

STORM SEWER IMPROVEMENTS TO SERVE West High School Athletic Field Private Project: 0143 PPD (607861) CITY OF WICHITA, KANSAS

Gary Janzen, P.E. City Engineer
September 2014

AS-BUILT Plans
Contractor: Building Controls & Services, Inc.
Inspector: Patrick S. Baer, Baughman Co. P.A.
.pdf by: (psb. 10-21-14)

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

Engineering Not Included

Storm Drainage _____

NOTE TO CONTRACTORS
Installation, inspection and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).

SITE INFORMATION

Total Disturbed Area (including Tennis Courts by others): 579,350 sq. ft. (±13.3 acres)
Limits of Construction 634,623 sq. ft. (±14.57 acres)
Total Area of Site: 41,960 sq. ft. (±0.96 acres)
Impervious Area removed: 4,350 sq. ft. (±0.10 acres)
New Impervious Area Added: 10 Stalls (0 ADA)
Existing parking stall count: 0 Stalls (0 ADA)
Proposed parking stall count: 0 Stalls (0 ADA)

Impervious Reduced from 24,860 to 4,850 sq. ft. (psb 10-21-14)



Stormwater Narrative & Certification

This improvements were prepared in accordance with the current Storm Water Management Regulations as set forth in the City of Wichita's Storm Water Management Ordinance 16.32 and the policies/ guidelines presented in the Wichita/Sedgwick County Storm Water Manual.

Drainage Area: 14.67 acres
WQv = Not Applicable

Offsite Conditions: An existing stormwater system located at the south end of Osage & Walker Ave. & surface runoff from the east drains 33.5 acres into the site. This runoff infiltrates into the soil at the southeast corner of the site. Only during rainfall event in excess of a 10 year event will runoff drain east into an existing 2'x2' RCB in McLean, to the Arkansas River

Downstream Channel Protection: The improvements proposes will increase the storage capacity of the infiltration Basin and the reduction of impervious pavement will reduce the cumulative runoff.

Water Quality Requirements: The proposed improvements will reduce the impervious pavement from 41,960 sq. ft. to 4,350 sq. ft. The reduced impervious area and the use of the existing infiltration area address Water Quality requirements.

Site Detention Requirements: The Infiltration Basin has been calculated to detain water to the 10year event. Larger rain events will drain via 2'x2' RCB located in McLean Blvd. east of the basin. A prior history of water backing up in Osage Street has been evident. The improvements will increase the storage capacity in the infiltration area and these improvements have been calculated to be an improvement to the prior drainage improvements.

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Legal Description

Lot 1, Block A, West High Second Addition

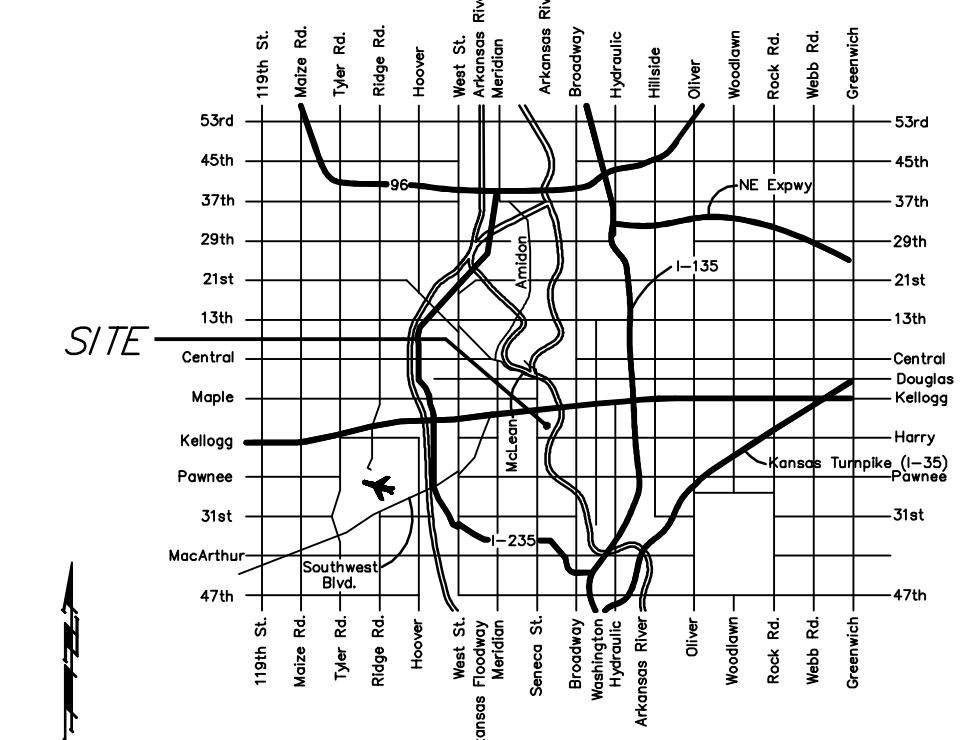
Benchmarks

Benchmark #1 - "□" Chiseled on Top of Sidewalk
ELEV. = 1293.95 (NAVD 88)

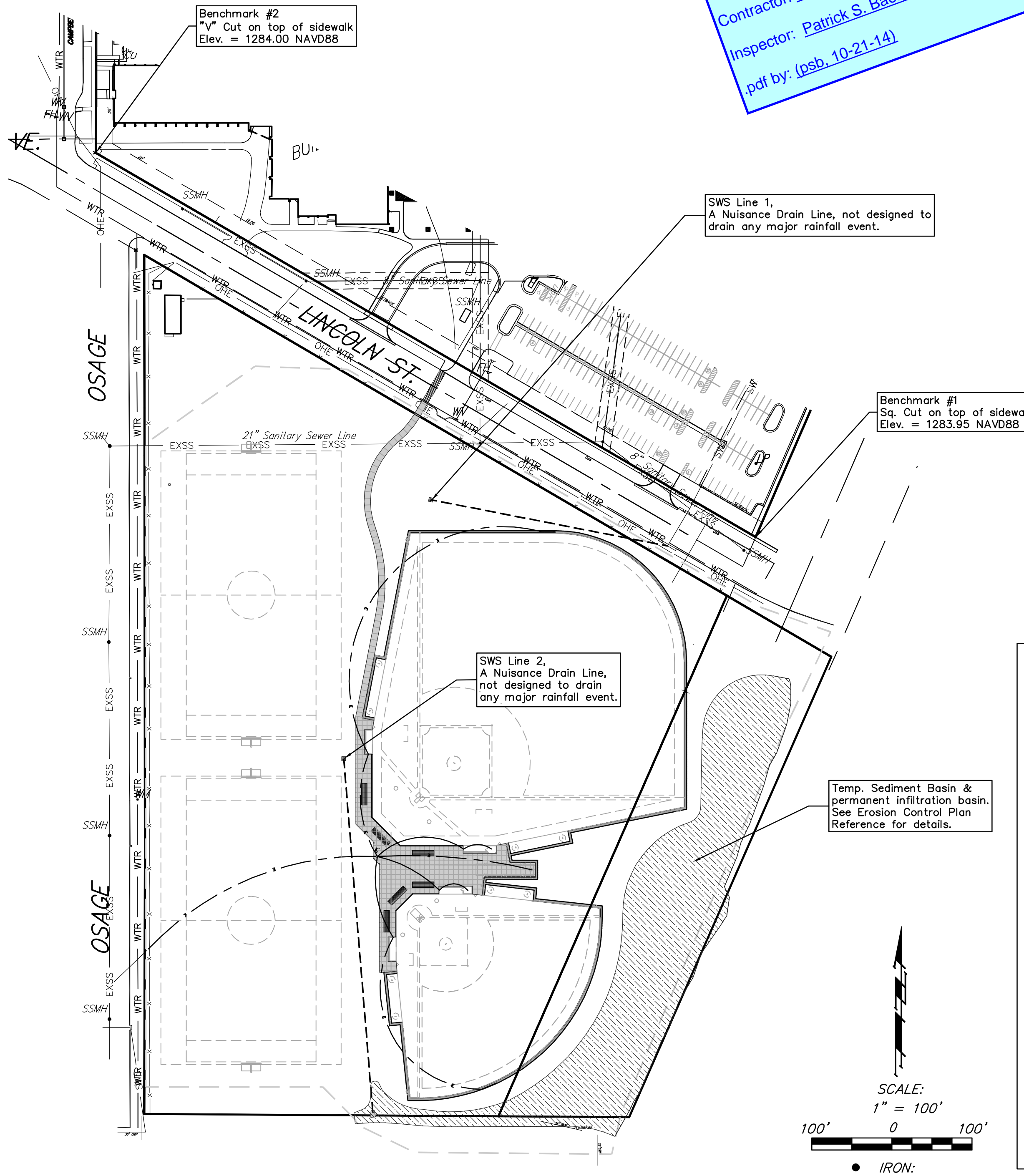
Benchmark #2 - "V" Chiseled on Top of Sidewalk
ELEV. = 1294.00 (NAVD 88)

