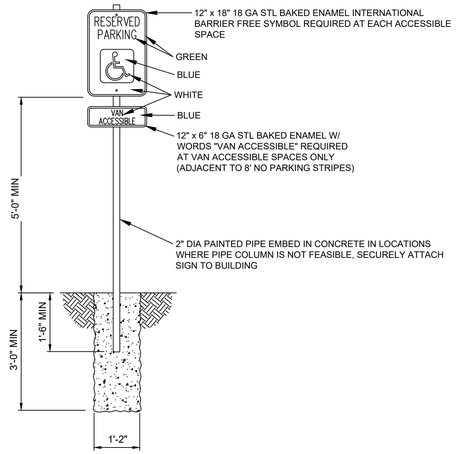
ALL DOWELS & BARS TO BE EPOXY COATED

"T" PAVEMENT THICKNESS	DOWEL DIAMETER @ 12" C/C	"L" LENGTH	"E" EMBEDMENT	"D" SAWCUT DEPTH	MAX JOINT SPACING
5"	---	---	---	1 1/4"	12.5"
6"	3/4"	14"	6"	1 1/2"	15"
7"	7/8"	14"	6"	1 3/4"	15"
8"	1"	14"	6"	2"	15"

1 PAVING JOINT DETAIL
SCALE: NTS



2 ACCESSIBLE STRIPING
SCALE: NTS

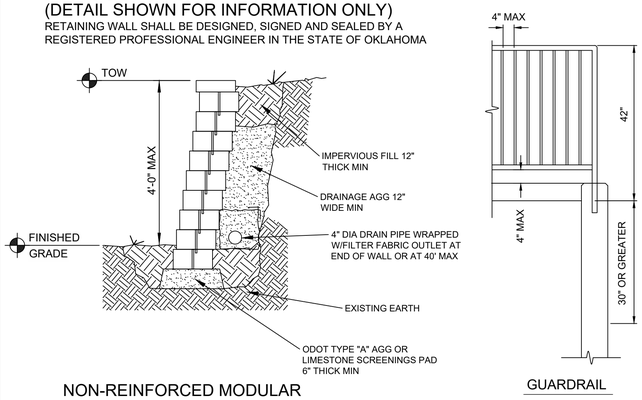


3 ACCESSIBLE SIGNAGE
SCALE: NTS

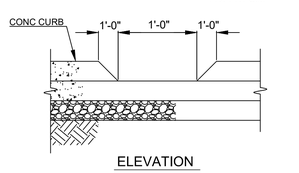
NOTE: MODULAR BLOCK RETAINING WALL SHALL BE DESIGNED BY MANUFACTURER VERSALOK OR APPROVED EQUAL.

(DETAIL SHOWN FOR INFORMATION ONLY)

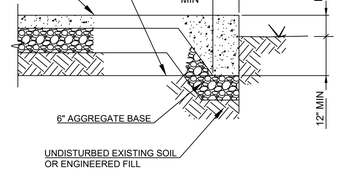
RETAINING WALL SHALL BE DESIGNED, SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA



