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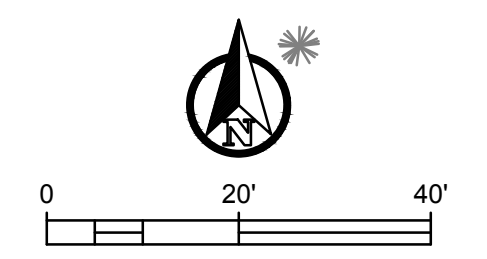
- NOTES:**
1. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATIONS OF ALL EXISTING UNDERGROUND UTILITIES.
 2. CONTRACTOR SHALL FIELD VERIFY ALL BUILDING DIMENSIONS PRIOR TO ANY CONSTRUCTION.
 3. GOPHER STATE ONE CALL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES. 1-800-252-1166.
 4. THE LOCATIONS AND ELEVATIONS OF THE EXISTING UTILITIES SHOWN HEREIN ARE APPROXIMATE. THEY HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND/OR RECORDS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ANY EXISTING UTILITIES (SHOWN OR NOT SHOWN) ARE NOT DAMAGED DURING CONSTRUCTION.
 5. EXISTING IMPROVEMENTS DONE AFTER DATE OF SURVEY ARE APPROXIMATE. FIELD VERIFY PRIOR TO CONSTRUCTION.

TOPOGRAPHIC INFORMATION PROVIDED BY:

DESIGN TREE ENGINEERING AND LAND SURVEYING
 3339 W. ST. GERMAIN
 SUITE 250
 ST. CLOUD, MN 56301
 TEL: 320-217-5557
 DATE OF SURVEY: APRIL 1, 2016

LEGEND

Symbol: Circle with cross	HYDRANT
Symbol: Square with circle	SANITARY MANHOLE
Symbol: Square with 'X'	GATE VALVE
Symbol: Square with 'P'	POWER POLE
Symbol: Square with 'L'	LIGHT POLE
Symbol: Square with 'C'	CATCH BASIN
Symbol: Square with 'S'	SIGN
Symbol: Star	DECIDUOUS TREE
Symbol: Star with dots	CONIFEROUS TREE
Symbol: Circle with dots	SHRUB
Symbol: Circle with 'P'	PEDESTAL
Symbol: Square with 'W'	WATERMETER
Symbol: Square with 'B'	BOLLARD
Symbol: Square with 'P'	POWER BOX
Symbol: Square with 'E'	ELECTRIC METER
Symbol: Square with 'M'	MONITORING WELL
Symbol: Square with 'C'	SANITARY SEWER CLEANOUT
Symbol: Dashed line	WOOD FENCE
Symbol: Dashed line with cross-ticks	STORM SEWER LINE
Symbol: Dashed line with circles	SANITARY SEWER LINE
Symbol: Dashed line with triangles	WATERMAIN
Symbol: Dashed line with squares	OVERHEAD ELECTRIC
Symbol: Dashed line with diamonds	UNDERGROUND TELEPHONE
Symbol: Dashed line with circles	UNDERGROUND FIBER
Symbol: Dashed line with squares	UNDERGROUND ELECTRIC
Symbol: Dashed line with triangles	UNDERGROUND GAS LINE
Symbol: Stippled area	CONCRETE PAVEMENT
Symbol: Dotted area	BITUMINOUS PAVEMENT
Symbol: Solid area	LANDSCAPING
Symbol: Hatched area	BUILDING
Symbol: Dashed line with circles	CHAINLINK CONSTRUCTION FENCE



FULLY SPRINKLED
 BID DOCUMENTS
 FOR CONSTRUCTION

ADDENDUM 1 - BID AND CONSTRUCTION DOCUMENTS	Date
05/29/20	
Revisions:	

CONSULTANTS:

DESIGN TREE
 engineering + land surveying
 St. Cloud | Alexandria | Rogers
 320-217-5557

ARCHITECT/ENGINEERS:

paradigm
 Architecture | Engineering | Design-Build
 200 Envoy Circle #201, Louisville KY 40299 - PH: 502.339.8511 - www.paradigmusa.com

