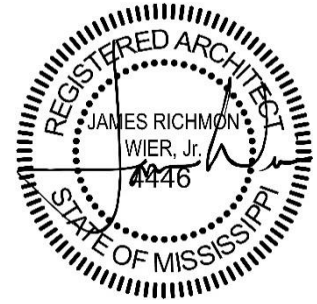




14 April 2023

Velma Jackson High School | Football Field Turf & Track Replacement  
WBA Project No. 22-088



## ADDENDUM NO. 01

### NOTICE TO ALL DOCUMENT HOLDERS:

The following additions, deletions, changes and clarifications to the drawings and specifications are to be included as part of the Contract Documents.

### GENERAL

#### ITEM NO. 1 OWNER PROVIDED INFORMATION

At the request of several bidders, the owner herein provides the following information for reference purposes only:

- Selected Drawings from Velma Jackson High School Athletic Improvements (March 2010) Construction Documents
- Subsurface Investigation for Velma Jackson High School Track Renovation and Construction dated from November 2005

### SPECIFICATIONS

#### ITEM NO. 2 01.4510 TESTING LABORATORY SERVICES – CONTRACTOR FURNISHED

**REPLACE** the attached Section 01.4510, in its entirety, to the Project Manual with Section 01.4510 TESTING LABORATORY SERVICES.

#### ITEM NO. 3 01.5000 TEMPORARY FACILITIES AND CONTROLS

*Clarification:* All site waste are to be removed based on Part 1, Paragraph 8. Burning of debris will not be allowed on site.

### DRAWINGS

#### ITEM NO. 4 SHEET A102 DRAWING 1 – PAVEMENT EXTENSION

**DELETE** the dimensions associated with the edge of the asphalt sub-base

*Clarification:* In terms of the pavement extension, the asphalt sub-base is an existing condition and it is not the responsibility of the contractor to ensure that the referenced dimensions are met. It is expected that the contractor will verify the existing width of the asphalt sub-base and provide lane dimensioning as part of the shop drawing submittal process.

Encl: **Velma Jackson High School Athletic Improvements (March 2010)**  
**Subsurface Investigation for Velma Jackson High School Track Renovation and Construction (Nov. 2005)**  
**01.4510 Testing Laboratory Services**

cc: All Document Holders

# VELMA JACKSON HIGH SCHOOL ATHLETIC IMPROVEMENTS

## MADISON COUNTY SCHOOL DISTRICT MADISON COUNTY, MISSISSIPPI

**MICHAEL D. KENT**  
SUPERINTENDENT

**RONNIE L. McGEHEE, Ph.D.**  
DEPUTY SERINTENDENT

### MADISON COUNTY SCHOOL BOARD

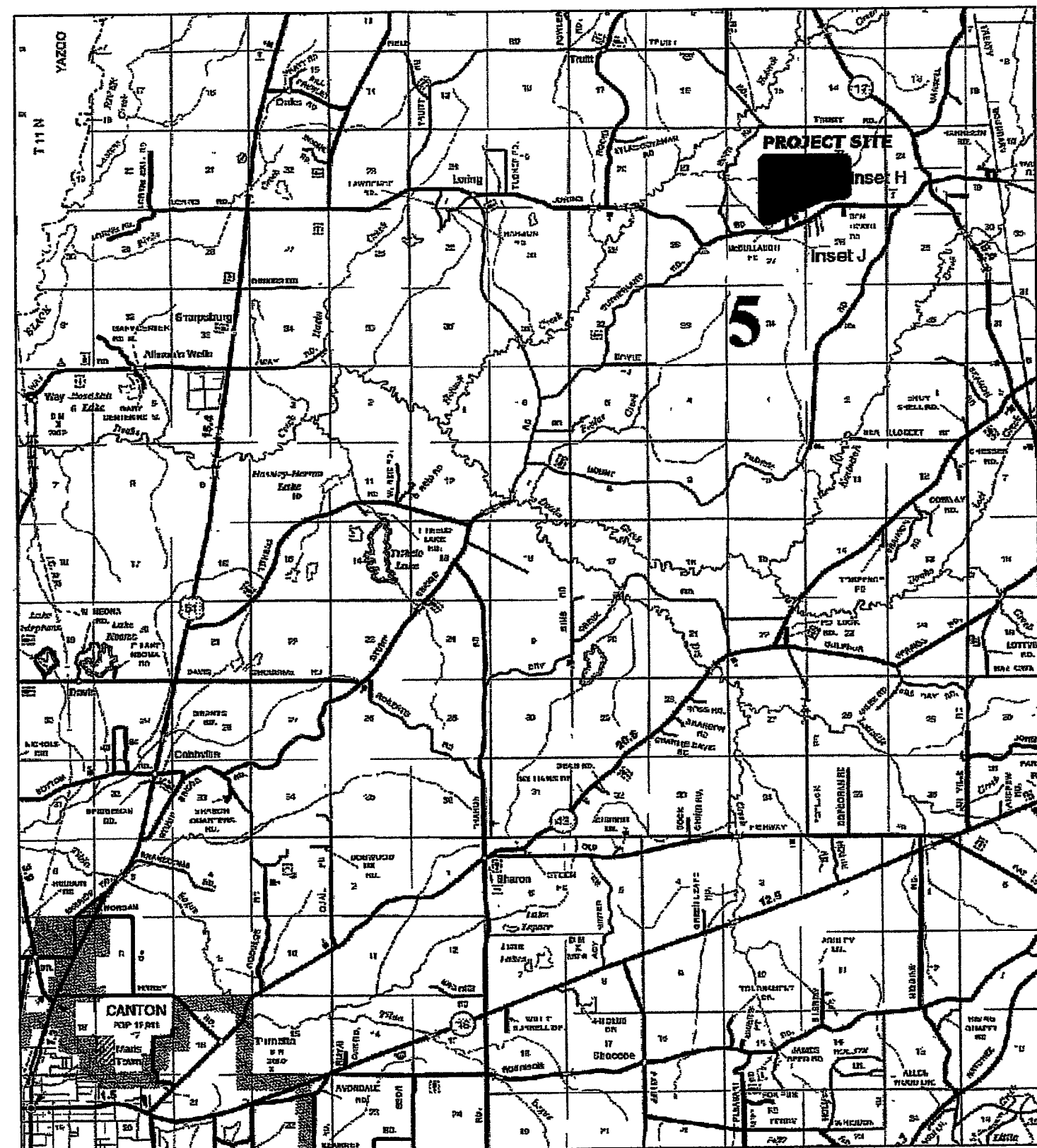
**KEN McCOY**  
PRESIDENT

**WAYNE JIMENEZ**  
SECRETARY

**WILLIAM GRISSETT**

**PHILIP HUSKEY**

**SHIRLEY SIMMONS**



#### GENERAL

- T100 MAIN TITLE SHEET
- T101 TITLE SHEET

#### CIVIL

- C100 EXISTING SITE PLAN AND CONTRACTOR'S ACCESS
- C101 DEMOLITION PLAN
- C200 SITE PLAN
- C300 GRADING AND DRAINAGE PLAN
- C400 SITE DETAILS

#### ARCHITECTURAL

- A101 FOOTBALL FIELD LAYOUT AND DETAILS
- A102 DETAILS



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JH&H Architects  
Planners, Interiors, PA  
3760 I-55 North, Suite 200  
Jackson, MS 39211 - 6323  
p. 601.948.4601 f. 601.355.6200

Revisions  
1  
2  
3  
4  
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Project Architect: JEFFCOAT  
Project Number: 10.101B  
Date: 09/11/2010  
Drawn by: LMA  
Checked by: PUB

Project  
Seal  
Sheet Title  
A  
TITLE SHEET  
Sheet Number 11 of 18  
T101



Project  
Seal  
Sheet Title  
A  
TITLE SHEET  
Sheet Number 11 of 18  
T101

Project  
Seal  
Sheet Title  
A  
TITLE SHEET  
Sheet Number 11 of 18  
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T101

Project  
Seal  
Sheet Title  
A  
TITLE SHEET  
Sheet Number 11 of 18  
T101

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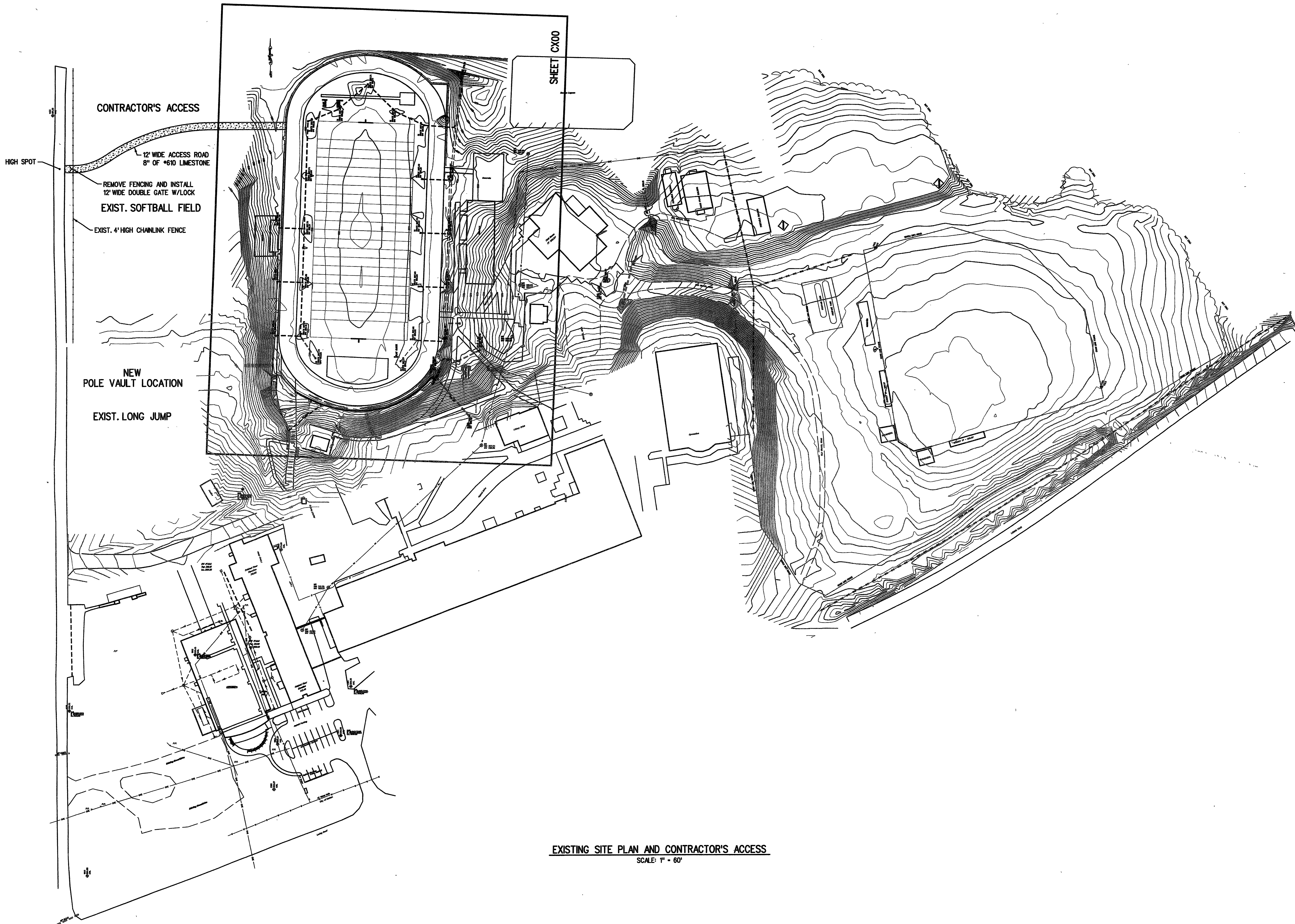
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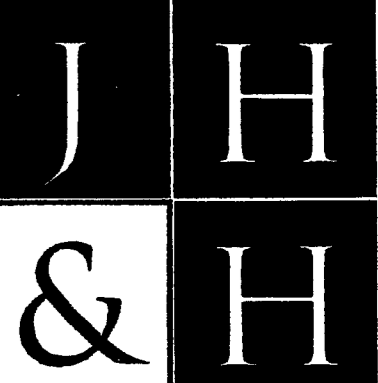
A



EXISTING SITE PLAN AND CONTRACTOR'S ACCESS

SCALE: 1" = 60'

SHEET CX00



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3760 I-55 North Suite 200  
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Revisions

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2	
3	
4	

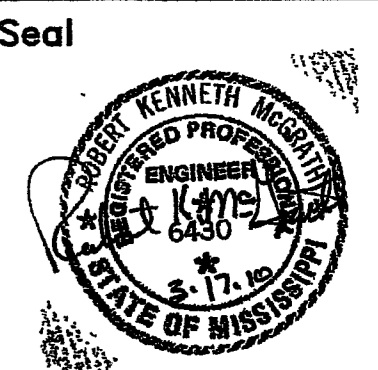
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Project Architect: JEFFCOAT  
 Project Number: 10.101B  
 Date: 3/11/10  
 Drawn by: JMB  
 Checked by: RKM



BOND TO SUCCEED

Project  
**VELMA JACKSON HIGH SCHOOL**  
**ATHLETIC IMPROVEMENTS**  
 CAMDEN, MISSISSIPPI



Sheet Title

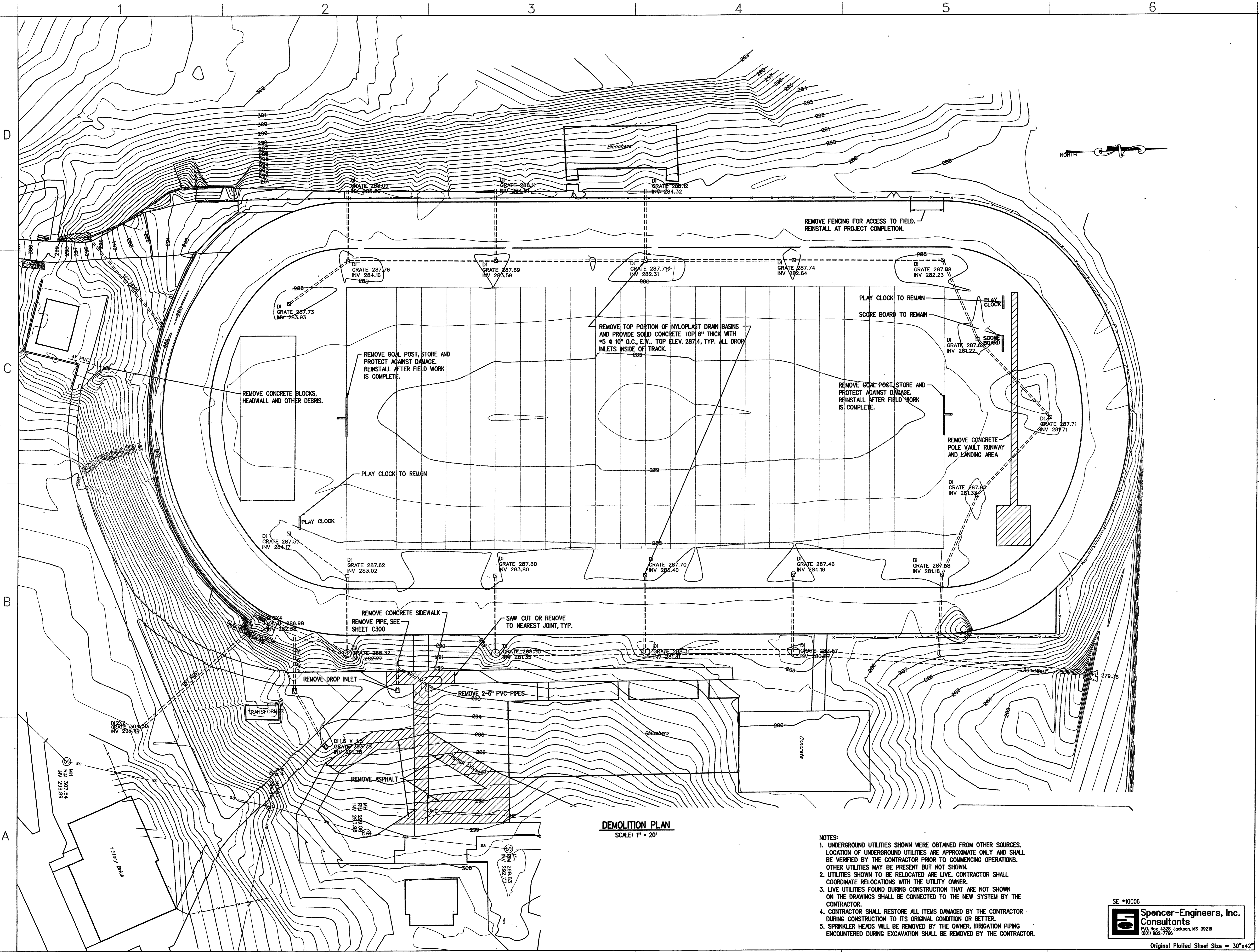
EXISTING SITE PLAN AND CONTRACTOR'S ACCESS

Sheet Number 12 of 18

SE #10006  
 **Spencer-Engineers, Inc.**  
 Consultants  
 P.O. Box 4328 Jackson, MS 39216  
 (601) 982-7766


Original Plotted Sheet Size = 30"x42"

**C100**



**DEMOLITION PLAN**  
SCALE: 1" = 20'

- NOTES:
1. UNDERGROUND UTILITIES SHOWN WERE OBTAINED FROM OTHER SOURCES. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING OPERATIONS. OTHER UTILITIES MAY BE PRESENT BUT NOT SHOWN.
  2. UTILITIES SHOWN TO BE RELOCATED ARE LIVE. CONTRACTOR SHALL COORDINATE RELOCATIONS WITH THE UTILITY OWNER.
  3. LIVE UTILITIES FOUND DURING CONSTRUCTION THAT ARE NOT SHOWN ON THE DRAWINGS SHALL BE CONNECTED TO THE NEW SYSTEM BY THE CONTRACTOR.
  4. CONTRACTOR SHALL RESTORE ALL ITEMS DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION TO ITS ORIGINAL CONDITION OR BETTER.
  5. SPRINKLER HEADS WILL BE REMOVED BY THE OWNER. IRRIGATION PIPING ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED BY THE CONTRACTOR.

