DATE: May 29 , 2024

Hurst-Rosche, Inc.
200 N. Market Street
Marion, Illinois 62959
Hurst-Rosche Project #395-3272

TO: PROSPECTIVE BIDDERS

SUBJECT: ADDENDUM NO. 3 TO THE BIDDING DOCUMENTS FOR

Athletic Training Facility
Wabash Valley College
Illinois Eastern Community Colleges
2200 College Drive
Mt. Carmel, Wabash County, Illinois 62863
HR: 395-3272

This addendum forms a part of the bidding and contract documents and modifies the bidding documents dated April 23, 2024. Acknowledge receipt of this addendum in space provided on Bid Form. FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.

SPECIFICATIONS

31. Revised Specification 08 33 13 Coiling Counter Doors to clarify product information.
32. Revise Specification Section 08 71 00 Hardware Schedule to reflect that Hardware Group 01 is for a Fire Rated Opening.

DRAWINGS

CLARIFICATIONS

33. To further clarify item 25 in Addendum #02, the General Contractor is not responsible for the cost incurred to the project from the oil company resulting from the shut down of power to facilitate the relocation of the utility pole. IECC will bear the cost from the oil company for up to two full days, after which time the contractor will be responsible for the costs. The General Contractor is responsible for all other costs associated with the work.
34. The Service Line extending to the Soccer light pole from the main line is owned by Wabash Valley College.
35. Final clearances of the service lines will need to meet all necessary clearances vertically and horizontally as dictated by NEC 2008.
36. Per Spec section 13 34 19 Section 2.7 subparagraph A Siding subsection 1 - The basis of design for the exterior paneling is an AVP profile. Manufacturers equivalent profile to AVP would be accepted.
37. In Addendum #02, the bid due date is listed as June 04, 2023, it should be corrected to June 04, 2024.

PRODUCT/SUPPLIER APPROVALS

RFI RESPONSES

38. Can we get someone to determine which openings are fire rated and which are not? Or if they all are fire rated?
The door schedule on A-101 delineates which doors are fire-rated and which are not. Specification section 08 71 00 does not correctly label Hardware Group No.01 as being for a Fire Rated Opening. Door 112-A is to be a 45 minute fire rated door. Any further discrepancies between the door hardware schedule and the door schedule, the fire rated label on the door schedule takes precedence.

39. Should there be provisions to tie the mezzanine to the PEMB structure?
The mezzanine was not designed to be tied into the PEMB.

40. Is there a Geo-Tech Report available?
Yes, see attachments.

This addendum **DOES NOT** alter the previously published bid due date of **June 04, 2024, 02:00 pm, at Illinois Eastern Community Colleges District 529 Office, located at 233 East Chestnut Street, Olney, IL 62450.**

Respectfully submitted,

HURST-ROSCHE, INC.

Alexander Pape
Project Manager

cc: All known plan-holders (including plan houses and contractors), Hurst-Rosche web site, Illinois Eastern Community Colleges, Project File

RECEIVED BY:

_____
Authorized Representative

_____ _____
Company Name Date

SECTION 08 33 13 - COILING COUNTER DOORS

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Manually operated Counter door assembly for Concession Area Window.

2. Section 12 30 40 Casework for information on Stainless Steel Service Counter.

B. Related Requirements:

1. Section 13 34 19 Metal Building Systems.

31

1.3 DESIGN REQUIREMENTS

1. Wind Loading:
   a. Supply doors to withstand up to 40 psf wind load.

1.4 ACTION SUBMITTALS

A. Product Data: For each type and size of coiling counter door and accessory.

1. Include construction details, material descriptions, dimensions of individual components, profiles for slats, and finishes.

B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.

1. Include plans, elevations, sections, and mounting details.
2. Include details of equipment assemblies, and indicate dimensions, required clearances, method of field assembly, components, and location and size of each field connection.
3. Include points of attachment and their corresponding static and dynamic loads imposed on structure.

C. Samples for Initial Selection: Manufacturer's finish charts showing full range of colors and textures available for units with factory-applied finishes.