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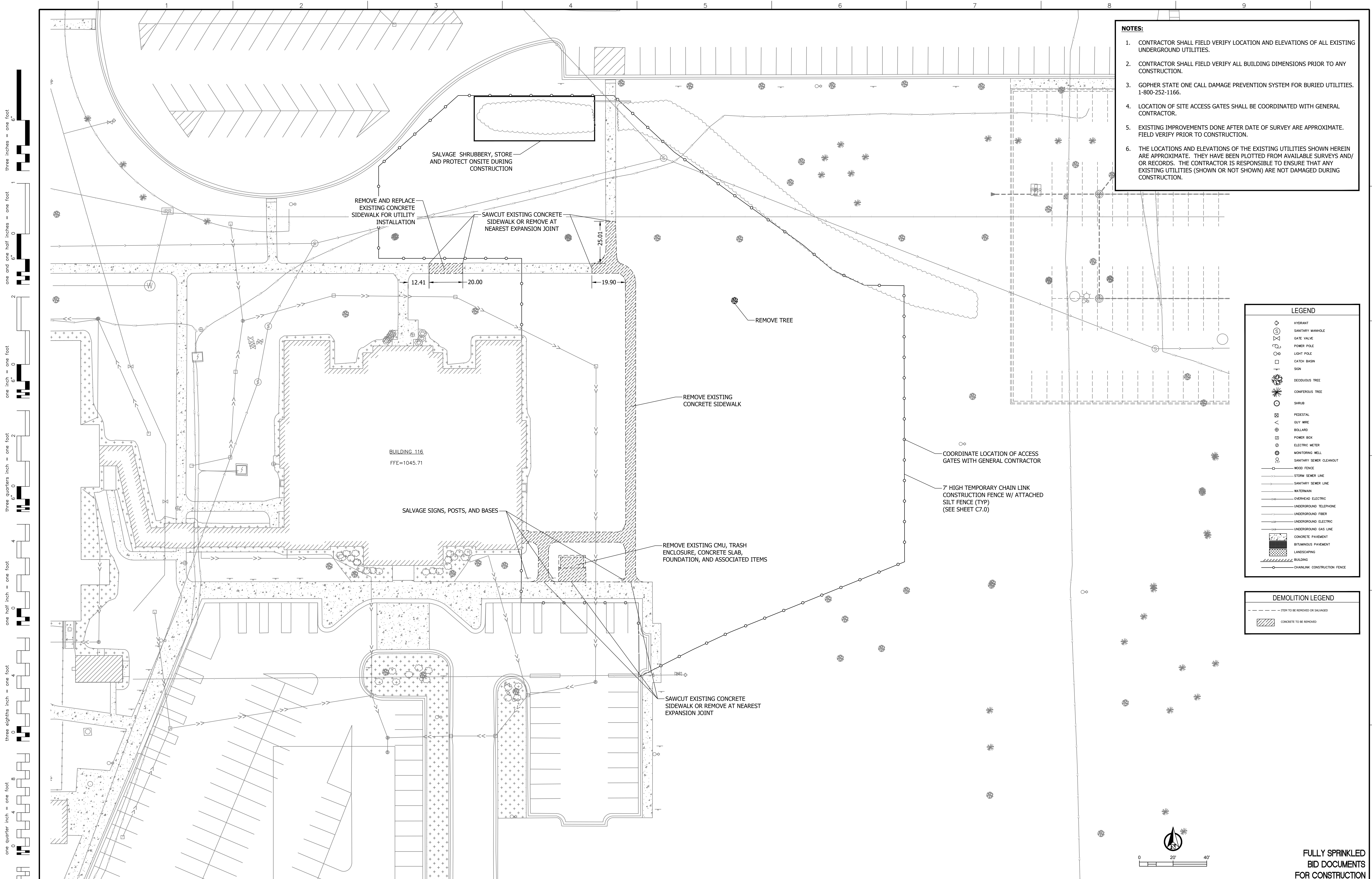
JERRY E. ANDERSON
 PRINTED NAME: JERRY E. ANDERSON
 DATE: 12/27/2019 LICENSE #: 4123

Drawing Title CIVIL EXISTING CONDITIONS	Project Title ST CLOUD ADH AND EC SUPPORT
Approved Project Director	Location ST CLOUD VA HEALTH CARE SYSTEM 4801 VETERANS DRIVE, ST. CLOUD MN 56303
	Date 12-27-2019
	Checked JEA
	Drawn RJK

Project Number 656-343	Building Number ---
Drawing Number C10	

Office of
 Construction
 and Facilities
 Management

- NOTES:**
- CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATIONS OF ALL EXISTING UNDERGROUND UTILITIES.
 - CONTRACTOR SHALL FIELD VERIFY ALL BUILDING DIMENSIONS PRIOR TO ANY CONSTRUCTION.
 - GOPHER STATE ONE CALL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES. 1-800-252-1166.
 - LOCATION OF SITE ACCESS GATES SHALL BE COORDINATED WITH GENERAL CONTRACTOR.
 - EXISTING IMPROVEMENTS DONE AFTER DATE OF SURVEY ARE APPROXIMATE. FIELD VERIFY PRIOR TO CONSTRUCTION.
 - THE LOCATIONS AND ELEVATIONS OF THE EXISTING UTILITIES SHOWN HEREIN ARE APPROXIMATE. THEY HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND/OR RECORDS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ANY EXISTING UTILITIES (SHOWN OR NOT SHOWN) ARE NOT DAMAGED DURING CONSTRUCTION.



LEGEND

- HYDRANT
- SANITARY MANHOLE
- GATE VALVE
- POWER POLE
- LIGHT POLE
- CATCH BASIN
- SIGN
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- PEDESTAL
- GUY WIRE
- BOLLARD
- POWER BOX
- ELECTRIC METER
- MONITORING WELL
- SANITARY SEWER CLEANOUT
- WOOD FENCE
- STORM SEWER LINE
- SANITARY SEWER LINE
- WATERMAIN
- UNDERGROUND ELECTRIC
- UNDERGROUND TELEPHONE
- UNDERGROUND ELECTRIC
- UNDERGROUND GAS LINE
- CONCRETE PAVEMENT
- BITUMINOUS PAVEMENT
- LANDSCAPING
- BUILDING
- CHAINLINK CONSTRUCTION FENCE

DEMOLITION LEGEND

- ITEM TO BE REMOVED OR SALVAGED
- /// CONCRETE TO BE REMOVED

three inches = one foot
 one and one half inches = one foot
 one inch = one foot
 three quarters inch = one foot
 one half inch = one foot
 three eighths inch = one foot
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 three eighths inch = one foot
 one eighth inch = one foot
 one eighth inch = one foot

ADDENDUM 1 - BID AND CONSTRUCTION DOCUMENTS	05/29/20
Revisions:	Date

CONSULTANTS:

DESIGN TREE
 engineering + land surveying
 St. Cloud | Alexandria | Rogers
 320-217-5557