SE \*10006  
 **Spencer-Engineers, Inc. Consultants**  
 P.O. Box 4328 Jackson, MS 39216  
 (601) 982-7766

Original Plotted Sheet Size = 30"x42"



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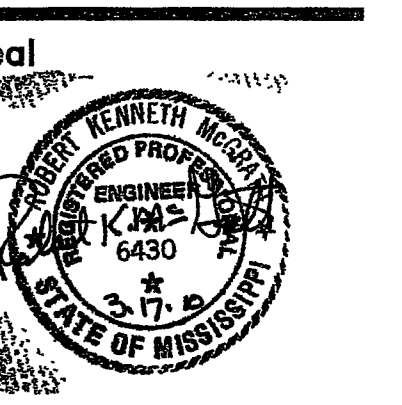
Revisions  
 1  
 2  
 3  
 4

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Project: JEFFCOAT  
 Architect: JEFFCOAT  
 Project Number: 10.101B  
 Date: 3/11/10  
 Drawn by: JMB  
 Checked by: RKM



Project  
**VELMA JACKSON HIGH SCHOOL**  
**ATHLETIC IMPROVEMENTS**  
 CAMDEN, MISSISSIPPI

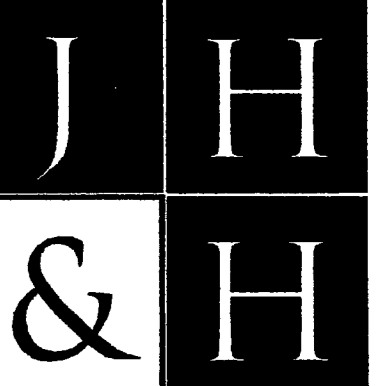


Sheet Title

DEMOLITION PLAN

Sheet Number 13 of 18

**C101**



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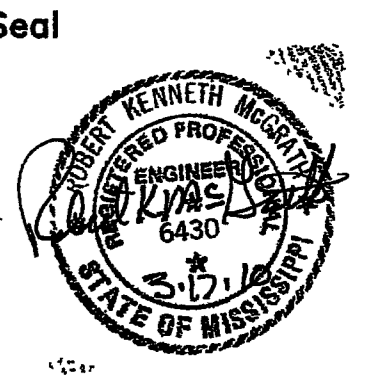
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3750 I-55 North Suite 200  
Jackson, MS 39211-6323  
ph 601 948 4601 fax 601 335 6200

Revisions  
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Project: JEFFCOAT  
Architect: JEFFCOAT  
Project Number: 10.101B  
Date: 3/11/10  
Drawn by: JMB  
Checked by: RKM



Project: VELMA JACKSON HIGH SCHOOL  
ATHLETIC IMPROVEMENTS  
CAMDEN, MISSISSIPPI



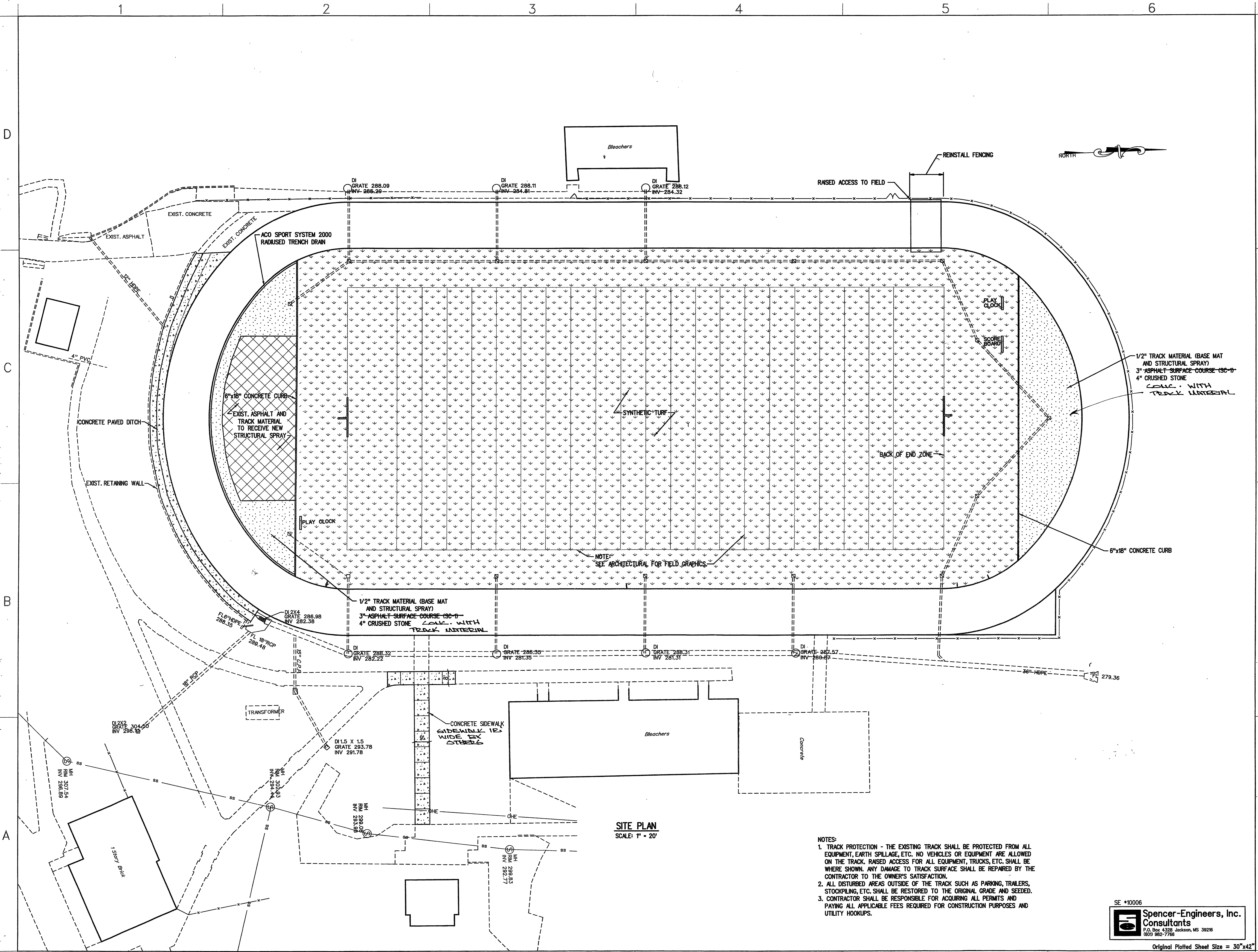
Sheet Title: SITE PLAN

Sheet Number 14 of 18

**C200**

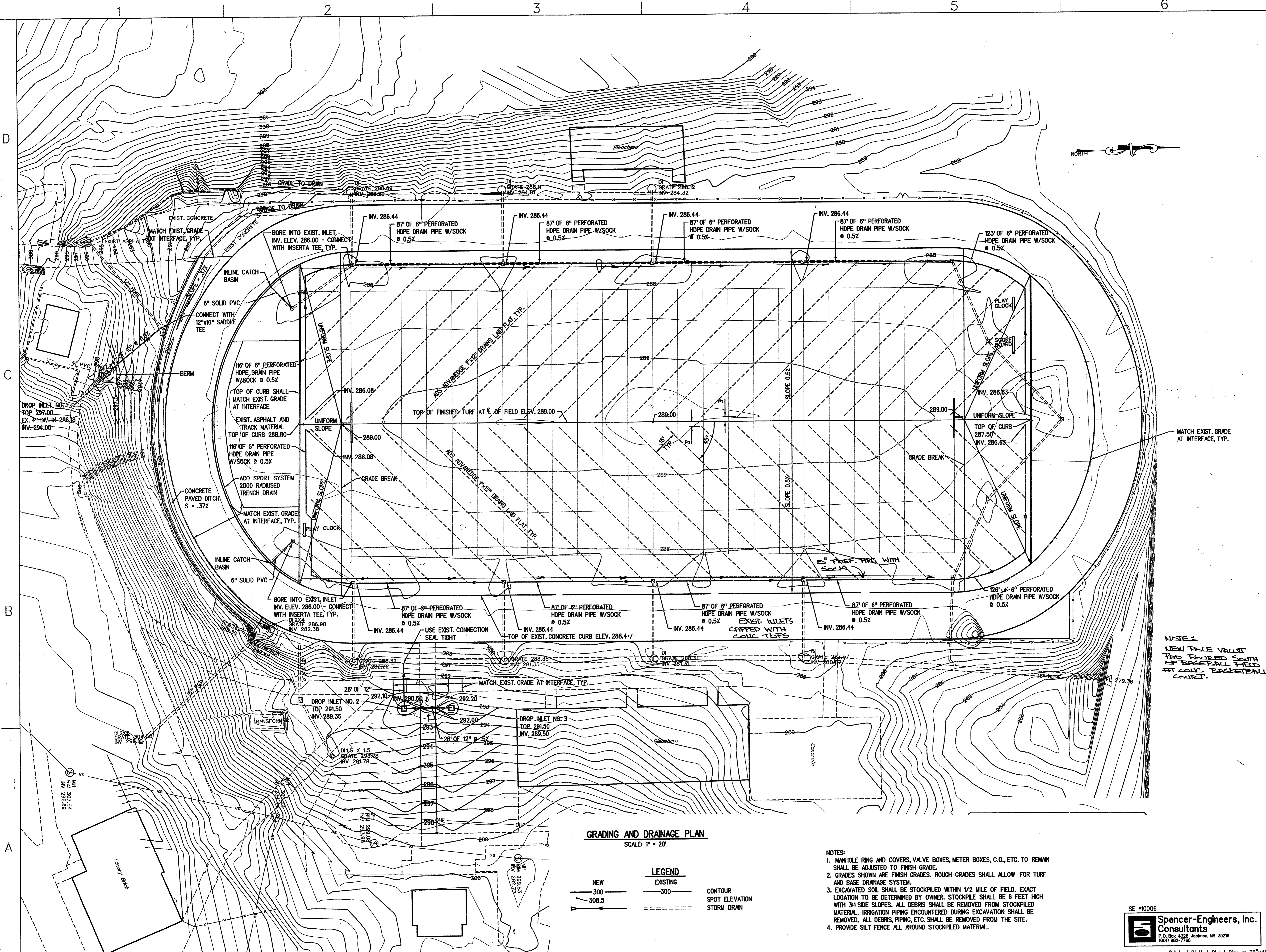
SE \*10006  
**Spencer-Engineers, Inc.**  
Consultants  
P.O. Box 4328 Jackson, MS 39216  
601 982-7768

Original Plotted Sheet Size = 30"x42"



**SITE PLAN**  
SCALE: 1" = 20'

- NOTES:
1. TRACK PROTECTION - THE EXISTING TRACK SHALL BE PROTECTED FROM ALL EQUIPMENT, EARTH SPILLAGE, ETC. NO VEHICLES OR EQUIPMENT ARE ALLOWED ON THE TRACK. RAISED ACCESS FOR ALL EQUIPMENT, TRUCKS, ETC. SHALL BE WHERE SHOWN. ANY DAMAGE TO TRACK SURFACE SHALL BE REPAIRED BY THE CONTRACTOR TO THE OWNER'S SATISFACTION.
  2. ALL DISTURBED AREAS OUTSIDE OF THE TRACK SUCH AS PARKING, TRAILERS, STOCKPILING, ETC. SHALL BE RESTORED TO THE ORIGINAL GRADE AND SEED.
  3. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS AND PAYING ALL APPLICABLE FEES REQUIRED FOR CONSTRUCTION PURPOSES AND UTILITY HOOKUPS.

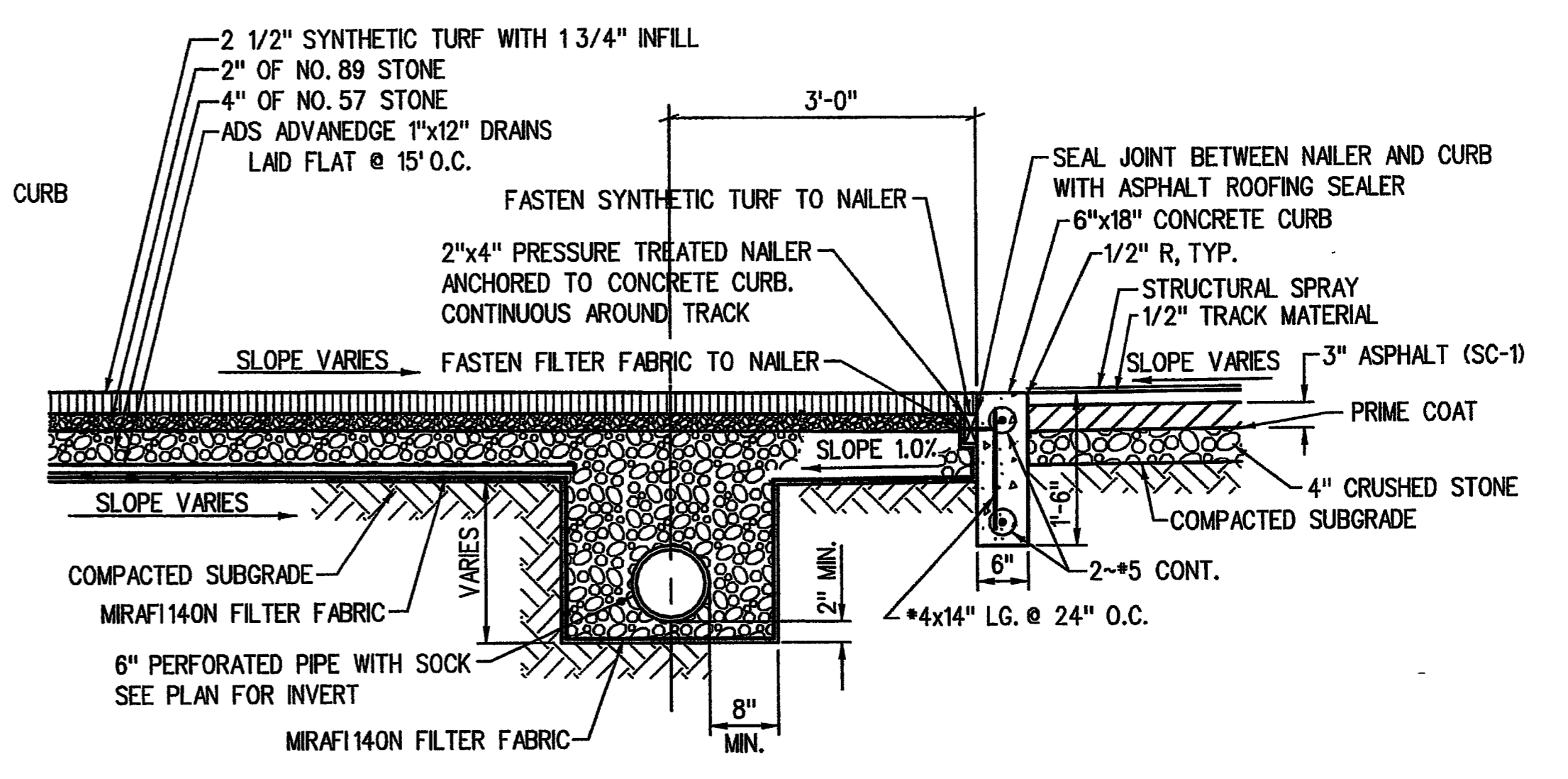


**GRADING AND DRAINAGE PLAN**  
SCALE: 1" = 20'

LEGEND	
— (solid line)	NEW
- - - (dashed line)	EXISTING
— (dotted line)	CONTOUR
▲ (arrow)	SPOT ELEVATION
— (line with cross-ticks)	STORM DRAIN

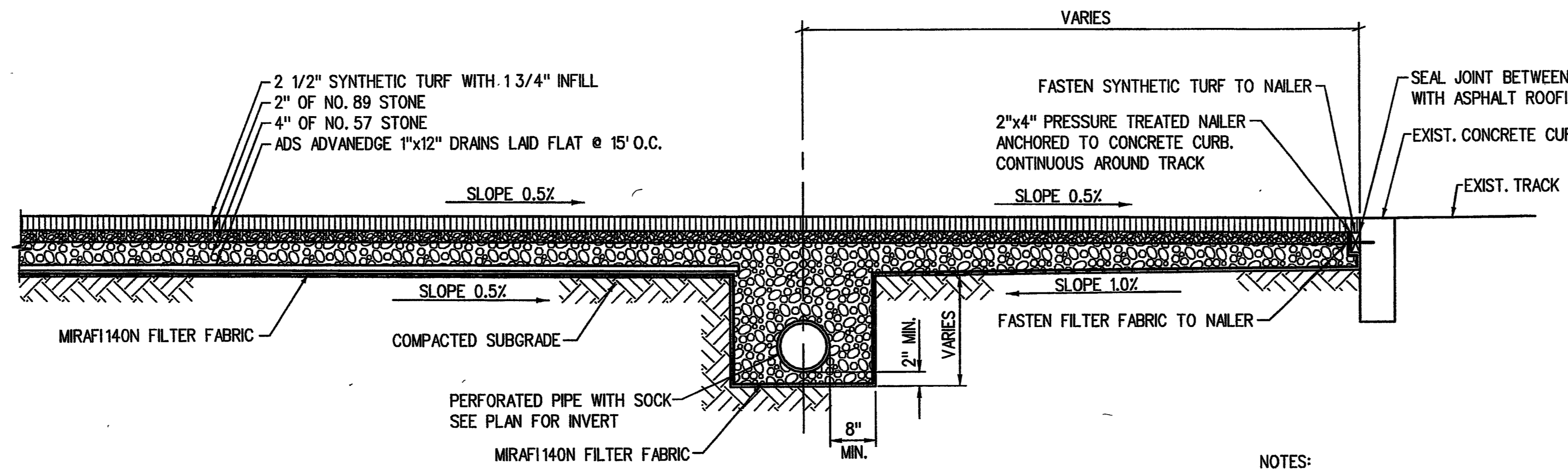
- NOTES:
1. MANHOLE RING AND COVERS, VALVE BOXES, METER BOXES, C.O., ETC. TO REMAIN SHALL BE ADJUSTED TO FINISH GRADE.
  2. GRADES SHOWN ARE FINISH GRADES. ROUGH GRADES SHALL ALLOW FOR TURF AND BASE DRAINAGE SYSTEM.
  3. EXCAVATED SOIL SHALL BE STOCKPILED WITHIN 1/2 MILE OF FIELD. EXACT LOCATION TO BE DETERMINED BY OWNER. STOCKPILE SHALL BE 6 FEET HIGH WITH 3:1 SIDE SLOPES. ALL DEBRIS SHALL BE REMOVED FROM STOCKPILED MATERIAL. IRRIGATION PIPING ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED. ALL DEBRIS, PIPING, ETC. SHALL BE REMOVED FROM THE SITE.
  4. PROVIDE SILT FENCE ALL AROUND STOCKPILED MATERIAL.

NOTE: 1  
NEW PALE VALVE BOX AND PAVED SOUTH OF BASEBALL FIELD AT CONC. BASKETBALL COURT.