1. Include similar Samples of accessories involving color selection.

D. Samples for Verification: For each type of exposed finish on the following components, in manufacturer's standard sizes:

1. Guides.
2. Brackets.
3. Hood.
4. Locking device(s).
5. Include similar Samples of accessories involving color selection.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

1.6 CLOSEOUT SUBMITTALS

A. Operations and Maintenance Manual.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project.

31

1.8 DELIVERY STORAGE AND HANDLING

A. See Specification 01 60 00 Product Requirements.

1.9 WARRANTY

1. Provide Manufacturer's Standard Warranty against defects in material and workmanship.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Insulated Counter Door: Coiling counter door formed with curtain of interlocking metal slats.

1. Cornell
2. Cookson
3. Clopay Building Products

B. Operation Cycles: Door components and operators capable of operating for not less than 10,000. One operation cycle is complete when a door is opened from the closed position to the fully open position and returned to the closed position.

2.2 DOOR CURTAIN MATERIALS AND FABRICATION

A. Door Curtains: Fabricate coiling counter door curtain of interlocking metal slats in a continuous length for width of door without splices. Unless otherwise indicated, provide slats of thickness and mechanical properties recommended by door manufacturer for performance, size, and type of door indicated, and as follows:

1. Stainless Steel Door Curtain Slats: ASTM A240/A240M or ASTM A666, Type 304; sheet thickness of 24 gauge; and as required.
2. Insulation: Fill slats for insulated doors with manufacturer's standard thermal insulation complying with maximum flame-spread and smoke-developed indexes of 15 and 450, respectively, according to ASTM E84 or UL 723. Enclose insulation completely within slat faces.
3. Interior Curtain-Slat Facing: Manufacturers standard backing slat for holding in insulation.

B. Curtain Jamb Guides: Manufacturer's standard angles or channels and angles of same material and finish as curtain slats unless otherwise indicated, with sufficient depth and strength to retain curtain, to allow curtain to operate smoothly, and to withstand loading. Slot bolt holes for guide adjustment. Provide removable stops on guides to prevent overtravel of curtain.

31

2.3 HOODS

A. General: Form sheet metal hood to entirely enclose coiled curtain and operating mechanism at opening head. Contour to fit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Form closed ends for surface-mounted hoods and fascia for any portion of between-jamb mounting thatprojects beyond wall face. Equip hood with intermediate support brackets as required to prevent sagging.

1. Stainless Steel: 24 gauge stainless-steel sheet, Type 304, complying with ASTM A240/A240M or ASTM A666.

2.4 LOCKING DEVICES

A. Locking Device Assembly: Fabricate with cylinder lock, operable from both sides of bottom bar.

1. Lock Cylinders: As standard with manufacturer and keyed to building keying system.

2.5 CURTAIN ACCESSORIES

A. Weatherseals: Equip door with weather-stripping gaskets fitted to entire perimeter of door for air-resistant installation unless otherwise indicated.

1. At door head, use 1/8-inch-thick, replaceable, continuous-sheet baffle secured to inside of hood or field-installed on the header.
2. At door jambs, use replaceable, adjustable, continuous, flexible, 1/8-inch-thick seals of flexible vinyl, rubber, or neoprene.

B. Astragal: Equip each door bottom bar with a replaceable, adjustable, continuous, compressible gasket of flexible vinyl, rubber, or neoprene as a cushion bumper.

C. Push/Pull Handles: Equip each push-up-operated or emergency-operated door with lifting handles on each side of door, finished to match door.

D. Pull-Down Strap: Provide pull-down straps for doors more than 84 inches high.

2.6 COUNTERBALANCE MECHANISM

A. General: Counterbalance doors by means of manufacturer's standard mechanism with an adjustable-tension, steel helical torsion spring mounted around a steel shaft and contained in a spring barrel connected to top of curtain with barrel rings. Use grease-sealed bearings or self-lubricating graphite bearings for rotating members.

B. Counterbalance Barrel: Fabricate spring barrel of manufacturer's standard hot-formed, structural-quality, seamless or welded carbon-steel pipe, of sufficient diameter and wall thickness to support rolled-up curtain without distortion of slats and to limit barrel deflection to not more than 0.03 in./ft. of span under full load.

C. Counterbalance Spring: One or more oil-tempered, heat-treated steel helical torsion springs. Size springs to counterbalance weight of curtain, with uniform adjustment accessible from outside barrel. Secure ends of springs to barrel and shaft with cast-steel barrel plugs.