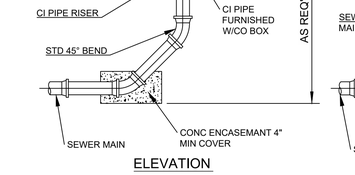
1 NON-REINFORCED MODULAR BLOCK RETAINING WALL AND GUARDRAIL
SCALE: NTS



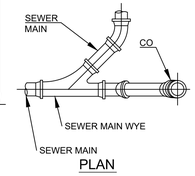
5 CURB CUT DRAIN
SCALE: NTS

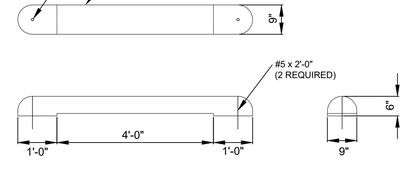


6 CONCRETE TURNDOWN
SCALE: NTS

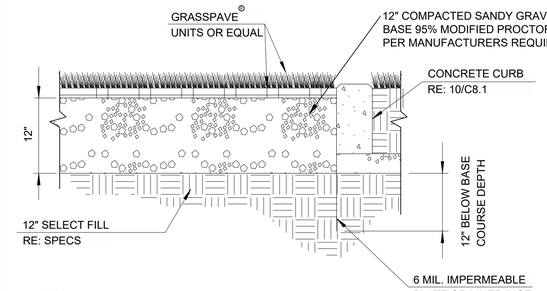


7 CLEANOUT
SCALE: NTS



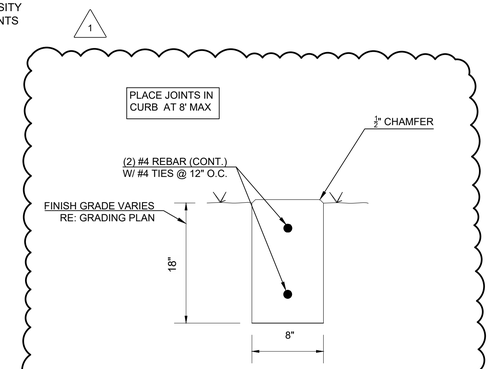


8 PARKING BUMPER
SCALE: NTS

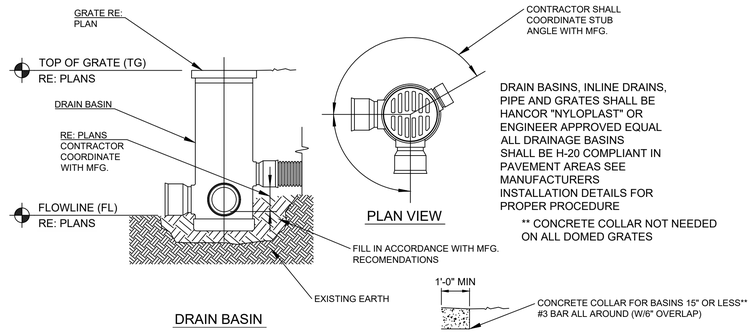


NOTE:
1. INSTALL PER MANUFACTURERS REQUIREMENTS
2. COMPACTED SUBGRADE, 95% MODIFIED PROCTOR DENSITY
3. REFER TO LANDSCAPE FOR SOD REQUIREMENTS

9 GRASSPAVE© (OR EQUAL) AT CONCRETE EDGE
SCALE: NTS



10 CONCRETE CURB AT FIRE LANE PERIMETER
SCALE: NTS



DRAIN BASINS, INLINE DRAINS, PIPE AND GRATES SHALL BE HANCOR "NYLOPLAST" OR ENGINEER APPROVED EQUAL
ALL DRAINAGE BASINS SHALL BE H-20 COMPLIANT IN PAVEMENT AREAS SEE MANUFACTURERS INSTALLATION DETAILS FOR PROPER PROCEDURE

** CONCRETE COLLAR NOT NEEDED ON ALL DOMED GRATES

11 INTEGRATED DRAIN BASIN SYSTEM
SCALE: NTS

GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER 02332

#	REVISION	DATE
	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:

OKLAHOMA LICENSED PROFESSIONAL ENGINEER
JORDAN RODICH
26548
CERTIFICATE OF AUTHORITY
9/1/2022

PROJECT NO.:	21-030000
FILE:	C8.1
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

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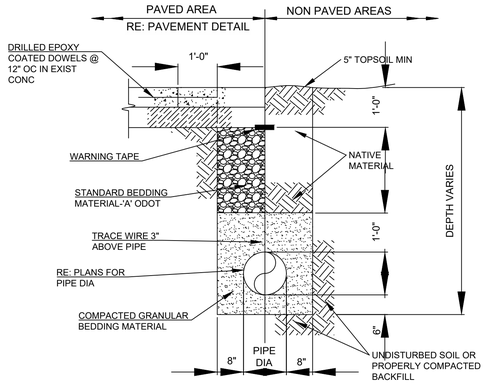
OKLAHOMA CA #1460 EXP DATE: 6/30/23

PROJECT TITLE:
TULSA PUBLIC SCHOOLS
WEBSTER HIGH SCHOOL - 2021 BOND PROJECTS
BAND ROOM & GREEN HOUSE ADDITIONS
1919 WEST 40TH STREET, TULSA, OK

SHEET TITLE:
DETAILS

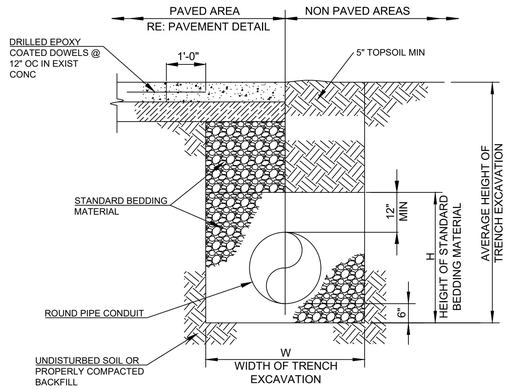
SHEET NUMBER:
C8.1



TRENCH NOTE:
BRACING AND SHEATHING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND OSHA SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE RESPONSIBILITY OF THE CONTRACTOR.