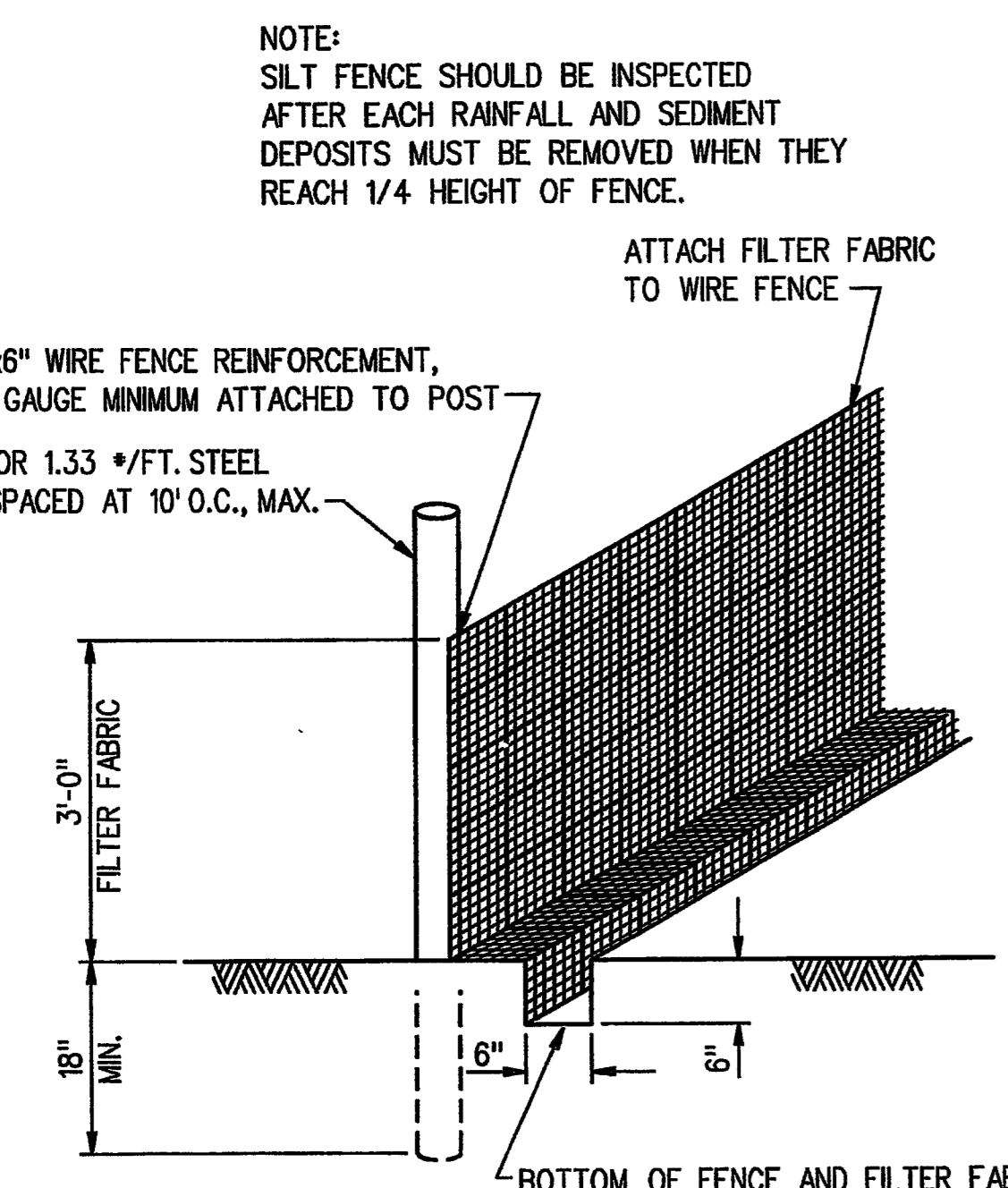


**TYPICAL SECTION SOUTH END AT ASPHALT AND CONCRETE CURB**  
SCALE: NONE

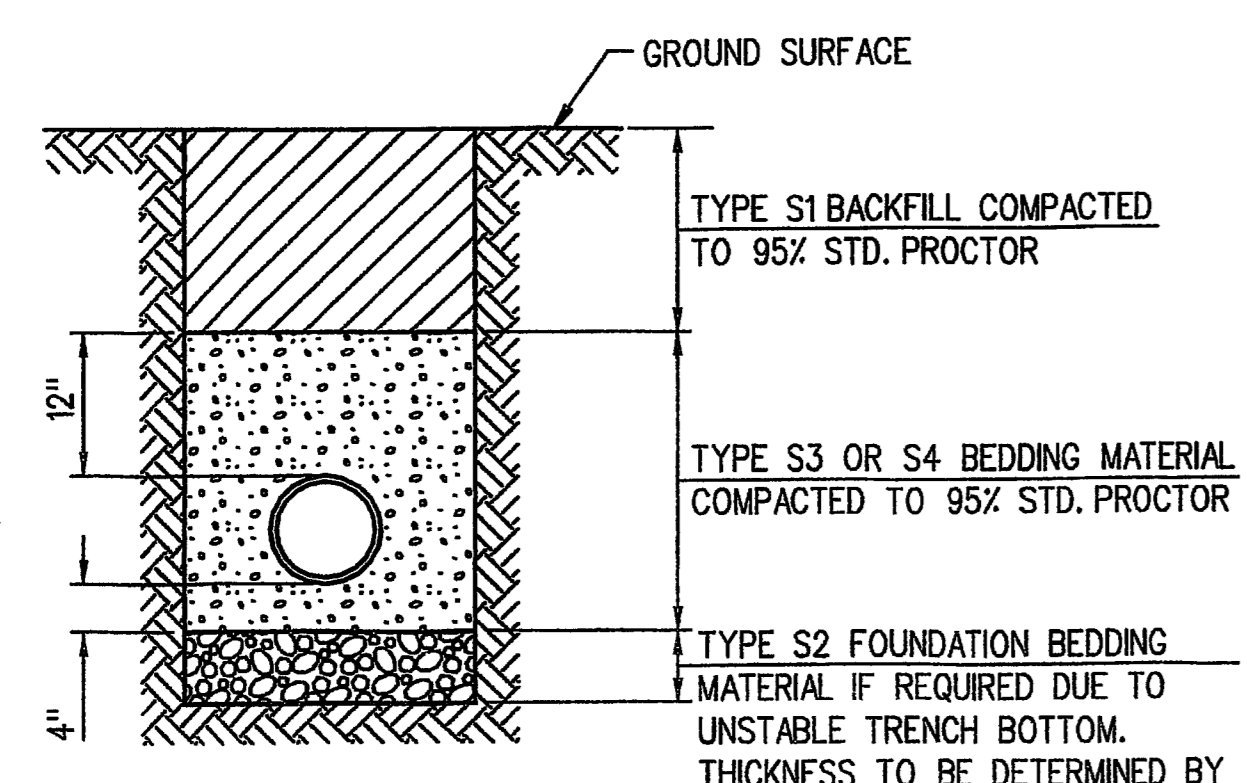
NOTES:  
1. COMPACTED SUBGRADE SHALL BE LASER GRADED.  
2. 4" OF NO. 57 STONE SHALL BE LASER GRADED.  
3. 2" OF NO. 89 STONE SHALL BE LASER GRADED.



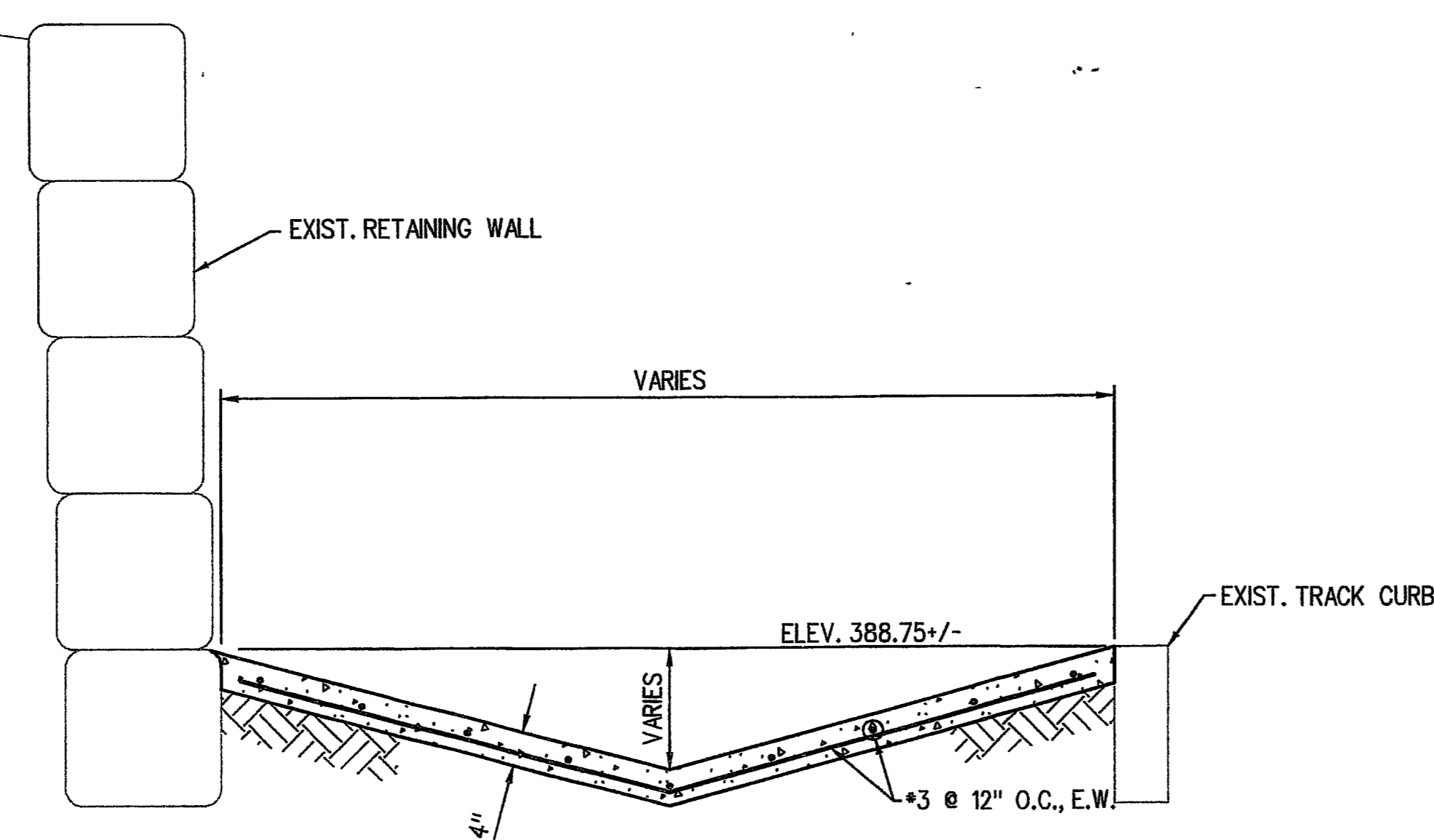
**TYPICAL FIELD SECTION**  
SCALE: NONE



**SILT FENCE DETAIL**  
NO SCALE

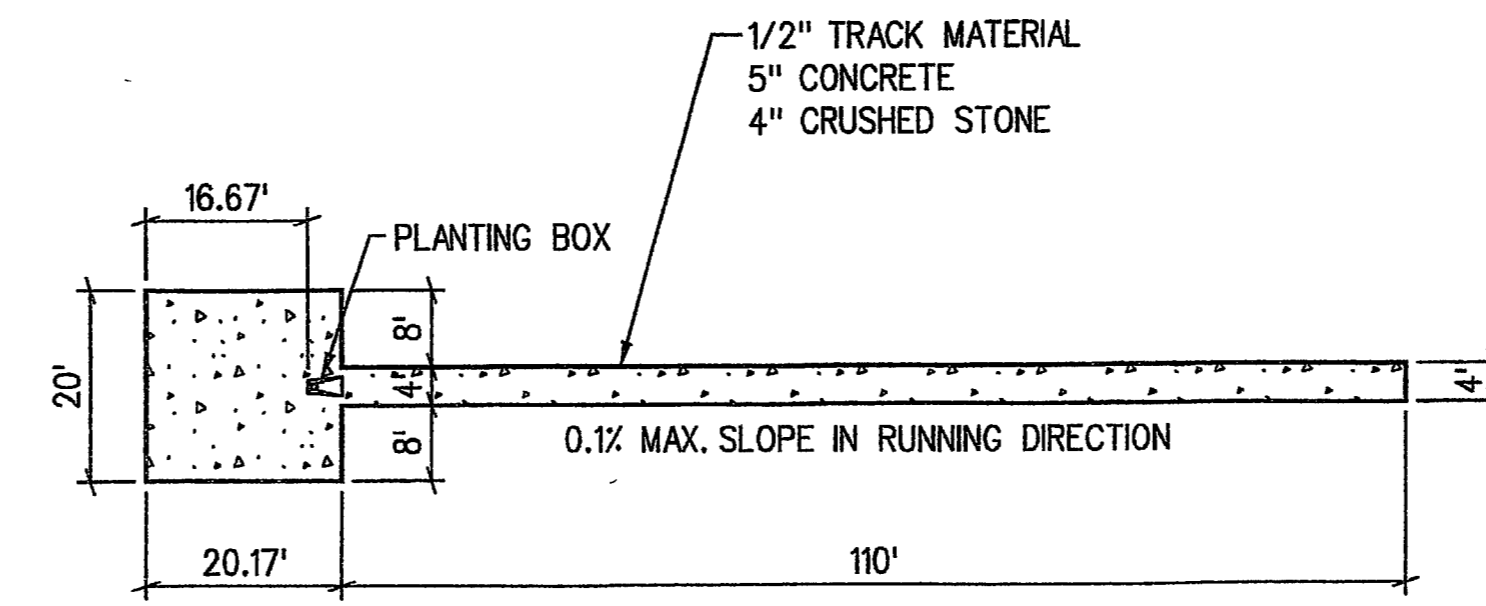


**PVC GRAVITY PIPE OR HDPE TRENCH BEDDING DETAIL**  
NO SCALE



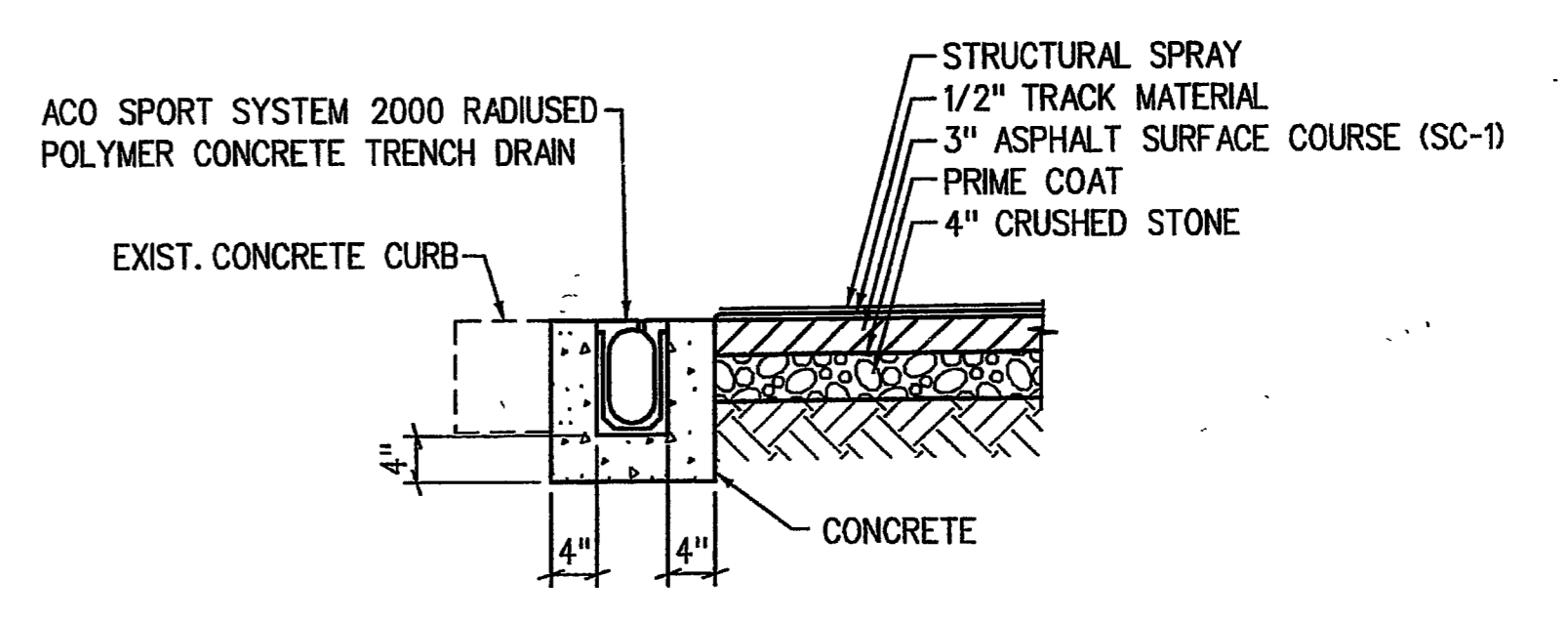
**CONCRETE PAVED DITCH**  
SCALE: NONE

NOTE:  
PROVIDE SAW CUT CONTROL JOINTS @ 20' O.C.