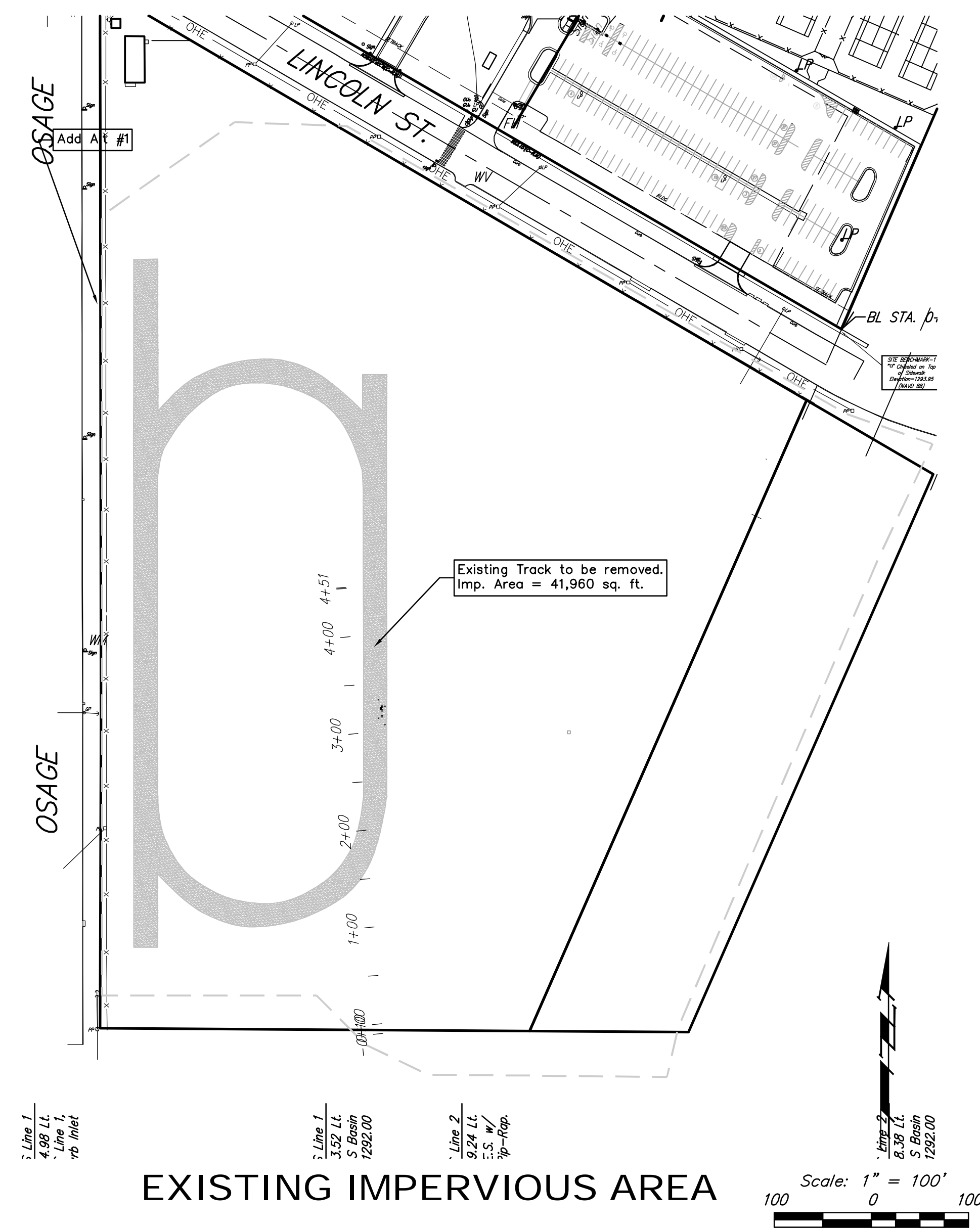
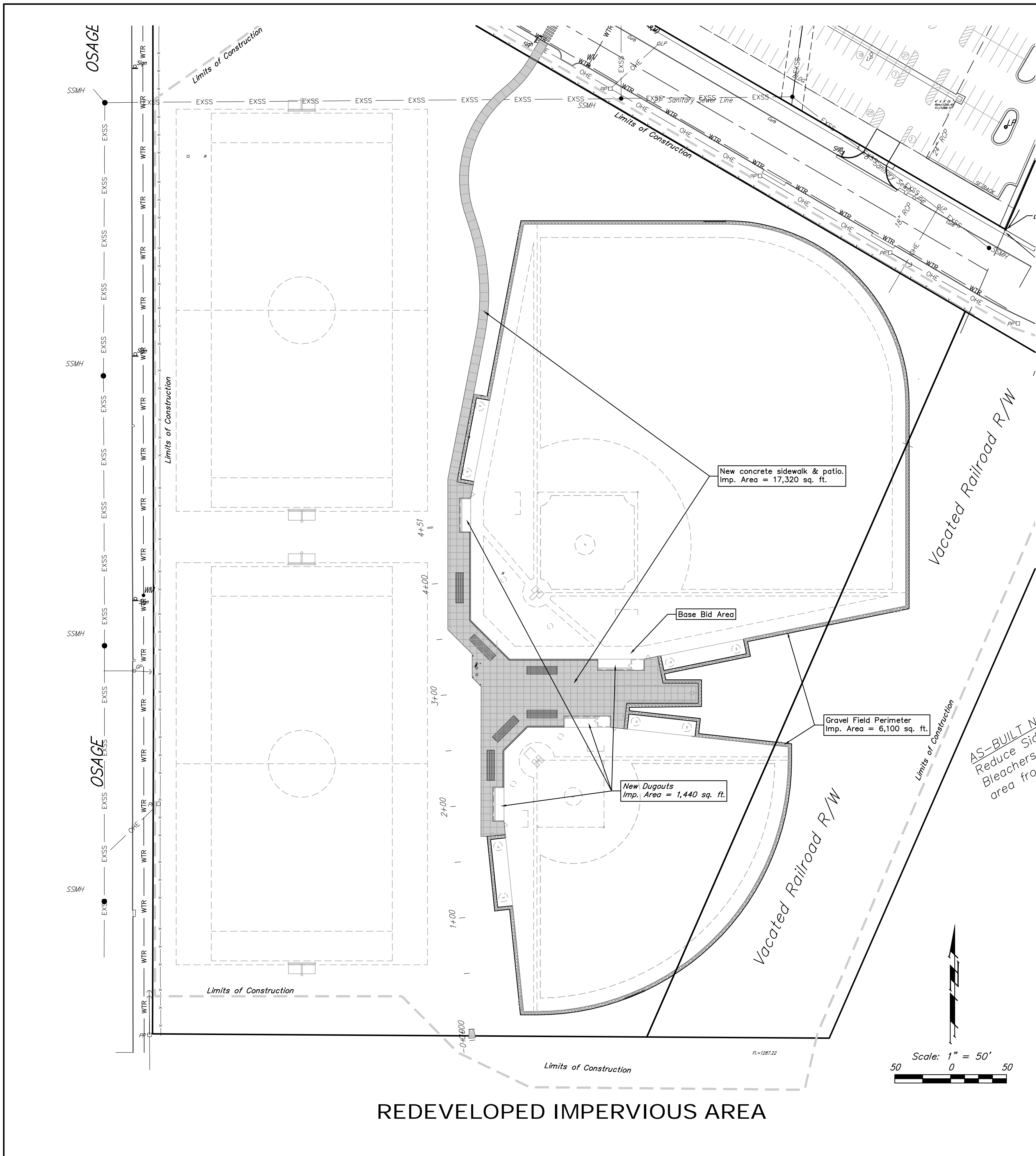
General Notes

- Contractor will be required to provide notice to utility companies a minimum of forty-eight (48) hours prior to any excavation, as follows:
Kansas One-Call 687-2470
The Contractor must notify the following in case of an emergency:
Cox Communications 262-4270
Kansas Gas Service Company 1-888-482-4950
Westar Energy (Electric) 383-8650
Black Hills Energy (Gas) 1-800-303-0357
Southwestern Bell Telephone Co. 1-800-286-8313 262-6000
City of Wichita Water Dept. (Water) 262-6000
City of Wichita Sewer Maint. (SS) 268-4090
City of Wichita Storm Sewer Maint. 268-4034
City of Wichita Traffic Maint. 262-6000
- All disturbed areas within the project site and that overlap the area to be disturbed shall have temporary and permanent erosion control measures installed by the general contractor. See site plan reference copy of the Erosion Control Plan and Landscape Plan and coordinate with General Contractor to ensure temp. erosion control measures are install within 7 days of construction.
- All disturbed R/W areas not intended for pavement or sidewalk construction shall be seeded with Kansas Premium Fescue Blend at a rate of 8 lb./1000 Sq. Ft., fertilized with a 16-20-6 ratio at a rate of 4 lb./1000 Sq. Ft., and mulched with Prairie Hay at a rate of 92 lb./1000 Sq. Ft. Mulch shall be "patted" with forks or punched into soil to reduce loss due to wind.
- Utility service lines, poles, valve boxes, meters, et cetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans represent the best information obtainable for design and shall be field verified. The contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- Contractor shall furnish the inspector with a copy of the manufacturer's certification for all pipe used on this project after completion of pipe installation. The engineer will not certify the project to the city until pipe certification has been received.
- Properties within the project limits may have underground sprinkler systems which conflict with new construction. Contractor will be required to remove such improvements should they not be removed by their owner at the time of construction. The Contractor will be required to salvage all sprinkler heads and/or valves and give such material to their owner. Portions of underground sprinkler systems not in conflict with new construction shall be protected from damage and shall remain in place. All work in connection with underground sprinkler systems shall be considered as subsidiary to the contract pay items of work.
- Cuts made to paved surfaces on public property will be repaired by the City's contractor and charged against the owner/applicant. Unit repair prices are available from the City at 268-4418. A surcharge may be applicable; call 268-4418 for details. Repair costs to be paid prior to release of sewer service if sewer service is affected. Contractor shall obtain permit prior to construction.
- Barriers and detour signage shall be in accordance with the Manual On Uniform Traffic Control Devices.
- Contractor shall not start work on the project until the project inspector is assigned to the project and is present on the site. Contractor shall not start on the project until all necessary bonds and permits have been obtained. Bonds may include but are not limited to Statutory, Performance & Maintenance Any work done without inspection will be required to be uncovered for inspection.
- Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.
- All storm water sewer lines and appurtenances shall be installed in accordance with the most recent edition of City of Wichita, Kansas Standard Specifications for the Construction of City Projects unless otherwise noted.
- All storm water sewer lines shall be reinforced concrete pipe unless otherwise noted in the plans.
- See Landscape and Grading Plans for Groundwater Infiltration Pond Plans.



