



SIoux FALLS VA HEALTH CARE SYSTEM

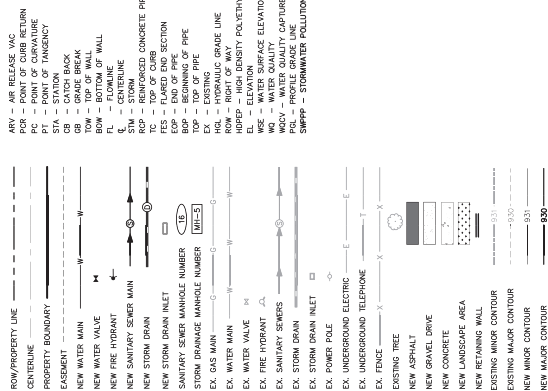
MITIGATE CAMPUS DRAINAGE

VA PROJECT NUMBER 438-18-107

2501 W 22ND ST

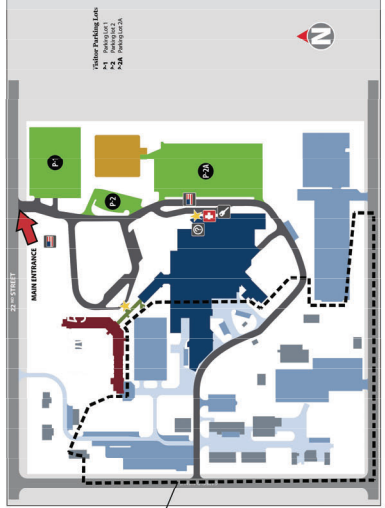
SIoux FALLS, SOUTH DAKOTA

LEGEND



ABBREVIATIONS

- ARV - AIR RELEASE VALVE
- PC - POINT OF CURVATURE
- PT - POINT OF TANGENCY
- CS - CATCH CATCH
- CB - GRADE BREAK
- FL - FLOWLINE
- BOV - BOTTOM OF WALL
- SM - STORM
- ROP - REINFORCED CONCRETE PIPE
- END - END OF PIPE
- FLAS - FLARED END SECTION
- 100' - TOP OF PIPE
- EX - EXISTING
- NEW - NEW
- HOPEP - HIGH DENSITY POLYETHYLENE PIPE
- WQ - WATER QUALITY
- WQ - WATER QUALITY
- PRO - PROPOSED GRADE
- SWPPP - STORMWATER POLLUTION PREVENTIONS PLAN



CAMPUS PLAN
NOT TO SCALE

| General Information | | Structural | |
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| SHEET NO. | CONTRACT AND SHEET INDEX | SHEET NO. | FUNCTIONAL GENERAL SHEET NAME |
| C-001 | CD SUBMISSION | S-101 | FOUNDATION DETAILS AND SLAB FPF |
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ENGINEER NOTES:

- LOCATION OF ALL EXISTING UTILITIES (PRIVATE OR PUBLIC) SHALL BE IDENTIFIED OR VERIFIED BY CONTRACTOR PRIOR TO MOBILIZATION, CONSTRUCTION, OR OPERATING OF THE PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM LOCAL, STATE, AND FEDERAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM LOCAL, STATE, AND FEDERAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM LOCAL, STATE, AND FEDERAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM LOCAL, STATE, AND FEDERAL AGENCIES.
- THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THE WORK SHOWN ON THIS DRAWING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM LOCAL, STATE, AND FEDERAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM LOCAL, STATE, AND FEDERAL AGENCIES.
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IMPORTANT CONTRACTOR NOTES:

- ALL CONTRACTORS ARE RESPONSIBLE FOR REVIEWING ENTIRE SET OF DOCUMENTS TO DETERMINE THE SCOPE OF WORK AND TO OBTAIN ALL NECESSARY PERMITS FROM LOCAL, STATE, AND FEDERAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM LOCAL, STATE, AND FEDERAL AGENCIES.
- NOT ALL UTILITIES SHOWN ON THIS DRAWING. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM LOCAL, STATE, AND FEDERAL AGENCIES.

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| ARCHITECT/ENGINEER OF RECORD | | CONSULTANT | |
| Calibre Calibre Engineering & Construction 1400 S. Dakota Ave., Suite 100 Sioux Falls, SD 57105 Phone: 605.336.2200 | | Shaffer & Stevens Shaffer & Stevens, P.C. 1800 W. 22nd St., Suite 100 Sioux Falls, SD 57105 Phone: 605.336.2200 | |
| Office of Construction and Facilities Management U.S. Department of Veterans Affairs | | Project Title MITIGATE CAMPUS DRAINAGE | |
| Approved Project Director | | Project Number 438-18-107 | |
| Stamp ARCHITECT/ENGINEER OF RECORD | | Phase CD SUBMISSION | |
| Stamp ARCHITECT/ENGINEER OF RECORD | | Project Number 438-18-107 | |
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GENERAL NOTES
1. THE CONTRACTOR SHALL CONDUCT COORDINATION MEETINGS WITH THE SUBCONTRACTORS...

CONTRACTOR SAFETY REQUIREMENTS
1. THE CONTRACTOR SHALL FOLLOW ALL LOCAL, STATE, AND FEDERAL RULES...

CONTRACTOR RESPONSIBILITY
1. THE CONTRACTOR SHALL BE AWARE OF EXISTING DRAINAGE CONDITIONS AND FACILITIES...

UTILITIES
1. ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO STARTING WORK...

SUMMARY
1. PROTECTION OF EXISTING WATER MAIN, SANITARY SEWER, AND STORM SEWER SYSTEMS...

CONSTRUCTION SCHEDULE
1. THE CONTRACTOR SHALL PREPARE A CONSTRUCTION SCHEDULE FOR APPROVAL BY THE ENGINEER...

CONSTRUCTION STAKES AND BENCHMARKS
1. REFERENCE POINTS, LINES, GRADE STAKES, AND BENCHMARKS SET BY THE ENGINEER...

SUBMITTALS
1. THE FOLLOWING DOCUMENTS SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL...

EXISTING UTILITY LINE, (PRIVATE OR PUBLIC), TO AVOID POSSIBLE CONFLICTS, WHEN DUMPING OR OVEREXCAVATING...

MANHOLES AND ANCHOR BOXES IN ALL CONCRETE STREETS SHALL BE ADJUSTED TO FINISHED GRADE USING THE MANHOLE/JUNCTION BOX...

FOR THE PROTECTION OF EXISTING PUBLIC UNDERGROUND UTILITIES AND THE SURROUNDING WORK AREA, CONSIDERATION SHALL BE GIVEN TO ISOLATING PORTIONS...

EXISTING SANITARY SEWER LINES AND MANHOLES WITHIN THE CONSTRUCTION LIMITS SHALL BE PROTECTED FROM THE ENTRANCE OF STONE, DIRT, GRAVEL, ASPHALT, CONCRETE...

THIS WORK CONSISTS OF EXCAVATING MATERIAL TO LOCATE A UTILITY LINE, (PRIVATE OR PUBLIC), WHEN UNDER A UTILITY OWNER'S JURISDICTION...

THIS WORK CONSISTS OF EXCAVATING MATERIAL TO VERIFY THE DEPTH OF AN EXISTING UTILITY.

Table with columns: NO., REVISIONS, DATE, DESCRIPTION. Includes revision 1: PROTECT EXISTING WATER MAIN, SANITARY SEWER, AND STORM SEWER SYSTEMS...

Architect/Engineer of Record: SES SPECIALIZED ENGINEERING SOLUTIONS. Consultant: Caliber Civil Inc.

Project Title: MITIGATE CAMPUS DRAINAGE. Project Number: 438-18-107. CD SUBMISSION.

REMOVAL OF EXISTING CONCRETE PAVEMENT

THE CONCRETE PAVEMENT SHALL BE DISPOSED OF BY THE CONTRACTOR AT A SITE APPROVED BY THE ENGINEER. PAVEMENT FOR CONCRETE PAVEMENT REMOVAL IS INCLUDED IN THE LUMP SUM CONTRACT PRICE, REGARDLESS OF VARIATIONS IN THICKNESS.

REMOVAL OF EXISTING ASPHALT PAVEMENT

WHEN ASPHALT IS LAID OVER CONCRETE PAVEMENT, REMOVAL OF THE ASPHALT SURFACING WILL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

EXISTING ASPHALT SURFACING THICKNESSES ARE UNKNOWN.

EXISTING ASPHALT SURFACING THICKNESSES ARE UNKNOWN.

CLEARING

CLEARING IS TO BE INCLUDED IN LUMP SUM CONTRACT PRICE.

ORGANIC MATERIAL SHALL NOT BE USED AS FILL IN TRENCHES OR EMBANKMENT. THE CONTRACTOR SHALL DISPOSE OF OR ADJACENT TO THE PROJECT SHALL BE PROHIBITED.

EROSION CONTROL MEASURES SHALL BE INSTALLED AND FUNCTIONING PRIOR TO CLEARING AND EXCAVATION. SEE TREE TRIMMING, REMOVAL, AND STUMP GRINDING SHALL BE PERFORMED BY A LICENSED ARBORIST.

ASPHALT SAWING SHALL BE PERFORMED AT ALL LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE BUSINESS DURING CONSTRUCTION. THE PAVEMENT SHALL BE SAWED FULL DEPTH. THE CONTRACTOR SHALL EXERCISE PARTICULAR CARE TO ENSURE THAT THE ADJACENT SURFACE IS LEFT INTACT AND UNDAMAGED WHEN REMOVING THE SAWED OUT PORTION. ADDITIONAL SAWING REQUIRED TO FORM NEAT EDGES PRIOR TO PAVING WILL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

WHERE NEW SURFACING IS PLACED ADJACENT TO EXISTING ASPHALT CONCRETE, A JOINT SHALL BE SAWED IN THE EXISTING BITUMINOUS MATERIAL PRIOR TO PLACING NEW MATERIALS.

SAW EXISTING ASPHALT - IS INCLUDED IN THE LUMP SUM CONTRACT PRICE.

SAW EXISTING ECC PAVEMENT

CONCRETE SAWING SHALL BE PERFORMED AT ALL LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION. THE PAVEMENT AND CURB AND GUTTER SHALL BE SAWED FULL DEPTH. THE CONTRACTOR SHALL EXERCISE PARTICULAR CARE TO ENSURE THAT THE ADJACENT SURFACE IS LEFT INTACT AND UNDAMAGED WHEN REMOVING THE SAWED OUT PORTION. ADDITIONAL SAWING REQUIRED TO FORM NEAT EDGES PRIOR TO PAVING WILL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

WHERE NEW PORTLAND CEMENT CONCRETE (PCC) PAVEMENT AND CURB AND GUTTER IS TO BE PLACED ADJACENT TO EXISTING PCC PAVEMENT AND CURB AND GUTTER, THE EXISTING PCC PAVEMENT AND CURB AND GUTTER SHALL BE SAWED FULL DEPTH TO A VERTICAL FACE.

SAW EXISTING PCC PAVEMENT - WILL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

SOIL BORINGS

SOIL BORING INFORMATION TAKEN FOR THE PROJECT HAS BEEN INCLUDED IN THE PROJECT SPECIFICATIONS. LOCATIONS, WATER, AND ROCK DEPTHS ENCOUNTERED AT THE TIME OF THE BORINGS, ARE INDICATED ON THE CORRECT OR COMPLETE CONDITIONS AFFECTING WORK MAY ACTUALLY DIFFER FROM THOSE SHOWN IN THE BORING LOGS. BIDDERS ARE EXPECTED TO EXAMINE THE SITE, INTERPRET OR DISREGARD SOIL BORING LOGS AS MATERIALS TO BE ENCOUNTERED.

UNCLASSIFIED EXCAVATION

THE EXCESS SOIL RESULTING FROM EARTHWORK ACTIVITIES, IF ANY, SHALL BECOME THE PROPERTY OF THE CONTRACTOR WHO SHALL BE RESPONSIBLE FOR ITS REMOVAL FROM THE SITE.

WATER FOR COMPACTION OF SUBGRADE AND EMBANKMENTS SHALL BE PROVIDED BY THE CONTRACTOR AND USED IN ACCORDANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPACTION OF SUBGRADE AND EMBANKMENTS SHALL BE GOVERNED BY THE SPECIFIED DENSITY METHOD.

SEALERY AND RECOMPACT SUBGRADE

THE DEPTH OF MANIPULATION IN SUCH A WAY AS TO ALLOW THE SUBGRADE MATERIAL TO ACHIEVE OPTIMUM MOISTURE CONTENT. AFTER SCARIFICATION, THE CONTRACTOR SHALL ALLOW SUFFICIENT TIME FOR THE SUBGRADE TO VARY FROM OPTIMUM MOISTURE CONTENT SHALL BE PLUS 2% OR MINUS 4%.

ANY ADDITIONAL WORK TO RESCARIFY AND RECOMPACT THE SUBGRADE DUE TO THE CONTRACTOR NOT ALLOWING ENOUGH TIME FOR OPENING OR NOT WORKING THE MATERIAL SUFFICIENTLY TO ACHIEVE OPTIMUM MOISTURE SUBGRADE IN ACCEPTABLE CONDITION AFTER THE SCARIFICATION AND RECOMPACT PROCESS. ANY ADDITIONAL WORK REQUIRED TO MAINTAIN THE SUBGRADE AFTER THE SCARIFICATION AND RECOMPACT PROCESS IS COMPLETE SHALL BE COMPLETED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

UNDERSEALING

IN ALL OUT SECTIONS, THE EARTHEN SUBGRADE SHALL BE UNDERCUT 1.0 FEET BELOW THE EARTHEN SUBGRADE BE REPLACED AND COMPACTED TO THE DENSITY SPECIFIED FOR THE SECTION BEING CONSTRUCTED. THIS WORK SHALL BE INCIDENTAL TO THE LUMP SUM CONTRACT PRICE.

STORM DRAINAGE - GENERAL

STORM DRAINAGE PIPE SHALL BE THE SIZE(S) AND CLASS(S) DESIGNATED ON THE PLAN AND PROFILE SHEETS. THE CONTRACTOR SHALL PROVIDE MANUFACTURER/SUPPLIER PIPE D-DIMENSIONS BASED UPON PIPE COVER AND SOIL CONDITIONS ENCOUNTERED ON SITE AND STAMPED BY A REGISTERED ENGINEER. IN NO CASE SHALL THE RCP PIPE CLASS BE LESS THAN CLASS III.