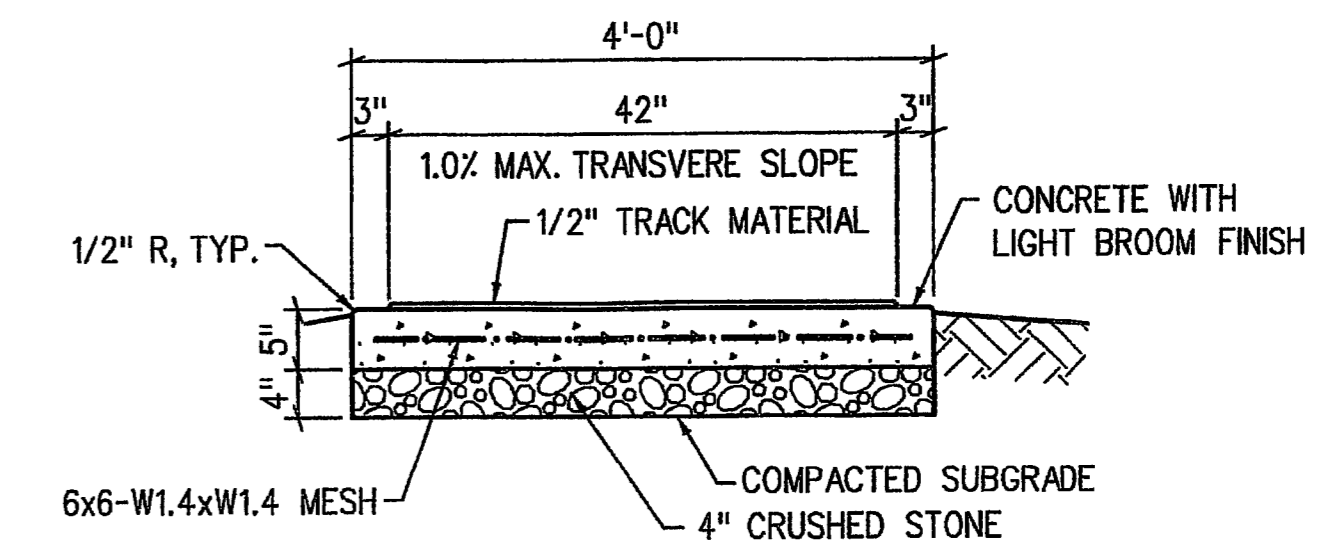


**POLE VAULT PLAN**  
SCALE: NONE

NOTE:  
POLE VAULT TO BE LOCATED BETWEEN THE SOFTBALL FIELD AND THE LONG JUMP AS DIRECTED BY OWNER.

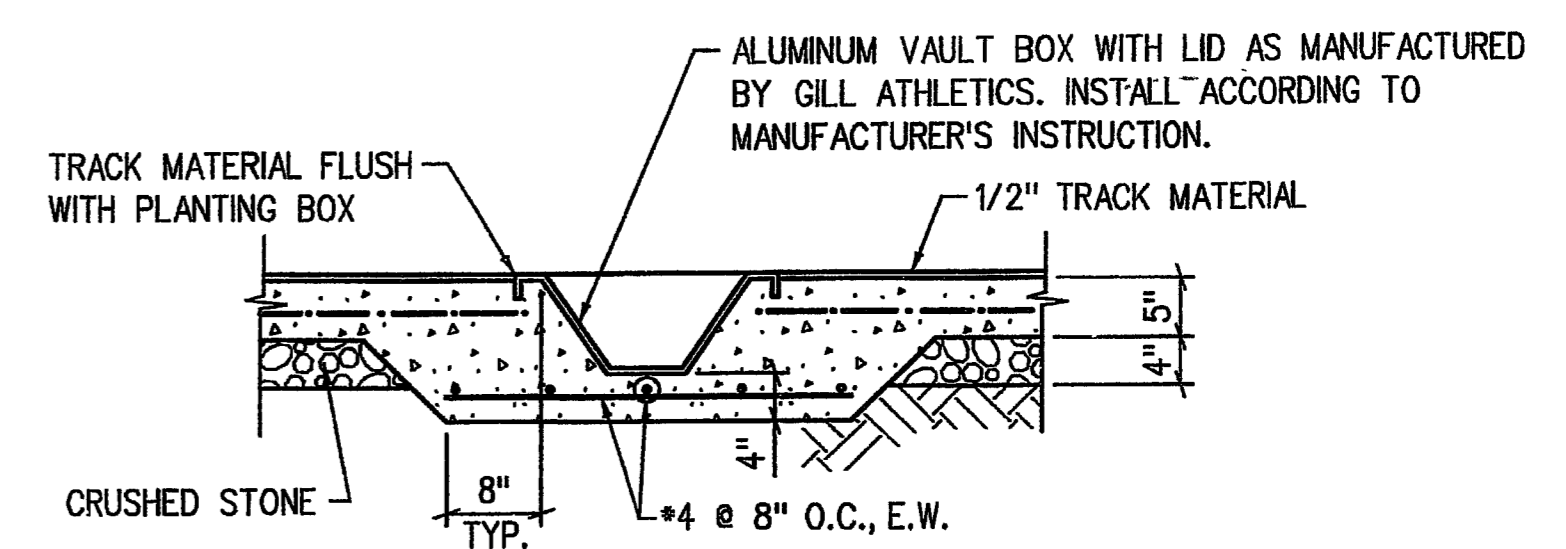


**TRENCH DRAIN DETAIL**  
SCALE: NONE

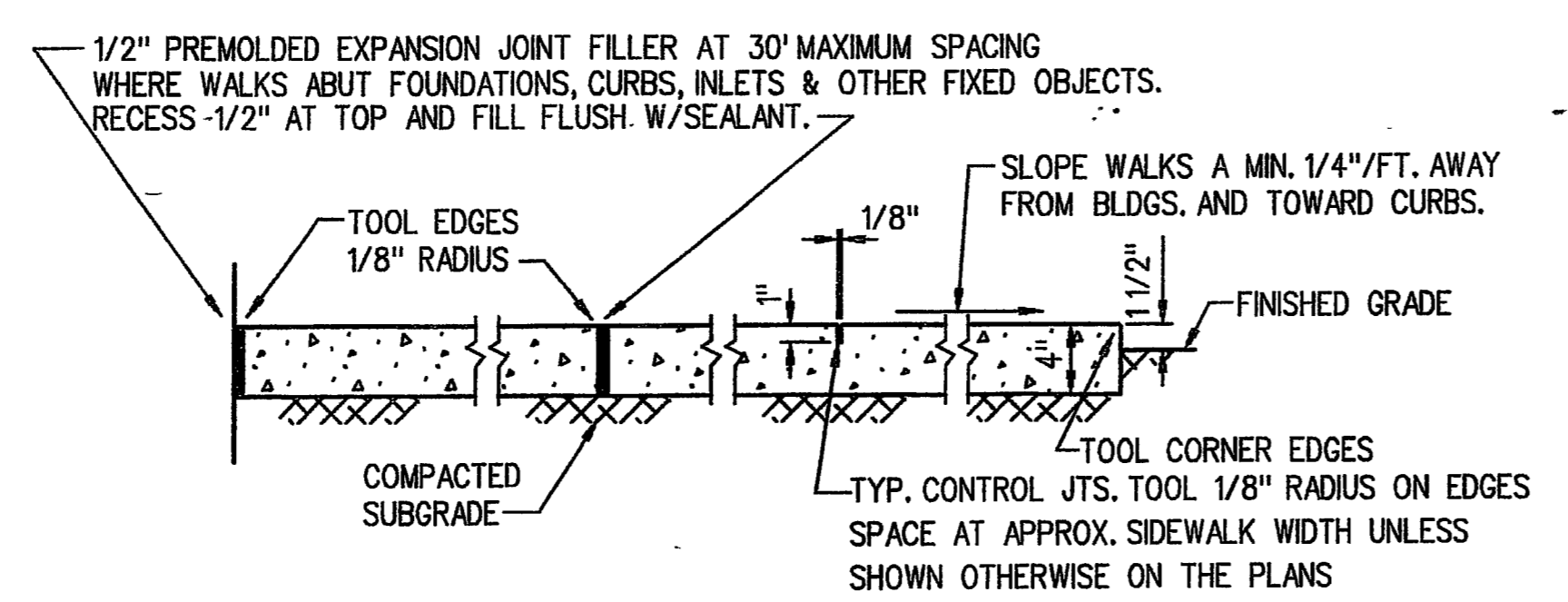


**POLE VAULT RUNWAY SECTION**  
SCALE: NONE

NOTE:  
PROVIDE SAW CUT CONTROL JOINTS @ 20' O.C. IN CONCRETE RUNWAY

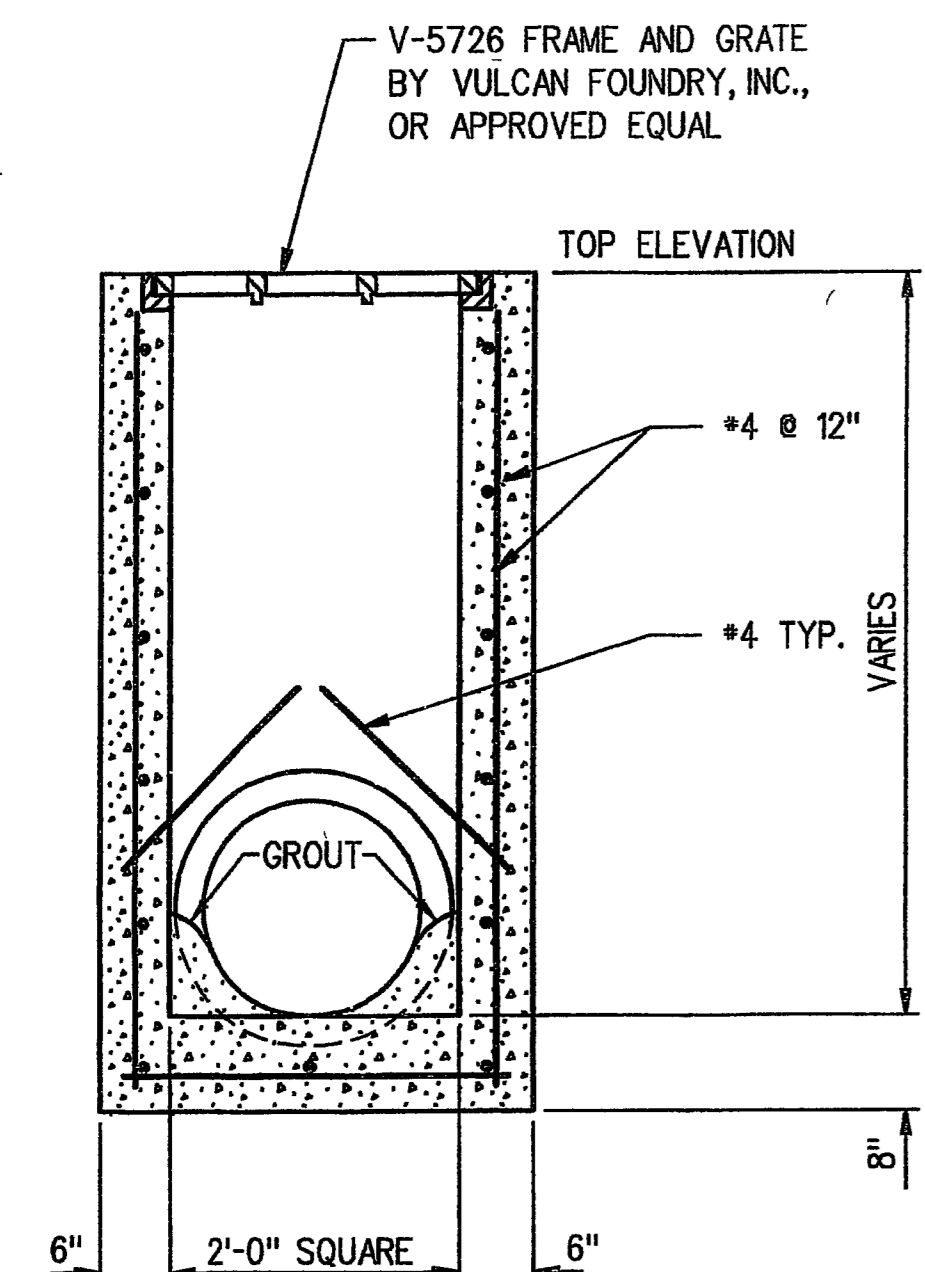


**POLE VAULT PLANT BOX DETAIL**  
SCALE: NONE

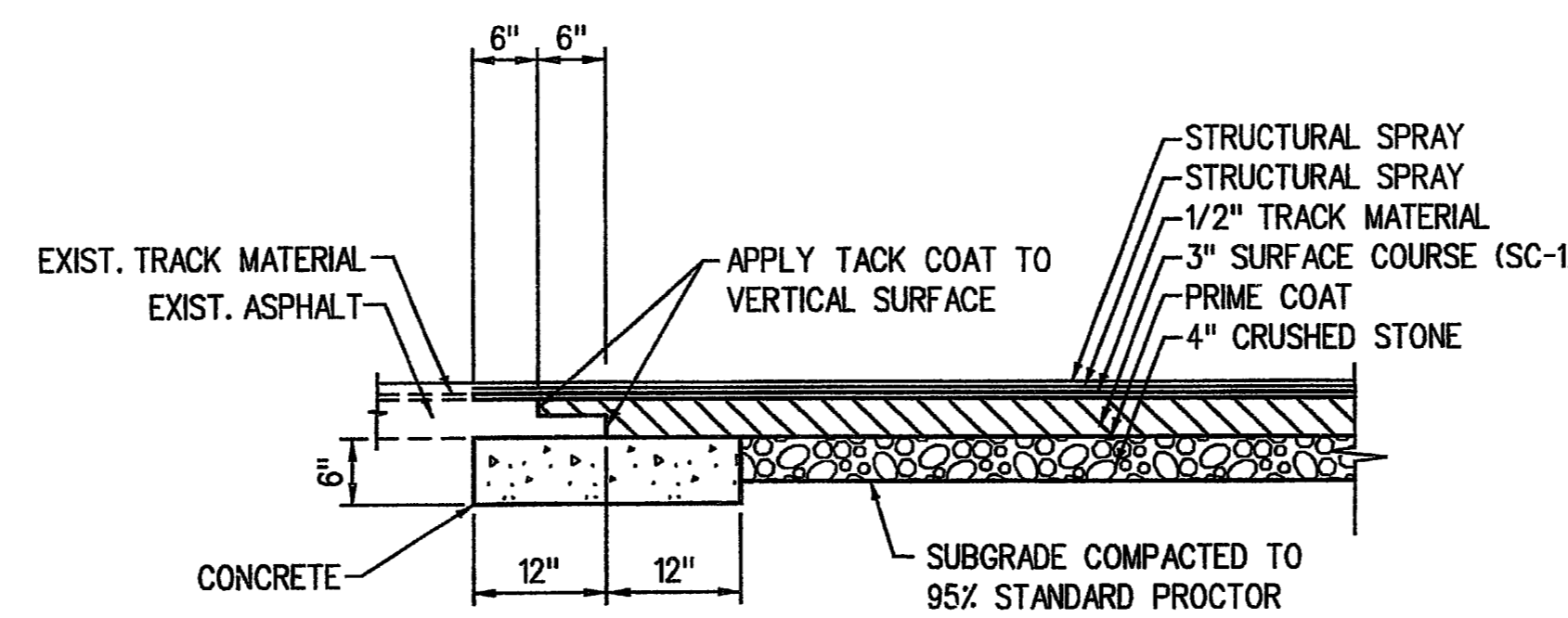


**SIDEWALK DETAIL**  
NO SCALE

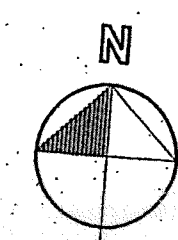
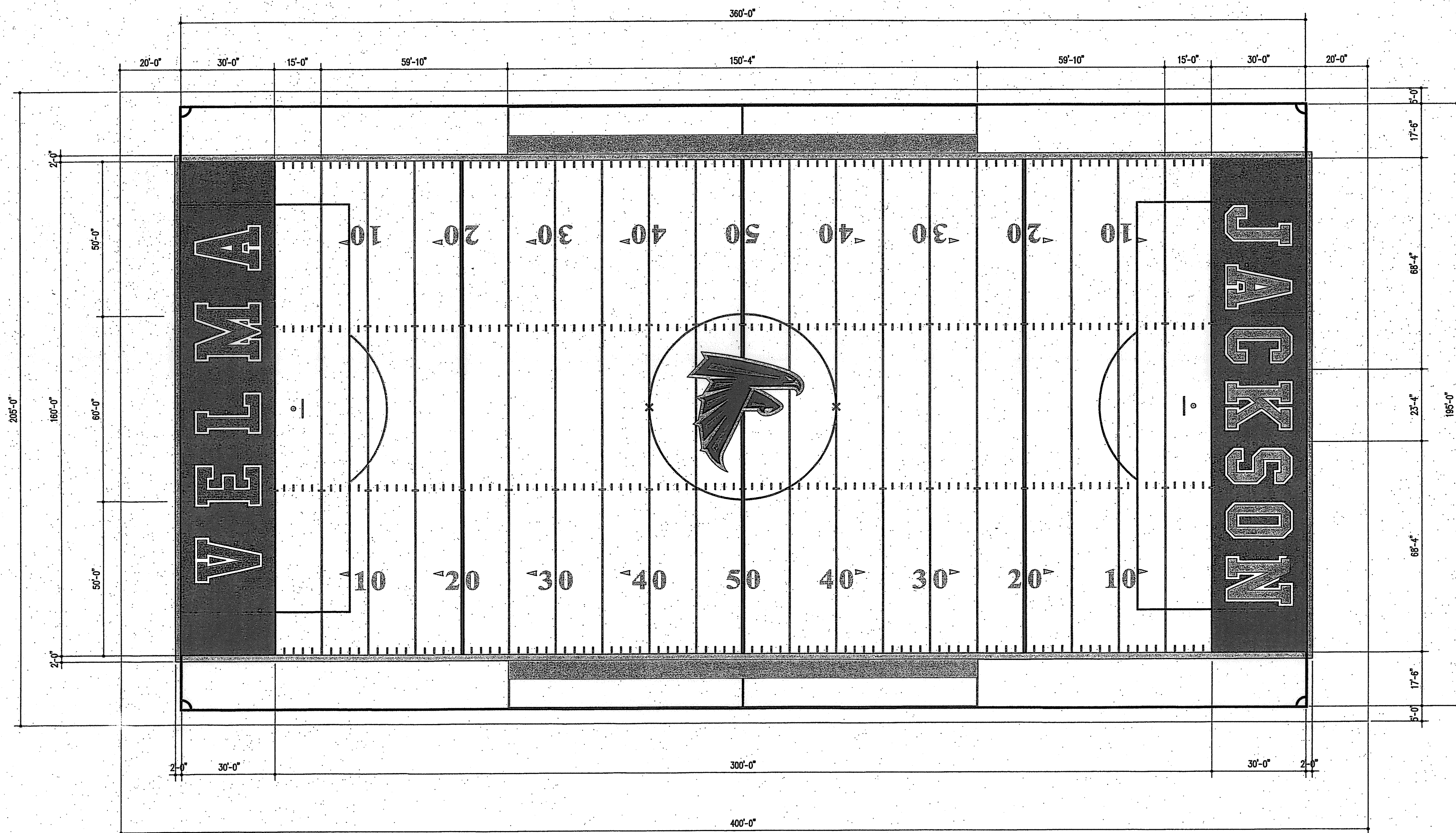
NOTE: 4" CONCRETE SIDEWALK SHALL BE REINFORCED WITH FIBER REINFORCEMENT, SIMILAR AND EQUAL TO FIBERMESH 1.5 POUNDS PER CUBIC YARD.