BEDDING NOTE:
UNDER PAVING ODOT TYPE "A" AGGREGATE BASE MUST BE TO THE TOP OF THE TRENCH. ODOT TYPE "A" AGGREGATE BASE TO BE COMPACTED TO 95% STANDARD PROCTOR.

1 PIPE TRENCH-ALL PIPES EXCEPT STORM SEWER
SCALE: NTS



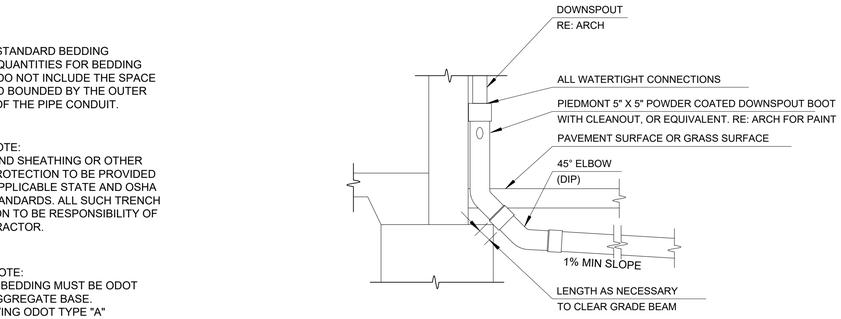
LIMITS OF STANDARD BEDDING
MATERIAL QUANTITIES FOR BEDDING MATERIAL DO NOT INCLUDE THE SPACE WITHIN AND BOUNDED BY THE OUTER SURFACE OF THE PIPE CONDUIT.

TRENCH NOTE:
BRACING AND SHEATHING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND OSHA SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE RESPONSIBILITY OF THE CONTRACTOR.

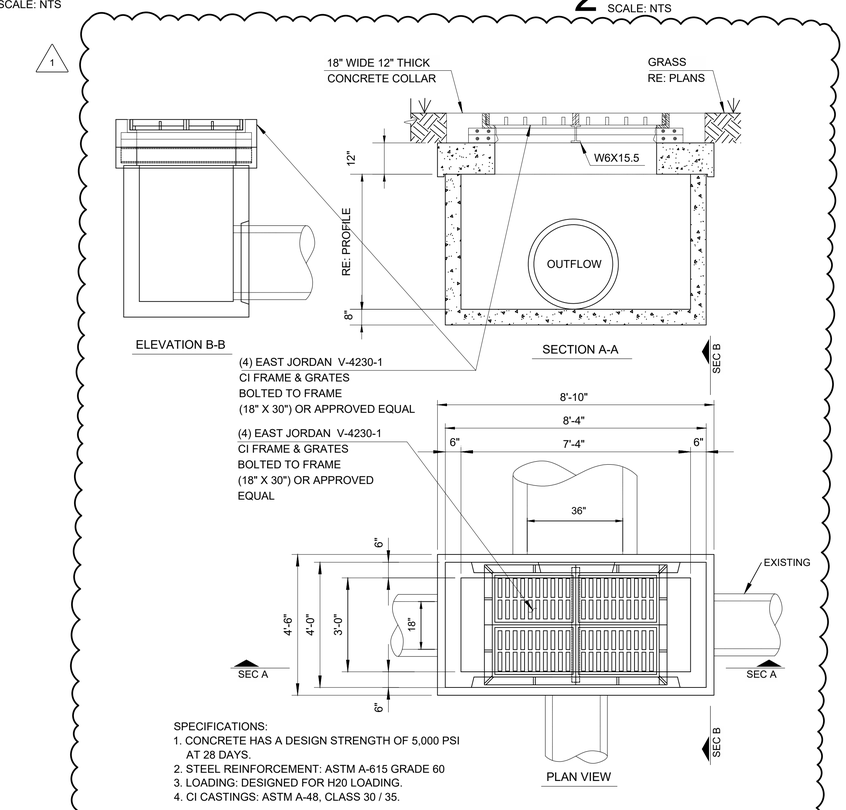
BEDDING NOTE:
STANDARD BEDDING MUST BE ODOT TYPE "A" AGGREGATE BASE. UNDER PAVING ODOT TYPE "A" AGGREGATE BASE MUST BE TO THE TOP OF THE TRENCH. ODOT TYPE "A" AGGREGATE BASE TO BE COMPACTED TO 95% STANDARD PROCTOR.