STANDARD BEDDING MATERIAL SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE STORM DRAINAGE PIPE. NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR STANDARD BEDDING MATERIAL.

THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER'S OFFICE OR DESIGNEE UPON COMPLETION OF THE STORM DRAINAGE PIPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING AND UTILIZING PROCEDURES AND EQUIPMENT FOR HANDLING AND CORRECTED PRIOR TO PAVING. FINAL PAVEMENT WILL NOT BE MADE UNTIL ALL DEFICIENCIES HAVE BEEN CORRECTED AND THE STORM DRAINAGE WORK HAS BEEN GIVEN FINAL ACCEPTANCE.

CONNECT TO EXISTING PIPE

IF A MALE/FEMALE JOINT OF SIMILAR TYPE IS NOT AVAILABLE TO CONNECT NEW PIPE TO EXISTING PIPE, A CONCRETE COLLAR SHALL BE INSTALLED. THE COLLAR SHALL BE CLASS M-6 CONCRETE AND SHALL BE 6 INCHES IN DEPTH AND 2 INCHES IN WIDTH. THE COLLAR SHALL BE INSTALLED IN ACCORDANCE WITH THE LUMP SUM CONTRACT PRICE.

NO-DIG HOLES IN STORM DRAINAGE PIPE WALL

LIFT HOLES ARE PROHIBITED FOR PIPE OR CULVERT MANUFACTURED AFTER JANUARY 1, 2018. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING AND UTILIZING PROCEDURES AND EQUIPMENT FOR HANDLING AND INSTALLING STORM DRAINAGE PIPE OR CULVERT WITHOUT PENETRATIONS THROUGH THE WALL. THE CONTRACTOR IS ALLOWED TO CUT THROUGH THE WALL OF THE PIPE OR CULVERT UPON SHOP DRAWING APPROVAL BY THE ENGINEER.

TYPE STORM INLET APROXIM BARRI

THE CONTRACTOR SHALL REMOVE A MINIMUM OF 18 INCHES OF CURB & GUTTER ON EACH SIDE OF THE INLET AS PART OF THE INLET APRON REPAIR. THE REMOVAL OF THE INLET APRON AND CURB AND GUTTER WILL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

THE CONTRACTOR SHALL EXCAVATE A MINIMUM OF 2 INCHES BELOW THE INLET APRON, WHICH WILL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

THE NEW INLET APRON SHALL BE POURED MONOLITHICALLY WITH THE ADJACENT NEW CURB & GUTTER AND BE INCLUDED IN THE LUMP SUM CONTRACT PRICE. THE CURB & GUTTER ADJACENT TO THE INLET APRON REPAIR WILL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

UNDERDRAIN P/E

THE UNDERDRAIN PIPE MATERIAL AND INSTALLATION SHALL BE PER SDOOT STANDARD SPECIFICATIONS SECTION 680 AND AS SHOWN ON PLANS.

THE UNDERDRAIN PIPE SHALL BE PERFORATED CORRUGATED POLYETHYLENE DRAINAGE TUBING THAT MEETS THE REQUIREMENTS AS SET FORTH IN SDOOT STANDARD SPECIFICATIONS SECTION 680.

THE POROUS BACKFILL FOR THE UNDERDRAIN PIPE TRENCH SHALL BE WASHED NATURAL ROCK MEETING THE GRADATION REQUIREMENTS OF TYPE SIZE AS SPECIFIED IN SECTION 800-COURSE AGGREGATE FOR USE IN PORTLAND CEMENT CONCRETE OF THE SDOOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, CURRENT EDITION.

THE DRAINAGE FABRIC WRAP AROUND THE UNDERDRAIN PIPE TRENCH SHALL BE TYPE B DRAINAGE FABRIC MATERIAL THAT MEETS THE REQUIREMENTS AS SET FORTH IN SDOOT STANDARD SPECIFICATIONS SECTION 680. THE UNDERDRAIN PIPE IS SERVING. THE UNDERDRAIN PIPE SHALL BE CAST INTO THE STORM SEWER INLETS ALONG THE UNDERDRAIN PIPE IS SERVING. THE UNDERDRAIN PIPE SHALL BE CAST INTO THE STORM SEWER INLETS ALONG THE UNDERDRAIN PIPE IS SERVING. THE UNDERDRAIN PIPE SHALL BE CAST INTO THE STORM SEWER INLETS ALONG THE UNDERDRAIN PIPE IS SERVING.

- ALL COSTS FOR THE UNDERDRAIN PIPE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING ITEMS:
• 6" UNDERDRAIN PIPE
• POROUS BACKFILL
• DRAINAGE FABRIC WRAP AROUND POROUS BACKFILL
• TRENCHING AND BACKFILLING
• CONNECTING TO STORM SEWER INLETS OR MANHOLES
• CLOSING OFF STORM SEWER INLETS WITH GASKETTED MANHOLES
• ALL OTHER APPROPRIANCES, EQUIPMENT, MATERIALS AND LABOR TO FURNISH AND INSTALL THE UNDERDRAIN PIPE.

Table with 4 columns: Project Title (GENERAL NOTES), Phase (CD SUBMISSION), Project Title (MITIGATE CAMPUS DRAINAGE), Project Number (438-18-107). Includes logos for Calibre and Shaffer & Stevens.

CONTROLLED DENSITY FILL (K-CRETE)
 CONTROLLED DENSITY FILL (K-CRETE) SHALL BE INSTALLED FOR CRADLES, AT LOCATIONS WHERE TRENCH BEDDING OR BACKFILL MAY BE DIFFICULT OR IMPOSSIBLE TO OBTAIN. THE MIXTURE SHALL BE TRANSPORTED TO THE WORK AREA IN LADDS, PUMPS, OR TRENCH BOXES. THE MINIMUM DEPTH OF THE SAND FILL SHALL NOT EXCEED 3 INCHES UNLESS OTHERWISE SPECIFIED. THE SAND FILL SHALL BE PLACED IN LAYERS NOT EXCEEDING 6 INCHES AND COMPACTED TO THE SPECIFIED DENSITY. THE SAND FILL SHALL BE PLACED ADJACENT TO THE EXISTING PIPE AND SHALL BE COMPACTED TO THE SPECIFIED DENSITY. THE SAND FILL SHALL BE PLACED ADJACENT TO THE EXISTING PIPE AND SHALL BE COMPACTED TO THE SPECIFIED DENSITY. THE SAND FILL SHALL BE PLACED ADJACENT TO THE EXISTING PIPE AND SHALL BE COMPACTED TO THE SPECIFIED DENSITY.

CONTROLLED DENSITY FILL SHALL ALSO BE USED FOR CRADLES FOR SUPPORTING EXISTING STRUCTURES AS EXISTING AND PROPOSED WATERMAIN, SANITARY SEWER, PRIVATE UTILITIES, ETC.

MAINFILL AND MINING SHALL BE IN ACCORDANCE WITH SECTION 462 OF THE SD DOT STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED BELOW. THE MIX SHALL BE:

| MATERIAL | RATE/QUICRYARD |
|--------------------------|----------------|
| PORTLAND CEMENT, TYPE II | 100 LB |
| WATER | NONE |
| COURSE AGGREGATE | 40 GAL |
| FINE AGGREGATE | 300 LB |
| FLY ASH, TYPE C | |

THE FINE AGGREGATE SHALL BE NATURAL SAND CONSISTING OF MINERAL AGGREGATE PARTICLES CONFORMING TO THE FOLLOWING GRADATION REQUIREMENTS:

| PASSING 3/8 INCH SIEVE | PASSING NO. 200 SIEVE |
|------------------------|-----------------------|
| 100% | 0-10% |

THE CONTRACTOR SHALL COORDINATE WITH AND HAVE APPROVAL TO USE THE CONTROLLED DENSITY FILL FROM THE ENGINEER PRIOR TO INSTALLATION OF THE CONTRACTED SURFACE.

1. ALL COSTS FOR FURNISHING AND INSTALLING THE CONTROLLED DENSITY FILL SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

SURFACING

AGGREGATE BASE COURSE
 AGGREGATE BASE COURSE SHALL BE IN ACCORDANCE WITH SD DOT STANDARD SPECIFICATIONS SECTION 862.
 SET FORTH IN SD DOT STANDARD SPECIFICATIONS SECTION 862.
 AGGREGATE BASE COURSE SHALL BE COMPACTED WITH PNEUMATIC ROLLERS AND UNDELETED, AND ATTAINS A DENSITY OF 97% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY 30 10% METHOD, 4 AND 30 165 OR 30 1%.
 WATER FOR COMPACTION IS ESTIMATED AT 12 GALLONS PER TON AND SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

ASPHALT CONCRETE FOR PATCHING
 ASPHALT CONCRETE FOR PATCHING SHALL BE INSTALLED IN LOCATIONS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. THE MINIMUM DEPTH OF ALL ASPHALT PATCHING SHALL BE AS SPECIFIED IN THE PLANS. THE MINIMUM DEPTH SHALL BE THE THICKNESS OF THE RESPECTIVE PAVEMENT.
 THE MINIMUM DENSITY REQUIREMENT IS 92% (RICE METHOD) OF SPECIFIED DENSITY OR THE SATISFACTION OF THE ENGINEER.
 ASPHALT CONCRETE COMPOSITE SHALL CONFORM TO THE SD DOT SPECIFICATIONS FOR CLASS C, ASPHALT CONCRETE. THE TOP LIFT SHALL CONFORM TO CLASS G-2 FOR MINERAL AGRGREGATE. THE COURSE SPECIFICATIONS SHALL BE SPECIFIED BY THE CLASS OF MATERIALS. THE COURSE SPECIFICATIONS SHALL BE SPECIFIED BY THE CLASS OF MATERIALS.
 THE MINIMUM DENSITY REQUIREMENT IS 92% (RICE METHOD) OF SPECIFIED DENSITY OR THE SATISFACTION OF THE ENGINEER. THE SURFACE COURSE SHALL NOT EXCEED 2 IN THICKNESS WHEN LAD AND COMPACTED.
 A MAXIMUM OF 20% (BY WEIGHT) OF RECYCLED ASPHALT PAVEMENT (RAP) WILL BE ALLOWED. THE RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN ALL COURSE TYPES EXCEPT THINNESS COURSE. THE MAXIMUM ALLOWABLE RAP SHALL BE DETERMINED BY THE ENGINEER. ENVIRONMENTALLY RESTRICTED MATERIALS SHALL NOT BE USED. NO OTHER RECYCLED MATERIAL WILL BE ALLOWED.

THE ASPHALT CEMENT USED IN THE MIXTURE SHALL BE PERFORMANCE GRADED (PG) ASPHALT CEMENT IN ACCORDANCE WITH THE SD DOT STANDARD SPECIFICATIONS. ALL MIXTURES SHALL BE COMPACTED TO THE SPECIFIED DENSITY. ALL MIXTURES SHALL BE COMPACTED TO THE SPECIFIED DENSITY. ALL MIXTURES SHALL BE COMPACTED TO THE SPECIFIED DENSITY. ALL MIXTURES SHALL BE COMPACTED TO THE SPECIFIED DENSITY.

TACK COAT (SS-HH OR GSS-HH) SHALL BE APPLIED BETWEEN EACH LIFT OF ASPHALT AND ALONG EXISTING CONCRETE AND ASPHALT FACES AND ANY AREAS AS DETERMINED BY THE ENGINEER. THE MIXTURE SHALL BE APPLIED TO THE SURFACE OF THE EXISTING ASPHALT. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

THE SUPPLIER IS REQUIRED TO RUN DAILY PRODUCTION CONTROL SAMPLES ON THE AGGREGATE MATERIAL. ALL PRODUCTION CONTROL TEST RESULTS SHALL BE MADE AVAILABLE TO OWNER UPON REQUEST.

HOT MIX ASPHALT PRODUCTION SHALL CONFORM TO THE CURRENT SDOT SPECIFICATIONS.

THE SUPPLIER SHALL FURNISH A JOB MIX FORMULA FOR APPROVAL PRIOR TO ASPHALT PRODUCTION. ALL JOB MIX DESIGNS SHALL HAVE A LABORATORY DESIGNATION NUMBER AND A MIXTURE DESIGNATION NUMBER. THE MIXTURE DESIGNATION NUMBER SHALL BE THE SAME AS THE DESIGNATION NUMBER FOR THE ASPHALT CONCRETE MIX BINDER DESIGNATION. PERCENT NEW ASPHALT BINDER AND ASPHALT CONCRETE MIX BINDER SHALL BE THE SAME AS THE DESIGNATION NUMBER FOR THE ASPHALT CONCRETE MIX BINDER. THE ENGINEER MAY ACCEPT THE MIXTURE OR THE BASIS PERCENT BINDER FROM THE SUPPLIER. THE SUPPLIER SHALL SUBMIT THE MIXTURE TO THE ENGINEER FOR APPROVAL PRIOR TO ASPHALT PRODUCTION. THE SUPPLIER SHALL SUBMIT THE MIXTURE TO THE ENGINEER FOR APPROVAL PRIOR TO ASPHALT PRODUCTION.

THE ENGINEER MAY ASSESS THE MIXTURE ON THE BASIS OF THE JOB MIX FORMULA, SPECIFICATION OF COMPLIANCE AND VISUAL INSPECTION OR MAY TEST THE MIXTURE FOR COMPLIANCE. ALL PRODUCTION PROCESSES AND MATERIALS SUPPLIED ON THE PROJECT SHALL BE APPROVED BY THE ENGINEER. THE SUPPLIER SHALL NOT BE RESPONSIBLE FOR MEETING SPECIFICATION WILL BE REJECTED AND REPLACED AT THE SUPPLIER'S EXPENSE.

TACK COAT (SS-HH OR GSS-HH) SHALL BE APPLIED BETWEEN EACH LIFT OF ASPHALT AND ALONG EXISTING CONCRETE AND ASPHALT FACES AND ANY AREAS AS DETERMINED BY THE ENGINEER AT THE RATE OF .05 GAL/30.00. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM CONTRACT.