NO SCALE: VICINITY MAP





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BENCHMARK

Benchmark #1 - "□" Chiseled on Top of Sidewalk
Elevation=1293.95 (NAVD 88)

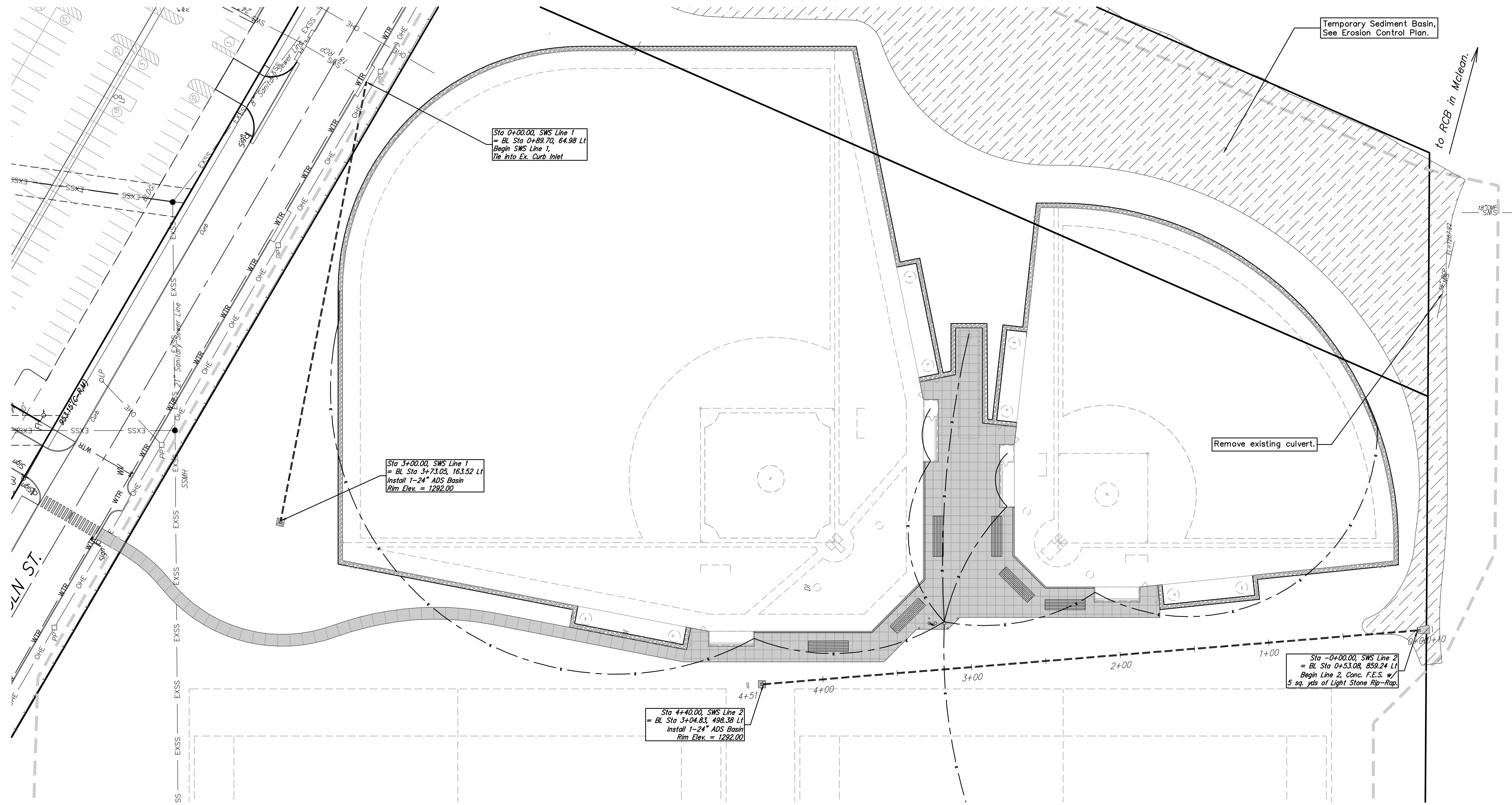
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ERU LEGEND

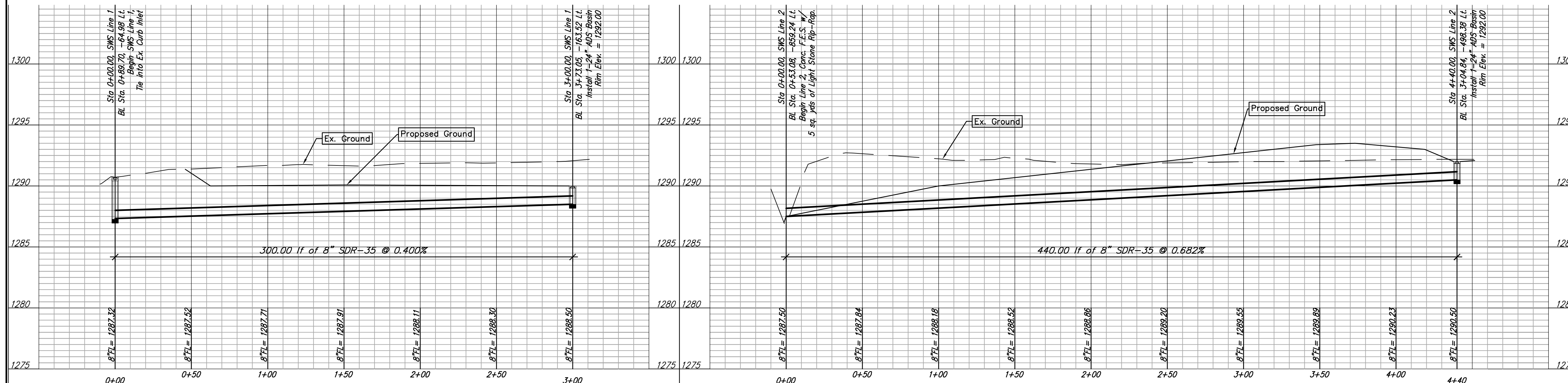
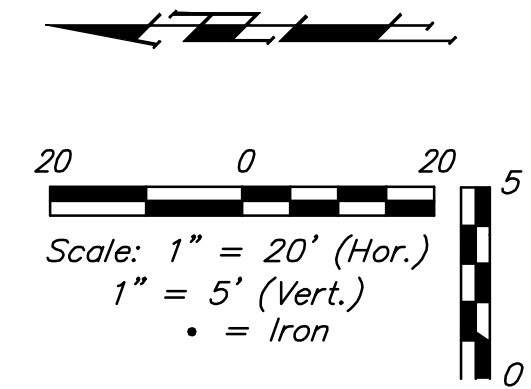
- = Project Limits
- = Impervious Area

 Baughman ERU Wichita, Kansas	USD 259 North High School	
	PROJECT NUMBER: 0143 PPD 607861	
DESIGN: PSB DRAWN: TNT	APPROVED: PSB DATE: 11/15/2012	
REVISIONS:	SCALE: varies SHEET: 2 OF 8	



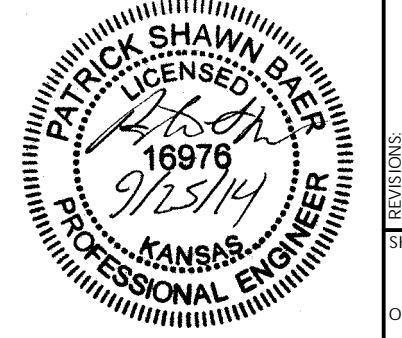


SWS Line Notes:
 SWS Line 1 & 2 are nuisance area drains only and will ensure site maintenance is possible. Major rainfall events will route between athletic fields to the existing sediment/infiltration basin located at the Southeast corner of the site, with excess drainage routing East, to an existing RCB located at McLean.



LEGEND

- Existing Utilities**
- UGE — Electric Underground
 - OHE — Electric Overhead
 - WTR — Water Line
 - GAS — Gas Line
 - PIPELINE — Petroleum Pipeline
 - SWS — Storm Water Sewer Pipe
 - EXSS — Sanitary Sewer Line
 - TELE — Telecommunication (AT&T)
 - CoTV — Telecommunication (Cox)
 - — — Limits of Construction
- Proposed Sediment Basin**



Baughman Company, P.A.
 315 E. 15th St., Wichita, KS 67202
 315 E. 15th St., Topeka, KS 66606
 315 E. 15th St., Lawrence, KS 66044
 315 E. 15th St., Overland Park, KS 66204

**Storm Sewer Improvements
 West High Athletic Fields
 Drainage Improvements**

GENERAL SITE NOTES

- A. REFERENCE SPEC. FOR DEMOLITION/CONSTRUCTION SEQUENCING.
- B. GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO BUILD TO FIELD CONDITIONS AND VERIFY ALL DIMENSIONS. VERIFY SITE AND FIELD CONDITIONS AND NOTIFY ARCHITECT IMMEDIATELY UPON FINDING CONDITIONS WHICH ARE NOT INDICATED IN THE DRAWINGS OR WHICH CONFLICT WITH THE DRAWINGS. REFER TO SITE SURVEY FOR ALL UTILITY DEPTORIONS, LOCATIONS, NOTES AND LEGAL DESCRIPTION.
- C. GRASSES SHOWN AT DRIVES, PARKING, LAWN, PARKING AREAS AND WALKS ARE FINAL GRASSES.
- D. C.C. TO PROTECT EXISTING PAVEMENT TO REMAIN AS REQUIRED.
- E. C.C. SHALL BE RESPONSIBLE FOR PROTECTING EXISTING PAVEMENT, ALL EXISTING PAVEMENT, CURB AND GUTTER, SIDEWALK OR OTHER SURFACE FEATURES ENCOUNTERED DURING UNDERGROUND UTILITY INSTALLATION SHALL BE REMOVED AND REPLACED TO EXISTING CONDITIONS UNLESS OTHERWISE NOTED.
- F. C.C. TO VERIFY ALL LOCATIONS OF BURIED UTILITIES AND PROTECT UTILITIES TO REMAIN AS REQUIRED. C.C. SHALL REPORT DAMAGE TO EXISTING UTILITIES TO REMAIN.
- G. ALL SUBGRADE PREPARATION TO COMPLY WITH GEOTECHNICAL (SOILS) REPORT.
- H. REFERENCE DESCRIPTION OF BASE 800 AND ALTERNATES.
- I. REFERENCE 31E SURVEY AND MASS GRADING PLANS FOR ELEVATIONS.
- J. C.C. TO MAINTAIN CONTINUITY OF ALL UTILITIES AND CIRCUITS TO BASEBALL COMPLEX THAT ARE TO REMAIN IN OPERATION. PROVIDE BYPASS CONNECTIONS AS REQUIRED.
- K. ALL PAVEMENT, SIDEWALKS, CURB & GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF MOBILE SPECIFICATIONS.
- L. ALL SPOT ELEVATIONS INDICATE TOP OF CURB AND BOTTOM OF CURB (FLOW LINE). ALL CONTOURS ILLUSTRATE TOP OF PAVEMENT ELEVATIONS.
- N. ALL EARTHWORK COMPACTION SHALL BE 90% DENSITY WITH THE EXCEPTION OF AREAS UNDER PAVEMENT AND STRUCTURES WHICH SHALL BE COMPACTED TO 95% STANDARD DENSITY.
- O. A 6" LAYER OF TOPSOIL SHALL BE STRIPPED IN ALL AREAS OF CUT AND FILL AND REPLACED AT A 4" THICKNESS ON PROPOSED GRADING AREAS. NOTE: THE FINISHED GRADE INDICATES THE SURFACE ELEVATION AFTER THE LAYER OF TOPSOIL HAS BEEN PLACED.
- P. CROSS SLOPES ON ALL WALKS SHALL BE 1:1% TYPICAL AND NOT TO EXCEED 2%. LONGITUDINAL SLOPES ON ALL WALKS SHALL NOT EXCEED 3%.