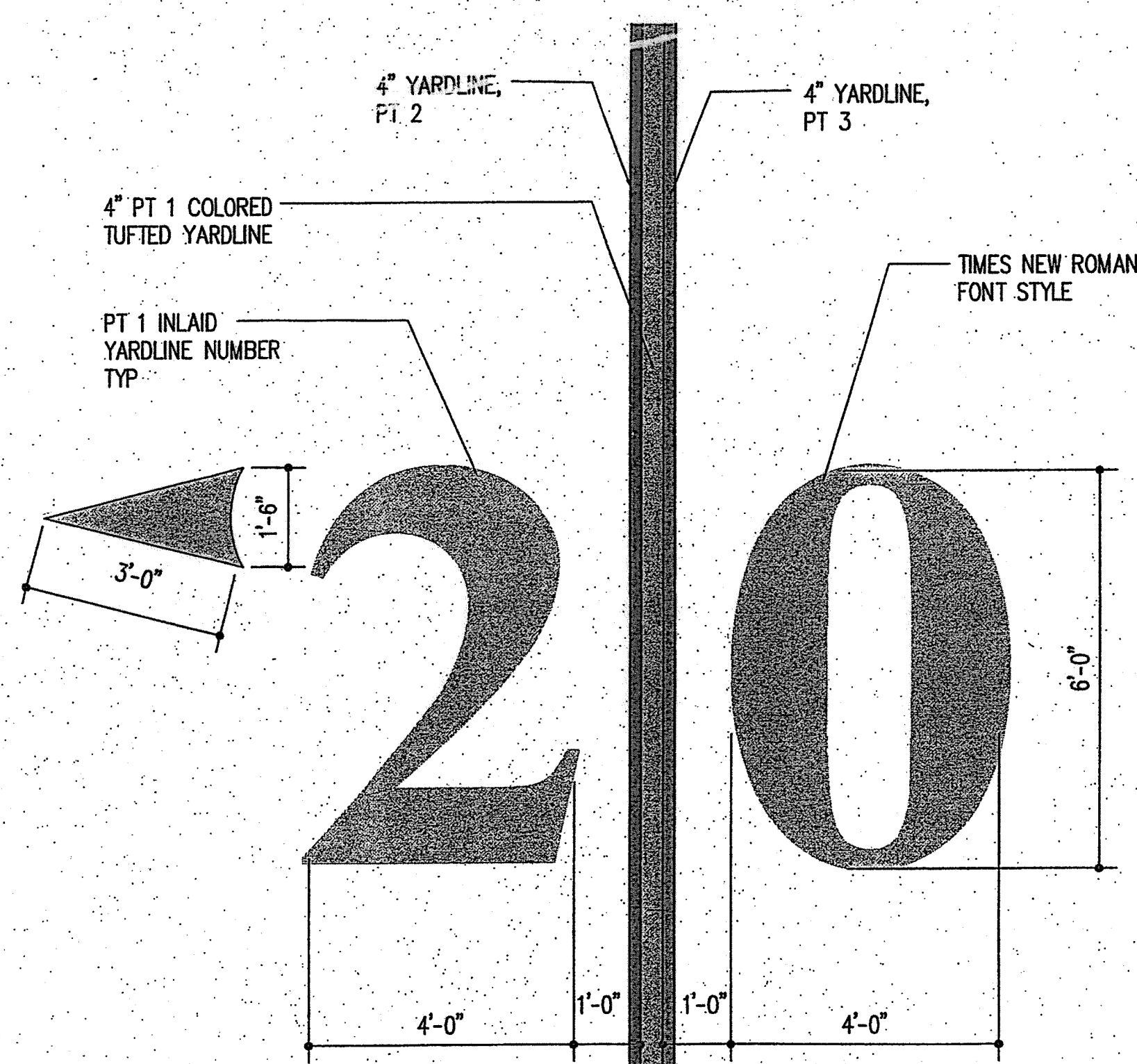
**DROP INLET DETAIL**  
FOR PIPES 12" TO 15" DIA.  
NO SCALE



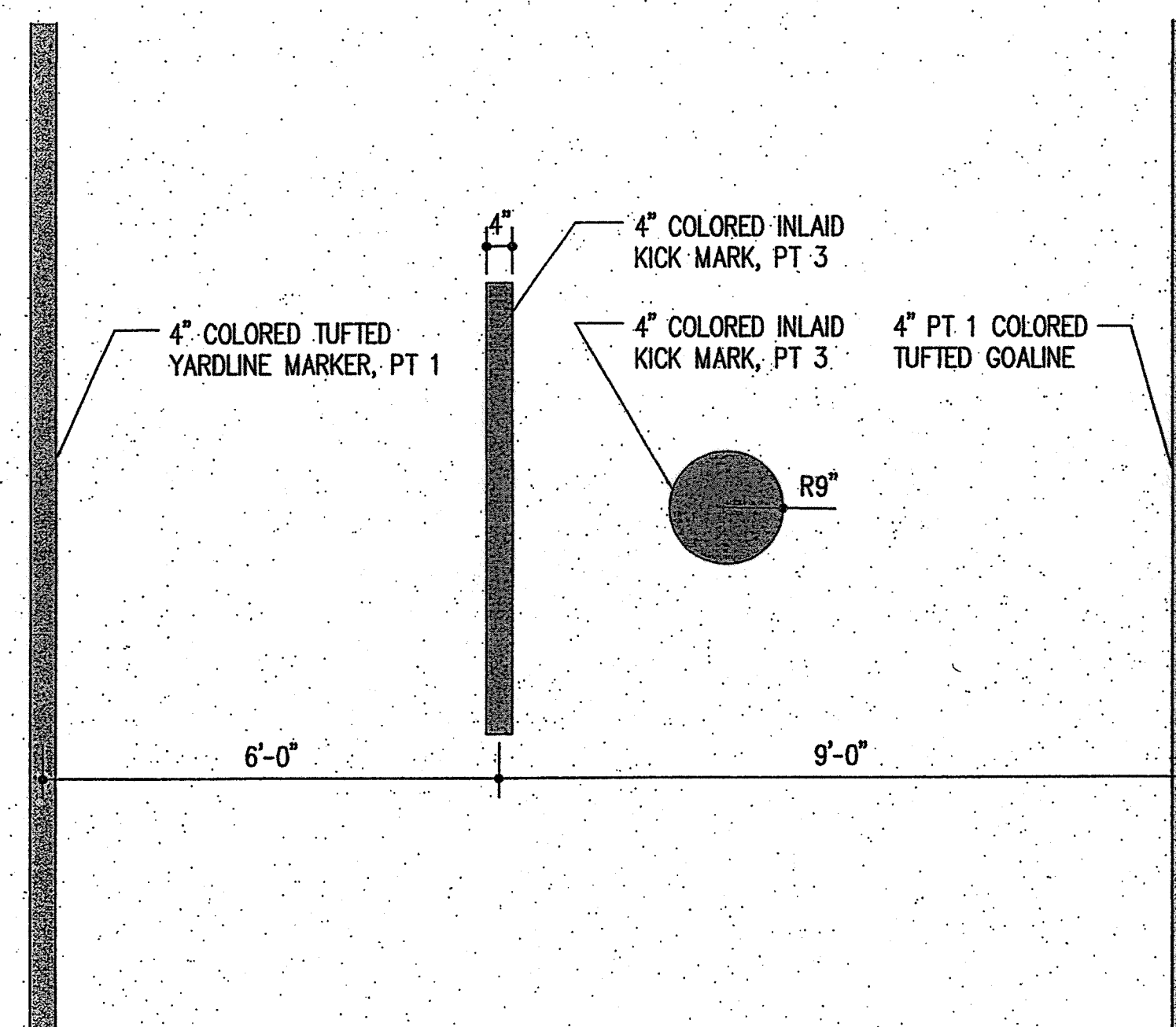
**TYPICAL DETAIL SOUTH 'D' ZONE AT EXISTING HIGH JUMP**  
SCALE: NONE



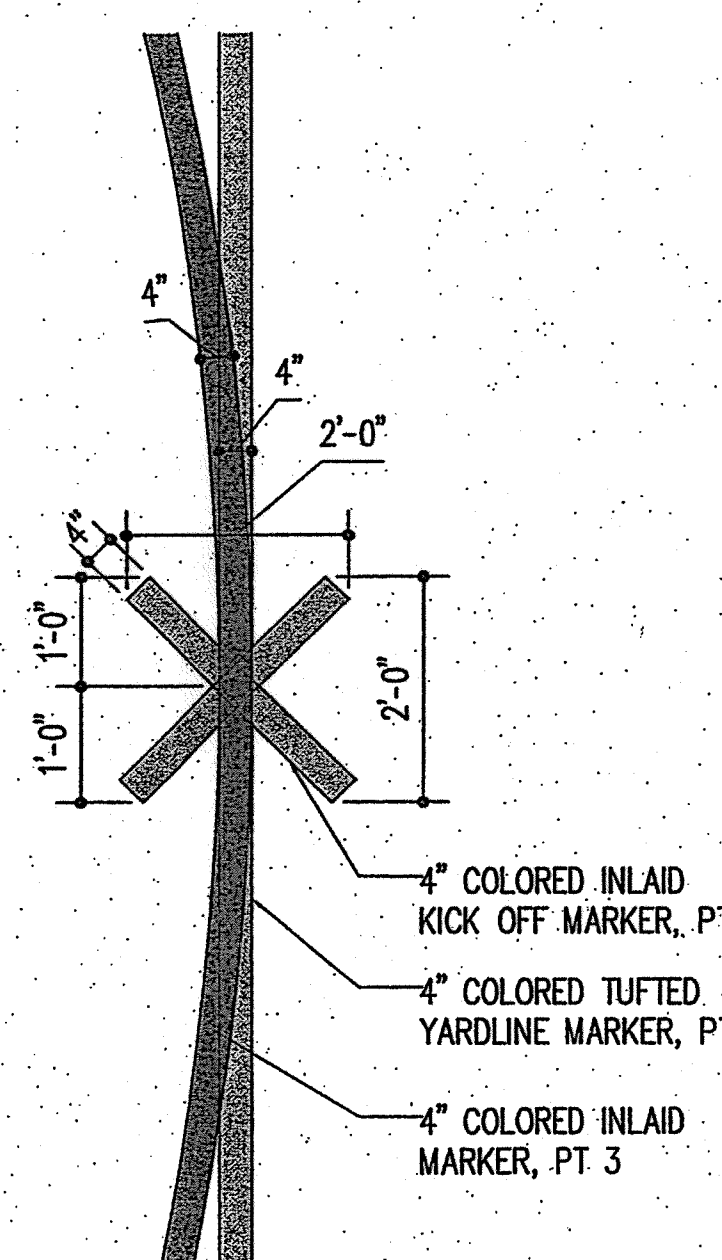
1 FOOTBALL FIELD PLAN  
A101/A101 SCALE: 1"=40'-0"



3 20 YARD LINE DETAIL  
A101/A101 SCALE: 1/2"=1'-0"