ARCHITECT/ENGINEERS:

paradigm
 Architecture | Engineering | Design-Build
 200 Envoy Circle #201, Louisville KY 40299 - PH: 502.339.8511 - www.paradigmusa.com

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Jerry E. Anderson
 PRINTED NAME: JERRY E. ANDERSON
 DATE: 12/27/2019 LICENSE #: 41223

Drawing Title
 CIVIL DEMOLITION PLAN

Approved Project Director

Project Title
 ST CLOUD ADH AND EC SUPPORT

Project Number
 656-343

Building Number

Location
 ST CLOUD VA HEALTH CARE SYSTEM
 4801 VETERANS DRIVE, ST. CLOUD MN 56303

Date
 12-27-2019

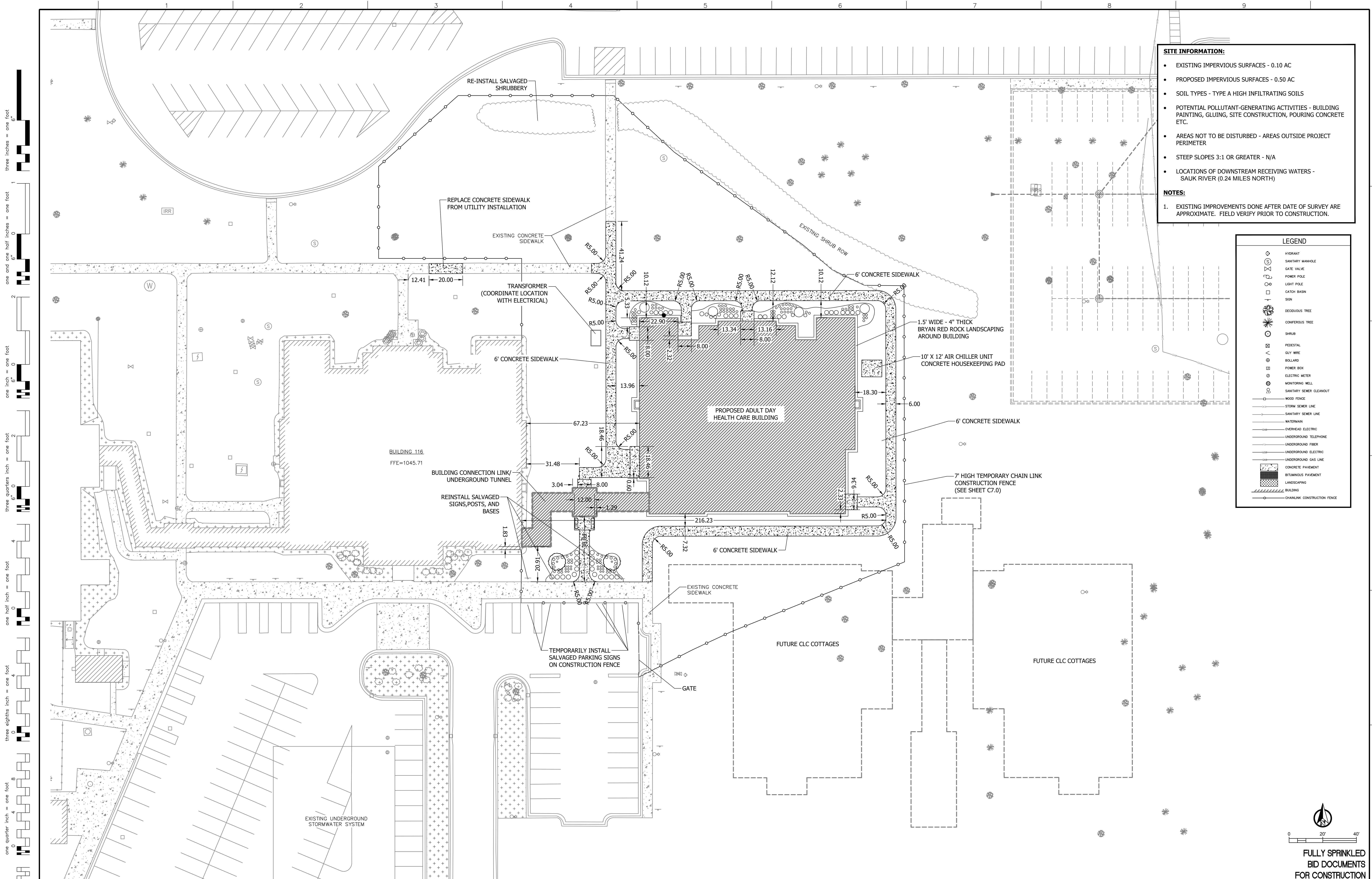
Checked
 JEA

Drawn
 RJK

Drawing Number
 C2.0

Office of Construction and Facilities Management

FULLY SPRINKLED
 BID DOCUMENTS
 FOR CONSTRUCTION



- SITE INFORMATION:**
- EXISTING IMPERVIOUS SURFACES - 0.10 AC
 - PROPOSED IMPERVIOUS SURFACES - 0.50 AC
 - SOIL TYPES - TYPE A HIGH INFILTRATING SOILS
 - POTENTIAL POLLUTANT-GENERATING ACTIVITIES - BUILDING PAINTING, GLUING, SITE CONSTRUCTION, POURING CONCRETE ETC.
 - AREAS NOT TO BE DISTURBED - AREAS OUTSIDE PROJECT PERIMETER
 - STEEP SLOPES 3:1 OR GREATER - N/A
 - LOCATIONS OF DOWNSTREAM RECEIVING WATERS - SAUK RIVER (0.24 MILES NORTH)
- NOTES:**
- EXISTING IMPROVEMENTS DONE AFTER DATE OF SURVEY ARE APPROXIMATE. FIELD VERIFY PRIOR TO CONSTRUCTION.