KEYED PLAN NOTES

1. 4" TH. CONCRETE SIDEWALK, REF. 4/C24.2
2. 6" HT. GALVANIZED CHAINLINK FENCE, REF. 4/C24.2
3. 12" INDUSTRIAL GALVANIZED CHAINLINK GATE, REF. 2/C24.2
4. 3" GALVANIZED CHAINLINK GATE, REF. 3/C24.2
5. 6" GALVANIZED CHAINLINK GATE, REF. 3/C24.2
6. 8" HT. GALVANIZED CHAINLINK FENCE (INCL. BULLPEN AREA), REF. 4/C24.2
7. DARTMOUTH SCORERBOARD #84-2004-18 INCLUDE: RED DIGITS, ALL SPORT 5010 CONTROLLER SCORERBOARD COLOR: CAPTION COLOR: WHITE BORDER STRIP: FOR 84-2004 RADIO TRANSMITTER (FREQUENCY OF 2.4 GHz) RADIO RECEIVER (FREQUENCY OF 2.4 GHz) FIVE YEAR WARRANTY - PARTS COVERAGE - 6055 ANGLE CLAMP MOUNTING METHOD (A) AVAL. BY: BULLPENLEADERS.COM PH: 866-281-5327
8. 4-RUN LOW RISE STANDARD ALUMINUM BLEACHER MODEL # BRB-0427ALRS LENGTH: 27' x 24" x 72" AVAL. BY: BULLPENLEADERS.COM PH: 866-281-5327
9. DUGOUT PORTABLE ALUMINUM BENCH W/ BACK MODEL # BE-0224-1P LENGTH: 24' AVAL. BY: BULLPENLEADERS.COM PH: 866-281-5327
10. PITCHER'S MOUND LAYOUT DIAGRAM, REF. 4/C24.2
11. BATTER'S BOX LAYOUT, REF. 4/C24.1
12. ACTION BATTING CAGE FRAME SIZE: 70'x14'x12' INCLUDES 5 ARCHES, 16 GA. 1-1/2" DIA. GALV. STEEL TUBING MODEL # FLD-EQUIP-AVAL. BY: ACTION SPORTS CO. 12215 E. SKULLY DR. LISKA, OK 74744 PH: 800-560-0207 WEBSITE: WWW.ACTIONSPORTSPANY.COM OR APPROVED EQUAL.
13. BATTING CAGE ACTION 450 TWISTED POLY BATTING CAGE NETTING - HEAVY DUTY SIZE: 70'x14'x12' / MODEL # CA-450HDBS
14. BATTING CAGE ACTION 200 PITCHERS 7'x7' L-GREEN 14 GA. 1/2" DIA. PIPE - HEAVY DUTY / MODEL # CA-200HDBS
15. BATTING CAGE 6'x4' RUBBER BACKSTOP MODEL # CA-400RBS
16. BATTING CAGE PRO 6'x12' NISON HOWE PLATE MAT COLOR: TERRACOTTA / MODEL # AL-600HPNPM
17. BATTING CAGE 6'x12' BASEBALL/SOFTBALL PITCHER'S MAT MODEL # A-EXTBBS/2B
18. FIELD EQUIPMENT PRO ANCHOR BASES - SET OF 3 (15"x15"x1") MODEL # WP-8B155
19. FIELD EQUIPMENT SAKI-A-LEO HOME PLATE (19"x19"x1") MODEL # WP-SS10
20. FIELD EQUIPMENT OFFICIAL PITCHER'S PLATE MODEL # WP-PS10
21. FENCE CROWN 100' - YELLOW MODEL # MA-0100Y-100C
22. 15' YELLOW FOAM POLE W/ WING MODEL # D1244
23. 20' HT. SOFTBALL GALVANIZED CHAINLINK BACKSTOP, REF. 4/C24.1
24. 20' HT. BASEBALL GALVANIZED CHAINLINK BACKSTOP, REF. 4/C24.2
25. CMU WOODS, REF. 4/C24.0 & STRUCTURAL & ELECTRICAL
26. CMU DUGOUT W/ STORAGE ROOM, REF. 8/C24.0 & STRUCTURAL & ELECTRICAL
27. TRANSITION POINT OF FENCE HEIGHT 6' TO 8' HEIGHT
28. BULLPEN W/ 8' HT. CHAINLINK FENCE, HOME PLATE & PITCHER'S RUBBER, REF. KEY NOTES #20 & 21
29. CONCRETE CURB @ BACKSTOP, REF. C/C24.1
30. 3" DEPTH INFIELD SOIL MIX, RED LANDSCAPING SHALE AVAL. BY: MOE ECKHARTER 29223 W. 87TH STREET SOUTH, WOLA, KS 67449 PH: (620) 584-6531 FAX: (620) 584-6628 EMAIL: SKELFARMWORKNET OR APPROVED EQUAL.
31. 6" WIDE WALK-UP PATH (INFIELD SOIL MIX)
32. 12" WIDE WALKING TRACK (INFIELD SOIL MIX)
33. 3" WIDE x 6" DEPTH LIMESTONE GRAVEL STRIP (1-1/2" DIA. MIN.)
34. WOODEN BERMUDAGRASS SEED, REF. SEEDING NOTES THIS SHEET
35. WOLFELD 6'-2" BERMUDAGRASS SOG AVAL. BY: OMAHA GRASS FARMING, INC. PH: 316-722-7320
36. NATIVE PRAIRIE GRASS SEED MIX, REF. SEEDING NOTES C21.1
37. SWP PIPE, REF. C22.0
38. 24" NYLONPLAST DRAIN BASIN, REF. 5/C24.2
39. 4" WIDE THERMOPLASTIC PEDICESTRAN CROSSWALK, REF. 4/C24.2
40. NEW WELL LOCATION, REF. IRRIGATION
41. WOODFORD MODEL 154 100A FROST PROOF YARD HYDRANT W/ 4" BURY DEPTH
42. OUTDOOR ELECTRICAL RECEPTACLE, REF. ELECTRICAL
43. INSTALL (4) 6" DIA. STEEL ROLLERS - PAINTED BLACK, REF. 7/C24.2
44. ELECTRICAL CONDUIT, REF. ELECTRICAL
45. NOT USED
46. NOT USED
47. ALTERNATE: 20' HT. ALUMINUM HIGH SCHOOL FOOTBALL GOAL POST W/ 8' OFFSET GROUND SLEEVES MOUNTED MODEL # GA-800 AVAL. BY: SPORTSFIELD SPECIALTIES PH: 888-975-5043 OR APPROVED EQUAL.
48. ALTERNATE: 8'x24' ALUMINUM ROLLUP EUROPEAN GEAR GEAR W/ WHEELS SETS: 2 / BACK: 8-1/2" / FRONT: 6" GATEWATE MODEL # 255D008 AVAL. BY: WINGWALK.COM / PH: 800-778-0262 OR APPROVED EQUAL.

BERMUDAGRASS SEEDING NOTES

1. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SEEDING WITH THE FOLLOWING SPECIFICATION: SEED: HYBRID BERMUDAGRASS @ 3 LBS./1,000SQ' FERTILIZER: HAVE SOIL TESTED BY COUNTY EXTENSION SERVICE TO OBTAIN RECOMMENDED SOIL AMENDMENTS FOR THE GRASSES LISTED. REPORT RECOMMENDATIONS TO THE LANDSCAPE ARCHITECT FOR APPROVAL BEFORE ANY APPLICATION OF FERTILIZER IS MADE. PREPARATION: REMOVE BERMUDAGRASS SEED SHOULD BE PLANTED IN AREAS OF FULL SUNLIGHT WHEN SOIL TEMPERATURES REACH A CONSISTENT 60° (DEP) AND ARE ON THE RISE. OPTIMUM SEEDING SEASON: MAY 10 - AUGUST 1. PLANT IN A WELL-PREPARED FIRM SEEDBED: COVER SEED WITH NO MORE THAN 1/4" INCH (3/8" MAX) OF SOIL. MAINTAIN ADEQUATE SOIL MOISTURE AROUND SEED USING FREQUENT BUT LIGHT IRRIGATION FOR OPTIMUM GERMINATION. SEEDINGS SHOULD EMERGE IN 10 TO 14 DAYS. AS SEEDINGS DEVELOP, DECREASE FREQUENCY OF IRRIGATION BUT INCREASE THE AMOUNT OF WATER APPLIED.
2. PRIOR TO SEEDING, PREPARE ALL NEWLY GRADED AREAS BY LOCATING SUBPARS TO A MINIMUM DEPTH OF 6 INCHES. THIS AREA SHALL BE FREE FROM STICKS, SMALL STONES LARGER THAN 1 INCH IN ANY DIMENSION, AND OTHER EXTRANEOUS MATERIALS AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
3. APPLY FERTILIZER DIRECTLY TO SUBGRADE BEFORE LOOSENING.
4. GRADE PLANTING AREAS TO A UNIFORM, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORM FINE TEXTURE GRADE TO WITHIN A 3/4" OF FINISH ELEVATION. ROLL AND RAKE, REMOVE ROCKS, AND FILL DEPRESSIONS TO MEET FINISH GRADES.
5. APPLY SEED AT 3/8 OF THE ABOVE RATE IN ONE DIRECTION AND APPLY SECOND 3/8 RATE AT A DIRECTION IN HIGH ANGLE TO THE FIRST DIRECTION.
6. ALL BERMUDAGRASS SEED SHALL BE BROADCASTED ON PREPARED SOIL WITH A FERTILIZER SPREADER, LIGHTLY RAKED AND IMMEDIATELY WATERED.
7. ALL SEEDING AREAS SHALL BE IMMEDIATELY MULCHED W/ PRAIRIE HAY AT 2 TONS/ACRE. ANCHOR MULCH BY CRIMPING INTO TOPSOIL WITH A DISC OR OTHER APPROPRIATE AGRICULTURAL EQUIP.
8. IRRIGATION SHALL BE THE RESPONSIBILITY OF THE OWNER.