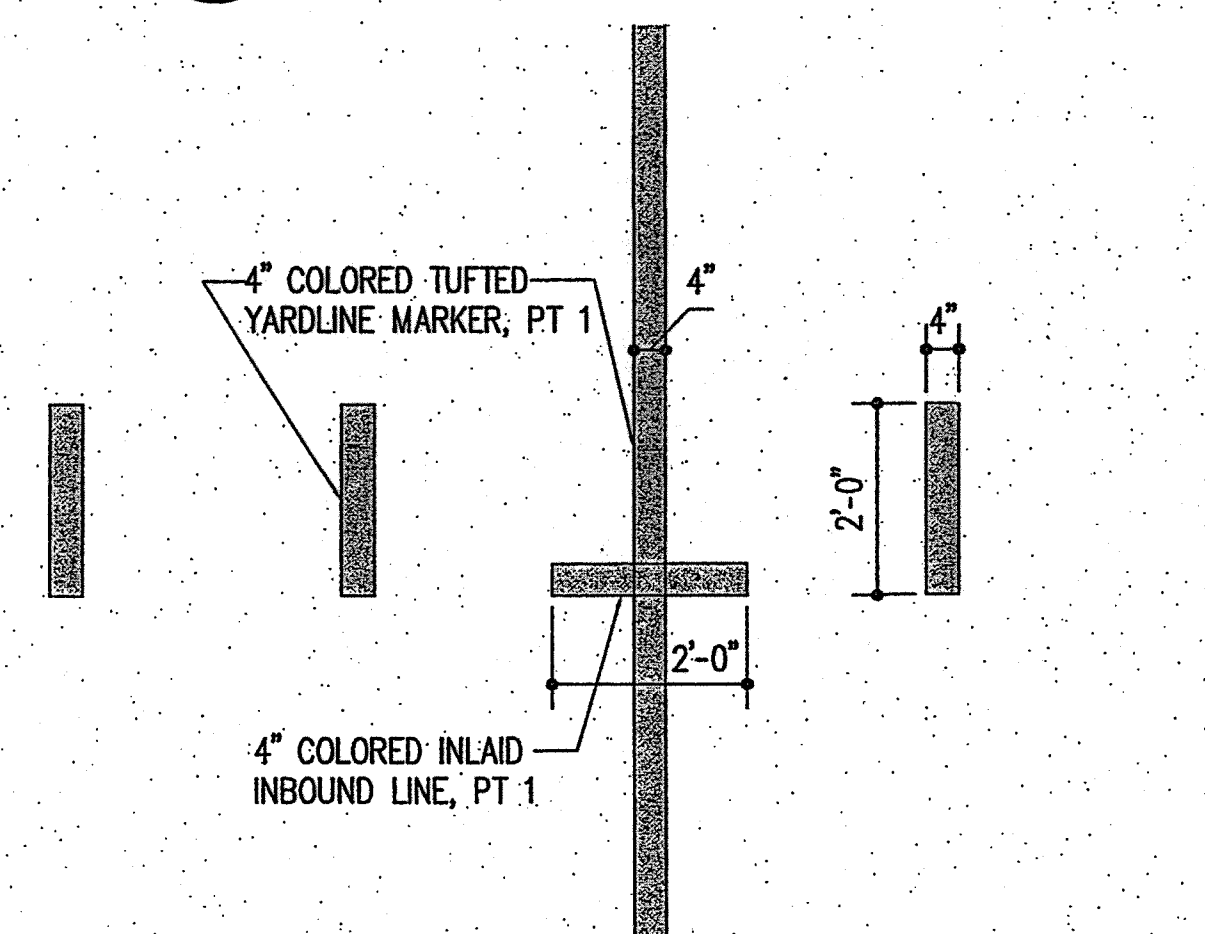


4 EXTRA POINT LINE DETAIL  
A101/A101 SCALE: 1/2"=1'-0"

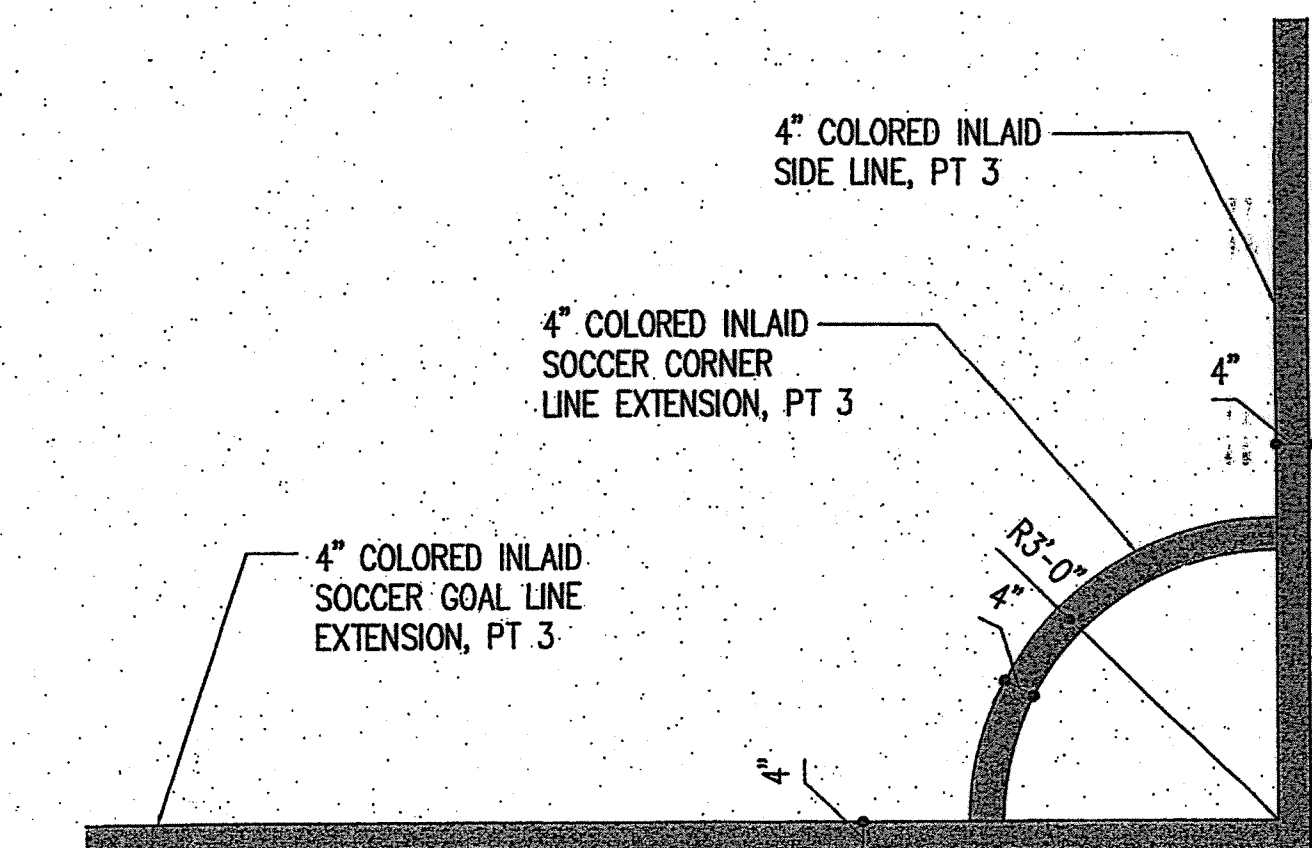


5 KICK OFF MARKER DETAIL  
A101/A101 SCALE: 1/2"=1'-0"

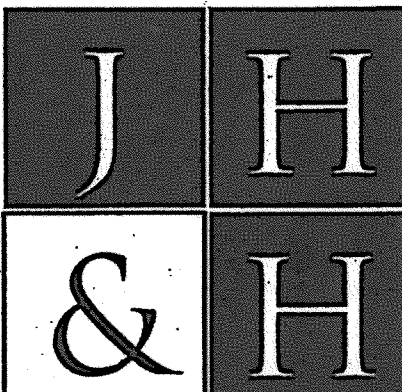
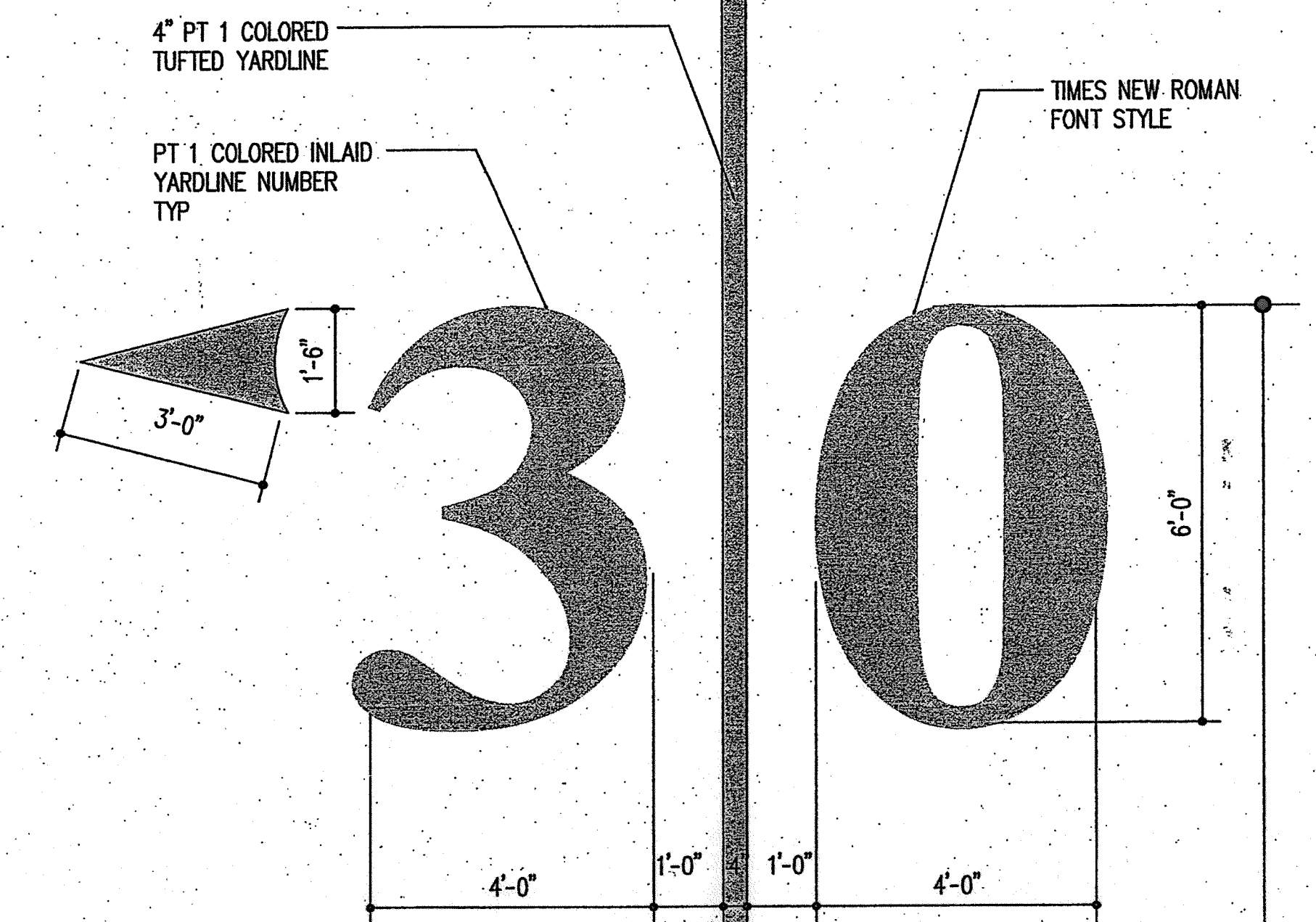
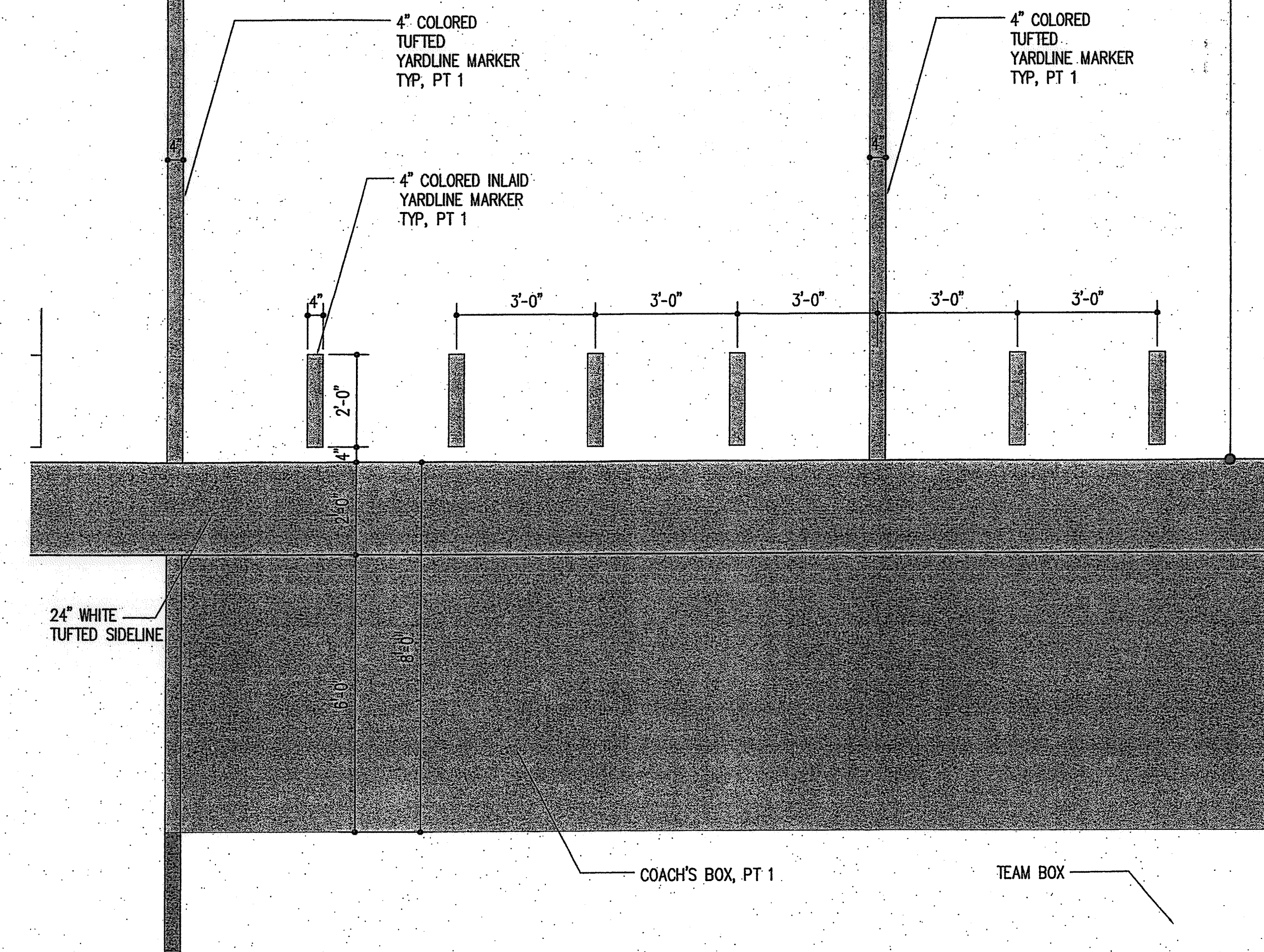
2 SIDELINE AND YARDLINE DETAIL  
A101/A101 SCALE: 1/2"=1'-0"



6 INBOUND LINE DETAIL  
A101/A101 SCALE: 1/2"=1'-0"



7 SOCCER CORNER LINE DETAIL  
A101/A101 SCALE: 1/2"=1'-0"



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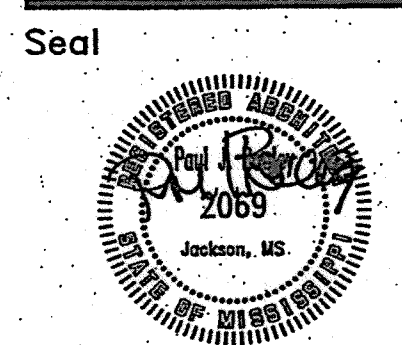
Revisions:  
1  
2  
3  
4

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Project: JEFFCOAT  
Architect: JEFFCOAT  
Project Number: 10-101B  
Date: 08/11/2010  
Drawn by: LMA  
Checked by: PJB

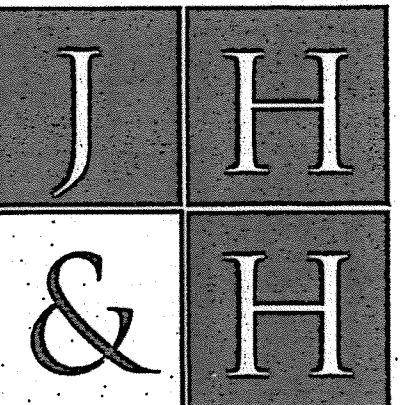
Project:  
Seal:  
Sheet Title:  
Sheet Number: 17 of 18

VELMA JACKSON HIGH SCHOOL  
ATHLETIC IMPROVEMENTS  
MADISON COUNTY SCHOOL DISTRICT  
CAMDEN, MS



Sheet Title:  
A FOOTBALL FIELD LAYOUT AND DETAILS

A101



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Project: \_\_\_\_\_  
Architect: \_\_\_\_\_

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3 \_\_\_\_\_  
4 \_\_\_\_\_  
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Project: **JEFFCOAT**  
Project Number: **10.101B**  
Date: **09/11/2010**  
Drawn by: **LMA**  
Checked by: **PJB**

Project: \_\_\_\_\_  
Architect: \_\_\_\_\_

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Architect: \_\_\_\_\_

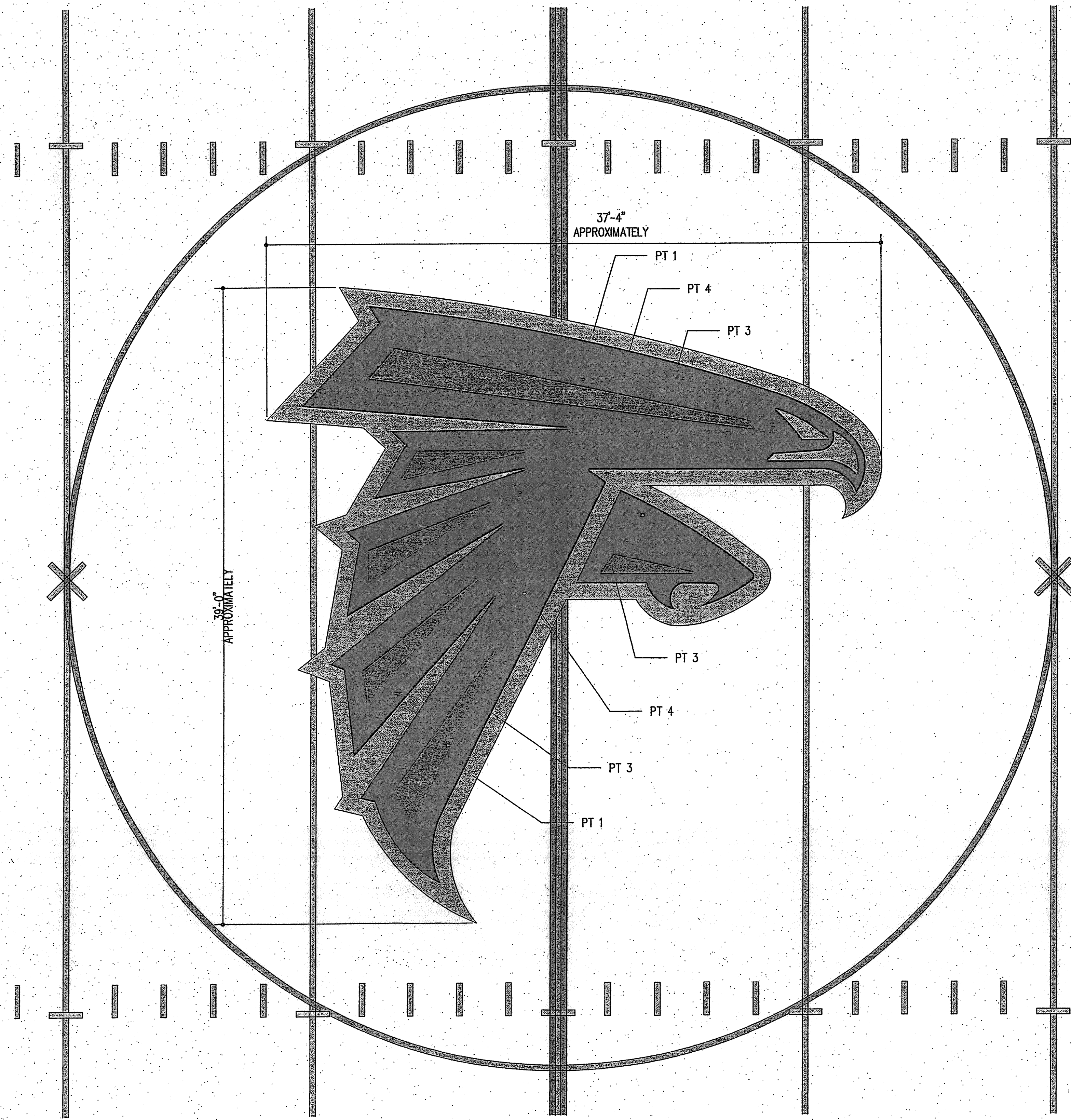
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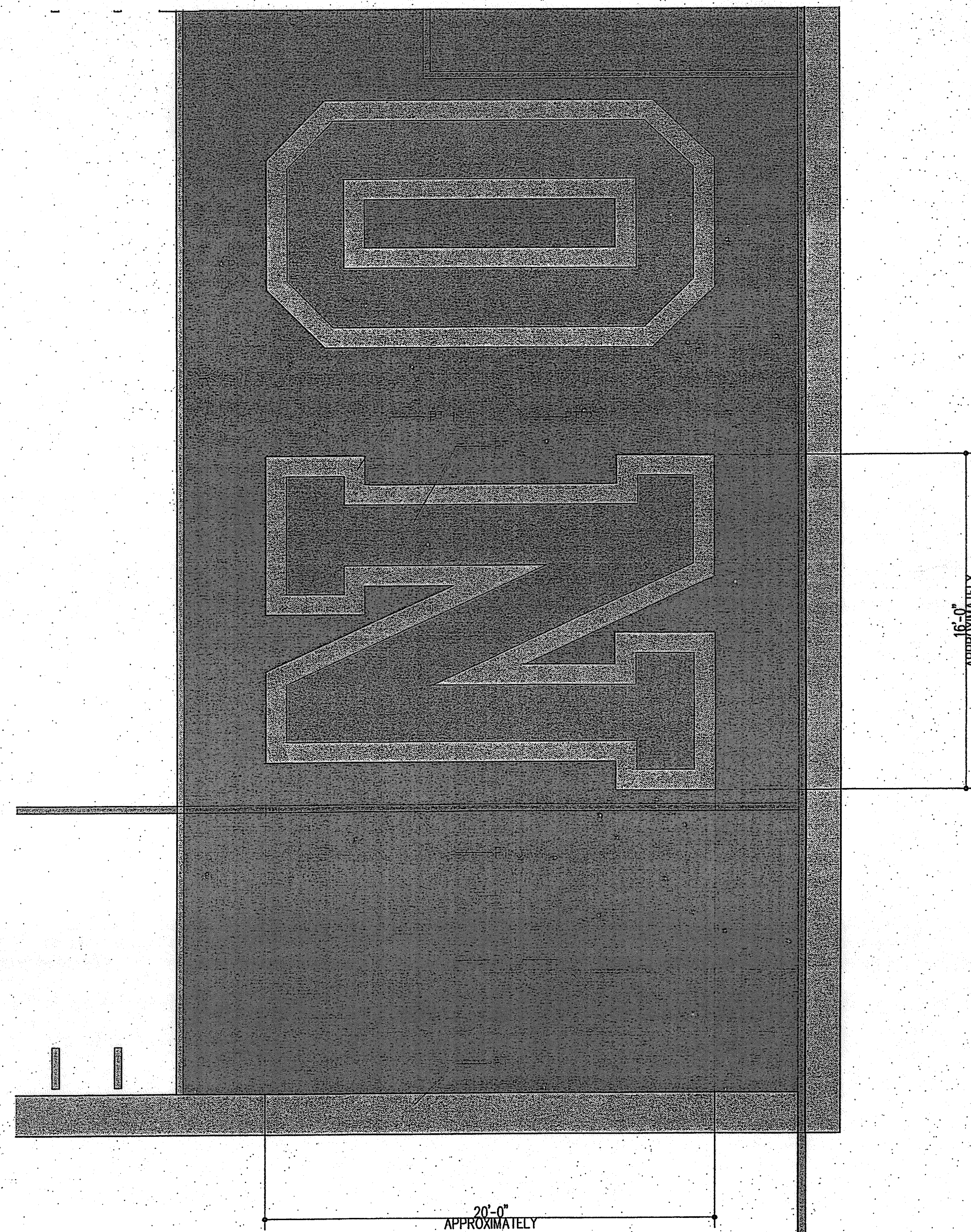
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Project: \_\_\_\_\_  
Architect: \_\_\_\_\_

Project: \_\_\_\_\_  
Architect: \_\_\_\_\_



**1** CENTER LOGO DETAIL  
A101/A102 SCALE: 1/4"=1'-0"

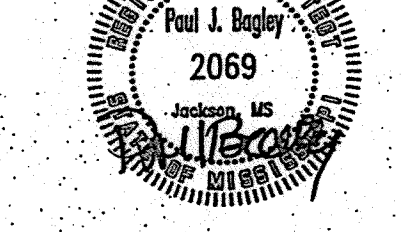


**2** ENDZONE LETTER DETAIL  
A101/A102 SCALE: 1/4"=1'-0"

Project: **VELMA JACKSON HIGH SCHOOL  
ATHLETIC IMPROVEMENTS  
MADISON COUNTY SCHOOL DISTRICT  
CAMDEN, MS**

Project: \_\_\_\_\_  
Architect: \_\_\_\_\_

Project: \_\_\_\_\_  
Architect: \_\_\_\_\_



Project: \_\_\_\_\_  
Architect: \_\_\_\_\_

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Architect: \_\_\_\_\_

**SUBSURFACE INVESTIGATION**

**FOR**

**VELMA JACKSON HIGH SCHOOL  
TRACK RENOVATION AND CONSTRUCTION  
MADISON COUNTY, MISSISSIPPI**

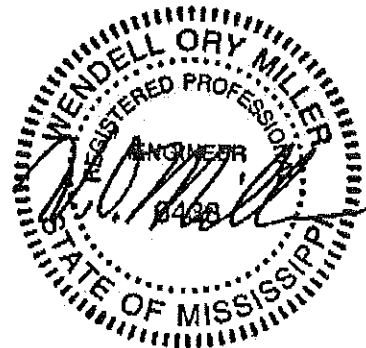
**NOVEMBER 2005**

**BY**

**LADNER TESTING LABORATORIES, INC.  
P.O. BOX 10778  
JACKSON, MISSISSIPPI 39289-0778**

**WITH**

**GEOTECHNICAL ASSOCIATES NETWORK, LLC  
110 BEECHTREE ROAD  
VICKSBURG, MISSISSIPPI 39183-7464**



SUBSURFACE INVESTIGATION FOR  
VELMA JACKSON HIGH SCHOOL  
TRACK RENOVATION AND CONSTRUCTION  
MADISON COUNTY, MISSISSIPPI

**PURPOSE**

The purposes of this subsurface investigation are as follows:

- a. To determine the general characteristics of the subsurface soils within the area of the proposed construction;
- b. To determine by field and laboratory testing, the physical characteristics of the foundation soils and the soil samples collected; and
- c. To make recommendations for foundation construction at this particular location.