LEGEND

	HYDRANT
	SANITARY MANHOLE
	GATE VALVE
	POWER POLE
	LIGHT POLE
	CATCH BASIN
	SIGN
	DECIDUOUS TREE
	CONIFEROUS TREE
	SHRUB
	PEDESTAL
	GUY WIRE
	BOLLARD
	POWER BOX
	ELECTRIC METER
	MONITORING WELL
	SANITARY SEWER CLEANOUT
	WOOD FENCE
	STORM SEWER LINE
	SANITARY SEWER LINE
	WATERMAIN
	OVERHEAD ELECTRIC
	UNDERGROUND TELEPHONE
	UNDERGROUND FIBER
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	CONCRETE PAVEMENT
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	LANDSCAPING
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	CHAIN LINK CONSTRUCTION FENCE

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ADDENDUM 1 - BID AND CONSTRUCTION DOCUMENTS	05/29/20
Revisions:	Date

CONSULTANTS:

DESIGN TREE
 engineering + land surveying
 St. Cloud | Alexandria | Rogers
 320-217-5557

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Jerry E. Anderson
 PRINTED NAME: JERRY E. ANDERSON
 DATE: 12/27/2019 LICENSE #: 4123

Drawing Title	PROPOSED CIVIL SITE PLAN
Approved Project Director	

Project Title	ST CLOUD ADH AND EC SUPPORT
Location	ST CLOUD VA HEALTH CARE SYSTEM 4801 VETERANS DRIVE, ST. CLOUD MN 56303
Date	12-27-2019
Checked	JEA
Drawn	RJK