NATIVE PRAIRIE SEEDING NOTES

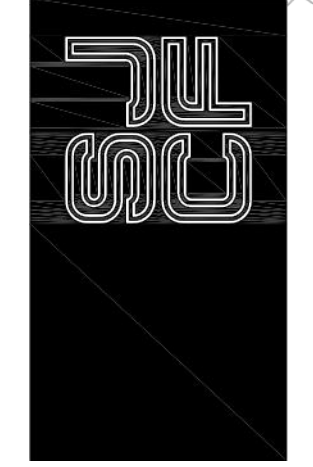
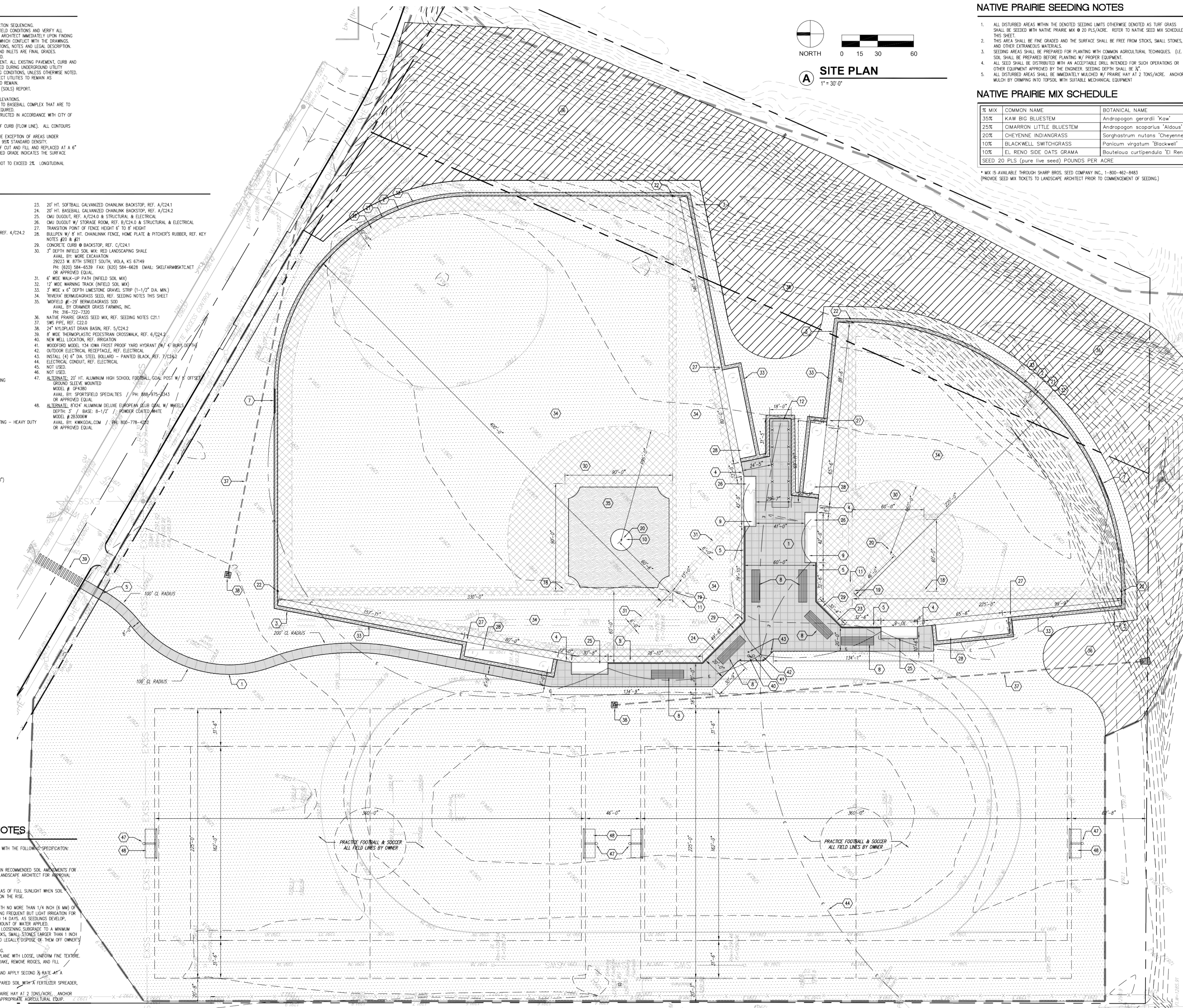
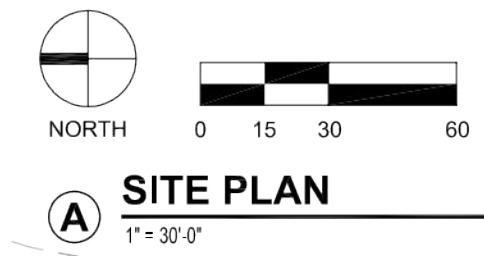
1. ALL DISTURBED AREAS WITHIN THE IDENTIFIED SEEDING LIMITS OTHERWISE IDENTIFIED AS TURF GRASS SHALL BE SEEDING WITH NATIVE PRAIRIE MIX @ 20 PLS./ACRE. REFER TO NATIVE SEED MIX SCHEDULE THIS SHEET.
2. THIS AREA SHALL BE FINE GRADED AND THE SURFACE SHALL BE FREE FROM STICKS, SMALL STONES, AND OTHER EXTRANEOUS MATERIALS.
3. SEEDING AREAS SHALL BE PREPARED FOR PLANTING WITH COMMON AGRICULTURAL TECHNIQUES. (I.E. SOIL SHALL BE PREPARED BEFORE PLANTING W/ PROPER EQUIPMENT.)
4. ALL SEED SHALL BE DISTRIBUTED WITH AN ACCEPTABLE DRILL, WINNECO FOR SUCH OPERATIONS OR OTHER EQUIPMENT APPROVED BY THE ENGINEER. SEEDING DEPTH SHALL BE 1".
5. ALL DISTURBED AREAS SHALL BE IMMEDIATELY MULCHED W/ PRAIRIE HAY AT 2 TONS/ACRE. ANCHOR MULCH BY CRIMPING INTO TOPSOIL WITH SUITABLE MECHANICAL EQUIPMENT.

NATIVE PRAIRIE MIX SCHEDULE

% MIX	COMMON NAME	BOTANICAL NAME
35%	KAW BIG BLUESTEM	Andropogon gerardii "Kaw"
25%	CHARRON LITTLE BLUESTEM	Andropogon scoparius "Aldous"
20%	CHEYENNE INDIANGRASS	Sorghastrum nutans "Cheyenne"
10%	BLACKWELL SWITCHGRASS	Panicum virgatum "Blackwell"
10%	EL RENO SIDE OATS GRAMA	Bouteloua curtipendula "El Reno"

SEED 20 PLS. (pure live seed) POUNDS PER ACRE

* MIX IS AVAILABLE THROUGH SHARP BROS. SEED COMPANY INC., 1-800-462-8483
PROVIDE SEED MIX TICKETS TO LANDSCAPE ARCHITECT PRIOR TO COMMENCEMENT OF SEEDING.



SCHAEFER JOHNSON COX FREY ARCHITECTURE
 257 N. Broadway
 Suite 100
 Phoenix, AZ 85004
 Ph: 316-864-0171
 Fax: 316-864-0172
 www.sjcf.com
 architect@sjcf.com