**FIELD INVESTIGATION**

Seven subsurface borings were made at the site of the Velma Jackson High School track in Madison County, Mississippi. The borings were advanced with a truck mounted, powered continuous flight auger. Auger cuttings of the soil medium were collected at changes in strata and at intervals not exceeding five feet in depth. All samples were stored in sealed containers for later classification and testing. In addition, standard penetration resistance values (see ASTM D-1586-84) were determined and recorded on the boring logs for the various materials encountered. The Standard Penetration Test gives an indication of the in-place shear strength of cohesive soils and the relative density of cohesionless soils by recording the number of blows required, by a 140-pound hammer falling 30 inches, to drive a 2-inch O.D. splitspoon sampler one foot. No water

levels were observed or recorded during drilling and sampling operations at the site.

### LABORATORY INVESTIGATION

Laboratory testing of selected soil samples included visual classification, Atterberg limits on cohesive soils with determination of the plasticity index (PI), grain size analyses, and in situ moisture contents. Atterberg limits (ASTM D-4318-93) were run on the clayey soils in an effort to estimate the susceptibility of these soils to shrink and swell with changes in moisture content. Liquid and plastic limits were run on samples selected from some of the various materials encountered. The liquid limit (LL) is the moisture content at which a soil changes from a plastic state to a viscous liquid state. The plastic limit is the moisture content at which a soil changes from a solid state to a plastic state. The plasticity index is the numerical difference between the liquid limit and the plastic limit and is indicative of the relative activity or sensitivity of a cohesive soil.

Grain size analyses (ASTM D-422-63) were conducted on representative samples of the various soils encountered to determine the particle size distribution of materials comprising the strata. Results of these tests were utilized in classifying the soils by the Unified Soil Classification System and in estimating the California Bearing Ratio (CBR) of the prospective subgrade soils. Classifications for each of the soil samples are shown on the boring logs attached to this report.

To aid in the general interpretation of the soil conditions at the site, in situ moisture contents were determined for samples selected from the various soils encountered. This determination was made possible by placing extracted samples in sealed containers immediately upon removal from each interval. The results of these and other tests are recorded on the attached boring logs.

## SUBSURFACE CONDITIONS

The site of the proposed track renovation for Velma Jackson High School is in Section 27, Township 11 North, Range 4 East, 2000 Loring Road, Camden, Madison County, Mississippi. This site lies in the Gulf Coastal Plain of North America and in the North Central Hills physiographic province of Mississippi.

Structurally, the site is on the east flank of the Mississippi Embayment and in the Mississippi Interior Salt Basin, near its northeastern limit. Stratigraphically, soils in this area are derived from the Eocene Cockfield Formation and recent stream-valley alluvial deposits. The Cockfield Formation is non-marine and consists of sands, silts, and clays which may exhibit abrupt lithologic changes.

Seven borings were placed at the site: four to depths of 5 feet (Boring Nos. B-1 through B-4 around the existing track) and three to depths of 10 feet (Boring No. B-5 at the concession stand building, Boring No. B-6 at the restroom building, and Boring No. B-7 located south of the existing baseball field). The soils consisted of lean, lean with sand, sandy lean, silty lean with sand, sandy silty, and silty clays with organics (CL); heavy clays and heavy clays with sand (CH); silty sands (SM); and clayey sands (SC). The clays had consistencies which ranged from medium to very stiff and the sands had relative densities which varied from loose to medium, as inferred from Standard Penetration Test (SPT) blow counts.

In the four, 5-foot-deep borings around the existing track, asphalt was encountered at the surface. Thickness of the asphalt ranged from 4 inches in Boring No. B-1 to 4.5 inches in Boring Nos. B-2 and B-3 to 4.75 inches in Boring No. B-4. Below the asphalt, lean clay, lean clay with sand, silty clay with sand, sandy silty clay, and silty clay with organics (CL) were encountered. The organics were noted between 1 and 3 ½ feet deep in Boring No. B-4. Colors of these clays consisted of various combinations of gray, tan, brown, and red.

Consistencies in these clays were inferred as medium to stiff from SPT blow counts ranging from 5 to 15 blows (averaging approximately 8 blows). Field moisture contents ranged from 14.7 percent to 24.5 percent and averaged 18.7 percent. These are low to medium plasticity clays with liquid limits ranging from 25 percent to 44 percent (averaging approximately 34 percent) and plasticity indices ranging from 8 percent to 28 percent (averaging approximately 16 percent). Small to moderate changes in volume could be noted with changes in moisture content. Percentages of these clays passing through the #200 grain-size sieve ranged from 57.8 percent to 87.7 percent and averaged 75.7 percent with the lesser percentages indicating higher sand contents in these clays.

Gray and red heavy clay (CH) was encountered in Boring No. B-1 between 3 ½ and 5 feet deep (the depth of the boring) and red and gray heavy clay with sand was noted between 2 ½ and 3 ½ feet deep in Boring No. B-2. The consistency in Boring No. B-1 was medium, as suggested by a SPT blow count of 7 blows. These heavy clay strata had field moisture contents of 25.8 percent and 27.5 percent. These are high plasticity clays with liquid limits of 55 percent and 58 percent and plasticity indices of 33 percent and 40 percent. The shrink/swell potential is high and significant changes in volume could be noted with changes in moisture content of these materials. The percentage of these materials which passed the #200 grain-size sieve ranged from 84.8 percent to 86.0 percent.

In Boring No. B-3, tan, red, and gray clayey sand (SC) was encountered between 2 ½ feet and 5 feet deep. The relative density was medium, as suggested by a SPT blow count of 12 blows. The field moisture content within this stratum was 21.4 percent. This is a low plasticity clayey sand with a liquid limit of 34 percent and a plasticity index of 15 percent. The shrink/swell potential for this material is low and only small changes in volume should be noted with changes in moisture content. The percentage of this clayey sand passing through the #200 grain-size sieve was 36.6 percent.

In Boring No. B-2, red and gray silty sand (SM) was encountered between 3 ½ and 5 feet deep. The relative density was loose, as suggested by a SPT blow count 9 blows. The field moisture content within this stratum was 11.3 percent. This is a non-plastic stratum with no measurable liquid or plastic limits. Therefore, no significant changes in volume are expected with changes in moisture content. The percentage of this silty sand passing through the #200 grain-size sieve was 20.6 percent.

Boring No. B-5, located at the concession stand building, encountered heavy clay with sand and heavy clay (CH) from the surface to the full depth of the boring at 10 feet. Colors of the heavy clay with sand from the surface to a depth of 8 ½ feet were various combinations of red, tan, and gray. Gray heavy clay was noted between 8 ½ and 10 feet deep. The consistencies varied from medium to stiff, as suggested by SPT blow counts which ranged from 7 to 9 blows and averaged 8 blows. These heavy clays had field moisture contents which ranged from 18.6 percent to 32.0 percent and averaged 25.6 percent. These are high to very high plasticity clays with liquid limits varying from 53 percent to 65 percent (averaging approximately 59 percent) and plasticity indices ranging from 34 percent to 49 percent (averaging approximately 40 percent). The shrink/swell potential is high to very high and large changes in volume could be noted with changes in moisture content of these materials. The percentage of these materials which passed the #200 grain-size sieve ranged from 71.4 percent to 93.7 percent, and averaged 79.6 percent.

Boring No. B-6, located at the restroom building, encountered sandy lean and sandy silty clay (CL) interbedded with silty sand (SM). Tan and gray sandy lean clay was noted from the surface to 2 ½ feet deep and tan sandy silty clay was encountered between 5 and 8 ½ feet deep. The consistency of this clay, between 1 and 2 ½ feet deep, was stiff, as suggested by a SPT blow count of 10 blows. These clay strata had field moisture contents of 13.4 percent and 28.2 percent. These are low to medium plasticity clays with liquid limits of 31 percent and 45 percent and plasticity indices of 13 percent and 29 percent.

The shrink/swell potential is low to moderate and some measurable changes in volume could be noted with changes in moisture content of these materials. The percentage of these materials which passed the #200 grain-size sieve ranged from 60.2 percent to 64.6 percent.

In this same boring, tan and gray silty sand (SM) was noted between 2 ½ and 5 feet deep and brown, gray, and tan silty sand (SM) was encountered between 8 ½ and 10 feet deep. The relative density of these materials was loose, as suggested by SPT blow counts of 7 blows between 3 ½ and 5 feet deep and 9 blows between 8 ½ and 10 feet deep. These silty sand strata had field moisture contents of 11.8 percent and 28.5 percent. These are non-plastic strata with no measurable liquid or plastic limits. No significant changes in volume are expected with changes in moisture content. The percentage of these materials which passed the #200 grain-size sieve ranged from 38.5 percent to 45.6 percent.

Boring No. B-7 encountered heavy clay with sand (CH) for the full depth of the boring. Colors consisted of various combinations of tan, gray, and red. The consistencies varied from stiff to very stiff, as suggested by SPT blow counts which ranged from 10 to 16 blows and averaged 12 blows. These heavy clays had field moisture contents which ranged from 16.6 percent to 21.6 percent and averaged 19.0 percent. These are high to very high plasticity clays with liquid limits varying from 52 percent to 71 percent (averaging approximately 60 percent) and plasticity indices ranging from 31 percent to 50 percent (averaging approximately 40 percent). The shrink/swell potential is high to very high and large changes in volume could be noted with changes in moisture content of these materials. The percentage of these materials which passed the #200 grain-size sieve ranged from 71.2 percent to 83.4 percent, and averaged 76.6 percent.

No static water levels were noted on the boring logs after completion of drilling and sampling operations. However, we note that groundwater levels and soil moisture contents in this

area do fluctuate during the year with variations in rainfall and other environmental factors. Therefore, the groundwater levels and soil moisture contents will vary throughout the year and will probably be different if tested at a different time.

### RECOMMENDATIONS FOR SITE PREPARATION AND FOUNDATIONS

We understand that this project will consist of track repair, construction of a concession stand, and construction of bathrooms at the existing track complex located at Velma Jackson High School, Madison County, Mississippi. The following conclusions and recommendations are based on our understanding of the proposed construction, information gathered during the exploration, accepted geotechnical engineering principles and practices, and our experience with similar sites and subsurface conditions. This report has been prepared for the exclusive use of Madison County School Board, Madison County, Mississippi in the planning and design of the track repair and new accessory buildings. We request that we be informed of any significant changes to the proposed construction so we might review our recommendations in light of the new information. We should also be given an opportunity to review the final foundation and grading plans, as well as applicable portions of the project specifications, prior to construction.

**TRACK REPAIR OPTION 1.** The near-surface material occurring under the track consisted of asphalt, lean clay, lean clay with sand, silty clay with sand, sandy silty clay, and silty clay with organics (CL) were encountered. Consistencies in these clays were inferred as medium to stiff from SPT blow counts. It is our understanding that the track surface slopes down 5 feet from the south to the north and that initial plans for repair would be to level the track by cutting 2½ feet at the south end and fill 2½ feet at the north end. Data from Boring Nos. B-1 and B-5 indicate heavy clay (CH), that is subject to high shrink and swell, at a depth of 3½ feet and at the surface, respectively. If 2½ feet is cut on the south end, another 4 feet should be cut and replaced with compacted select fill to

insure the track is not founded on the heavy clay. The extent of the excavation to a total of 6½ feet appears to be just in the southwest corner but would need to be verified on site by a geotechnical engineer or his representative before placing compacted select fill.

**TRACK REPAIR OPTION 2.** Another option would be to level the track at the elevation of the south end of the track which would provide cover over the heavy clay. This option would require approximately 5 feet of compacted select fill at the north end of the track.

**CONCESSION STAND.** Data from Boring No. B-5 indicate heavy clay (CH) at the surface of the concession stand site. We recommend excavating 5 feet of this material and replacing it with compacted select fill. The excavation should extend a minimum of 5 feet beyond the building footprint.

**BATHROOM BUILDING.** Data from Boring No. B-6 indicate lean clay (CL) at the surface of the bathroom building site. Site preparation should consist of removing the topsoil and following the site preparation noted below.

Final plans and specifications were not available at the time of this geotechnical report, but it is our understanding that the construction area for the concession and bathrooms will be leveled. Based upon our interpretation of the soil conditions at the site, it is our opinion that the proposed construction of the concession and bathroom areas could be supported by a combination of foundation units, such as grade beams and spread footings. The concession foundation could consist of a monolithically cast, reinforced concrete, slab on-grade with turned-down, continuous grade beams and interior stiffeners to produce a beam diaphragm system. Further details of our recommendations are discussed below.

## SITE EVALUATION

Following the excavation we recommend that the subgrade in all areas be evaluated by a geotechnical engineer or his representative prior to fill placement. The engineer may recommend proof-rolling the areas as a means of evaluating the suitability of the subgrade for fill. Proof-rolling consists of systematically patrolling the area, preferably in perpendicular directions, utilizing a heavily loaded dump truck (minimum 20 tons) or other suitable vehicle approved by the engineer. Any areas which pump or rut excessively, and which cannot be densified by continued rolling, should be undercut to suitable material and properly backfilled. If proof-rolling is not possible, the sub-grade could be evaluated at selected locations with a hand-held Humbolt Cone Penetrometer or equivalent. The measured penetration resistance at each location can be subsequently converted to an in situ bearing capacity for the foundation.

Select structural fill material should then be placed in the foundation area in maximum loose lifts of 8 inches and be compacted to a minimum of 95% of the standard Proctor density (ASTM D-698-91) within 2 percentage points of optimum moisture content. Sufficient field density tests should be conducted to insure compaction requirements are met during construction. As a rule of thumb, we recommend a minimum of two density tests be performed for each 2000 square feet of surface area per lift. In addition, monitoring of fill construction and compaction will result in minimizing future settlement of the fill and structures. Therefore, we believe that it is important that a qualified geotechnical engineer or certified technician monitor earthwork operations and that this work not be controlled by the earthwork contractor.

The select, structural fill material should consist of a material having a liquid limit of less than 40% and a plasticity index between 8% and 20%. The excavated materials which includes topsoil and any debris, should not serve as select fill and should be disposed of outside the foundation area. Other

material at the site that meets the specifications, noted above, could be used as select fill.

### FOUNDATION STRENGTHS

The foundation system for the concession and bathrooms should bear in the controlled, select fill at a minimum depth 18 inches below the finished grade elevation. Minimum depths needed to offset wind forces should be verified by your structural engineer. All foundation members should be reinforced both top and bottom, sufficient to resist differential movement, and the completed foundation system should provide for uniform distribution of applied loads to the bearing soils. After the placement of select fill, the maximum soil pressure under the foundation members should not exceed 1.8 kips per square foot for continuous foundation units or 2.1 kips per square foot for individual spread footings. Foundations sized in accordance with recognized criteria for the above stated allowable soil bearing pressure should provide a factor of safety of 2.0 - 3.0 against ultimate failure of the soil medium with total estimated settlements of 1 inch, more or less.

Note that the soils at this site contain heavy clay (CH) that can shrink or swell significantly with changes in moisture content and lean clays (CL) that can lose strength with increases in moisture content. It is important to properly control the moisture content of these soils during construction. The final site grading plan should provide for quick runoff of surface waters away in all directions. In addition, any foundation soils in exposed excavations that become wet or soft should be removed and replaced prior to footing installation. Where any large trees or stumps are removed or where any plumbing or electrical trenches are cut under the foundation, select fill material should be used and compacted.

All foundation recommendations made in this report are contingent upon proper execution of the earthwork requirements noted herein. We believe that it is very important that a

qualified geotechnical engineer familiar with working with these type soils be present after excavation and during fill placement. In addition, sufficient field density tests should be taken to insure that the compaction criteria are satisfied and to reduce the possibility of differential settlement at this location.

#### RECOMMENDATIONS FOR TRACK REPAIR

The near-surface materials at the site, which will be the in situ material for the subgrade for the track and field events, presently consist of lean clay, lean clay with sand, silty clay with sand, sandy silty clay, and silty clay with organics (CL) were encountered. Consistencies in these clays were inferred as medium to stiff from SPT blow counts.

The foundation soil should be excavated a minimum of 6 inches, independent of the amount of select fill to be used, to remove any topsoil, tree roots, and organics. After the topsoil is removed, the cut and fill should be brought to finish grade. The density checks should insure approximately 18 inches of compacted soil in the paved areas.

We recommend the subgrade soils be compacted to 95 percent standard Proctor density (ASTM D-698-91) within 2 percentage points of optimum moisture content. The soils at this site are variable in both strength and composition. Every effort should be made to insure that the exposed soils do not "dry out" during construction. Any soft or wet areas encountered during construction which cannot be stabilized should be undercut and filled with compacted select material. We recommend proof-rolling the area as a means of evaluating the suitability of the subgrade for fill or pavement support. Proof-rolling is defined above.

Compacted fill should then be placed to bring the subgrade up to elevation where required. Prior to placing the select fill in

any area, we recommend that the subgrade be evaluated by a geotechnical engineer or his representative to determine the suitability of the subgrade.

Select fill material should consist of a soil having a liquid limit of not more than 40 percent and a plasticity index between 8 percent and 22 percent. This soil should be placed in maximum loose lifts of 8 inches and also compacted to a minimum of 95 percent standard Proctor density. Compaction for the entire site could be attained using a rubber tired or sheeps foot roller.