Project Number	656-343
Building Number	
Drawing Number	C3.0

Office of Construction and Facilities Management

FULLY SPRINKLED
 BID DOCUMENTS
 FOR CONSTRUCTION

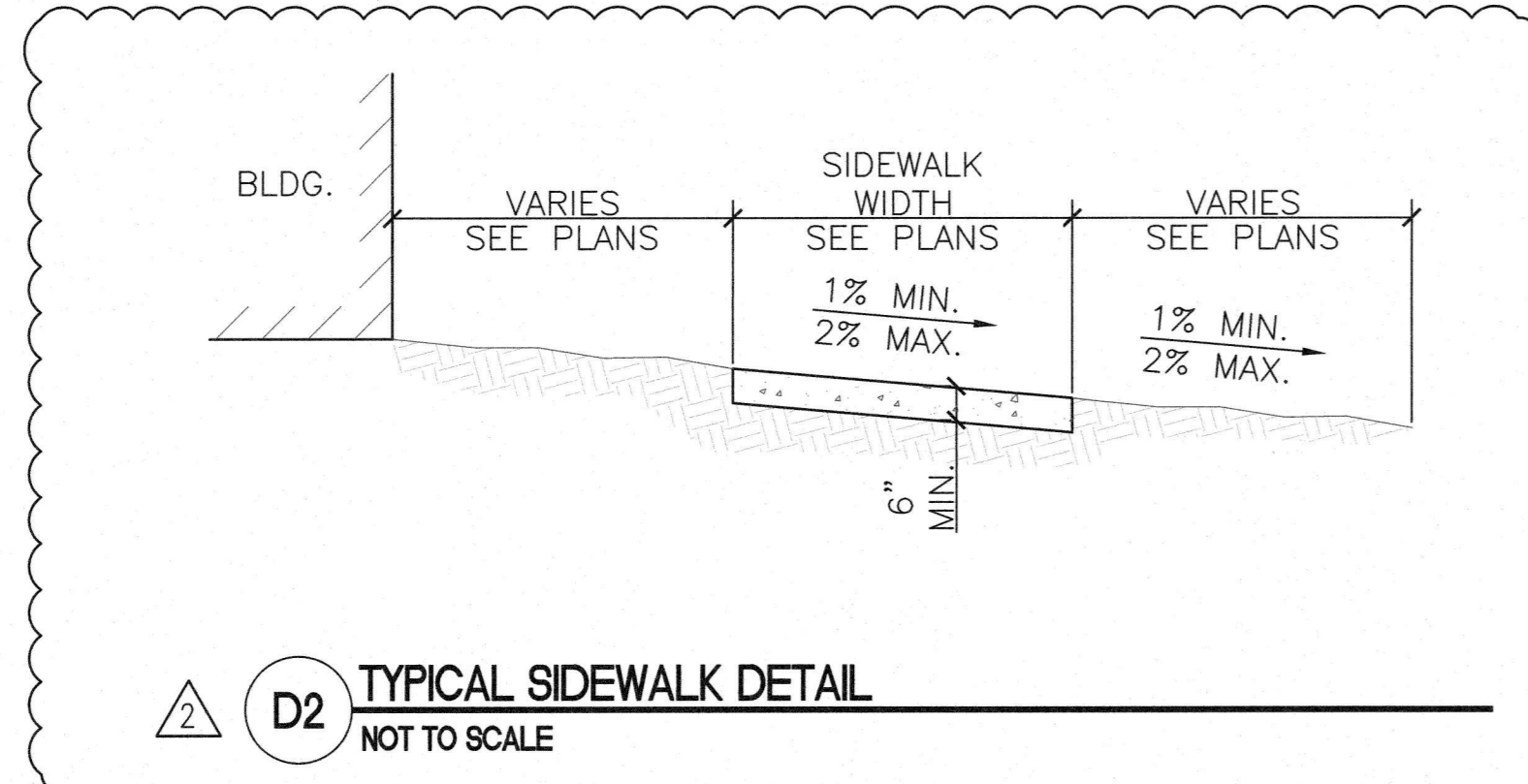
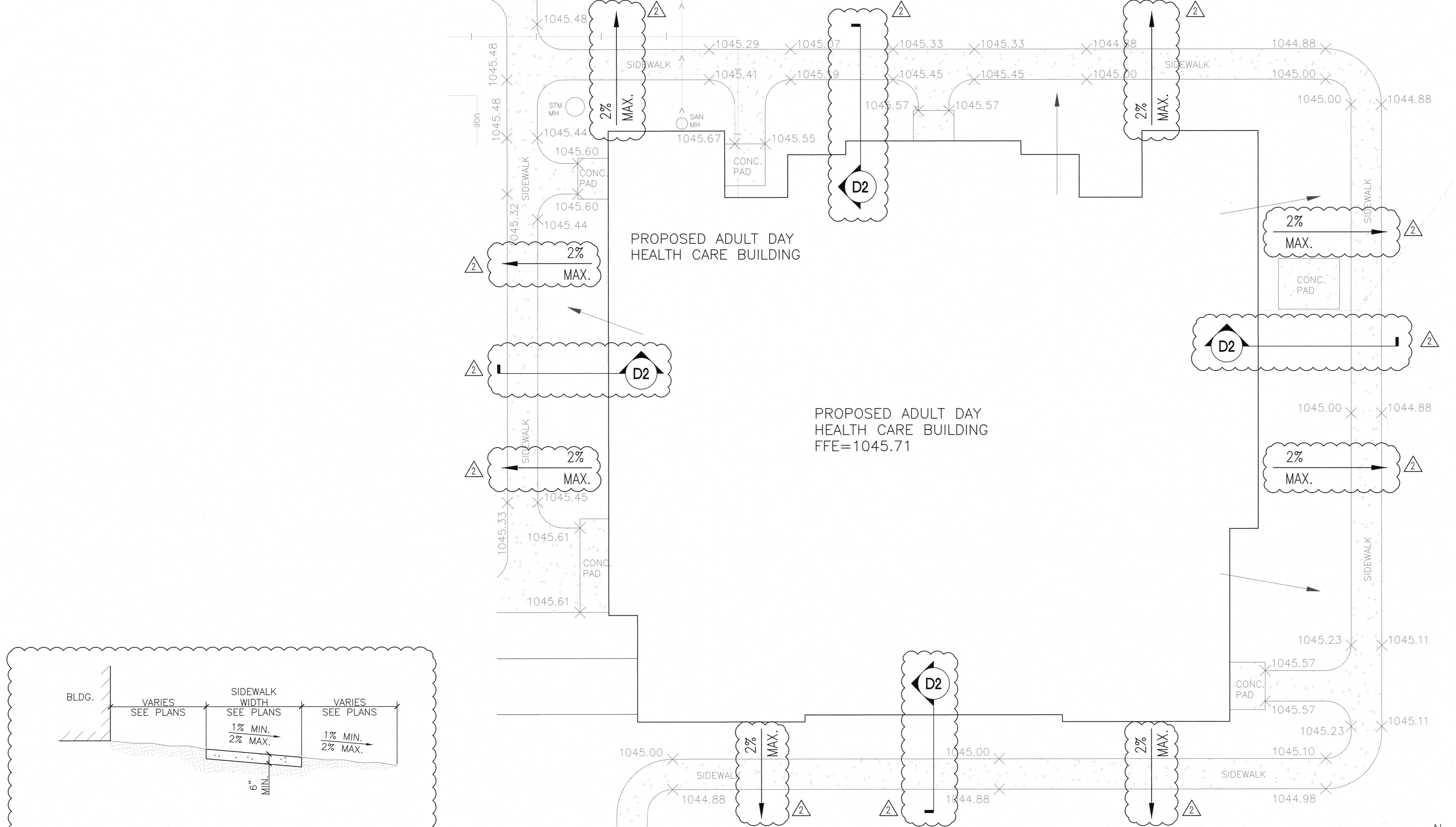
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GENERAL NOTES

- A. CONTRACTOR TO LOCATE ALL EXISTING SITE FEATURES AND UNDERGROUND UTILITIES AND REPORT TO THE VAMC PRIOR TO COMMENCING WORK.
- B. ALL EXISTING UNDERGROUND UTILITIES TO BE PROTECTED DURING CONSTRUCTION UNLESS NOTED OTHERWISE.
- C. ALL EXISTING DISTURBED GROUND, SIDEWALKS, GRADING, PLANTINGS, ETC. SHALL BE REPAIRED TO MATCH EXISTING.
- D. CONTRACTOR TO TAKE SPECIAL CARE NEAR EXISTING SITE FEATURES (I.E. ELECTRICAL BOXES) DURING CONSTRUCTION, AND FIELD VERIFY/COORDINATE DISCREPANCIES WITH THE VAMC.