INTERMEDIATE AND/OR TOP LIFTS SHALL NOT BE PLACED UNTIL THE UNDERLYING LAYER HAS COOLED TO 175 DEGREES FAHRENHEIT OR BELOW. ALSO, IF THE CONTRACTOR'S TEMPERATURES FOR TOP LIFT SHALL BE AT MINIMUM 40 DEGREES FAHRENHEIT, WITH A FORECAST OF HOLDING OR RISING TEMPERATURES. IF WARM MIX ASPHALT IS USED, THE CONTRACTOR SHALL MAINTAIN A TEMPERATURE OF 175 DEGREES FAHRENHEIT, WITH A FORECAST OF HOLDING OR RISING TEMPERATURES.
 THE ENGINEER MAY REQUIRE TAPPING OF LOADS DURING COOL OR WINDY CONDITIONS. THE CONTRACTOR SHALL MAINTAIN A TEMPERATURE OF 175 DEGREES FAHRENHEIT, WITH A FORECAST OF HOLDING OR RISING TEMPERATURES.
 PAYING MAY BE SUSPENDED BY THE ENGINEER WHEN TEMPERATURES NEAR THE MINIMUM ALLOWABLE ARE COMBINED WITH WINDY CONDITIONS. THE ENGINEER WILL TAKE NECESSARY PRECAUTIONS TO PROTECT THE PAVEMENT FROM DAMAGE DURING SUCH PRACTICES, INCLUDING TAPPING OF LOADS AND CLOSE ROLLER OPERATIONS, PRIOR TO MAKING HIS DECISION. THE ENGINEER'S DECISION REGARDING PAVING OPERATIONS SHALL BE FINAL.

ASPHALT CONCRETE COMPOSITE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE, INCLUDING TACK COAT (SS-HH OR GSS-HH), ALL MATERIALS, EQUIPMENT, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

COLD SURFACE BOTTOMMILL PLANNING SHALL BE COMPLETED TO THE DIMENSIONS AS SHOWN ON THE PLANS FOR BOTH DEPTH AND WIDTH.
 ALL GRINDINGS FROM BOTTOMMILL OPERATIONS SHALL BE DISPOSED OF BY THE CONTRACTOR. THE COST OF DISPOSING GRINDINGS AND ALL TRANSPORTATION SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
 THE COMPUTED QUANTITIES SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE. THE MIXTURE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.
 MISCELLANEOUS CONCRETE
 CONCRETE FOR INLETS, CURB AND GUTTER, VALLEY GUTTERS, SIDEWALK, DRIVEWAY APPROACHES, AND OUTLET STRUCTURES SHALL BE CLASS M-6 AS DETAILED IN THE SD DOT STANDARD SPECIFICATIONS SECTION 462.

CONCRETE SHALL BE CURED USING A CURING COMPOUND IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES EXCEPT AS MODIFIED IN THIS NOTE. ALL CONCRETE SHALL BE CURED WITH A WHITE PIGMENTED UNSEDED OIL BASE EMULSION OR OTHER APPROVED METHOD. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE.
 CONCRETE CURING
 CONCRETE SHALL BE CURED IN ACCORDANCE WITH SECTION 863.01.9 OF THE SD DOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES EXCEPT AS MODIFIED IN THIS NOTE. ALL CONCRETE SHALL BE CURED WITH A WHITE PIGMENTED UNSEDED OIL BASE EMULSION OR OTHER APPROVED METHOD. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE.

CONCRETE CURING
 CONCRETE SHALL BE CURED IN ACCORDANCE WITH SECTION 863.01.9 OF THE SD DOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES EXCEPT AS MODIFIED IN THIS NOTE. ALL CONCRETE SHALL BE CURED WITH A WHITE PIGMENTED UNSEDED OIL BASE EMULSION OR OTHER APPROVED METHOD. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE.

APPLY LIQUID CURING COMPOUND IN A FINE SPRAY TO FORM A CONTINUOUS, UNIFORM, SOLID WHITE OPAQUE COVERAGE (EQUAL TO A WHITE SHEET OF TYPING PAPER) ON THE HORIZONTAL SURFACE AND VERTICAL EDGES OF PAVEMENT, CURBS AND BACK OF CURBS. CURING COMPOUND SHALL BE APPLIED TO ALL EXPOSED SURFACES OF THE PAVEMENT MINUTES AFTER FINISHING. CONCRETE EDGES EXPOSED BY THE REMOVAL OF FORMS SHALL ALSO BE CURED. APPLY THE CURING COMPOUND IN 2 EQUAL APPLICATIONS, IN THE FIRST APPLICATION APPLY TO THE TOP SURFACE OF THE PAVEMENT. IN THE SECOND APPLICATION, THE TIMING OF CURE APPLICATION MAY BE ADJUSTED DUE TO VARYING WEATHER CONDITIONS AND CONCRETE MIX PROPERTIES TO ENSURE ACCEPTABLE MAGNITUDE OF ADHESION.

FACTOR TO COMPLY WITH THE PROVISIONS MAY RESULT IN REJECTION OF THE CONCRETE.

24 HOUR FAST TRACK CONCRETE MIX
 AT SPECIFIC LOCATIONS DESIGNATED BY THE ENGINEER, 24 HOUR FAST TRACK CONCRETE MIX SHALL BE USED IN REPLACEMENTS OF ALL CONCRETE. THE INTENT OF THE 24 HOUR FAST TRACK CONCRETE MIX IS TO INSURE THE NEW PAVEMENT CAN BE OPENED TO TRAFFIC WITHIN 24 HOURS AFTER PLACEMENT.

24 HOUR FAST TRACK CONCRETE MIX SHALL BE CONSTRUCTED ACCORDING TO THE PLAN STANDARD SPECIFICATIONS EXCEPT AS FOLLOWS:
 THE SPECIAL MIX FOR THE 24 HOUR FAST TRACK CONCRETE MIX SHALL BE DESIGNED TO A MINIMUM ULTIMATE 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI. USE OF A WATER REDUCER OR A HIGH RANGE WATER REDUCER MAY BE REQUIRED TO OBTAIN THE COMPRESSIVE STRENGTH. THE MIX SHALL BE COMPATIBLE WITH ALL OTHER INGREDIENTS OF THE MIX. THE SLUMP WILL BE LIMITED TO 4 INCHES. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE.

THE USE OF A WATER REDUCER AT THE MANUFACTURER'S RECOMMENDED DOSAGE WILL BE REQUIRED.

| CEMENT | NONE (TYPE I-H) |
|------------------|-----------------|
| WATER | 282 |
| FINE AGGREGATE | NONE |
| COURSE AGGREGATE | NONE |

THE USE OF A WATER REDUCER AT THE MANUFACTURER'S RECOMMENDED DOSAGE WILL BE REQUIRED.

24 HOUR FAST TRACK CONCRETE MIX SHALL BE CURED WITH UNSEDED OIL BASED EMULSION CURING COMPOUND. IN ADDITION, THE CONCRETE SHALL BE IMMEDIATELY COVERED WITH A 3 MIL POLYETHYLENE INSULATION BLANKET CONSISTING OF A LAYER CLOSED TOGETHER TO THE SUBGRADE AND AN INSULATION BLANKET. THE INSULATION BLANKET SHALL HAVE AN R-VALUE OF AT LEAST 0.5, AS RATED BY THE MANUFACTURER. THE INSULATION BLANKET SHALL BE LAPPED 12 INCHES. EXCEPT FOR INITIAL JOINT SAWING OPERATIONS, THE INSULATION BLANKET SHALL BE REMOVED AFTER CONSTRUCTION JOINT SAWING OPERATIONS SHALL BE COMPLETED AS SOON AS PRACTICAL. THE INSULATION BLANKET SHALL BE REMOVED AS SOON AS PRACTICAL. THE INSULATION BLANKET SHALL BE REMOVED AS SOON AS PRACTICAL.

THE PAVEMENT MAY BE OPENED TO TRAFFIC EARLIER THAN 24 HOURS, PROVIDED THE COMPRESSIVE STRENGTH OF 3500 PSI HAS BEEN ATTAINED. THE FINAL CONTRACTION JOINTS SHALL BE OPENED TO TRAFFIC EARLIER THAN 24 HOURS, PROVIDED THE COMPRESSIVE STRENGTH OF 3500 PSI HAS BEEN ATTAINED. THE FINAL CONTRACTION JOINTS SHALL BE OPENED TO TRAFFIC EARLIER THAN 24 HOURS, PROVIDED THE COMPRESSIVE STRENGTH OF 3500 PSI HAS BEEN ATTAINED.

ALL COSTS FOR USING 24 HOUR FAST TRACK CONCRETE MIX TO PAVE CONCRETE APPROACHES TO INLETS, CURBS AND GUTTER, VALLEY GUTTERS, SIDEWALK, DRIVEWAY APPROACHES, AND OUTLET STRUCTURES SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

CONCRETE CURING
 CONCRETE SHALL BE CURED IN ACCORDANCE WITH SECTION 863.01.9 OF THE SD DOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES EXCEPT AS MODIFIED IN THIS NOTE. ALL CONCRETE SHALL BE CURED WITH A WHITE PIGMENTED UNSEDED OIL BASE EMULSION OR OTHER APPROVED METHOD. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE. THE CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CONCRETE.

| Project Title | Project Number |
|--------------------------|----------------|
| MITIGATE CAMPUS DRAINAGE | 438-18-107 |

| Phase | CD SUBMISSION |
|----------------|-------------------|
| Drawn By: | J. H. B. / RLB |
| Checked By: | ETG |
| Issue Date: | FEBRUARY 26, 2021 |
| Project Number | C-103 |

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

ARCHITECT/ENGINEER OF RECORD

SES SPECIALIZED ENGINEERING SOLUTIONS

Calibre

Shaffer & Stevens

CONSULTANT

CONTRACT NUMBER:

DATE:

GEOTEXTILE FABRIC FOR SUBGRADE STABILIZATION

GEOTEXTILE FABRIC SHALL BE INSTALLED THROUGHOUT THE ENTIRE SUBGRADE AREA TO BE STABILIZED. THE CONTRACTOR SHALL INSTALL THE GEOTEXTILE FABRIC IN THE MANNER AND AT THE LOCATION INDICATED IN THE TYPICAL SECTION. WORK SHALL BE DIRECTED BY THE ENGINEER. SUBGRADE STABILIZATION IS REQUIRED. THE LUMP SUM CONTRACT PRICE SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIAL TO INSTALL THE FABRIC.

INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. OVERLAP SHALL BE A MINIMUM OF 24 INCHES. THE END OF THE ROLL OVERLAPS SHALL BE THREE FEET MINIMUM. THE CONTRACTOR SHALL NOT DRIVE EQUIPMENT DIRECTLY ON TOP OF THE GEOTEXTILE. SHOULD THE GEOTEXTILE BE TORN OR PUNCTURED, THE CONTRACTOR SHALL REPAIR THE DAMAGE. THE REPAIR SHALL CONSIST OF A PATCH OF THE SAME TYPE OF GEOTEXTILE A MINIMUM OF THREE FEET FROM THE EDGE OF ANY PART OF THE DAMAGED AREA.

GEOTEXTILE FABRIC SHALL BE WOVEN AND CONFORM TO THE REQUIREMENTS LISTED BELOW. THE CONTRACTOR SHALL PROVIDE A CERTIFICATE OF COMPLIANCE VERIFYING THAT THE MATERIAL MEETS THE SPECIFICATION PRIOR TO THE INSTALLATION OF THE FABRIC.

1. WIDE WIDTH TENSILE STRENGTH (ASTM D-4595)
2. WIDE WIDTH TENSILE STRENGTH AT 5% STRAIN (ASTM D-4595) 1350 LB/FT MINIMUM
3. SEAM TENSILE STRENGTH (ASTM D-4491) 0.25
4. UV RESISTANCE AT 500 HOURS (ASTM D-4355) 70% MINIMUM

THE DESIGN ENGINEER HAS VERIFIED THAT THE FOLLOWING PRODUCTS MEET THESE SPECIFICATIONS.

1. MIRAFI HP465
2. MIRAFI HP465
3. PROPEL GEOTEX 3X3
4. LUMITE CIT-465
5. MIRAFI HP465
6. MINEAB 370HP
7. CARTHAGE MILLS FX-300MF
8. CARTHAGE MILLS FX-370MF
9. SLOW 3X3HF
10. SLOW 370HP
11. SLOW 370HP
12. SLOPS M5056F
13. ADS 370HP

INSERT STEEL BAR IN CONCRETE PAVEMENT

THE CONTRACTOR SHALL FURNISH AND INSERT STEEL BARS INTO DRILLED HOLES IN THE EXISTING PAVEMENT WHERE EXISTING PAVEMENT MEETS NEW PAVEMENT AS SHOWN IN PLANS AND ON STANDARD PLATE DETAILS. THE CONTRACTOR SHALL TAKE CARE TO STRICTLY ADHERE TO THE SLOPES INDICATED. NO ALLOWANCE OR TOLERANCE WILL BE GRANTED FOR SLOPES ABOVE THE MAXIMUM ALLOWABLE. ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, AND APPURTENANCES SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

AN EPOXY RESIN ADHESIVE MUST BE USED TO ANCHOR THE STEEL BARS INTO THE EXISTING PAVEMENT. THE CONTRACTOR SHALL FURNISH AND APPLY THE EPOXY RESIN AS RECOMMENDED BY THE MANUFACTURER AND APPLY BY AN INJECTION METHOD APPROVED BY THE ENGINEER. IF AN EPOXY PUMP IS USED, IT SHALL BE DESIGNATED RATE AND BE EQUIPPED WITH AN AUTOMATIC SHUT-OFF. THE PUMP SHALL SHUT-OFF WHEN ANY OF THE COMPONENTS ARE NOT BEING METERED AT THE DESIGNATED RATE.

THE CONTRACTOR SHALL FILL THE DRILLED HOLES 1/3 TO 1/2 FULL WITH EPOXY RESIN. CARE SHALL BE TAKEN TO PREVENT THE INSERTION OF THE STEEL BAR. CARE SHALL BE TAKEN TO PREVENT EPOXY FROM RUNNING OUT OF THE HORIZONTAL HOLES AND PRIOR TO THE INSERTION OF THE STEEL BAR. THE CONTRACTOR SHALL TAKE CARE TO ELIMINATE VOIDS AND ENSURE COMPLETE BONDING OF THE BAR TO THE EXISTING PAVEMENT. THE CONTRACTOR SHALL TAKE CARE TO ENSURE COMPLETE BONDING OF THE BAR TO THE EXISTING PAVEMENT. THE CONTRACTOR SHALL TAKE CARE TO ENSURE COMPLETE BONDING OF THE BAR TO THE EXISTING PAVEMENT.