31

D. Torsion Rod for Counterbalance Shaft: Fabricate of manufacturer's standard cold-rolled steel, sized to hold fixed spring ends and carry torsional load.

E. Brackets: Manufacturer's standard mounting brackets of either cast iron or cold-rolled steel plate with bearings at rotating support points to support counterbalance shaft assembly and form end enclosures..

2.7 MANUAL DOOR OPERATORS

A. General: Equip door with manual door operator by door manufacturer.

B. Push-up Door Operation: Design counterbalance mechanism so that required lift or pull for door operation does not exceed 25 lbf.

2.8 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM/NOMMA 500 for recommendations for applying and designating finishes.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.9 STAINLESS STEEL FINISHES

A. Surface Preparation: Remove tool and die marks and stretch lines, or blend into finish.

B. Polished Finishes: Grind and polish surfaces to produce uniform finish, free of cross scratches.

1. Run grain of directional finishes with long dimension of each piece.
2. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.
3. Directional Satin Finish: ASTM A480/A480M No. 4.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates areas and conditions, with Installer present, for compliance with requirements for substrate construction and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

A. Install coiling counter doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.

B. Install coiling counter doors, hoods, controls, and operators at the mounting locations indicated for each door.

3.3 FIELD QUALITY CONTROL

A. Repair or remove and replace installations where inspections indicate that they do not comply with specified requirements.

B. Reinspect repaired or replaced installations to determine if replaced or repaired door assembly installations comply with specified requirements.

3.4 ADJUSTING

A. Adjust hardware and moving parts to function smoothly so that doors operate easily, free of warp, twist, or distortion.

B. Lubricate bearings and sliding parts as recommended by manufacturer.

3.5 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain coiling counter doors.

END OF SECTION

31

Hardware Group No. 01

For use on Door #(s):

112-A

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY	628	IVE
1	EA	PANIC HARDWARE	CD-9947-EO	626	VON
1	EA	PANIC HARDWARE	CD-9947-NL-OP	626	VON
3	EA	MORT CYLINDER	AS REQ'D	626	SCH
3	EA	AS REQUIRED	PRIMUS CONV. KIL CYLINDER	626	SCH
2	EA	90 DEG OFFSET PULL	8190EZHD 12" O	630-316	IVE
2	EA	SURFACE CLOSER	4040XP SCUSH MC	689	LCN
1	EA	RAIN DRIP	142AA	AA	ZER
2	EA	DOOR SWEEP	39A	A	ZER
1	EA	THRESHOLD	655A-223	A	ZER
2	EA	DOOR CONTACT	7764	628	SCE
2	EA	CLOSER TEMPLATING, BRACKETS, SHOES, SPACERS, ETC	AS REQUIRED		
1	EA		BALANCE OF GASKETING BY DOOR/FRAME MFR.		

32

FIRE RATED OPENING

OPERATIONAL DESCRIPTION

ACTIVE LEAF

CONCEALED ROD EXIT DEVICE. FREE EGRESS AT ALL TIMES BY PRESSING PUSHBAR.
ENTRY BY PULL AFTER RETRACTING LATCHBOLT WITH KEY/ THUMB TURN.
DOGGING BY KEYED CYLINDER LOCKS DOWN THE PUSHBAR SO THE LATCHBOLT REMAINS RETRACTED AND DOOR FUNCTIONS AS A PUSH/PULL.
SELF-CLOSING SPRING-LOADED STOP INCLUDED. PUSH SIDE MOUNTED.

INACTIVE LEAF

CONCEALED ROD EXIT DEVICE. FREE EGRESS AT ALL TIMES BY PRESSING PUSHBAR.
ENTRY BY PULL WHEN DEVICE DOGGED DOWN.
DOGGING BY KEYED CYLINDER LOCKS DOWN THE PUSHBAR SO THE LATCHBOLT REMAINS RETRACTED AND DOOR FUNCTIONS AS A PUSH/PULL.
SELF-CLOSING. SPRING LOADED STOP INCLUDED. PUSH SIDE MOUNTED.

DOOR POSITION SWITCH(S) MONITOR WHETHER THE DOOR IS OPEN OR CLOSED.