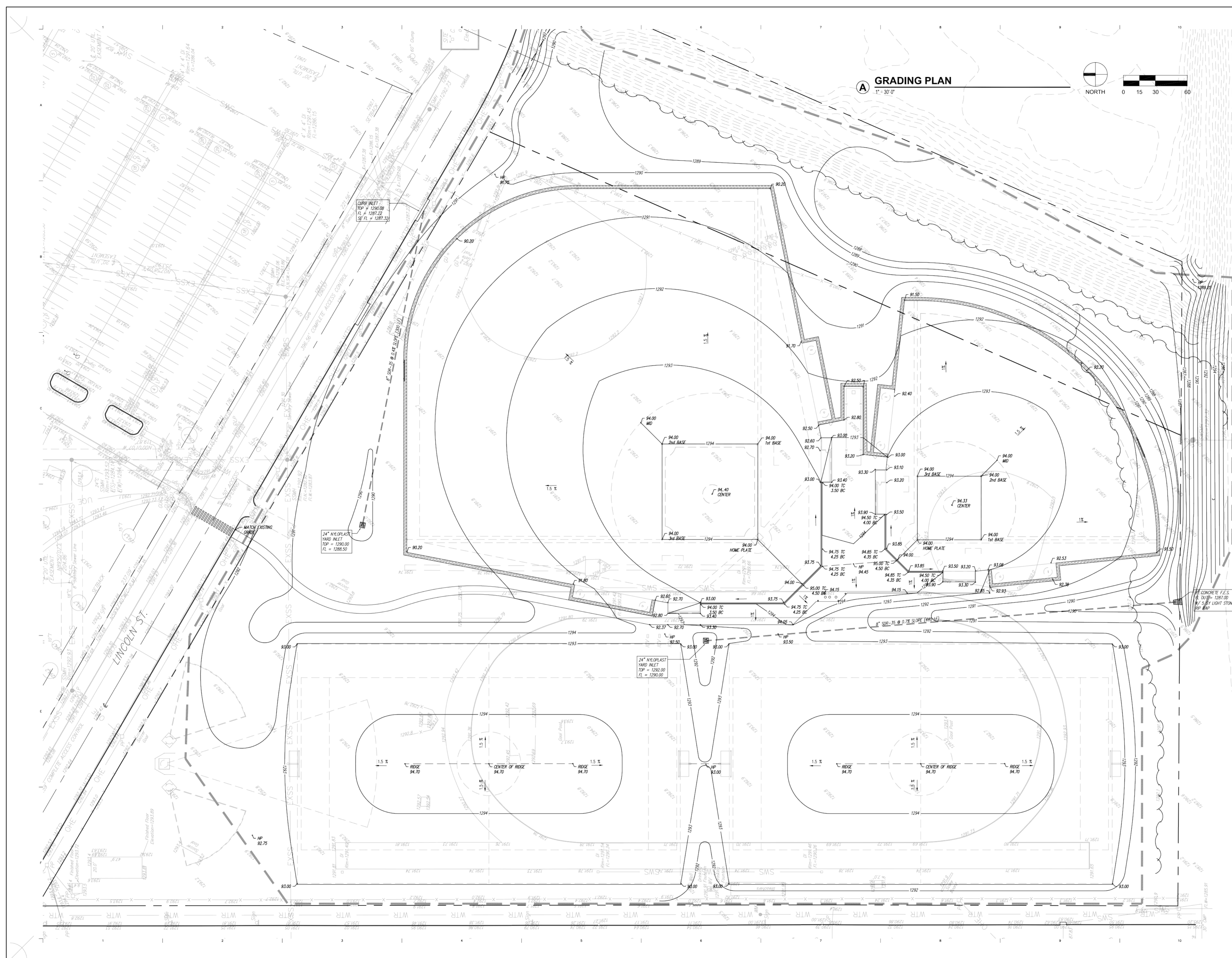


TERRACON ENGINEERING
 GEOTECHNICAL ENGINEERING
 BAUGHMAN COMPANY
 LAND SURVEYING CIVIL ENGINEERS
 INSITE GROUP, INC.
 ELEC. ENGINEERS
 DUDLEY WILLIAMS & ASSOC.
 STRUCTURAL ENGINEERS

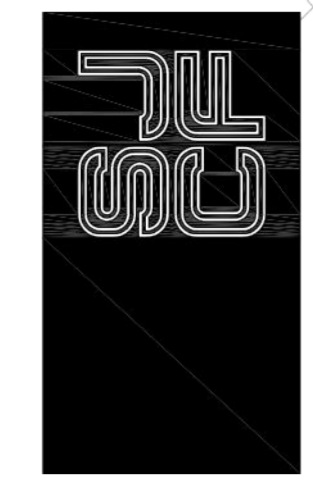
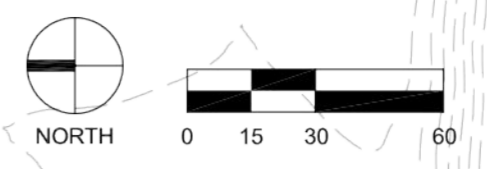
USD 259
WEST HIGH SCHOOL
PRACTICE SPORTS FIELDS
BID NO. 12-25075
 820 South Orange Street
 Wichita, Kansas 67214-4587

Revisions
 Project Number
SJCF 5044.20
 Date
5 SEPTEMBER 2012

SITE PLAN
 1"=30'
C 21.0



A GRADING PLAN
1" = 30' 0"



SCHAEFER JOHNSON COX FREY ARCHITECTURE
Empire Center
Wichita, Kansas
717.262.6271
www.sjcfx.com



TERRACON
GEOTECHNICAL ENGINEERING
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INSITE GROUP, INC.
ELECTRICAL ENGINEERS
DUDLEY WILLIAMS & ASSOC.
STRUCTURAL ENGINEERS

USD 259
WEST HIGH SCHOOL
PRACTICE SPORTS FIELDS
BID NO. 12-25075
820 South Osage Street
Wichita, Kansas 67215-4597

Schaefer Johnson Cox Frey Architecture, Inc.
480 Kings Boulevard
Wichita, Kansas 67215-4597

Revisions

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Project Number
SJC-F 5044.20

Date
5 SEPTEMBER 2012

GRADING PLAN
1"=30'

C 22.0

West High Athletic Field
Ref. Grading Plan
Drainage Improvements

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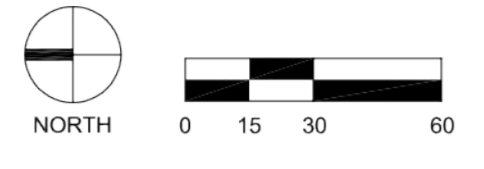
REVISIONS
SHEET
OF 5

EROSION CONTROL NOTES

- ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH CITY AND STATE REGULATIONS REGARDING STORM WATER POLLUTION PREVENTION.
- DEVELOPER SHALL BE RESPONSIBLE FOR IMPLEMENTATION, INSTALLATION, INSPECTION AND MAINTENANCE OF ALL BEST MANAGEMENT PRACTICES (BMPs) AS SHOWN ON THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPP). ADDITIONAL CONTROL DEVICES SHALL BE REQUIRED DURING CONSTRUCTION TO PREVENT SOIL LOSS FROM THE RESPONSIBILITY TO ENSURE METHODS UTILIZED THE CONSTRUCTION AREA. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE METHODS UTILIZED THE CONSTRUCTION AREA. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE METHODS UTILIZED THE CONSTRUCTION AREA. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE METHODS UTILIZED THE CONSTRUCTION AREA.
- DEVELOPER SHALL PROVIDE A COPY OF THE APPROVED SWPP TO ALL SUBCONTRACTORS, UTILITIES, AND SUBSEQUENT OWNERS OF INDIVIDUAL LOTS PRIOR TO ANY WORK WITHIN THE SUBDIVISION.
- CONTRACTORS WILL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF SOIL TRACKED ON TO PAVED STREETS.
- INSPECTION OF BMPs SHALL OCCUR AT LEAST ONCE EVERY 14 DAYS AND WITHIN 24 HOURS AFTER A RAINFALL OF ONE INCH OR MORE FOR EACH WEATHER STATION AT THE SITE.
- INSPECTION AND MAINTENANCE OF BMPs SHALL INCLUDE NECESSARY REPAIRS, REMOVAL OF SEDIMENT AND ANY NECESSARY MODIFICATIONS TO BMPs AS AUTHORIZED BY CITY AND SHALL BE ON GOING THROUGHOUT THE LIFE OF INFRASTRUCTURE AND BUILDING CONSTRUCTION TO KEEP THE DEVICES IN OPERABLE CONDITION AT ALL TIMES. MAINTENANCE OF ALL BMPs WILL BE REQUIRED UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED BY PLANTING, VEGETATION, SOIL OR OTHER SOIL STABILIZATION MEANS. ALTHOUGH EXTENSIVE EFFORT IS PUT INTO THE DESIGN OF THE EROSION CONTROL PLAN BY THE ENGINEER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER TO ENSURE THAT ANY ADDITIONAL REQUIRED EROSION CONTROL MEASURES ARE INSTALLED AND MAINTAINED AT NO ADDITIONAL COST.
- CONTRACTOR WILL BE RESPONSIBLE FOR MARKING ALL LIMITS OF DISTURBANCE (LOD) AND WILL NOT DISTURB VEGETATIVE COVER OUTSIDE OF THESE LIMITS. THE CONTRACTOR SHALL MAINTAIN THE AMOUNT OF SURFACE AREA THAT IS EXPOSED AT ONE TIME. LEAVE GRADED AREAS WITH A ROUGH TEXTURE. CONSTRUCT TEMPORARY TERRACES DURING GRADING OPERATIONS AND LIMIT UNNECESSARY TRAFFIC IN GRADED AREAS.
- SEDIMENT ACCUMULATIONS RETAINED BY SEDIMENT BARRIERS OR DEPOSITED OUTSIDE OF THE CONTROLLED AREA SHALL BE REMOVED AND SPREAD ON THE CONSTRUCTION SITE OR OTHERWISE APPLIED TO LAND AS TO NOT POSE A SIGNIFICANT POLLUTION POTENTIAL OR PRESENT A TRAFFIC HAZARD.
- SILT FENCE AND OTHER BMPs SHALL BE INSTALLED AS SHOWN ON THIS PLAN WITH MODIFICATIONS (AS APPROVED BY THE CITY) AS NECESSARY AT THE TIME OF INSTALLATION TO FIT THE EXISTING CONDITIONS. ALL STRIPPED TOPSOIL MUST BE STOCKPILED UPRIDE OF SILT FENCE.
- SEDIMENTATION BARRIERS ARE TO BE INSTALLED AS SHOWN AND AT ANY ADDITIONAL AREAS OF CONCENTRATED FLOWING NOT SHOWN ON THE PLAN.
- ALL PERVIOUS AREAS DISTURBED BY CONSTRUCTION SHALL BE SEEDED AND FERTILIZED AS SPECIFIED ON SITE PLANS.
- ALL SEEDED AREAS SHALL BE IMMEDIATELY MULCHED W/ PRAIRIE HAY AT 2 TONS/ACRE, ANCHOR MULCH BY CRIMPING INTO TOPSOIL WITH OUTRIGGER MECHANICAL EQUIPMENT.
- ANY DISTURBED AREA THAT WILL REMAIN EXPOSED 14 DAYS OR MORE SHALL BE STABILIZED WITH A TEMPORARY COVER OF ANNUAL, EYE ANNUAL, WHEAT, OR UTILIZING SEDIMENT CONTROL MEASURES TO PREVENT SOIL FROM LEAVING THE AREA. ALL SILT FENCE SHALL BE INSTALLED PER DETAIL. END TERMINAL OF SILT FENCE SHALL BE TURNED UP GRADIENT AT LEAST PERMITTED SILT FENCE SHALL BE TURNED UP SLURP ON 2 FOOT VERTICAL MATERIALS WITH FENCE LENGTH BETWEEN BETWEEN TURNED-UP SECTIONS NOT EXCEEDING 400' ALONG CONTOURS AND NOT ALONG SLOPED RUNS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE SEDIMENTATION BARRIERS MAINTAINED AS NEEDED TO PREVENT SEDIMENTATION BYPASS OF THE BARRIERS.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL AS HE/SHE DEEMS NECESSARY TO PREVENT SEDIMENT FROM ENTERING STORM DRAINS, STREETS AND WATERWAYS.
- TEMPORARY SEDIMENT FENCE EROSION CONTROL MEASURES TO REMAIN UNTIL ADEQUATE VEGETATION IS ESTABLISHED. ON PROJECTS THAT ARE NOT EXISTING IMMEDIATELY DEVELOPMENT (I.E. PREEXISTING HOMES, OTHER IMPROVEMENTS, ETC.) EROSION CONTROL MEASURES ARE TO BE REMOVED BY CONTRACTOR AS SOON AS ADEQUATE VEGETATION IS ESTABLISHED.
- INSTALL AND MAINTAIN CONSTRUCTION ENTRANCES AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING THE SITE AND AS SHOWN ON PLANS.
- AT COMPLETION OF SITE GRADING AND OTHER RELATED CONSTRUCTION ACTIVITIES, ALL DISTURBED AREAS WITHIN THE PROJECT SITE SHALL BE SEEDED, SOODED, OR LANDSCAPED. A MINIMUM OF 4" OF TOPSOIL IS TO BE PLACED IN AREAS TO BE SEEDED, SOODED OR LANDSCAPED THAT ARE UNSUITABLE FOR VEGETATIVE GROWTH.
- STRIPE TOPSOIL PRIOR TO EXCAVATION, STOCKPILE AND SPREAD ON TO EXPOSED SUBGRADE (4 THICKNESS OF 4 INCHES). THE CONTRACTOR/BUILDER/DEVELOPER SHALL HAVE THE RESPONSIBILITY FOR RESOLVING COMPLAINTS IN THE EVENT THAT COMPLAINTS OR DAMAGE CLAIMS ARE FILED TO DAMAGE OCCURRING, ALTHOUGH TO OR CONSTRUCTION FROM PROPERTY, BY SEDIMENT RESULTING FROM EROSION ON THE PROJECT SITE.
- GOOD HOUSEKEEPING PRACTICES SHALL BE MAINTAINED ON SITE TO KEEP SOLID WASTE FROM ENTRY INTO WATERS.
- MANUAL WASHING OF CONCRETE EQUIPMENT ALLOWED (CHUTE, TOOLS, ETC.) AT A CONTRACTOR DEFINED LOCATION. CONCRETE WASHOUT OF THE BROW IS NOT ALLOWED. ANY WASHOUT AREA NEEDS TO BE MAINTAINED IN A NON-ACCUMULATING MANNER, AND ANY WASTE RESIDUE WILL NEED TO BE CLEANED OUT AND REMOVED AT THE END OF PROJECT.
- BMPs MUST BE INSTALLED AND MAINTAINED TO CONTROL RINNOFF DURING LOT DEVELOPMENT.