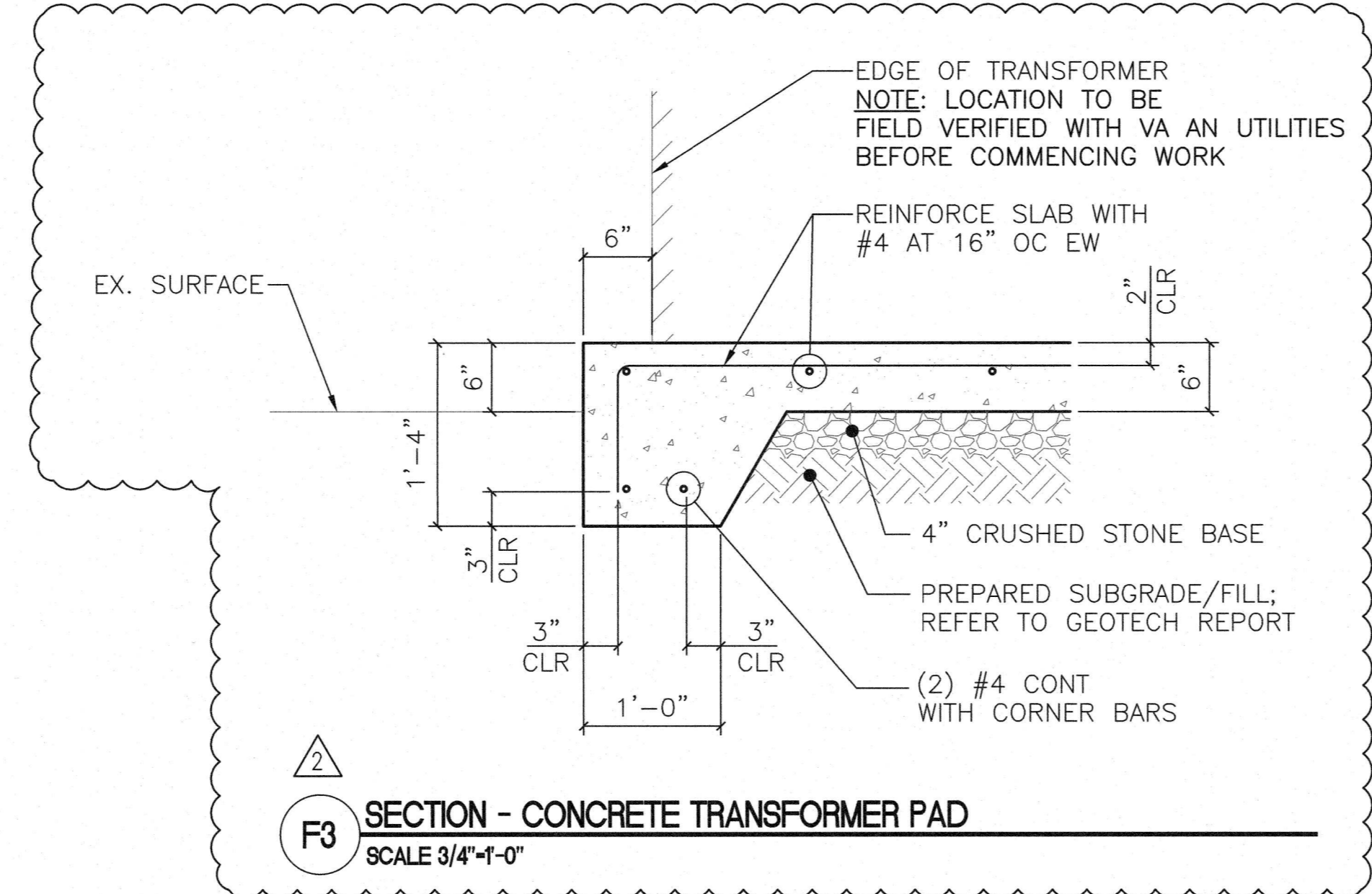
GRADING NOTES

- 1. THE CONTRACTOR SHALL SLOPE ALL GRADES AWAY FROM BUILDINGS, AND PROVIDE POSITIVE DRAINAGE. FLAT AND PONDING AREAS WILL NOT BE ACCEPTABLE.
- 2. ALL SIDEWALKS TO HAVE A MAXIMUM 2% CROSS SLOPE.