Hurst-Rosche, Inc.
James W. Roth, PE, PLS
President

May 3, 2024

SUBJECT: Geotechnical Investigation
Proposed Athletic Training Facility
Wabash Valley College
Mount Carmel, Wabash County, Illinois re: H-R 395-3272

Dr. Ryan Gower
Chancellor
Illinois Eastern Community Colleges
233 East Chestnut Street
Olney, Illinois 62450

Dear Dr. Gower:

This letter is intended to present the results of a geotechnical investigation and provide recommendations concerning the proposed construction of an athletic training facility to be located at 2200 College Drive in Mount Carmel, Illinois. It is understood the proposed building will be a single-story structure measuring approximately 130 ft. by 65 ft. with a slab on grade floor. A geotechnical investigation has been completed and consisted of two structural borings, recovery of undisturbed Shelby tube samples, unconfined compression testing, and analysis of soil data.

40

The two structural soil borings were extended to a depth of 14 ft. and 16.5 ft. below existing grade with split spoon samples obtained at 2.5 ft. intervals. The approximate location of each boring is depicted on the boring location map presented as Attachment No. 1. Visual classification of the soils encountered during the boring process has been noted on the boring logs presented as Attachment No. 2. Moisture contents were determined for each cohesive split spoon sample and have been presented on the boring logs. Undisturbed Shelby tube samples were collected at both boring locations as noted on the boring logs. Soil samples were extracted from various Shelby tubes and selected samples were tested for unconfined compression strength. A summary of the unconfined compression test results has been presented as Attachment No. 3.

Based on conditions encountered during the subsurface investigation, topsoil is present from ground surface to approximately 0.5 ft. below existing ground surface. Beneath the topsoil, a very stiff to hard silty clay is present and continues to approximately 3.5 ft. beneath existing ground surface. At the 3.5 ft. depth, either a medium stiff to stiff silty clay loam or a stiff silty loam is present. At the Boring No. 1 location, the silty loam extends to the 6 ft. depth and is underlain by a silty clay loam extending to a depth of 8.5 ft. At the Boring No. 2 location, the silty clay loam exists down to the 8.5 ft. depth. At the 8.5 ft. depth, a stiff to hard silty clay is present and extends to an approximate depth of 12 ft. in Boring No. 1 and an approximate depth of 16 ft. in Boring No. 2. At these noted depths, bedrock in the form of sandstone is present and continues to the approximate boring termination depths of 14 ft. and 16.5 ft.

Jeremy Connor, PE
Vice-President of Operations

1400 E. Tremont St.
Hillsboro, IL 62049
(t) 217.532.3959
(f) 217.532.3212

www.hurst-rosche.com

It appears site conditions are conducive to utilizing a shallow foundation system for the proposed structure. Based on the geotechnical data accumulated from the field investigation and laboratory testing, net allowable bearing capacities of 1,800 psf and 2,150 psf are recommended for continuous footings and column footings, respectively. The presented bearing capacities incorporate a factor of safety of 3. It is also recommended footings be positioned a minimum 28 inches below final exterior grade to avoid the effects of frost heave per the City of Mount Carmel building code.

Based on groundwater measurements recorded at the boring locations at the time of completion, the depth to groundwater appears to be greater than 16.5 ft. below existing ground surface. However, reference to National Resources Conservation Service (NRCS) data indicates the seasonal high groundwater level may be 2 ft. below ground surface at various times of the year. It should be noted that groundwater levels at the site may fluctuate with seasonal variation in rainfall, drought conditions, and temperatures.

Considering existing and proposed grades, it is anticipated minimal, if any, structural fill may be necessary to achieve proposed grades. Placement of structural fill, should it be needed, should be completed under engineering-controlled conditions in accordance with the guideline specifications presented in Attachment No. 4. At a minimum, each lift should be tested to ensure compaction requirements and moisture conditions have been met in correlation with the appropriate standard Proctor values.

40

The project site is assigned to Site Class D as defined in Section 1613 of the 2018 International Building Code and Chapter 20 of ASCE 7-16. The design spectral response acceleration parameters for short periods (S_{DS}) and one-second periods (S_{D1}) are 0.535g and 0.275g, and are based on spectral response acceleration parameters for short periods (S_S) and one-second periods of (S_1) of 0.614g and 0.185g, respectively.

For design of rigid pavements and slabs, a modulus of subgrade reaction (k) equal to 125 pci is recommended to be utilized.