CONCRETE CURB AND GUTTER SHALL CONFORM TO SECTION 650 OF THE SDOOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES. EXCEPTIONS AND ADDITIONS TO THIS SECTION ARE WRITTEN IN THE

FOLLOWING NOTES:

THE GUTTER OR CURB AND GUTTER SHALL BE SAWED TRANSVERSELY TO THE GUTTER OR CURB AND GUTTER JOINTS. THE CONTRACTOR SHALL TRANSFER CONTRACTOR JOINTS IN THE GUTTER OR CURB AND GUTTER SHALL BE SAWED AND SEALED TO THE SAME SPECIFICATIONS AS THE GUTTER OR CURB AND GUTTER JOINTS. THE CONTRACTOR SHALL TAKE CARE TO SEAL TO A POINT THROUGH AND ABOVE THE FLOW LINE OF THE GUTTER PAN.

HOT POLYMER ELASTIC JOINT SEALER SHALL BE USED IN ACCORDANCE WITH SECTION 670.1.A OF THE SDOOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

ALL CURB AND GUTTER SHALL BE CURED WITH A WHITE PIGMENTED LINSEED OIL BASE EMULSION COMPOUND. THE CONTRACTOR SHALL APPLY THE EMULSION COMPOUND TO THE SURFACE OF THE CURB AND GUTTER. THE CONTRACTOR SHALL TAKE CARE TO APPLY THE EMULSION COMPOUND TO THE SURFACE OF THE CURB AND GUTTER. THE CONTRACTOR SHALL TAKE CARE TO APPLY THE EMULSION COMPOUND TO THE SURFACE OF THE CURB AND GUTTER.

CONCRETE CURB AND GUTTER SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETE THE WORK. INCIDENTALS NECESSARY FOR ALL MATERIALS, EQUIPMENT, LABOR AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

DOMEL BEARS

DOMEL BEARS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE SDOOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES. THE CONTRACTOR SHALL TAKE CARE TO STRICTLY ADHERE TO THE SLOPES INDICATED. NO ALLOWANCE OR TOLERANCE WILL BE GRANTED FOR SLOPES ABOVE THE MAXIMUM ALLOWABLE. ALL COSTS ASSOCIATED WITH FURNISHING AND INSTALLING DOMEL BEARS AT EACH CONTRACTOR JOINT, INCLUDING ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, AND APPURTENANCES, SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

ACCESSIBLE CURB, RAMPS, AND LANDING AREAS

ACCESSIBLE CURB, RAMPS AND LANDING AREAS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE SDOOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES. THE CONTRACTOR SHALL TAKE CARE TO STRICTLY ADHERE TO THE SLOPES INDICATED. NO ALLOWANCE OR TOLERANCE WILL BE GRANTED FOR SLOPES ABOVE THE MAXIMUM ALLOWABLE.

ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, AND APPURTENANCES SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETE THE WORK. INCIDENTALS NECESSARY FOR ALL MATERIALS, EQUIPMENT, LABOR AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

IF A CURB IS REQUIRED AT THE BACK OF THE TURNING SPACE OR ADJOINING SIDEWALK, THIS CURB SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE.

STAMP

ARCHITECT/ENGINEER OF RECORD

SEAL

Calibre

CONSULTANT

Shaffer & Stevens

GENERAL NOTES

CD SUBMISSION

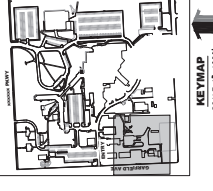
MITIGATE CAMPUS DRAINAGE

Office of Construction and Facilities Management

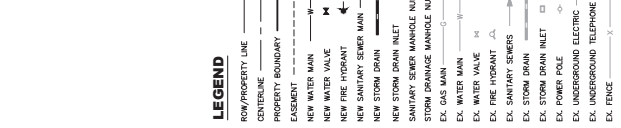
U.S. Department of Veterans Affairs

Project Number: 438-18-107
 Project Title: MITIGATE CAMPUS DRAINAGE
 Issue Date: February 26, 2021
 Drawing Number: C-104

Project Number: 438-18-107
 Project Title: MITIGATE CAMPUS DRAINAGE
 Issue Date: February 26, 2021
 Drawing Number: C-104



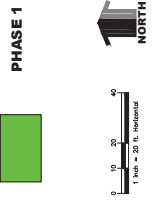
CONTROL INFO:
1. DANCE OF BEASLEY SEWER MAIN TO CONNECT TO DANCIA STATE PLANE SOUTH SIDE.
2. BENCHMARK FOR THIS SITE IS LOCATED ON THE SOUTH SIDE OF GARFIELD AVE. APPROXIMATELY 100' EAST OF THE CORNER.
3. GARFIELD AVE. (PUB. 34 (NANO))



CALL BEFORE
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Utility Notifications
Center of South Dakota

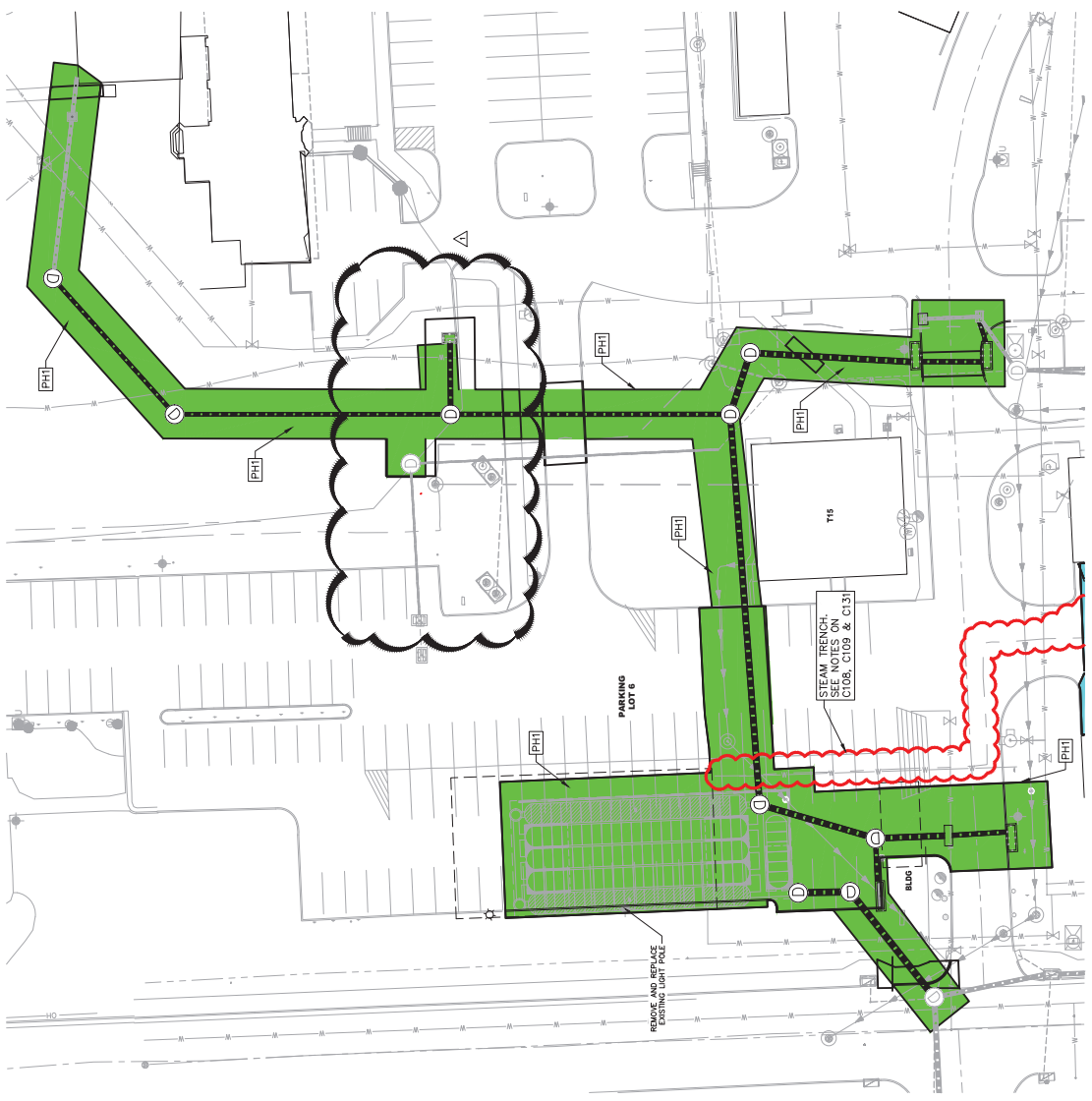
PHASE 1
CONSTRUCT OUTFALL STORM SEWER CONNECTIONS TO SOUTH GARFIELD STREET.

- CONSTRUCT OUTFALL STORM SEWER CONNECTIONS TO SOUTH GARFIELD STREET.
- SOUTH OUTFALL EXTEND TO U.G. COLLECTION BASIN.
- CONTRAVEN TO CITY OF SIOUX FALLS TO COORDINATE CONTROL WITH THE CITY OF SIOUX FALLS.
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PHASE 1

Scale: 1 inch = 40 feet



PHASE 1 CONSTRUCTION NOTES
1. CONTRACTOR SHALL MANAGE SURFACE RENEW WITHIN ACTIVE CONSTRUCTION ZONES.
2. CONTRACTOR SHALL PROVIDE TO CITY OF SIOUX FALLS THE RECORD DRAWINGS FOR THE CONSTRUCTION AND SHALL MAINTAIN THE RECORD DRAWINGS FOR THE PROJECT. THE RECORD DRAWINGS SHALL REMAIN UNALTERED.
3. AT STREET AND DRIVE LOCATIONS ALL ACTIVE BUSINESS SHALL BE BACKFILLED TO SURFACE AND PROTECTED WITH CURBS. EXPOSED STREET CUTS TO BE FURNISHED WITH GRAVEL, LEFT ON-AT-AND & OVERNIGHT TO BE CLEANED AND REPAIRED AFTER BUSINESS HOURS AND ON WEEKENDS TO KEEP OPERATIONAL.
4. EXPOSED STREET CUTS TO BE FURNISHED WITH GRAVEL, LEFT ON-AT-AND & OVERNIGHT TO BE CLEANED AND REPAIRED AFTER BUSINESS HOURS AND ON WEEKENDS TO KEEP OPERATIONAL.
5. HOSPITAL FUNCTIONS OPERATIONAL.

REVISIONS

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |
| | | |

CONSULTANT

| | |
|--------------------------|---|
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ARCHITECT/ENGINEER OF RECORD

| | |
|---------------------------|--|
| SES ENGINEERING SOLUTIONS | 3000 Highland Drive, Suite 100 Sioux Falls, SD 57103 Phone: 605.337.3333 Fax: 605.337.3334 |
| Calibre Engineering Inc. | 719 E. 20th St. Suite 100 Sioux Falls, SD 57103 Phone: 605.337.3333 Fax: 605.337.3334 |

STAMP

Office of Construction and Facilities Management
U.S. Department of Veterans Affairs

DRAWING TITLE

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|-------------------------------------|
| HORIZONTAL CONTROL AND PHASING PLAN |
|-------------------------------------|

Phase

| |
|---------------|
| CD SUBMISSION |
|---------------|

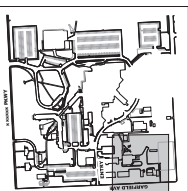
Project Title

| |
|--------------------------|
| MITIGATE CAMPUS DRAINAGE |
|--------------------------|

Location

| |
|---------------------------------------|
| Sioux Falls VA Health Care System, SD |
|---------------------------------------|

Project Number: 438-18-107
Drawing Number: C-105
Date: FEBRUARY 26, 2021
ETG
PLB
Approved: Project Director



CONTROL INFO:

1. BASE OF BEARING IS SOUTH DAKOTA STATE PLANE SOUTH ZONE.
2. BENCHMARK FOR THIS SITE IS LOCATED ON THE SOUTH SIDE OF GARFIELD AVENUE, APPROXIMATELY 100' EAST OF HASKELL (MARKER).

LEGEND

- ROW/PROPERTY LINE
- CENTRELINE
- PROPERTY BOUNDARY
- EASEMENT
- NEW WATER MAIN
- NEW FIRE HYDRANT
- NEW SANITARY SEWER MAIN
- NEW STORM DRAIN
- NEW STORM DRAIN INLET
- SANITARY SEWER MANHOLE NUMBER
- STORM DRAINAGE MANHOLE NUMBER
- EX. GAS MAIN
- EX. WATER MAIN
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX. SANITARY SEWERS
- EX. STORM DRAIN
- EX. STORM DRAIN INLET
- EX. POWER POLE
- EX. UNDERGROUND ELECTRIC
- EX. UNDERGROUND TELEPHONE
- EX. FENCE