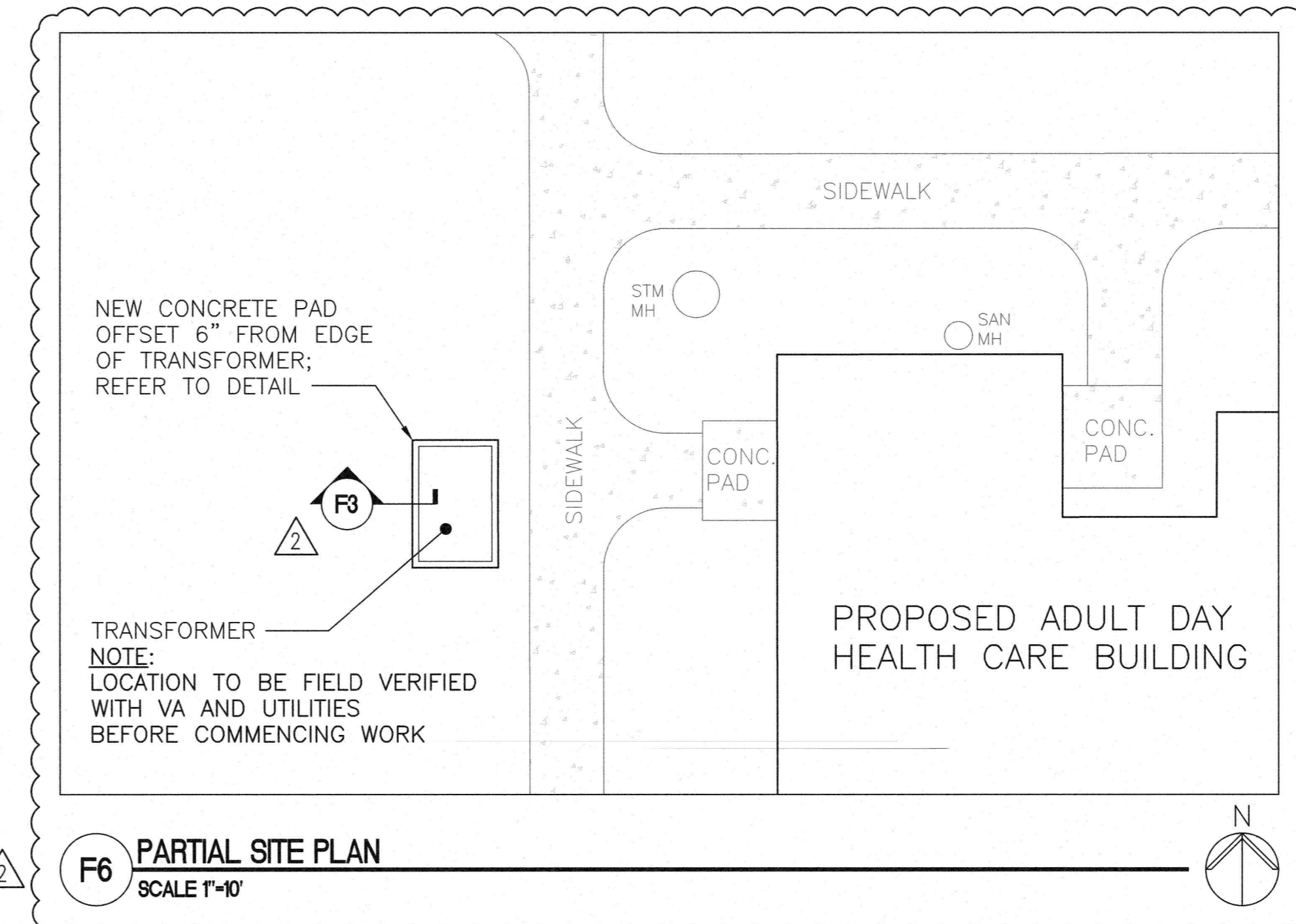


D3 PARTIAL GRADING PLAN
SCALE 1"=10'

D2 TYPICAL SIDEWALK DETAIL
NOT TO SCALE



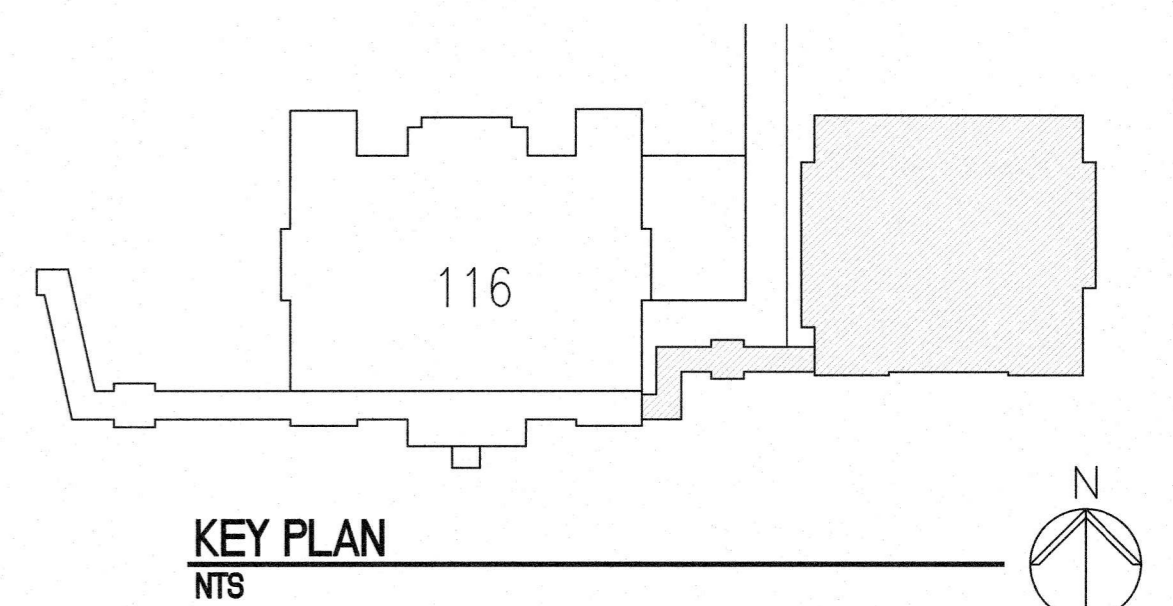
F3 SECTION - CONCRETE TRANSFORMER PAD
SCALE 3/4"=1'-0"



F6 PARTIAL SITE PLAN
SCALE 1"=10'

EXISTING DRAWING INFORMATION NOTES

- A. ALL INFORMATION DEPICTED IN THIS DRAWING HAS BEEN ACQUIRED BY AND LIMITED TO DRAWINGS "C3.0 CIVIL SITE PLAN" AND "C5.0 GRADING PLAN", GENERATED AND PROVIDED BY "DESIGN TREE".
- B. ALL EXISTING INFORMATION TO BE FIELD VERIFIED WITH THE VA BEFORE COMMENCING WORK.