Based on Illinois State Geology Survey (ISGS) coal mine maps, the project site has not been undermined or impacted by surface mining activities. The nearest mining activity is recorded as a mine shaft located approximately 1.4 miles west-southwest of the project site and an underground mine located approximately 1.8 miles east of the project site.

If you have any questions or require additional information, please let us know.

Sincerely,

HURST-ROSCHE, INC.

Michael E. Emken

Michael E. Emken, P.E.

MEE:sb

Enclosures

Attachment No. 1

40

EXISTING BASEBALL FIELD

EXISTING ROAD

EXISTING VOLLEYBALL COURT

BORING #1

BORING #2

GAS

12" CMU

GAS

EXISTING ROAD

EXISTING ROAD

PROPOSED ELECTRIC TO NEW SCOREBOARD

PROPOSED SOFTBALL SCOREBOARD TO BE PROVIDED AND INSTALLED BY OTHERS

PROPOSED EQUIPMENT FENCE 18'-0" X 18'-0"

PROPOSED CONCRETE PAD FOR EQUIPMENT

PROPOSED BARRIER FENCE LENGTH TBD

PROPOSED BUILDING FOOTPRINT ELEV= 445.50

EXISTING PARKING LOT

PROPOSED CONCRETE BOLLARDS

EXISTING WELL

EXISTING POWER POLE WITH TRANSFORMER

PROPOSED EQUIPMENT FENCE 18'-0" X 18'-0"

PROPOSED CONCRETE PAD FOR EQUIPMENT

PROPOSED SANITARY SEWER LIFT STATION

EXISTING SOFTBALL FIELD

EXISTING BLEACHERS

EXISTING BUILDING

EXISTING SOCCER FIELD LIGHTS

EXISTING BLEACHERS

EXISTING SOCCER FIELD

EXISTING SOCCER FIELD LIGHTS

- PROPOSED GATE
- PROPOSED FENCE
- PROPOSED WHEEL STOPS
- PROPOSED SIGN
- PROPOSED BOLLARDS
- EXISTING LANDSCAPE
- EXISTING ROAD
- EXISTING SAN SEWER
- EXISTING 4" WATER
- PROPOSED WATER
- PROPOSED SAN SEWER
- PROPOSED ELECTRIC
- PROPOSED SIDEWALK
- PROPOSED GRAVEL PARKING LOT
- PROPOSED VAN ACCESSIBLE ADA CONCRETE PARKING AREA

30 0 30 60

HSCALE
VSCALE

Hurst-Rosche, Inc.
PROFESSIONAL DESIGN NUMBER: 184-000298

200 NORTH MARKET
ST. MARION, IL
62959
PH: 618.998.9275
www.hurstrosche.com

HILLSBORO, IL
EAST ST. LOUIS, IL
ARNOLD, MO
NASHVILLE, TN
SPRINGFIELD, IL

ATHLETIC FACILITIES, ADDITION AND RENOVATION
LINCOLN TRAIL, WABASH VALLEY, FRONTIER COLLEGES
ILLINOIS EASTERN COMMUNITY COLLEGES
11220 ILLINOIS 1
ROBINSON, CRAWFORD COUNTY, ILLINOIS 62204

MK.	DATE	DESCRIPTION

DATE: 12-11-2023
PROJECT NO: 395-3272

DESIGN:	DRAWN:	CHECK:
ZMS	ZMS	JLS

BORING LOCATION MAP

Attachment No. 2

Geotechnical Investigation
Wabash Valley College
Mount Carmel, Wabash County, Illinois
Project # 395-3272

HURST-ROSCHE, INC.
HILLSBORO, ILLINOIS
PHONE 217/532-3959

DATE: November 16, 2023
DRILLER: Holcomb Foundation Engineering Company
BORING ENG: E. Albers