PIPE SIZE, IN.	TRENCH WIDTH, FT.
ID < 24"	OD + 2'
24" > ID < 36"	OD + 2.5'
36" > ID < 60"	OD + 3.5'
ID > 60"	OD + 4'

2 STANDARD PIPE BEDDING DETAIL FOR STORM SEWER
SCALE: NTS

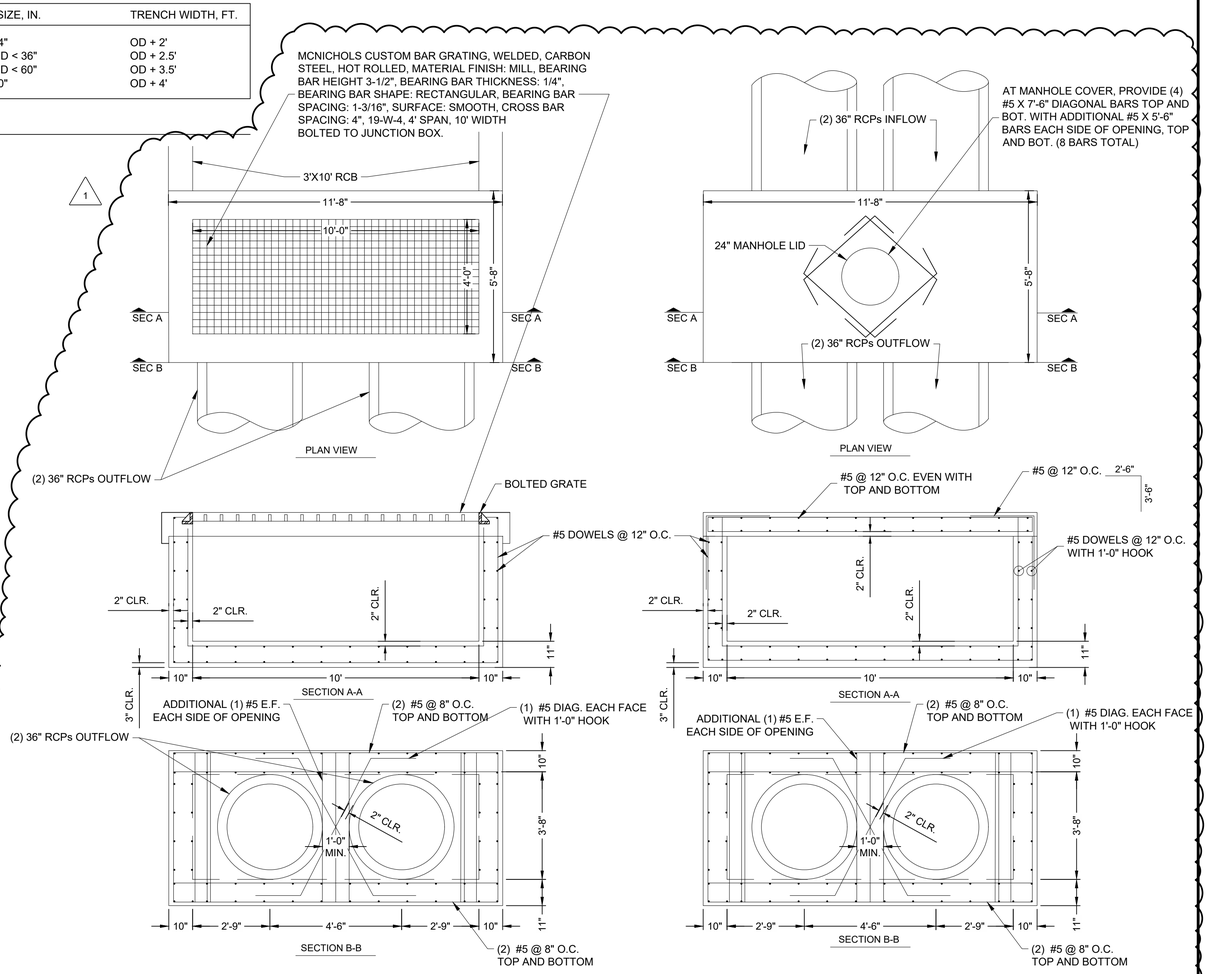


3 DOWNSPOUT TO STORM DRAIN CONNECTION
SCALE: NTS



SPECIFICATIONS:
1. CONCRETE HAS A DESIGN STRENGTH OF 5,000 PSI AT 28 DAYS.
2. STEEL REINFORCEMENT: ASTM A-615 GRADE 60
3. LOADING: DESIGNED FOR H20 LOADING.
4. CI CASTINGS: ASTM A-48, CLASS 30 / 35.