811
 CALL BEFORE YOU DIG
 1-800-781-7474
 Utility Notification
 Center of South Dakota

PHASE I

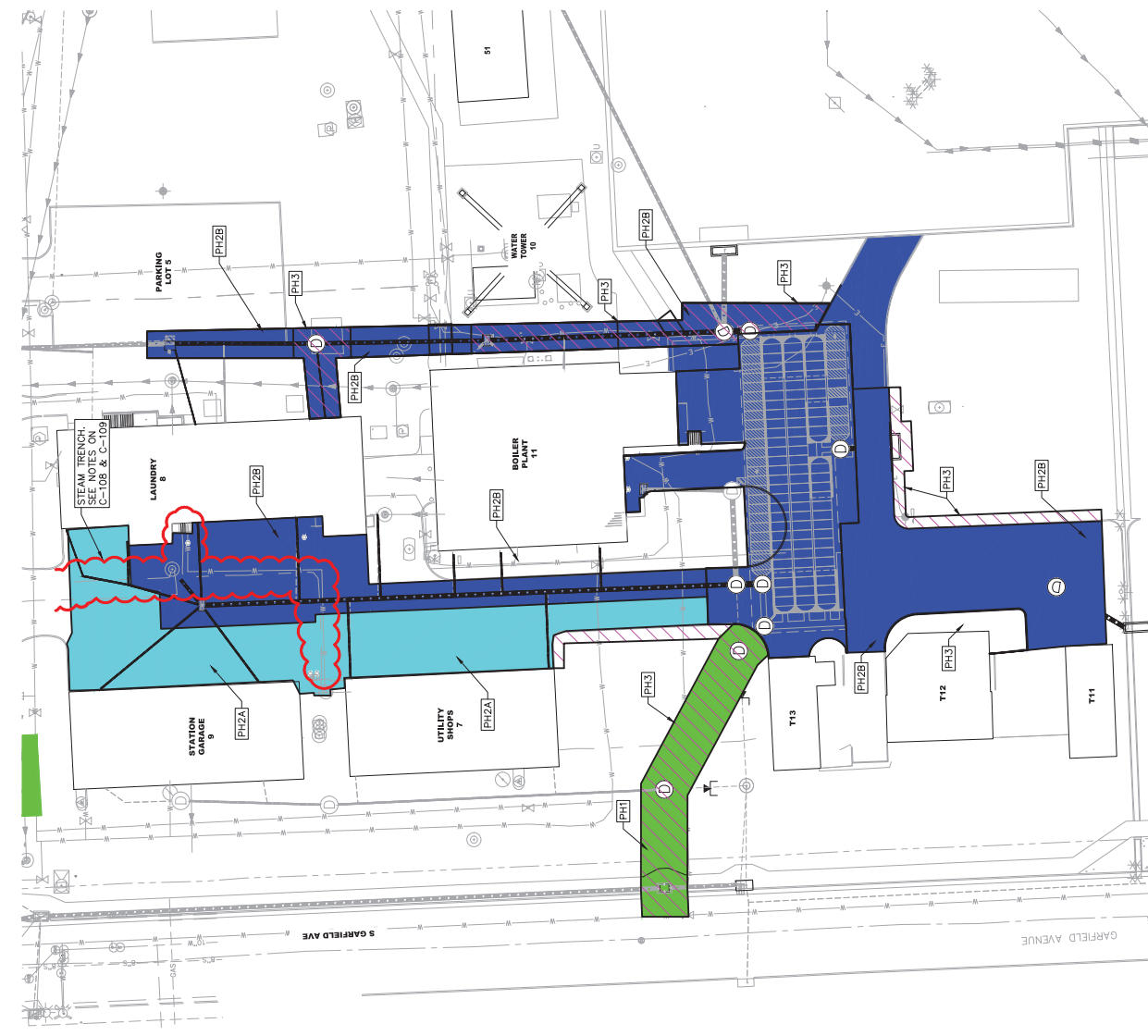
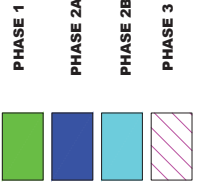
- CONSTRUCT OUTFALL STORM SEWER CONNECTIONS TO SOUTH GARFIELD STREET.
- SOUTH OUTFALL EXTEND TO U.G. DETENTION BASIN.
- CONSTRUCT 24" DIA. ENTRY STORM INLETS AND STORM SEWER (2 LOCATIONS)
- CONSERVATIVE LANE CLOSURES WITH VA RESIDENT PROJECT MANAGER. VA OPERATIONS SHALL BE SCHEDULED TO AVOID CONCRETE SURFACES AT THE END OF ALL BENCHES SHALL BE BACKFILLED TO ADJOINING CONCRETE SURFACES AT THE END OF
- CONSTRUCT SOUTH INLETS AND STORM SEWER STUBS WITH SOUTH LANE CLOSURE.
- CONSTRUCT NORTH INLETS AND STORM SEWER STUBS WITH NORTH LANE CLOSURE.
- INCLUDE TIE-IN TO SOUTH OUTFALL SEWER. VA OPERATIONS SHALL REMAIN UNINTERRUPTED.
- CONSTRUCT EAST BRANCH (24" DIAMETER) STORM
- CONSTRUCT NORTH BRANCH (18" DIAMETER) STORM
- WITH 24" DIA. ENTRANCE (DIAMETER) STORM TO CONNECT TO EAST PAIR OF INLETS
- INSTALL FINAL CURB, GUTTER AND PAVING

PHASE II

- CONSTRUCT SOUTH U.G. DETENTION BASIN.
- CONSTRUCT 24" DIA. ENTRY STORM INLETS AND STORM SEWER
- CONSERVATIVE LANE CLOSURES WITH VA RESIDENT PROJECT MANAGER. VA OPERATIONS SHALL REMAIN UNINTERRUPTED.
- CONNECTIONS TO U.G. DETENTION.
- INSTALL FINAL CURB, GUTTER AND PAVING.
- CONSTRUCT NEW STORM SEWER.
- REMAIN UNINTERRUPTED.
- CONNECTIONS TO ADJOINING CONCRETE SURFACES AT THE END OF EACH DAY.
- DISCONNECT AND ABANDON STORM SEWER ACROSS FRONT OF LOADING AREA FOR BROILER PLANT (11).
- INSTALL FINAL CURB, GUTTER AND PAVING.
- CONSTRUCT NEW STORM SEWER.
- REMAIN UNINTERRUPTED.
- CONNECTIONS TO ADJOINING CONCRETE SURFACES AT THE END OF EACH DAY.
- INSTALL FINAL CURB, GUTTER AND PAVING.

PHASE III

- INSTALL FINAL LANDSCAPE AND IRRIGATION REPAIRS.
 - PROVIDE FINAL SITE CLEANUP.
 - SIGNAL AND STRIPING.
 - LIGHT POLE REPAIRS/REPLACEMENTS.
 - BUILDING SERVICE ENTRY REPAIRS.
- PHASING NOTE:**
- CONTRACTOR SHALL MANAGE SURFACE RUNOFF WITH ACTIVE CONSTRUCTION ZONES.
 - CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN TO THE RESIDENT ENGINEER FOR ANY WORK AREA. VA OPERATIONS SHALL REMAIN UNINTERRUPTED AND INCLUDE SIGNALS FOR ANY UMBRELLA CONSTRUCTION.
 - AT STREET AND DRIVE LOCATIONS, ALL ACTIVE TRUCKS SHALL BE BACKFILLED TO SURFACE ADJOINING CONCRETE SURFACES AT THE END OF EACH DAY.
 - CONTRACTOR SHALL BE AWARE OF EXISTING DRAINAGE FACILITIES THAT WILL BE DAMAGED OR DESTROYED BY CONSTRUCTION. TEMPORARY DRAINAGE FACILITIES SHALL BE INSTALLED AT THE END OF EACH DAY TO MAINTAIN POSITIVE DRAINAGE ORIENT. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE ORIENT. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE ORIENT.
 - CONSTRUCTION MAY HAVE TO OCCUR AFTER BUSINESS HOURS AND ON WEEKENDS TO KEEP HOSPITAL PATIENTS OPERATIONAL.



| | | | | | |
|---|---------------------------------------|---|----------------------------------|---|--|
| <p>Project Title MITIGATE CAMPUS DRAINAGE</p> <p>Project Number 438-18-107</p> | <p>Phase CD SUBMISSION</p> | <p>Drawing Title HORIZONTAL CONTROL AND PHASING PLAN</p> | <p>Approved Project Director</p> | <p>Office of Construction and Facilities Management</p> | <p>U.S. Department of Veterans Affairs</p> |
| | | | | <p>Scale 1" = 25'</p> | |
| <p>Project Number 438-18-107</p> | <p>Issue Number C-106</p> | <p>Project Name Stouffville VA Health Care System, SD</p> | <p>Project Location ETG</p> | <p>Project Date FEBRUARY 26, 2021</p> | <p>Project Status R/LB</p> |

ARCHITECT/ENGINEER OF RECORD

SES SOLUTIONS

Calibre

Specialized Solutions

10000 E. Harvard Ave. Suite 100
Denver, CO 80231
P: (303) 991-2200

10000 E. Harvard Ave. Suite 100
Denver, CO 80231
P: (303) 991-2200

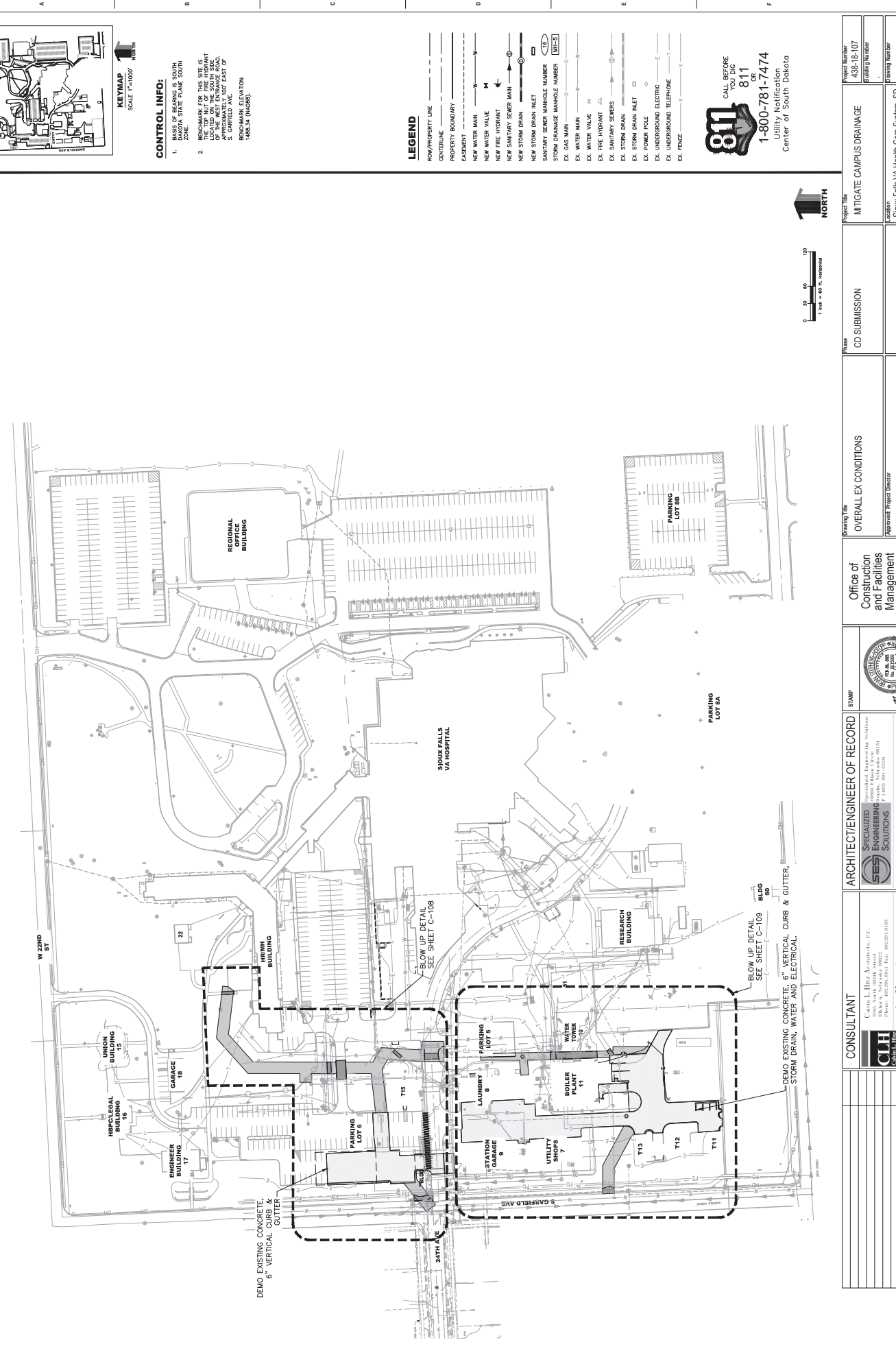
CONSULTANT

CLJ CONSULTANTS, P.C.

1800 W. South Ave. Suite 200
Denver, CO 80231
P: (303) 733-1100

Shaffer & Stevens

10000 E. Harvard Ave. Suite 100
Denver, CO 80231
P: (303) 991-2200



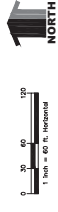
CONTROL INFO:

1. BASE OF RECORD IS COUNTY DAKOTA STATE PLANE SOUTH ZONE.
2. BENCHMARK FOR THIS SITE IS LOCATED ON THE SOUTH SIDE OF 24TH AVE, APPROXIMATELY 100' EAST OF S. GARFIELD AVE. THE BENCHMARK ELEVATION IS 1436.11 (NAVD83).

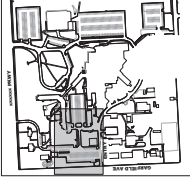
LEGEND

- ROW/PROPERTY LINE
- CENTERLINE
- PROPERTY BOUNDARY
- EASEMENT
- NEW WATER MAIN
- NEW WATER VALVE
- NEW FIRE HYDRANT
- NEW SANITARY SEWER MAIN
- NEW STORM DRAIN
- NEW STORM DRAIN INLET
- SANITARY SEWER MANHOLE NUMBER
- STORM DRAINAGE MANHOLE NUMBER
- EX. GAS MAIN
- EX. WATER MAIN
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX. SANITARY SEWER
- EX. STORM DRAIN
- EX. STORM DRAIN INLET
- EX. POWER POLE
- EX. UNDERGROUND ELECTRIC
- EX. UNDERGROUND TELEPHONE
- EX. FENCE


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 OR
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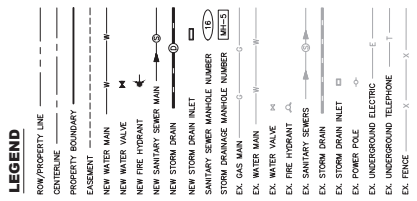
| | | | | | | |
|--|--|--|---|---|--|-------------------------------------|
| ARCHITECT/ENGINEER OF RECORD  Calibre <small>Specialized Engineering Solutions</small> 1000 S. Broadway, Suite 100, Sioux Falls, SD 57105 P: 605.336.2000 F: 605.336.2001 L: 605.336.2002 F: 605.336.2003 1000 S. Broadway, Suite 100, Sioux Falls, SD 57105 P: 605.336.2000 F: 605.336.2001 L: 605.336.2002 F: 605.336.2003 | STAMP  | Office of Construction and Facilities Management U.S. Department of Veterans Affairs | Overall EX Conditions Approved Project Director | Phase CD SUBMISSION | Project Title MITIGATE CAMPUS DRAINAGE | Project Number 438-18-107 |
| | | CONSULTANT  Shaffer & Stevens 1000 S. Broadway, Suite 100, Sioux Falls, SD 57105 P: 605.336.2000 F: 605.336.2001 L: 605.336.2002 F: 605.336.2003 | REVISIONS NO. DATE | Drawing Title OVERALL EX CONDITIONS | Project Number 438-18-107 | |



CONTROL INFO:

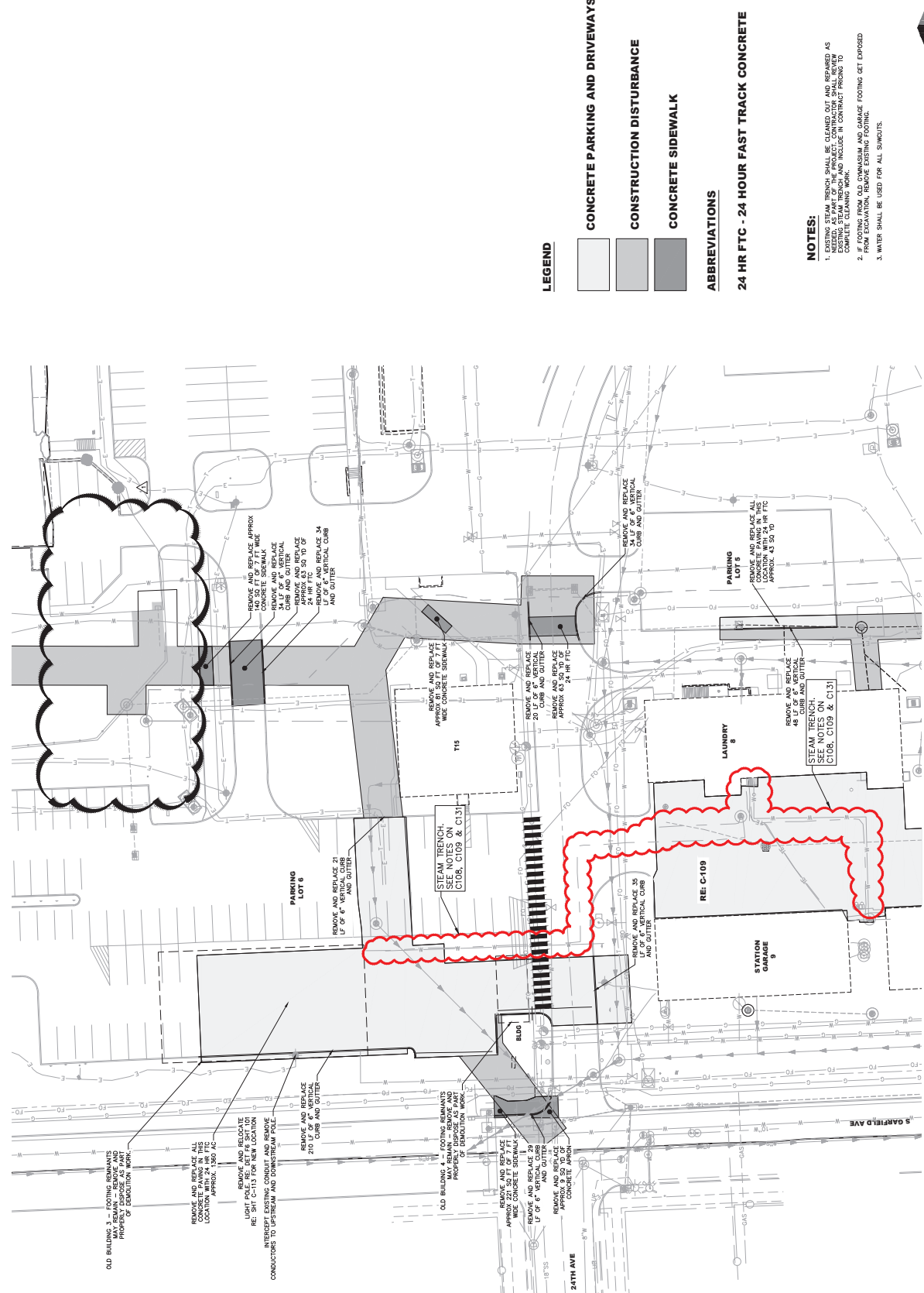
1. BASE OF BENCHMARK SOUTH DAKOTA STATE PLANE SOUTH ZONE.
2. BENCHMARK FOR THIS SITE IS LOCATED ON THE SOUTH SIDE OF GARFIELD AVENUE, APPROXIMATELY 100' EAST OF S GARFIELD AVE.

PROPOSED CONSTRUCTION: PARASOL (NAMES)



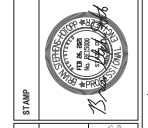
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| | |
|----------------|---------------------------------|
| Project Number | 438-18-107 |
| Bidding Number | |
| Project Name | MITTGATE CAMPUS DRAINAGE |
| Location | Falls VA Health Care System, SD |
| Revision | REVISED |
| ETG | FEBRUARY 26, 2021 |
| Project Number | C-108 |



| | |
|---------------------------|--------------------------|
| Project Name | MITTGATE CAMPUS DRAINAGE |
| Phase | CD SUBMISSION |
| Project Name | DETAILED DEMO PLAN |
| Approved Project Director | |

Office of Construction and Facilities Management
 VA U.S. Department of Veterans Affairs



ARCHITECT/ENGINEER OF RECORD

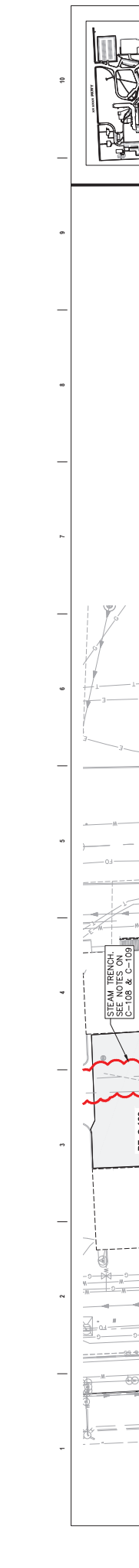
Calibre
 SPECIALIZED ENGINEERING SOLUTIONS
 3000 18th St SW, Suite 100
 Denver, CO 80202
 Phone: 303.733.2500
 Fax: 303.733.2505

CONSULTANT

CUH
 CONSULTANTS
 1000 S. 10th St, Suite 100
 Rapid City, SD 57701
 Phone: 605.342.7000
 Fax: 605.342.7009

Shaffer & Stevens
 2000 S. 10th St, Suite 100
 Rapid City, SD 57701
 Phone: 605.342.7000
 Fax: 605.342.7009

| | |
|----------|------------|
| DATE | 07/15/2021 |
| REVISION | |



KEYMAP
SCALE 1"=100'
NORTH

- CONTROL INFO:**
1. BASE OF BEARING IS SOUTH DAKOTA STATE PLANE SOUTH ZONE.
 2. BENCHMARK FOR THIS SITE IS A BENCH MARK LOCATED ON THE SOUTH SIDE OF THE ROAD APPROXIMATELY 100' EAST OF S. GARFIELD AVE. HORIZONTAL DATUM: NAD83 (NAZD98) TARSUM (NAZD98)

- LEGEND**
- ROW/PROPERTY LINE
 - CENTERLINE
 - PROPERTY BOUNDARY
 - EASEMENT
 - NEW WATER MAIN
 - NEW WATER VALVE
 - NEW FIRE HYDRANT
 - NEW SANITARY SEWER MAIN
 - NEW STORM DRAIN
 - NEW STORM DRAIN INLET
 - SANITARY SEWER MANHOLE NUMBER
 - STORM DRAINAGE MANHOLE NUMBER
 - EX. GAS MAIN
 - EX. WATER MAIN
 - EX. WATER VALVE
 - EX. FIRE HYDRANT
 - EX. SANITARY SEWER
 - EX. STORM DRAIN
 - EX. STORM DRAIN INLET
 - EX. POWER POLE
 - EX. UNDERGROUND ELECTRIC
 - EX. UNDERGROUND TELEPHONE
 - EX. FENCE

- CONCRETE PARKING AND DRIVEWAYS**
- CONSTRUCTION DISTURBANCE**
- CONCRETE SIDEWALK**

ABBREVIATIONS

24 HR FTC - 24 HOUR FAST TRACK CONCRETE

NOTES:

1. REMOVE AND REPLACE ALL CURBS, GUTTERS, AND SIDEWALKS AS SHOWN. CONCRETE SHALL BE 24 HR FAST TRACK CONCRETE. SEE SPECIFICATIONS FOR DETAILS.
2. WATER SHALL BE USED FOR ALL SAMPLITS.



NORTH

CALL BEFORE YOU DIG
1-800-811-8111
OR
1-800-781-7474
Utility Notification
Center of South Dakota

LEGEND

- ROW/PROPERTY LINE
- CENTERLINE
- PROPERTY BOUNDARY
- EASEMENT
- NEW WATER MAIN
- NEW WATER VALVE
- NEW FIRE HYDRANT
- NEW SANITARY SEWER MAIN
- NEW STORM DRAIN
- NEW STORM DRAIN INLET
- SANITARY SEWER MANHOLE NUMBER
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- EX. STORM DRAIN INLET
- EX. POWER POLE
- EX. UNDERGROUND ELECTRIC
- EX. UNDERGROUND TELEPHONE
- EX. FENCE

CONCRETE PARKING AND DRIVEWAYS

CONSTRUCTION DISTURBANCE

CONCRETE SIDEWALK

ABBREVIATIONS

24 HR FTC - 24 HOUR FAST TRACK CONCRETE

NOTES:

1. REMOVE AND REPLACE ALL CURBS, GUTTERS, AND SIDEWALKS AS SHOWN. CONCRETE SHALL BE 24 HR FAST TRACK CONCRETE. SEE SPECIFICATIONS FOR DETAILS.
2. WATER SHALL BE USED FOR ALL SAMPLITS.



NORTH

CALL BEFORE YOU DIG
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OR
1-800-781-7474
Utility Notification
Center of South Dakota

| | |
|-----------------|---------------------------------------|
| Project Title | MITIGATE CAMPUS DRAINAGE |
| Project Number | 438-18-107 |
| Phase | CD SUBMISSION |
| Planning Title | DETAILED DEMO PLAN |
| Client | Sioux Falls VA Health Care System, SD |
| Issue Date | FEBRUARY 26, 2021 |
| Drawn | ETG |
| Checked | RLB |
| Planning Number | C-109 |

Office of Construction and Facilities Management
U.S. Department of Veterans Affairs

ARCHITECT/ENGINEER OF RECORD
SES ENGINEERING SOLUTIONS
14000 R.R. 444, Suite 401, Sioux Falls, SD 57105
P 605.336.8000 F 605.336.8001

CONSULTANT
CJH CONSULTING, INC.
1800 W. 13th Street, Suite 200, Sioux Falls, SD 57105
P 605.336.8000 F 605.336.8001

CONTRACTOR
Shaffer & Stevens
1800 W. 13th Street, Suite 200, Sioux Falls, SD 57105
P 605.336.8000 F 605.336.8001

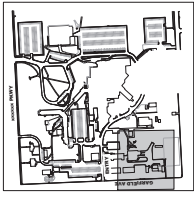


REVISIONS

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |
| | | |

DATE: _____

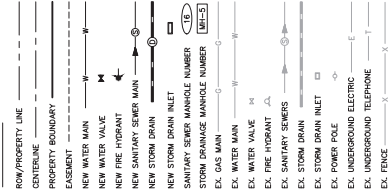
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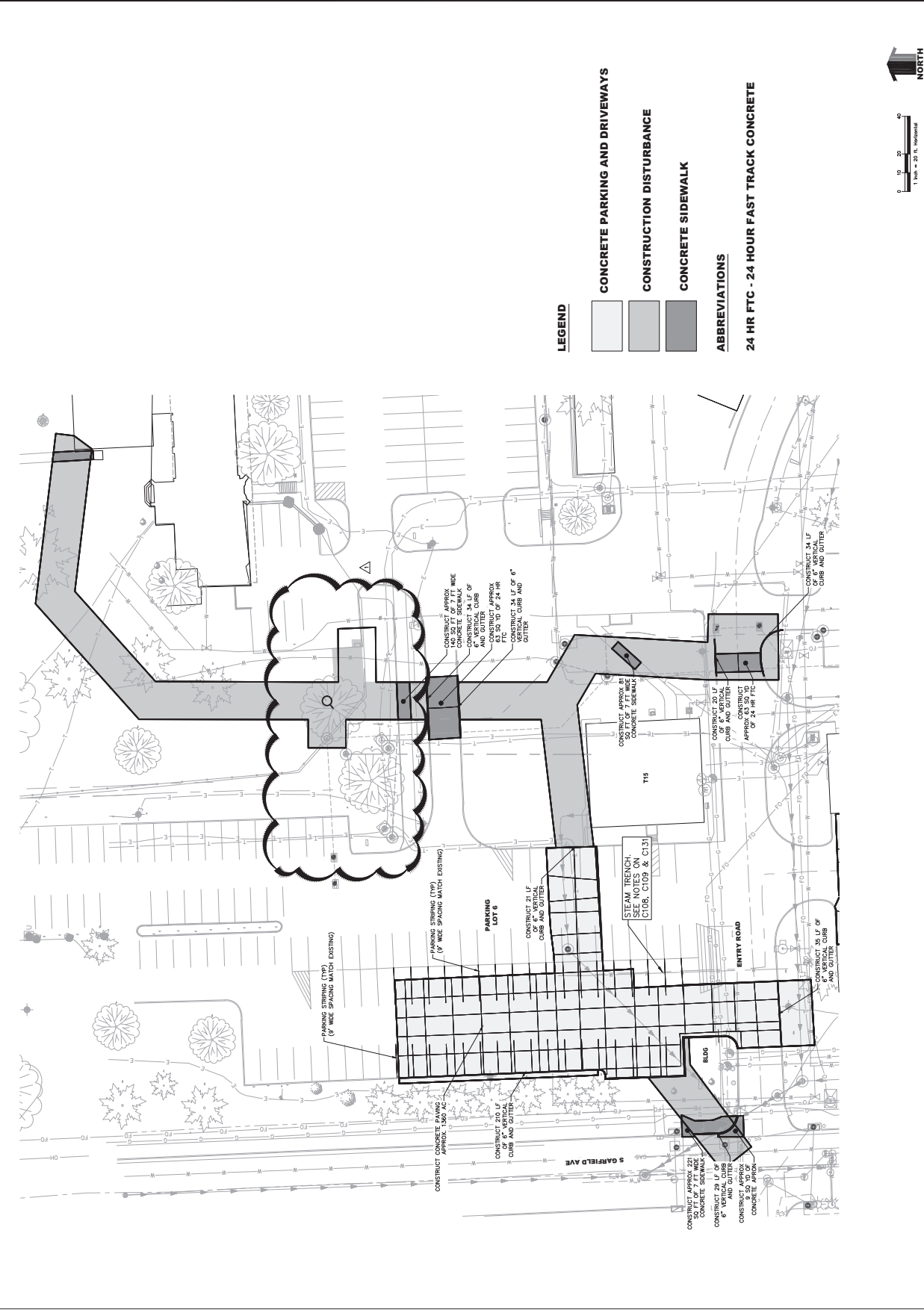
CONTROL INFO:

1. BASE OF BENCHMARK IS SURVEY DAKOTA STATE PLANE SOUTH ZONE.
2. BENCHMARK FOR THIS SITE IS LOCATED ON THE SOUTH SIDE OF GARFIELD AVE. APPROXIMATELY 100' EAST OF S. GARFIELD AVE. (NAD83) (NAD83).