FOUNDATION BORING LOG

BORING NO.: 1 COORDINATES: Refer to Map SURFACE ELEV.: - -	N Value	Qu (tsf)	W (%)	REC (%)	GROUNDWATER ELEV. COMP.: Dry AFTER 24 HRS.: - -	N Value	Qu (tsf)	W (%)	REC (%)
0					20				
6" Topsoil									
SILTY CLAY (CL), Brown, Dry to Moist, Hard		P							
	9	4.25	22.0	- -					
SILTY LOAM (ML), Gray and Brown, Moist, Stiff		P							
5	6	1.0	21.1	- -	Notes:	25			
					1) Shelby Tube No. 1-1 pushed from 3 ft. to 5 ft. in adjacent borehole.				
SILTY CLAY LOAM (CL), Brown, Moist, Stiff		P							
	5	1.25	19.0	- -	2) Shelby Tube No. 1-2 pushed from 6 ft. to 8 ft. in adjacent borehole.				
SILTY CLAY (CL), Orangish-Brown, Gray, Mottled, Dry to Moist, Stiff		P							
Trace of Sand 10	6	1.75	21.2	- -		30			
Hard		P							
	10	4.5	18.2						
SANDSTONE, Brown, Dry, Fine, Weak Cementation	60/5"	NP	- -	- -					
	60/5"	NP	- -	- -					
End of Exploration at -14.0 ft.									
15						35			
20						40			

40

N: Blows per ft. to Drive 2" O.D. Split Spoon Sampler 12" with 140 lb. Hammer falling 30" (Standard Penetration Test)

Qu: Unconfined Compression Strength
NP: Non-Plastic
ST: Shelby Tube
W: Water Content

Type Failure:
B: Bulge Failure
S: Shear Failure
NS: No Sample
P: Penetrometer

RQD: Rock Quality Determination

Geotechnical Investigation
Wabash Valley College
Mount Carmel, Wabash County, Illinois
Project # 395-3272

HURST-ROSCHE, INC.
HILLSBORO, ILLINOIS
PHONE 217/532-3959

DATE: November 16, 2023
DRILLER: Holcomb Foundation Engineering Company
BORING ENG: E. Albers

FOUNDATION BORING LOG

BORING NO.: 2 COORDINATES: Refer to Map SURFACE ELEV.: - -	N Value	Qu (tsf)	W (%)	REC (%)	GROUNDWATER ELEV. COMP.: Dry AFTER 24 HRS.: - -	N Value	Qu (tsf)	W (%)	REC (%)
0					20				
6" Topsoil									
SILTY CLAY (CL), Brown, Dry to Moist, Very Stiff		P							
	7	2.25	22.4	- -					
SILTY CLAY LOAM (CL), Gray and Brown, Moist, Medium Stiff		P							
5	4	0.75	25.6	- -	Notes:	25			
Dry to Moist, Stiff		P			1) Shelby Tube No. 2-1 pushed from 3 ft. to 5 ft. in adjacent borehole.				
	6	1.5	17.8	- -	2) Shelby Tube No. 2-2 pushed from 6 ft. to 8 ft. in adjacent borehole.				
SILTY CLAY (CL), Orangish-Brown, Gray, Mottled, Dry to Moist, Stiff, Trace of Gravel		P							
10	7	1.25	20.2	- -		30			
Brown, Very Stiff, Trace of Sand		P							
	9	3.0	21.0	- -					
Stiff, Few Sand		P							
Sandstone Fragments 15	23	1.0	20.8	- -		35			
SANDSTONE, Brown, Dry, Fine, Weak Cementation	60/6"	NP	- -	- -					
End of Exploration at -16.5 ft.									
20						40			

40

N: Blows per ft. to Drive 2" O.D. Split Spoon Sampler 12" with 140 lb. Hammer falling 30" (Standard Penetration Test)

Qu: Unconfined Compression Strength
NP: Non-Plastic
ST: Shelby Tube
W: Water Content

Type Failure:
B: Bulge Failure
S: Shear Failure
NS: No Sample
P: Penetrometer

RQD: Rock Quality Determination

Attachment No. 3

UNCONFINED COMPRESSION TEST

SUMMARY SHEET

PROJECT: Wabash Valley College
Athletic Training Center

PROJECT NO.: 395-3272

Lab. Number	1	2	3
Boring No.	1	2	2
Shelby Tube No.	1-1	2-1	2-1
Depth	4'3" - 4'9"	3'3" - 3'9"	4'2" - 4'8"
Moisture Content (%)	22.5	24.7	23.4
Dry Density (pcf)	105.7	100.0	104.2
Failure Strain (%)	8.0	9.1	14.3
Qu (psf)	2,755	3,693	2,082
Height (in.)	5.96	5.98	5.97
Diameter (in.)	2.84	2.84	2.82
Classification	Silty Loam	Silty Clay Loam	Silty Clay Loam

40

Lab. Number			
Boring No.			
Shelby Tube No.			
Depth			
Moisture Content (%)			
Dry Density (pcf)			
Failure Strain (%)			
Qu (psf)			
Height (in.)			
Diameter (in.)			
Classification			

Attachment No. 4

Guide Specifications for Placement and Compaction of Structural Fill (Using Standard Proctor Procedures)

1. Construction monitoring and testing of subgrades and grades for structural fill; and fill selection, placement and compaction shall be completed by an experienced geotechnical engineer or his authorized representative.