4 4 GRATE DROP INLET
SCALE: NTS



5 4'X10' JUNCTION BOX
SCALE: NTS

GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

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	100% CONSTRUCTION DOCUMENTS	6/14/2022
1	ADDENDUM 2	9/1/2022

SEALS:
OKLAHOMA LICENSED PROFESSIONAL ENGINEER
JORDAN RODICH
26548
9/1/2022

PROJECT NO.:	21-030000
FILE:	C8.2
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
APPROVED BY:	JR

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SHEET TITLE:
DETAILS

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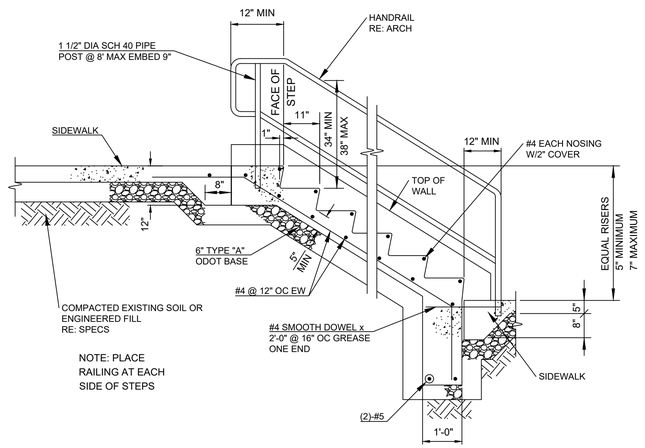
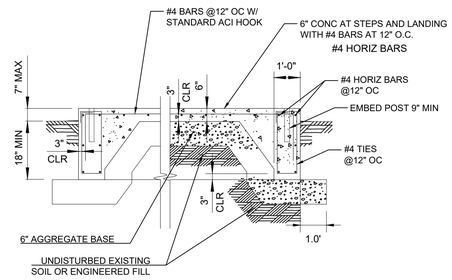
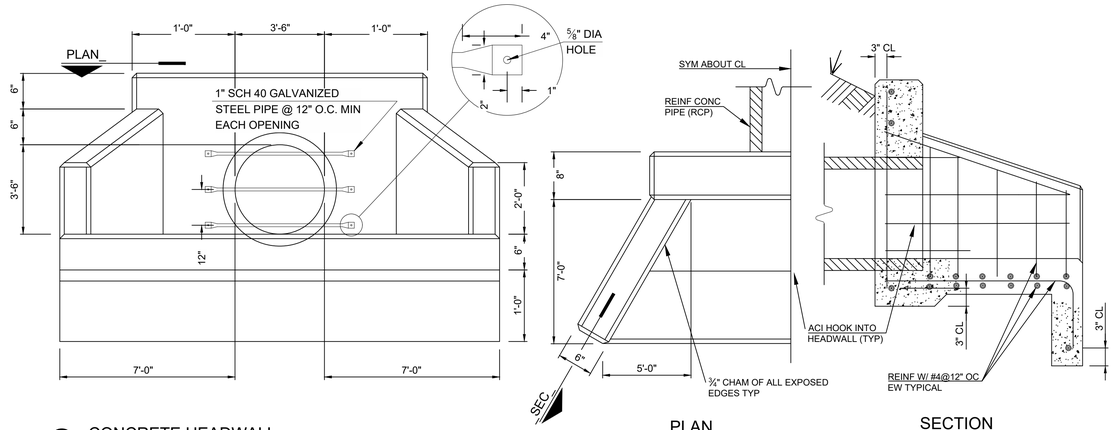




SECTION

1 CONC STAIRS W/RAIL

SCALE: NTS



PLAN SECTION

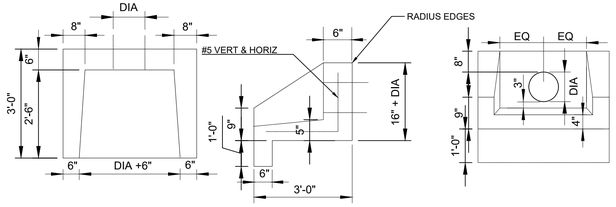
2 CONCRETE HEADWALL

SCALE: NTS

*NEENAH R-5050 SERIES TYPE SF OR EQUAL

3 FLAP GATE AT MANHOLE

SCALE: NTS



4 CONCRETE HEADWALL FOR DIA 4" THROUGH 12"

SCALE: NTS

GSHELMS & ASSOCIATES, LLC ARCHITECTURAL CERTIFICATE OF AUTHORITY NUMBER: 02332

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SEALS:

LICENSED PROFESSIONAL ENGINEER
JORDAN RODICH
26548
OKLAHOMA
9/1/2022

PROJECT NO.:	21-030000
FILE:	C8.3
ISSUE DATE:	6.14.22
SCALE:	AS NOTED
DRAWN BY:	JE
CHECKED BY:	JR
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