LEGEND



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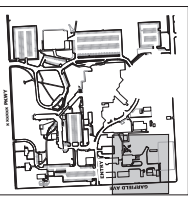
LEGEND



ABBREVIATIONS

24 HR FTC - 24 HOUR FAST TRACK CONCRETE

| | | | | | | | | |
|--|---|---|--------------------------|---|--|-------------------------------|--|-------------------------------------|
| AMENDMENT 1 07/25/2021 Date: _____ Revision: _____ | CONSULTANT Clark L. Hinz Architects, P.C. 1800 North 13th Street, Suite 100 Rapid City, South Dakota 57701 Phone: 605.343.5555 Shaffer & Stevens 2000 W. 10th Street Rapid City, SD 57701 Phone: 605.343.5555 | ARCHITECT/ENGINEER OF RECORD SES SPECIALIZED ENGINEERING SOLUTIONS 1000 14th Street, Suite 100 Rapid City, SD 57701 Phone: 605.343.5555 Calibre Calibre Engineering Inc. 1400 14th Street, Suite 100 Rapid City, SD 57701 Phone: 605.343.5555 | STAMP | Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs | Drawing Title SITE PLAN AND CONCRETE RESTORATION | Phase CD SUBMISSION | Project Title MITTGATE CAMPUS DRAINAGE | Project Number 438-18-107 |
| | Approved Project Director _____ | Approved _____ | Scale AS SHOWN | Scale AS SHOWN | Scale AS SHOWN | Scale AS SHOWN | Scale AS SHOWN | Scale AS SHOWN |



CONTROL INFO:

1. BASE OF BEARING IS SOUTH DAKOTA STATE PLANE SOUTH ZONE.
2. BENCHMARK FOR THIS SITE IS LOCATED ON THE SOUTH SIDE OF GARFIELD AVENUE, APPROXIMATELY 100' EAST OF THE INTERSECTION WITH PARKWAY. MARKING (NAD83).

LEGEND

- ROW/PROPERTY LINE
- CENTERLINE
- PROPERTY BOUNDARY
- EASEMENT
- NEW WATER MAIN
- NEW WATER VALVE
- NEW FIRE HYDRANT
- NEW SANITARY SEWER MAIN
- NEW STORM DRAIN
- NEW STORM DRAIN INLET
- SANITARY SEWER MANHOLE NUMBER
- STORM DRAINAGE MANHOLE NUMBER
- EX. GAS MAIN
- EX. WATER MAIN
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX. SANITARY SEWER
- EX. STORM DRAIN
- EX. STORM DRAIN INLET
- EX. POWER POLE
- EX. UNDERGROUND TELEPHONE
- EX. FENCE

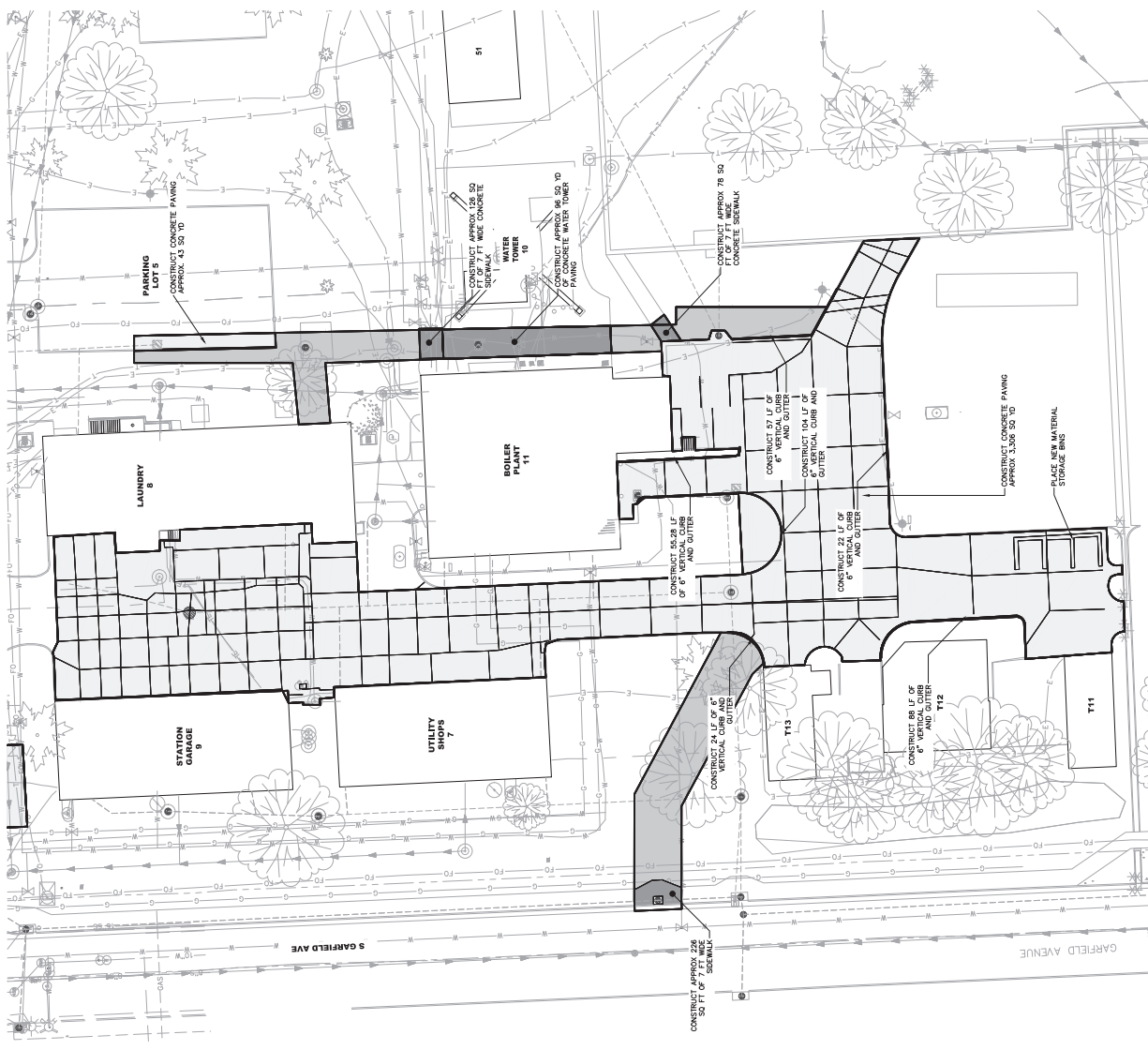
CALL BEFORE YOU DIG
811
 OR
1-800-781-7474
 Utility Notification
 Center of South Dakota

LEGEND

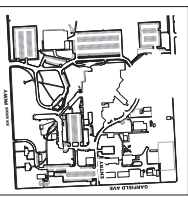
- CONCRETE PARKING AND DRIVEWAYS
- CONSTRUCTION DISTURBANCE
- CONCRETE SIDEWALK

ABBREVIATIONS

24 HR FTC - 24 HOUR FAST TRACK CONCRETE



| | | | |
|--|---|----------------------------------|-------------------------------------|
| ARCHITECT/ENGINEER OF RECORD | STAMP | Project Title | Project Number |
| SES SPECIALIZED SOLUTIONS | | MITTGATE CAMPUS DRAINAGE | 438-18-107 |
| Calibre | | Phase | Drawing Number |
| 1000 S Dakota Ave, Suite 200 Sioux Falls, SD 57105 P: 605.336.1000 F: 605.336.1001 | | CD SUBMISSION | CD-111 |
| CONSULTANT | Office of Construction and Facilities Management | Approved Project Director | Client |
| CUH CONSULTANTS, INC. | U.S. Department of Veterans Affairs | ETG | South Dakota Health Care System, SD |
| 1800 W. 10th Street, Suite 200 Sioux Falls, SD 57105 P: 605.336.1000 F: 605.336.1001 | | FEBRUARY 26, 2021 | ETG |
| Shaffer & Stevens | | | REVISIONS |
| 1800 W. 10th Street, Suite 200 Sioux Falls, SD 57105 P: 605.336.1000 F: 605.336.1001 | | | DATE |



CONTROL INFO:

1. BASE OF RECORD IS CITY OF SIOUX FALLS SOUTH SIDE PLANS.
2. BENCHMARK FOR THIS SITE IS A BENCHMARK LOCATED ON THE SOUTH SIDE OF SIOUX FALLS, SD, APPROXIMATELY 100' EAST OF S. GARFIELD AVE. THE BENCHMARK IS A 1" X 1" X 1" IRON PIPE WITH THE FOLLOWING MARKS (INCHES):

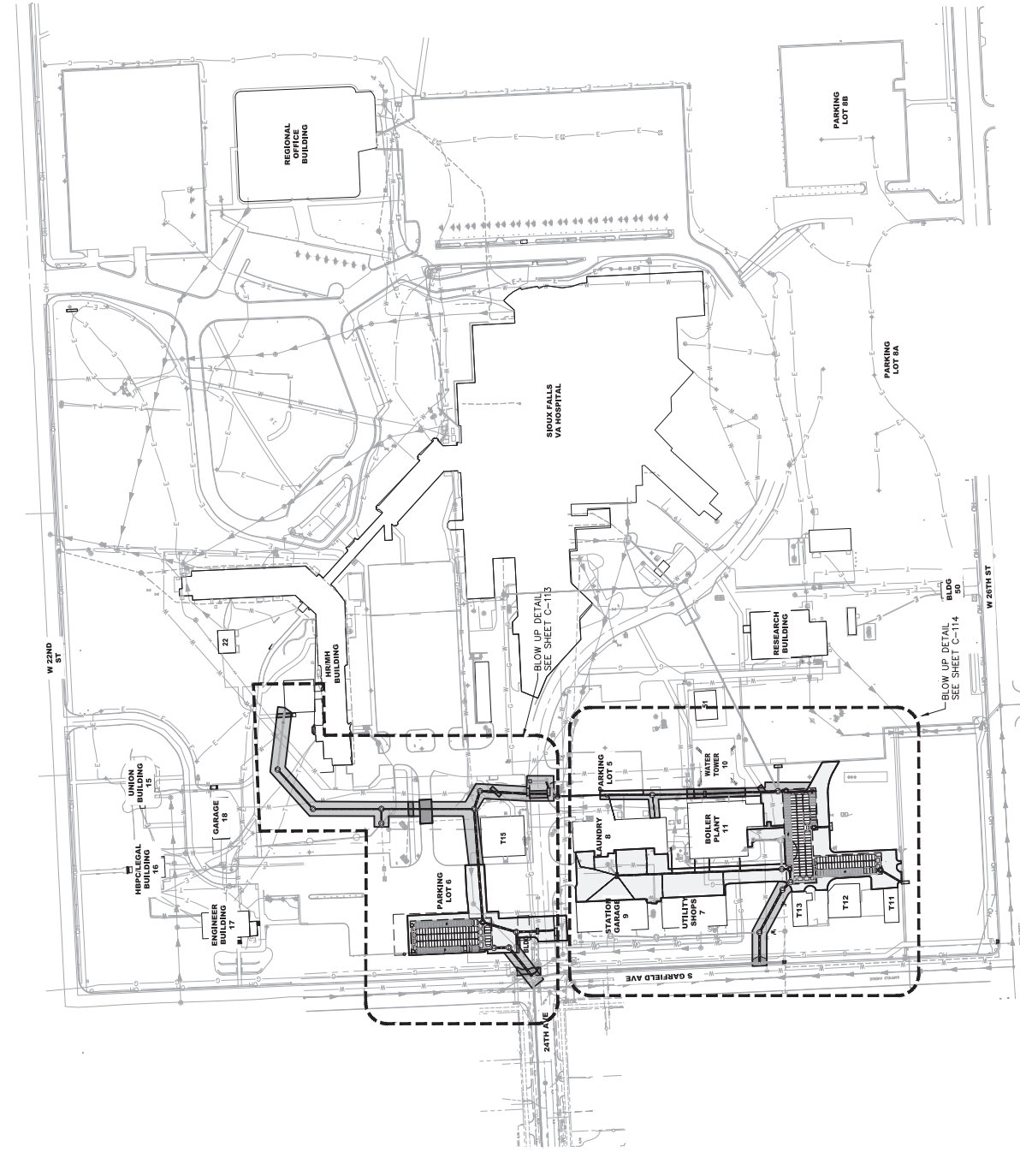
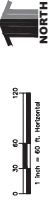
LEGEND

- ROW/PROPERTY LINE
- CENTRELINE
- PROPERTY BOUNDARY
- EASEMENT
- NEW WATER MAIN
- NEW WATER VALVE
- NEW FIRE HYDRANT
- NEW SANITARY SEWER MAIN
- NEW STORM DRAIN
- NEW STORM DRAIN INLET
- SANITARY SODAS MANHOLE NUMBER
- STORM DRAINAGE MANHOLE NUMBER
- EX. GAS MAIN
- EX. GAS VALVE
- EX. WATER MAIN
- EX. WATER VALVE
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- EX. SANITARY SEWER
- EX. STORM DRAIN
- EX. STORM DRAIN INLET
- EX. POWER POLE
- EX. UNDERGROUND TELEPHONE
- EX. UNDERGROUND TELEPHONE
- EX. FENCE

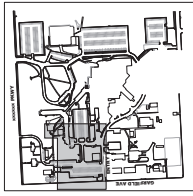
CALL BEFORE YOU DIG
811
 OR
 1-800-781-7474
 Utility Notification
 Center of South Dakota

NOTES:

1. CONTRACTOR SHALL REPAIR EXISTING STEAM TRENCH TAKE CARE IN WORKING AROUND EXISTING STEAM UTILITY TRENCH STRUCTURE AND CLEAN OUT TRENCH AS NEEDED DURING CONSTRUCTION ACTIVITIES.