Based on the type of soils encountered, we anticipate that a CBR value greater than 3 will be representative of the strength of the prepared subgrade soils and compacted fill placed at this site, assuming proper control of the soil moisture content. It is our assumption that the paving profile will be supplied by the architect.

#### **REPORT LIMITATIONS**

The recommendations made in this report are based on the assumption that the borings are representative of the subsurface conditions throughout the site. Therefore, we cannot warrant that our boring logs represent subsurface conditions at other locations or times. If during construction, any unusual or significantly different conditions are encountered, we should be advised in order to review the changed conditions, and subsequently reconsider any of the above recommendations.

Further, we are available to review those portions of the plans and specifications relating to earthwork and foundations for this particular project and request that we be retained to do so in order to determine whether the plans and specifications are consistent with the recommendations contained within this report. In addition, we are available to observe foundation construction procedures, including interpretation of the use of on-site materials and compaction of the structural fill, quality

control of concrete placement, and other field observations and quality control measures as required.

Other information, such as is outlined by the Association of Soil and Foundation Engineers (ASFE), regarding the use of this geotechnical report follows.

#### IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL ENGINEERING REPORT

More construction problems are caused by site subsurface conditions than any other factor. As troublesome as subsurface problems can be, their frequency and extent have been lessened considerably in recent years, due in large measure to programs and publications of the (ASFE).

The following suggestions and observations are offered to help you reduce the geotechnical-related delays, cost-overruns and other costly headaches that can occur during a construction project.

#### A GEOTECHNICAL ENGINEERING REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS

A geotechnical engineering report is based on a subsurface exploration plan designed to incorporate a unique set of project-specific factors. These typically include: the general nature of the structure involved, its size and configuration, the location of the structure on the site, and its orientation; physical concomitants such as access roads, parking lots, and underground utilities, and the level of additional risk which the client assumed by virtue of limitations imposed upon the exploratory program. To help avoid costly problems, consult the geotechnical engineer to determine how any factors which change subsequent to the date of the report may affect its recommendations.

Unless your consulting geotechnical engineer indicates otherwise your geotechnical engineering report should not be used:

When the nature of the proposed structure is changed, for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one.

When the size or configuration of the proposed structure is altered.

When the location or orientation of the proposed structure is modified.

When there is a change of ownership.

For application to an adjacent site.

Geotechnical engineers cannot accept responsibility for problems which may develop if they are not consulted after factors considered in their report's development have changed.

#### MOST GEOTECHNICAL "FINDINGS" ARE PROFESSIONAL ESTIMATES

Site exploration identifies actual subsurface conditions only at those points where samples are taken, when they are taken. Data derived through sampling and subsequent laboratory testing are extrapolated by geotechnical engineers who then render an opinion about overall subsurface conditions, their likely reaction to proposed construction activity, and appropriate foundation design. Even under optimal circumstances actual conditions may differ from those inferred to exist, because no geotechnical engineer, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock, and time. The actual conditions in areas not sampled may differ from predictions. Nothing can be done to prevent the unanticipated, but steps can be taken to help minimize their impact. For this reason, most experienced owners retain their geotechnical consultants through the construction stage, to identify variances, conduct additional tests which may be needed, and to recommend solutions to problems encountered on site.

#### SUBSURFACE CONDITIONS CAN CHANGE

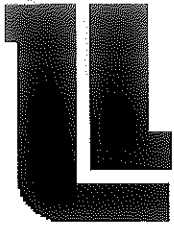
Subsurface conditions may be modified by constantly-changing natural forces. Because a geotechnical engineering report is based on conditions which existed at the time of subsurface exploration, construction decisions should not be based on a geotechnical engineering report whose adequacy may have been affected by time. Speak with the geotechnical consultant to learn if additional tests are advisable before construction starts.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or ground water fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical report. The geotechnical engineer should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

#### GEOTECHNICAL SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND PERSONS

Geotechnical engineers' reports are prepared to meet the specific needs of specific individuals. A report prepared for a consulting civil engineer may not be adequate for a construction contractor, or even some other consulting civil engineer. Unless indicated otherwise, this report was prepared expressly for the client involved and expressly for purposes indicated by the client. Use by any other persons for any purpose, or by the client for a different purpose, may result in problems. No individual other than the

client should apply this report for its intended purpose without first conferring with the geotechnical engineer. No person should apply this report for any purpose other than that originally contemplated without first conferring with the geotechnical engineer.



# Ladner testing laboratories, inc.

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1827 HIGHWAY 11 BYPASS/HATTIESBURG, MISSISSIPPI 39401-1870/(601) 544-5782

2960 20TH AVENUE/GULFPORT, MISSISSIPPI 39501-6006/(601) 863-9657

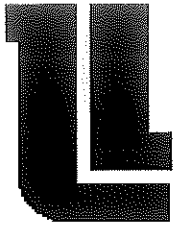
## Log of Boring No.(B-1)

<b>Project:</b> VELMA JACKSON EXISTING TRACK RENOVATION MADISON COUNTY, MS	<b>Client:</b> MADISON COUNTY SCHOOL DISTRICT ATTN: ACCOUNTS PAYABLE P. O. BOX 159 FLORA, MS 39071-0159	<b>Date:</b> 10/03/05 <b>Lab No.</b> 525-05-A <b>Technician</b> MILYN
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**SAMPLE:**    AUGER(ASTM D-1452)    TUBE(ASTM D-1582)    PENETRATION TEST(ASTM D-1452)

Depth Ft.	Sample	Visual Description - Remarks	Consistency	Field Moist %	LL %	PI %	Pass #200 %	Unified Class	Std. Pen.
0		(ASPHALT TRACK = 4") GRAY & TAN LEAN CLAY W/SAND (0 - 1')		18.3	30.0	14.0	82.4	CL	
	X	TAN, RED, BROWN & GRAY LEAN CLAY (1' - 3.5')	MEDIUM	24.5	39.0	21.0	87.4	CL	5
	X	GRAY & RED HEAVY CLAY (3.5' - 5')	MEDIUM	27.5	55.0	33.0	86.0	CH	7
5									
10									
15									
20									
25									
30									

WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING ELEVATION _____ FT.
WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING TERMINATED AT <u>5.00</u> FT.



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2960 20TH AVENUE/GULFPORT, MISSISSIPPI 39501-6006/(601) 863-9657

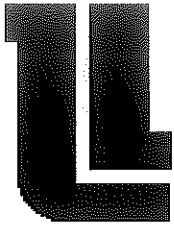
## Log of Boring No.(B-2)

<b>Project:</b> VELMA JACKSON EXISTING TRACK RENOVATION MADISON COUNTY, MS	<b>Client:</b> MADISON COUNTY SCHOOL DISTRICT ATTN: ACCOUNTS PAYABLE P. O. BOX 159 FLORA, MS 39071-0159	<b>Date:</b> 10/03/05 <b>Lab No.</b> 525-05-A <b>Technician</b> MILYN
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SAMPLE:  AUGER(ASTM D-1452)  TUBE(ASTM D-1582)  PENETRATION TEST(ASTM D-1452)

Depth Ft.	Sample	Visual Description - Remarks	Consistency	Field Moist %	LL %	PI %	Pass #200 %	Unified Class	Std. Pen.
0		(ASPHALT TRACK = 4.5") TAN & GRAY SANDY LEAN CLAY (0 - 1')		17.0	43.0	26.0	61.0	CL	
	X	TAN & GRAY SANDY LEAN CLAY (1' - 2.5')	STIFF	17.8	44.0	28.0	68.5	CL	9
		RED & GRAY HEAVY CLAY W/SAND (2.5' - 3.5')		25.8	58.0	40.0	84.8	CH	
	X	RED & GRAY SILTY SAND (3.5' - 5")	STIFF	11.3	N/A	N/P	20.6	SM	9
5									
10									
15									
20									
25									
30									

WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING ELEVATION _____ FT.
WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING TERMINATED AT 5.00 FT.



# ladner testing laboratories, inc.

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1827 HIGHWAY 11 BYPASS/HATTIESBURG, MISSISSIPPI 39401-1870/(601) 544-5782

2960 20TH AVENUE/GULFPORT, MISSISSIPPI 39501-6006/(601) 863-9657

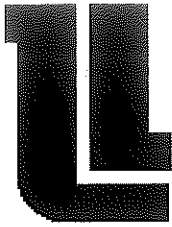
## Log of Boring No.(B-3)

<b>Project:</b> VELMA JACKSON EXISTING TRACK RENOVATION MADISON COUNTY, MS	<b>Client:</b> MADISON COUNTY SCHOOL DISTRICT ATTN: ACCOUNTS PAYABLE P. O. BOX 159 FLORA, MS 39071-0159	<b>Date:</b> 10/03/05 <b>Lab No.:</b> 525-05-A <b>Technician:</b> MILYN
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SAMPLE:  AUGER(ASTM D-1452)  TUBE(ASTM D-1582)  PENETRATION TEST(ASTM D-1452)

Depth Ft.	Sample	Visual Description - Remarks	Consistency	Field Moist %	LL %	PI %	Pass #200 %	Unified Class	Std. Pen.
0		(ASPHALT TRACK = 4.5") TAN & GRAY LEAN CLAY W/SAND (0 - 1')		16.9	32.0	15.0	70.4	CL	
	X	GRAY & TAN SILTY CLAY W/SAND (1' - 2.5')	MEDIUM	20.0	27.0	9.0	80.8	CL	5
	X	TAN, RED & GRAY CLAYEY SAND (2.5' - 5')	MEDIUM	21.4	34.0	15.0	36.6	SC	12
5									
10									
15									
20									
25									
30									

WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING ELEVATION _____ FT.
WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING TERMINATED AT <u>5.00</u> FT.



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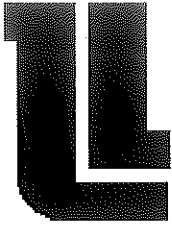
## Log of Boring No.(B-4)

<b>Project:</b> VELMA JACKSON EXISTING TRACK RENOVATION MADISON COUNTY, MS	<b>Client:</b> MADISON COUNTY SCHOOL DISTRICT ATTN: ACCOUNTS PAYABLE P. O. BOX 159 FLORA, MS 39071-0159	<b>Date:</b> 10/03/05 <b>Lab No.:</b> 525-05-A <b>Technician:</b> MILYN
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**SAMPLE:**  AUGER(ASTM D-1452)  TUBE(ASTM D-1582)  PENETRATION TEST(ASTM D-1452)

Depth Ft.	Sample	Visual Description - Remarks	Consistency	Field Moist %	LL %	PI %	Pass #200 %	Unified Class	Std. Pen.
0		(ASPHALT TRACK = 4.75") GRAY SANDY SILTY CLAY (0 - 1')		14.7	25.0	10.0	57.8	CL	
	X	GRAY & TAN SILTY CLAY W/ORGANICS (1' - 3.5')	STIFF	19.7	31.0	8.0	85.7	CL	8
	X	GRAY & TAN LEAN CLAY (3.5' - 5')	STIFF	19.1	31.0	12.0	87.7	CL	15
5									
10									
15									
20									
25									
30									

WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING ELEVATION _____ FT.
WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING TERMINATED AT <u>5.00</u> FT.



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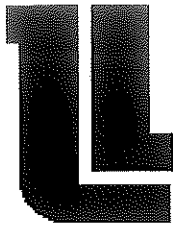
## Log of Boring No.(B-5)

<b>Project:</b> VELMA JACKSON EXISTING TRACK RENOVATION MADISON COUNTY, MS	<b>Client:</b> MADISON COUNTY SCHOOL DISTRICT ATTN: ACCOUNTS PAYABLE P. O. BOX 159 FLORA, MS 39071-0159	<b>Date:</b> 10/06/05 <b>Lab No.:</b> 525-05-A <b>Technician:</b> MILYN
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**SAMPLE:**    AUGER(ASTM D-1452)    TUBE(ASTM D-1582)    PENETRATION TEST(ASTM D-1452)

Depth Ft.	Sample	Visual Description - Remarks	Consistency	Field Moist %	LL %	PI %	Pass #200 %	Unified Class	Std. Pen.
0		RED, GRAY & TAN HEAVY CLAY W/SAND (0 - 2.5')	MEDIUM	18.6	53.0	34.0	75.0	CH	7
		RED, TAN & GRAY HEAVY CLAY W/SAND (2.5' - 5')	STIFF	23.1	65.0	49.0	71.4	CH	8
5		TAN & GRAY HEAVY CLAY W/SAND (5' - 8.5')		28.6	57.0	38.0	78.2	CH	
		GRAY HEAVY CLAY (8.5' - 10')	STIFF	32.0	62.0	40.0	93.7	CH	9
10		**BORING LOCATED AT CONCESSION STAND BUILDING**							
15		**BORING LOCATED AT CONCESSION STAND BUILDING**							
20		**BORING LOCATED AT CONCESSION STAND BUILDING**							
25		**BORING LOCATED AT CONCESSION STAND BUILDING**							
30		**BORING LOCATED AT CONCESSION STAND BUILDING**							

WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING ELEVATION _____ FT.
WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING TERMINATED AT <u>10.00</u> FT.



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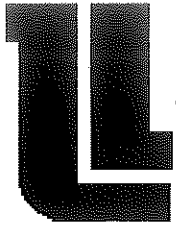
## Log of Boring No.(B-6)

<b>Project:</b> VELMA JACKSON EXISTING TRACK RENOVATION MADISON COUNTY, MS	<b>Client:</b> MADISON COUNTY SCHOOL DISTRICT ATTN: ACCOUNTS PAYABLE P. O. BOX 159 FLORA, MS 39071-0159	<b>Date:</b> 10/03/05 <b>Lab No.</b> 525-05-A <b>Technician</b> MILYN
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**SAMPLE:**  AUGER(ASTM D-1452)  TUBE(ASTM D-1582)  PENETRATION TEST(ASTM D-1452)

Depth Ft.	Sample	Visual Description - Remarks	Consistency	Field Moist %	LL %	PI %	Pass #200 %	Unified Class	Std. Pen.
0	X	TAN & GRAY SANDY LEAN CLAY (0 - 2.5')	STIFF	13.4	45.0	29.0	64.6	CL	10
	X	TAN & GRAY SILTY SAND (2.5' - 5')	LOOSE	11.8	N/A	N/P	38.5	SM	7
5		TAN SANDY SILTY CLAY (5' - 8.5')		28.2	31.0	13.0	60.2	CL	
	X	BROWN, GRAY & TAN SILTY SAND (8.5' - 10')	LOOSE	28.5	N/A	N/P	45.6	SM	9
10		**BORING LOCATED AT RESTROOM BUILDING**							
15		**BORING LOCATED AT RESTROOM BUILDING**							
20		**BORING LOCATED AT RESTROOM BUILDING**							
25		**BORING LOCATED AT RESTROOM BUILDING**							
30		**BORING LOCATED AT RESTROOM BUILDING**							

WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING ELEVATION _____ FT.
WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING TERMINATED AT <u>10.00</u> FT.



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## Log of Boring No.(B-7)

<b>Project:</b> VELMA JACKSON EXISTING TRACK RENOVATION MADISON COUNTY, MS	<b>Client:</b> MADISON COUNTY SCHOOL DISTRICT ATTN: ACCOUNTS PAYABLE P. O. BOX 159 FLORA, MS 39071-0159	<b>Date:</b> 10/03/05 <b>Lab No.</b> 525-05-A <b>Technician</b> MILYN
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SAMPLE:  AUGER(ASTM D-1452)  TUBE(ASTM D-1582)  PENETRATION TEST(ASTM D-1452)

Depth Ft.	Sample	Visual Description - Remarks	Consistency	Field Moist %	LL %	PI %	Pass #200 %	Unified Class	Std. Pen.
0		TAN HEAVY CLAY W/SAND (0 - 1')		21.6	71.0	50.0	83.4	CH	
	X	TAN HEAVY CLAY W/SAND (1' - 2.5')	STIFF	19.2	63.0	42.0	80.6	CH	10
	X	RED, GRAY & TAN HEAVY CLAY W/SAND (2.5' - 5')	STIFF	17.6	56.0	35.0	74.0	CH	10
5		TAN & GRAY HEAVY CLAY W/SAND (5' - 8.5')		16.6	57.0	40.0	71.2	CH	
	X	GRAY HEAVY CLAY W/SAND (8.5' - 10')	V. STIFF	19.9	52.0	31.0	73.8	CH	16
10		**BORING LOCATED SOUTH OF EXISTING BASEBALL FIELD**							
15									
20									
25									
30									

WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING ELEVATION _____ FT.
WATERDEPTH _____ FT.	AFTER _____ HRS.	BORING TERMINATED AT <u>10.00</u> FT.



Name: CAMDEN SW  
 Date: 10/6/2005  
 Scale: 1 inch equals 249 feet

Location: 032° 46.5656' N 089° 52.1491' W  
 Caption: Velma Jackson High School Existing Track Renovation Madison co., Ms.

# Testing Laboratory Services

## PART 1 GENERAL

### 1.1 REQUIREMENTS INCLUDED

Owner will employ and pay for the services of an Independent Testing Laboratory to perform testing specifically indicated on the Contract Documents, specified in the Specifications, or as Directed by the Engineer and may at any other time elect to have materials and equipment tested for conformity with the Contract Documents.

### 1.2 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

Laboratory is not authorized to:

- A. Release, revoke, alter or enlarge on requirements of Contract Documents.
- B. Approve or accept any portion of the Work.
- C. Perform any duties of the Contractor.

### 1.3 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel, provide access to Work, and comply with Manufacturer's operations.
- B. Secure and deliver to the laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary mix proposed to be used for concrete, asphalt, and other materials mixes that require control by the testing laboratory.
- D. Materials and equipment used in the performance of work under this Contract are subject to inspection and testing at the point of manufacturer or fabrication. Standard specifications for quality and workmanship are indicated in the Contract Documents. The Owner may require the Contractor to provide statements or certificates from the manufacturers and fabricators that the materials and equipment provided by them are manufactured or fabricated in full accordance with the standard specifications for quality and workmanship indicated in the Contract Documents. All costs of this testing and providing statements and certificates shall be a subsidiary obligation of the Contractor, and no extra charge to the Owner shall be allowed on account of such testing and certification.
- E. Furnish incidental labor and facilities:
  - 1. To provide access for work to be tested.
  - 2. To obtain and handle samples at the Project site or at the source of the product to be tested.
  - 3. To facilitate inspections and tests.
  - 4. For some storage and curing of test samples.

## PART 2-PRODUCTS (NOT USED)

## PART 3- EXECUTION (NOT USED)

### END OF SECTION