KEYED EROSION CONTROL NOTES

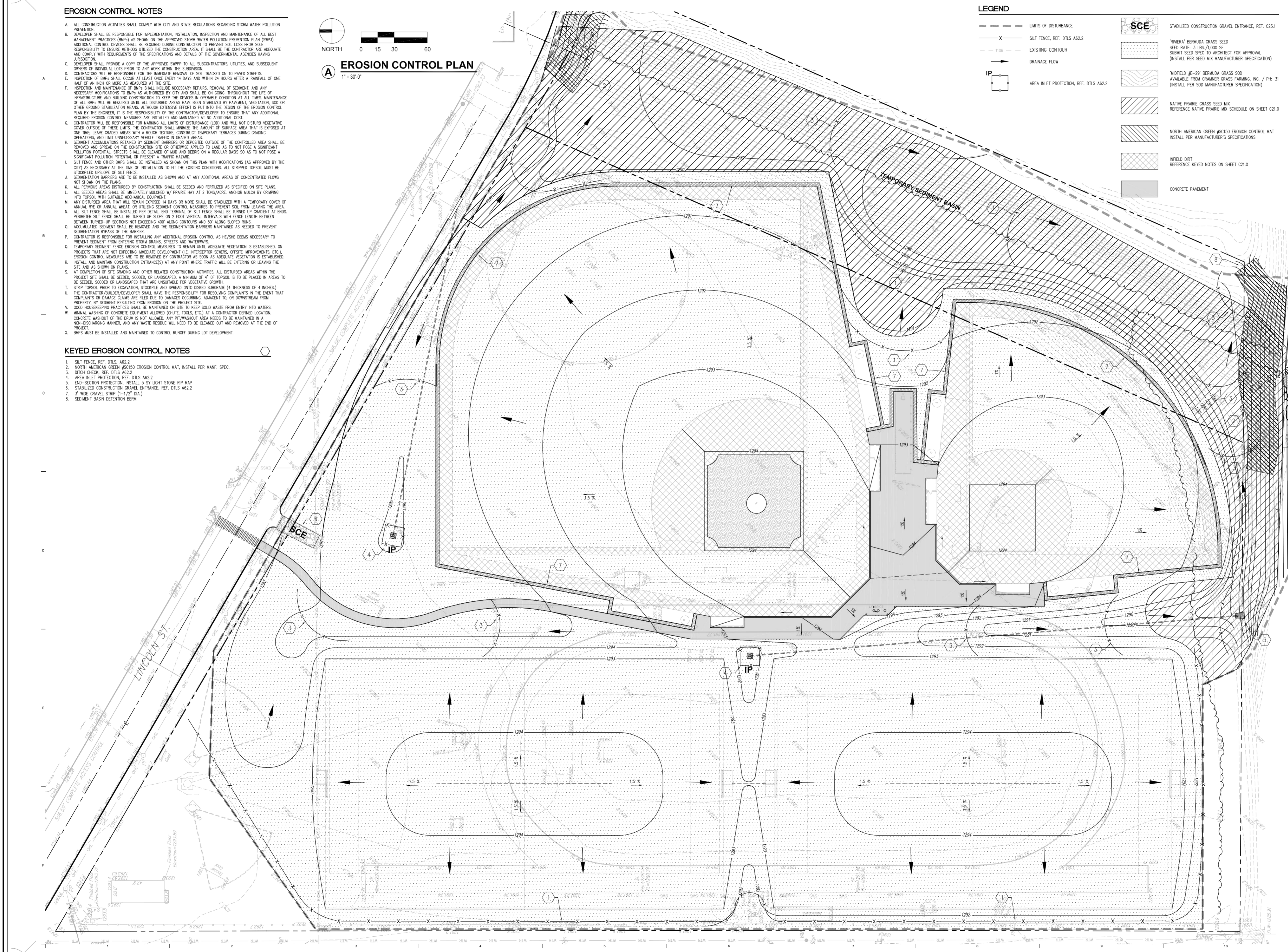
- SILT FENCE, REF. DTLS A62.2
- NORTH AMERICAN GREEN #52150 EROSION CONTROL MAT, INSTALL PER MANF. SPEC.
- DOTCH CHECK, REF. DTLS A62.2
- AREA INLET PROTECTION, REF. DTLS A62.2
- END-SECTION PROTECTION, INSTALL 5" LY LIGHT STONE RIP RAP
- STABILIZED CONSTRUCTION GRAVEL ENTRANCE, REF. DTLS A62.2
- 3" WIDE GRAVEL STRIP (1-1/2" DIA.)
- SEDIMENT BASIN DETENTION BERM



EROSION CONTROL PLAN
1" = 30' 0"

LEGEND

- LIMITS OF DISTURBANCE
- X- SILT FENCE, REF. DTLS A62.2
- - - - - EXISTING CONTOUR
- DRAINAGE FLOW
- IP AREA INLET PROTECTION, REF. DTLS A62.2
- SCE** STABILIZED CONSTRUCTION GRAVEL ENTRANCE, REF. C23.1
- "MIRKA" BERMUDA GRASS SEED SEED RATE: 3 LBS./1,000 SF. SUBMIT SEED SPEC TO ARCHITECT FOR APPROVAL (INSTALL PER SEED MIX MANUFACTURER SPECIFICATION)
- WYFIELD #E-20" BERMUDA GRASS SOD AVAILABLE FROM CRAMER GRASS FARMING, INC. / PH: 31 (INSTALL PER SOD MANUFACTURER SPECIFICATION)
- NATIVE PRAIRIE GRASS SEED MIX REFERENCE: NATIVE PRAIRIE MIX SCHEDULE ON SHEET C21.0
- NORTH AMERICAN GREEN #52150 EROSION CONTROL MAT INSTALL PER MANUFACTURER SPECIFICATIONS
- INFIELD DIRT REFERENCE: KEYED NOTES ON SHEET C21.0
- CONCRETE PAVEMENT



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Revisions

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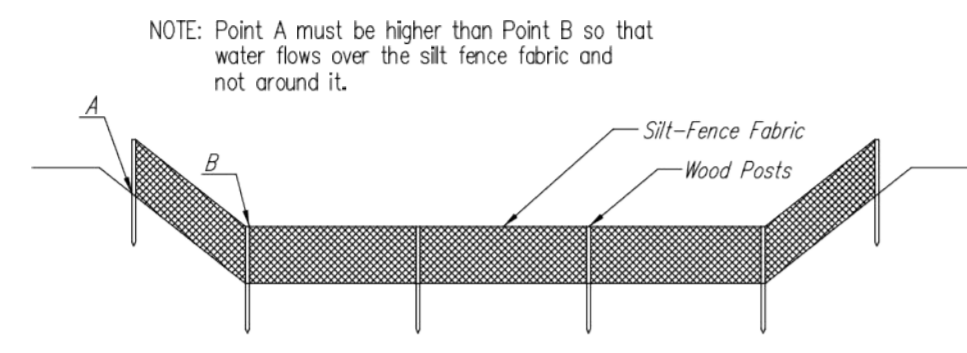
EROSION CONTROL PLAN

1"=30'

C 23.0

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West High Athletic Field
Reference Erosion Control Plan
 Final/As-Implements



NOTE: Point A must be higher than Point B so that water flows over the silt fence fabric and not around it.