2. All compacted fill, subgrades and grades shall be (a) underlain by suitable bearing material; (b) free of organic, frozen or other deleterious material; and (c) observed, tested and approved by the geotechnical engineer. Initial preparation of fill subgrades shall include (a) clearing, tree and hedge removal, and stripping of vegetation, organic or other unsuitable materials; (b) proofrolling to detect soft, wet, yielding soils or other unstable materials that must be undercut; (c) scarifying the top six inches of the exposed subgrade; (d) moisture conditioning the exposed soils as required; and (e) re-compacting scarified materials to the same minimum in-situ dry density required for similar materials indicated under Items 4 and 5.

3. The compacted fill materials shall be (a) free of deleterious, organic, or frozen matter; (b) resistant to excess shrinkage and swelling; and (c) contain no chemical(s) that may result in the material being classified as “contaminated.” The top 12 inches of the structural fill shall have a maximum four-inch particle diameter and all underlying fill a maximum six-inch diameter. All fill material shall be tested and approved under the direction of the geotechnical engineer prior to placement.

4. For standard fill depths less than eight foot, the density of the compacted earth fill and scarified subgrade shall not be less than 95 percent of the maximum dry density of the material as determined by Standard Proctor (ASTM D698). Where the structural fill depth is greater than eight feet, the density of earth fill below eight feet may be reduced to 90 percent of the maximum dry density of the material as determined by Standard Proctor (ASTM D698). The upper one and a half feet of earth fill beneath any pavements shall be compacted to 95 percent or greater of the maximum dry density of the material as determined by Standard Proctor (ASTM D698). For fill more than one and a half feet below pavements, compaction may be reduced to 90 percent of the maximum dry density of the material as determined by Standard Proctor (ASTM D698). Earth backfill placed in floor slab areas above the base of footings or adjacent to foundation walls shall be compacted to not less than 90 percent of the maximum dry density of the material as determined by Standard Proctor (ASTM D698).

5. Well graded granular fill placed beneath structural footings shall be compacted to at least 100 percent of the maximum dry density of the material as determined by Standard Proctor (ASTM D698). Well-graded granular fill placed in the upper two feet and below pavements shall be compacted to at least 100 percent of the maximum dry density of the material as determined by Standard Proctor (ASTM D698); for granular fill more than two feet below the pavement section, compaction may be reduced to 95 percent or greater of the maximum dry density of the material as determined by Standard Proctor (ASTM D698). Well graded granular fill placed in floor slab areas above the base of footings or adjacent to foundation walls shall be compacted to not less than 95 percent of the maximum dry density of the material as determined by Standard Proctor (ASTM D698).

6. The moisture content of the top 2 ft of fill materials shall not contain more than 120 percent of the optimum moisture when placed and compacted or re-compacted, unless recommended or approved by the geotechnical engineer. Fill shall be placed in layers not exceeding 6-8 inches in thickness. Each layer of earth fill shall be disked or worked in a manner to sufficiently break down oversized clods, mix differing soil materials, secure uniform moisture content, and ensure uniform density and compaction. The compaction equipment shall consist of suitable mechanical equipment specifically designed for soil or backfill compaction.

7. Excavation, filling and subgrade preparation shall be performed in a manner and sequence that will provide proper drainage at all times and control erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working platform. Springs or water seepage encountered during grading/foundation construction shall be called to the geotechnical engineer's attention immediately for possible construction procedure revision or inclusion of an underdrain system.

8. Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls shall be placed and compacted with care to ensure excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls shall be properly tested and approved by the geotechnical engineer with consideration for the lateral pressure used in the wall design.

9. Wherever, an unstable condition is being created either by cutting or filling, the work shall not proceed into that area until an appropriate geotechnical exploration and analysis has been performed and the grading plan revised, if found necessary.