| | | | |
|--|--|--|--|
| ARCHITECT/ENGINEER OF RECORD SES SPECIALIZED ENGINEERING SOLUTIONS 1000 S. DAKOTA ST., SUITE 200 SIOUX FALLS, SD 57104 P: 605.336.2000 F: 605.336.2001 www.ses-engineers.com | | STAMP | |
| CONSULTANT CLJ CONSULTANTS, LLC 1815 W. 13TH AVE., SUITE 200 SIOUX FALLS, SD 57104 P: 605.336.2000 F: 605.336.2001 www.clj-consultants.com | | CONTRACTOR Shaffer & Stevens 1000 S. DAKOTA ST., SUITE 200 SIOUX FALLS, SD 57104 P: 605.336.2000 F: 605.336.2001 www.shaffer-stevens.com | |
| PROJECT TITLE MITIGATE CAMPUS DRAINAGE | | PROJECT NUMBER 438-18-107 | |
| PHASE CD SUBMISSION | | PLANNING NUMBER C-112 | |
| OVERALL UTILITY PLAN | | DATE FEBRUARY 26, 2021 | |
| Office of Construction and Facilities Management U.S. Department of Veterans Affairs | | APPROVED PROJECT DIRECTOR ETG | |

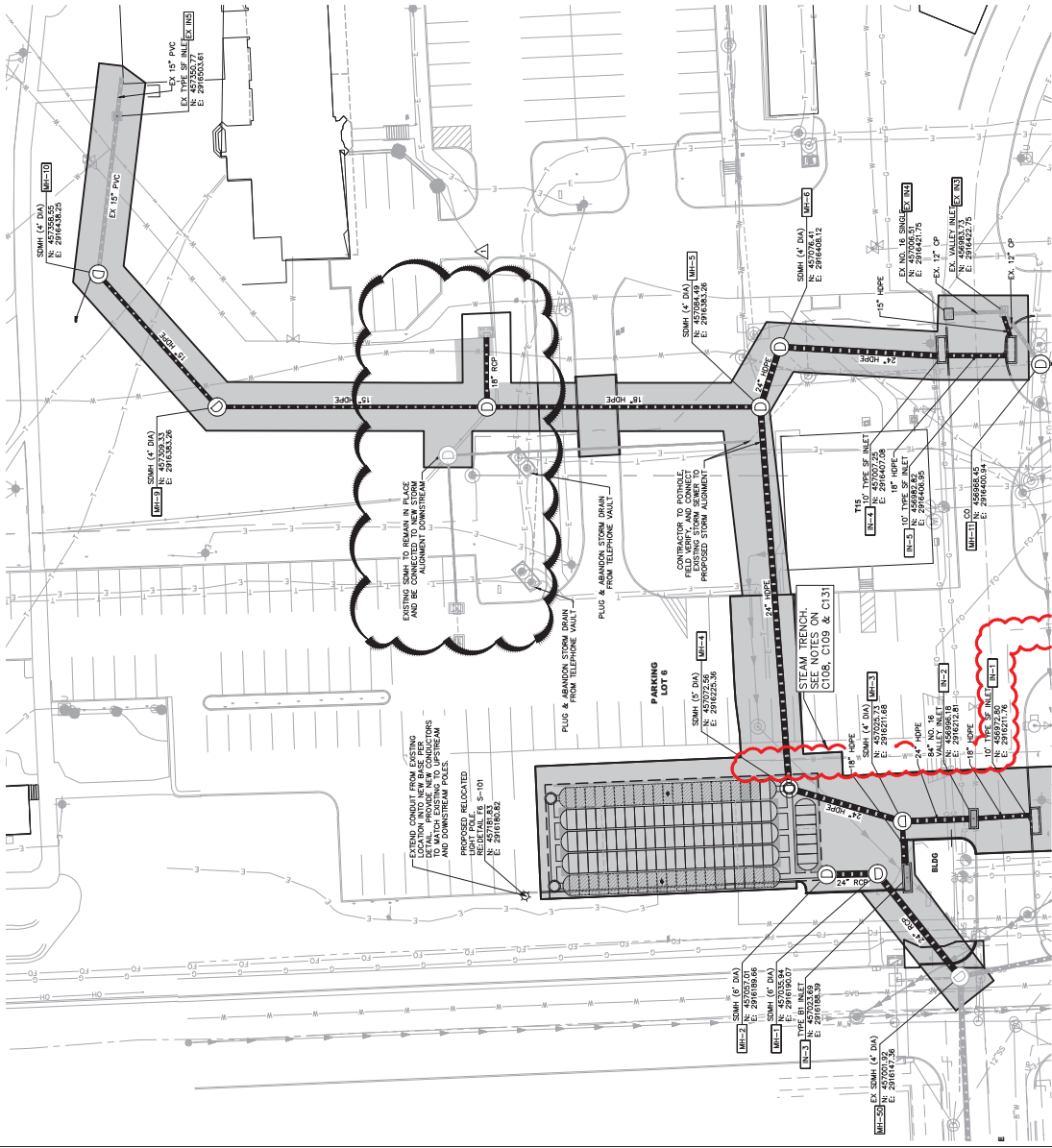
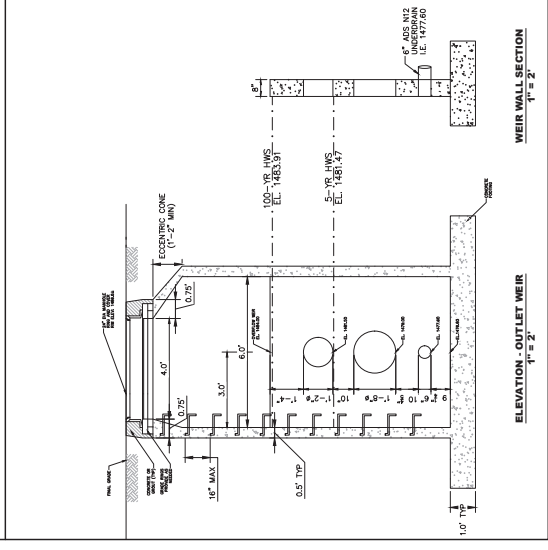
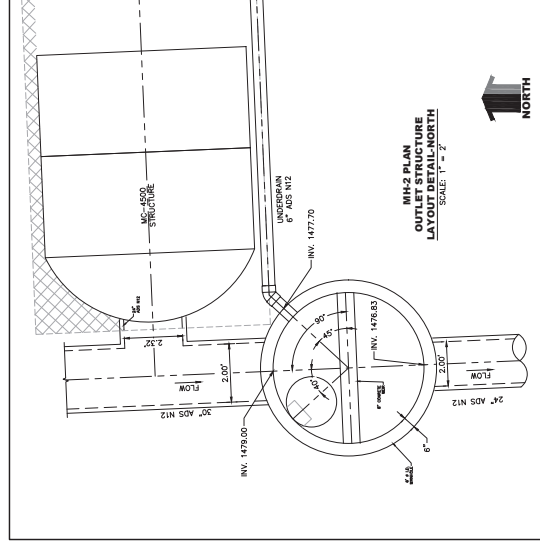


CONTROL INFO:

1. BASE OF BEARING IS SOUTH DAKOTA STATE PLANE SOUTH ZONE.
2. BENCHMARK FOR THIS SITE IS LOCATED ON THE SOUTH SIDE OF THE STREET, APPROXIMATELY 100' EAST OF S. GARDNER AVE. (NAD83 (NAD83) DATUM)

- LEGEND**
- ROW/PROPERTY LINE
 - CENTERLINE
 - EASEMENT
 - NEW WATER MAIN
 - NEW WATER VALVE
 - NEW SANITARY SEWER MAIN
 - NEW STORM DRAIN
 - NEW STORM DRAIN INLET
 - SANITARY SEWER MANHOLE NUMBER
 - STORM DRAINAGE MANHOLE NUMBER
 - EX. GAS MAIN
 - EX. WATER MAIN
 - EX. WATER VALVE
 - EX. FIRE HYDRANT
 - EX. SANITARY SEWER
 - EX. STORM DRAIN
 - EX. STORM DRAIN INLET
 - EX. POWER POLE
 - EX. UNDERGROUND ELECTRIC
 - EX. UNDERGROUND TELEPHONE
 - EX. FENCE

CALL BEFORE YOU DIG
811
 1-800-781-7474
 Utility Notifications
 Center of South Dakota

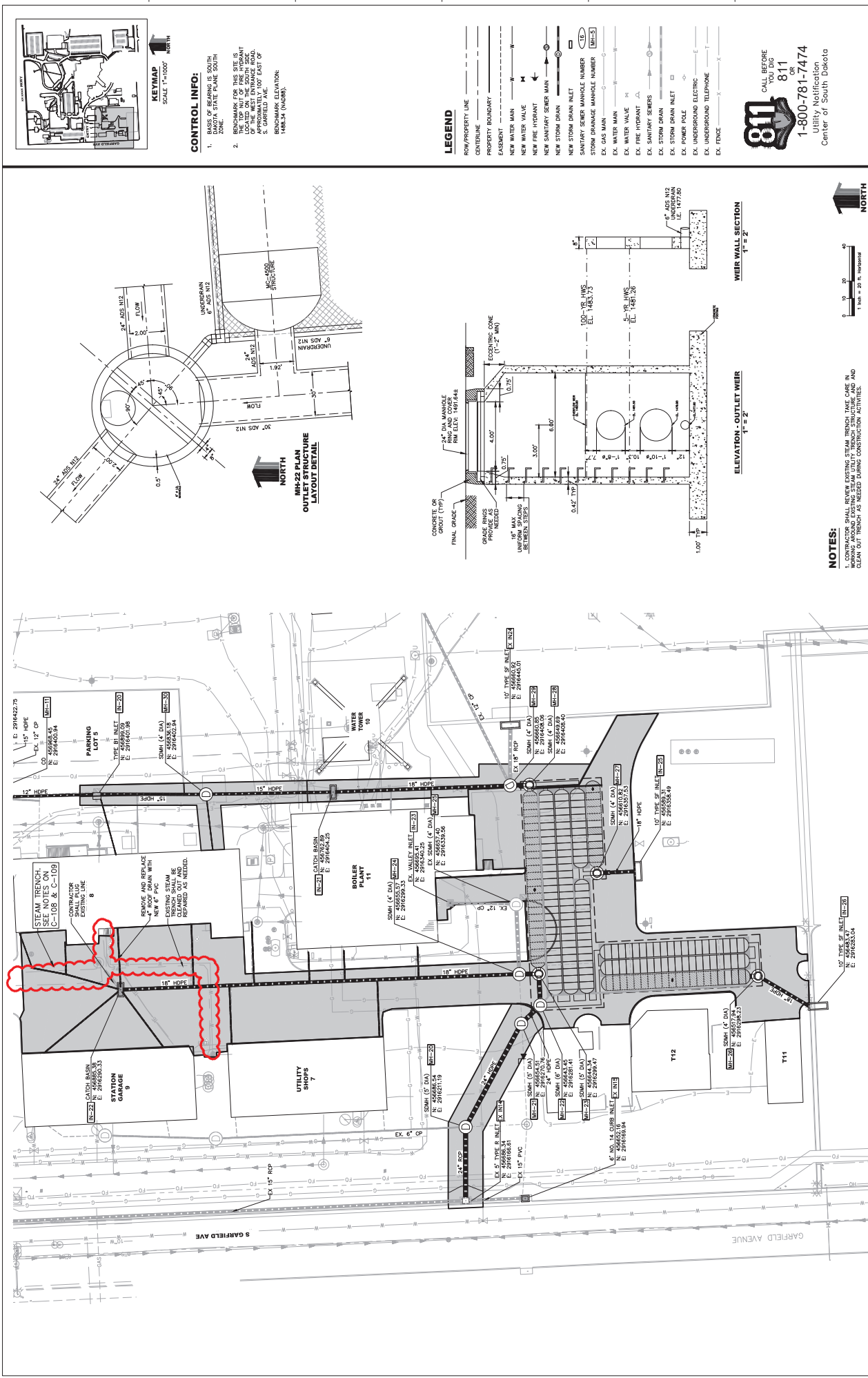


NOTES:

1. CONTRACTOR SHALL REVIEW EXISTING STREAM TRENCH TAKE CARE IN WORKING AROUND EXISTING STREAM UTILITY TRENCH STRUCTURE AND AND CLEAN OUT TRENCH AS NEEDED DURING CONSTRUCTION ACTIVITIES.



| | | | | | | |
|--|--|------------------|--|-------------------------------|---|-------------------------------------|
| AMENDMENT 1 07/25/2021 CONSULTANT Calum L. Hinz Architects, P.C. 1818 North West 45th Street, Suite 200 Ft. Lauderdale, FL 33309 Phone: (954) 557-4444 Fax: (954) 557-4444 Shaffer & Stevens 2000 W. 10th Street, Suite 100 Fort Lauderdale, FL 33311 Phone: (954) 557-2000 Fax: (954) 557-2000 | ARCHITECT/ENGINEER OF RECORD SPECIALIZED ENGINEERING SOLUTIONS 10000 NE 17th Street, Suite 100 Ft. Lauderdale, FL 33305 Phone: (954) 931-5555 Calibre Calibre Engineering Inc. 10000 NE 17th Street, Suite 100 Ft. Lauderdale, FL 33305 Phone: (954) 931-5555 | STAMP | Office of Construction and Facilities Management Approved Project Director | Phase CD SUBMISSION | Project Files MITIGATE CAMPUS DRAINAGE Section: Falls VA Health Care System, SD PROJECT NUMBER: 2021-01 DATE: FEBRUARY 26, 2021 ETOG: RLB | Project Number 438-18-107 |
| | | | | | | Drawing Number C-113 |



| | |
|--|---|
| Project Title MITIGATE CAMPUS DRAINAGE | Project Number 438-18-107 |
| Phase CD SUBMISSION | Drawing Number C-114 |
| Detailed Title DETAILED UTILITY PLAN | Client Sioux Falls VA Health Care System, SD |
| Office of Construction and Facilities Management | Project Manager ETG |
| U.S. Department of Veterans Affairs | Approval Date FEBRUARY 26, 2021 |
| ARCHITECT/ENGINEER OF RECORD | STAMP |
| SEI SPECIALIZED ENGINEERING SOLUTIONS | Professional Engineer Seal |
| CONSULTANT | Professional Engineer Seal |
| CUH CONSULTANTS | Professional Engineer Seal |
| Shaffer & Stevens | Professional Engineer Seal |