ELEVATION
SILT FENCE DITCH CHECKS
(STREAM PROTECTION)

Material Specification:

Silt fence fabric should conform to the AASHTO M289 96 silt fence specification. The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long. Silt fence fabric should be attached to the wooden posts with staples, wire, zip ties, or nails.

Placement:

Place silt fence in ditches where it is unlikely that it will be overtopped. Water should flow through a silt fence ditch check, not over it. Silt fence ditch checks often fail when overtopped. Silt fence ditch checks should be placed perpendicular to the flowline of the ditch. The silt fence should extend far enough so that the ground level at the ends of the fence is higher than the top of the low point of the fence. This prevents water from flowing around the check. Silt fence ditch checks should not be placed in ditches where high flows are expected. Rock checks should be used instead. Silt fence should be placed in ditches with slopes of 6% or less. For slopes steeper than 6%, rock checks should be used.

The following table provides check spacing for a given ditch grade:

Ditch Check Ditch grade (%)	Spacing Check Spacing (feet)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

Proper installation method:

Excavate a trench perpendicular to the ditch flowline that is at least 12" deep by 6" wide. Extend the trench in a straight line along the entire length of the proposed ditch check. Place the soil on the upstream side of the trench for later use. Roll out a continuous length of silt fence fabric on the downstream side of the trench. Place the edge of the fabric in the trench starting at the top upstream edge of the trench. Line two sides of the trench with the fabric as shown on detail. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt fence fabric should remain exposed. Lay the exposed silt fence on the upstream side of the trench to clear an area for driving in the posts. Just downstream of the trench, drive posts into the ground to a depth of at least 24". Place posts no more than 4' apart. Attach the silt fence to the anchored post with staples, wire, zip ties, or nails.

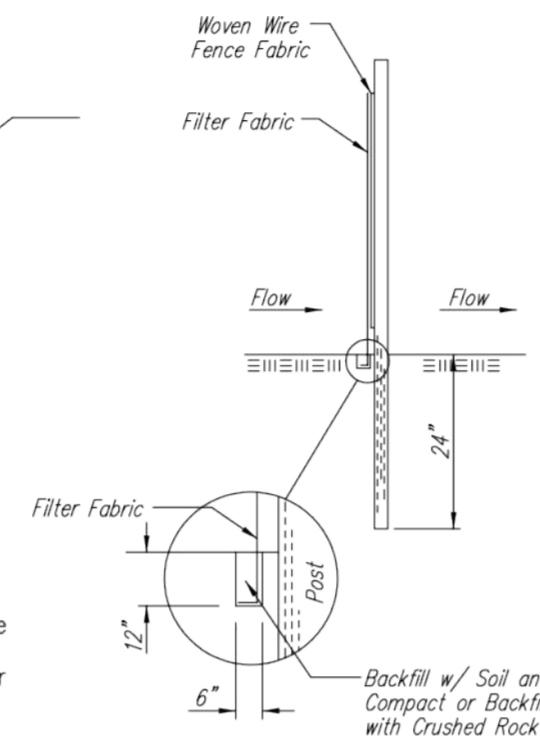
List of common placement/installation mistakes to avoid:

Water should flow through a silt fence ditch check—not over it. Place silt fence in ditches where it is unlikely that it will be overtopped. Silt fence installations quickly deteriorate when water overtops them. Do not place silt fence posts on the upstream side of the silt fence fabric. In this configuration, the force of the water is not restricted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fall. Do not place a silt fence ditch check directly in front of a culvert outlet. It will not stand up to the concentrated flow. Do not place silt fence ditch checks in ditches that will likely experience high flows. They will not stand up to concentrated flow. Follow prescribed ditch check spacing guidelines. If spacing guidelines are exceeded, erosion will occur between the ditch checks. Do not allow water to flow around the ditch check. Make sure that the ditch check is long enough so that the ground level at the ends of the fence is higher than the low point on the top of the fence. Do not place silt fence ditch checks in channels with shallow soils underlain by rock. If the check is not anchored sufficiently, it will wash out.

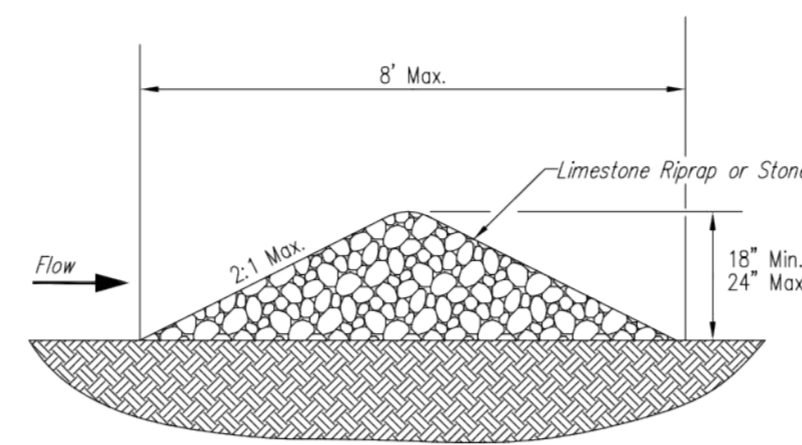
Inspection and Maintenance:

Silt fence ditch checks should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

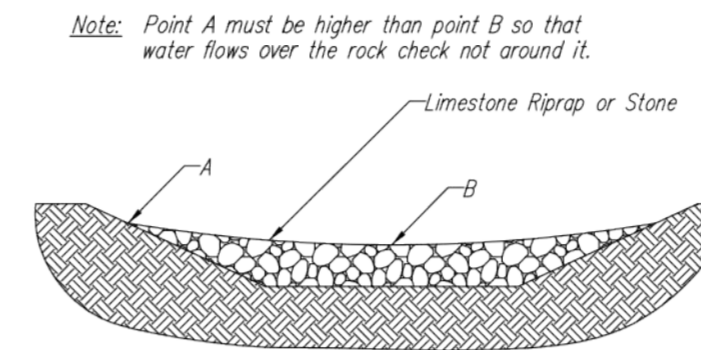
- Does water flow around the ditch check?
- Does water flow under the ditch check?
- Does the silt fence sag excessively?
- Has the silt fence torn or become detached from the posts?
- Does sediment need to be removed from behind the ditch check?



ANCHOR TRENCH DETAIL



DETAIL OF ROCK DITCH CHECK INSTALLATION



NOTE: Point A must be higher than point B so that water flows over the rock check not around it.

INSTALLATION OF ROCK DITCH CHECKS

ROCK DITCH CHECKS

Purpose & Design

Rock ditch checks operate by intercepting and ponding sediment-laden run-off. Ponding the water dissipates the energy of any incoming flow and allows a large portion of the suspended sediment to settle out. Water exits the ditch check by flowing over its crest. Rock ditch checks are ideal for ditches that will eventually have a riprap lining. Upon completion of the project, the rock ditch checks can be spread out to form the riprap channel lining.

Material Specification:

Stone used for rock ditch checks shall be free from soapstone, shale, shalike, or other easily disintegrated material. Stone used may be irregular in shape and shall be approximately 6" to 9" in width, 12" in length and a minimum weight per stone of 50 lbs. Precast concrete blocks and concrete from old structures may not be used. The stone shall be placed ungrouted.

Placement:

Rock ditch checks shall be placed perpendicular to the flowline of the ditch.

Rock ditches must be designed so that water can flow over them, not around them. The ditch checks should extend far enough so that the ground level at the ends of the check is higher than the low point on the crest of the check.

Proper installation method:

Using Limestone or Rock as listed above, construct a rock ditch check perpendicular to the ditch flowline. The ditch check should be 18" to 24" high and have side slopes no steeper than 2:1. The rock ditch check must be constructed so that water can flow over the top and not around the ends (i.e., the ground level at the ends of the check must be higher than the low point on the crest of the check).

List of common placement/installation mistakes to avoid:

Follow prescribed ditch check spacing guidelines. If spacing guidelines are exceeded, erosion will occur between the ditch checks.

Do not allow water to flow around the ditch check. Make sure that the ditch check is long enough so that the ground level at the ends of the check is higher than the low point on the crest of the check.

Inspection and Maintenance:

Rock ditch checks should be inspected every 7 days and within 24 hours of a rainfall of 0.5 inches or more. The following is a list of questions that should be addressed during each inspection.

Does the water flow around the ditch check? This is usually caused by insufficient ditch check length. If this occurs extend the check a sufficient length so that the ground level at the ends of the check is higher than the low point on the crest of the check.

Have high-velocity flows displaced any stones from the check? Sometimes high-velocity flows can carry away portions of a rock ditch check after a large rainstorm. Inspect the rock ditch check for any displaced stones. If a large portion of a rock ditch check has washed away, fill in the void with new stone immediately.

Does sediment need to be removed from behind the ditch check? Sediment accumulated behind the ditch check should be removed when it reaches one-half of the original exposed height of the rock ditch check. Allowing too much sediment to accumulate behind a ditch check drastically reduces its effectiveness. One high-intensity rainfall can dislodge that is why it is extremely important to inspect ditch checks within 24 hours of a large rainfall.



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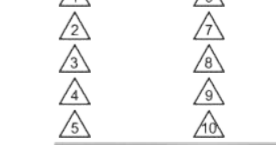
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Revisions



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EROSION CONTROL
BMP DETAILS

NTS
C23.2

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SURVEYING • ENGINEERING • PLANNING • LANDSCAPE ARCHITECTURE
Civil, P.E. Survey, P.E. Architect, P.E.

West High Athletic Field
Reference Erosion Control Details
Final - Incomplete

REVISONS
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OF **8**