KEY PLAN
NTS

FULLY SPRINKLED
 BID DOCUMENTS
 FOR CONSTRUCTION

Office of
 Construction
 and Facilities
 Management

Department of
 Veterans Affairs

ADDENDUM 2	04/19/21
ADDENDUM 1 - BID AND CONSTRUCTION DOCUMENTS	05/29/20
Revisions:	Date

CONSULTANTS:

ARCHITECT/ENGINEERS:

Architecture | Engineering | Design-Build
 200 Envoy Circle #201, Louisville KY 40299 - PH: 502.339.8511 - www.paradigmusa.com

Drawing Title
**CIVIL SITE PLAN, GRADING PLAN,
 DETAILS, AND NOTES**

Approved Project Director

Project Title
ST CLOUD ADH AND EC SUPPORT

Location **ST CLOUD VA HEALTH CARE SYSTEM**
 481 VETERANS DRIVE, ST. CLOUD MI 49683

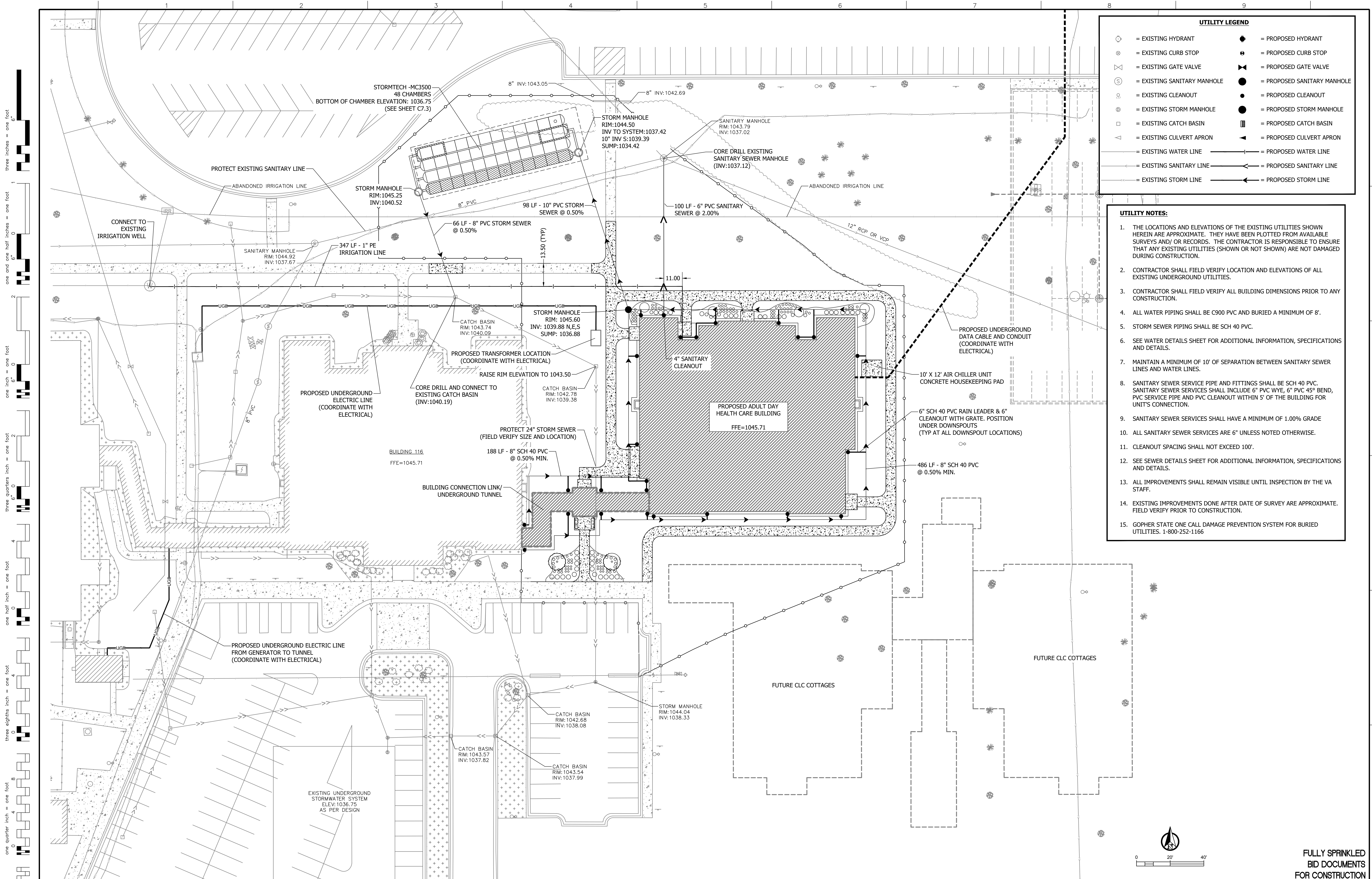
Date: 12-27-2019

Checked: BYG
 Drawn: JDM

Project Number
656-343

Building Number

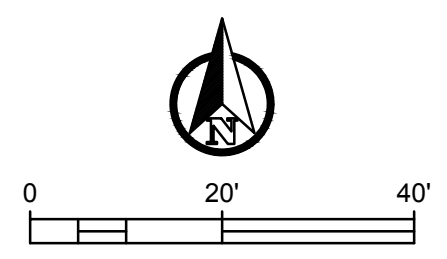
Drawing Number
C3.0A



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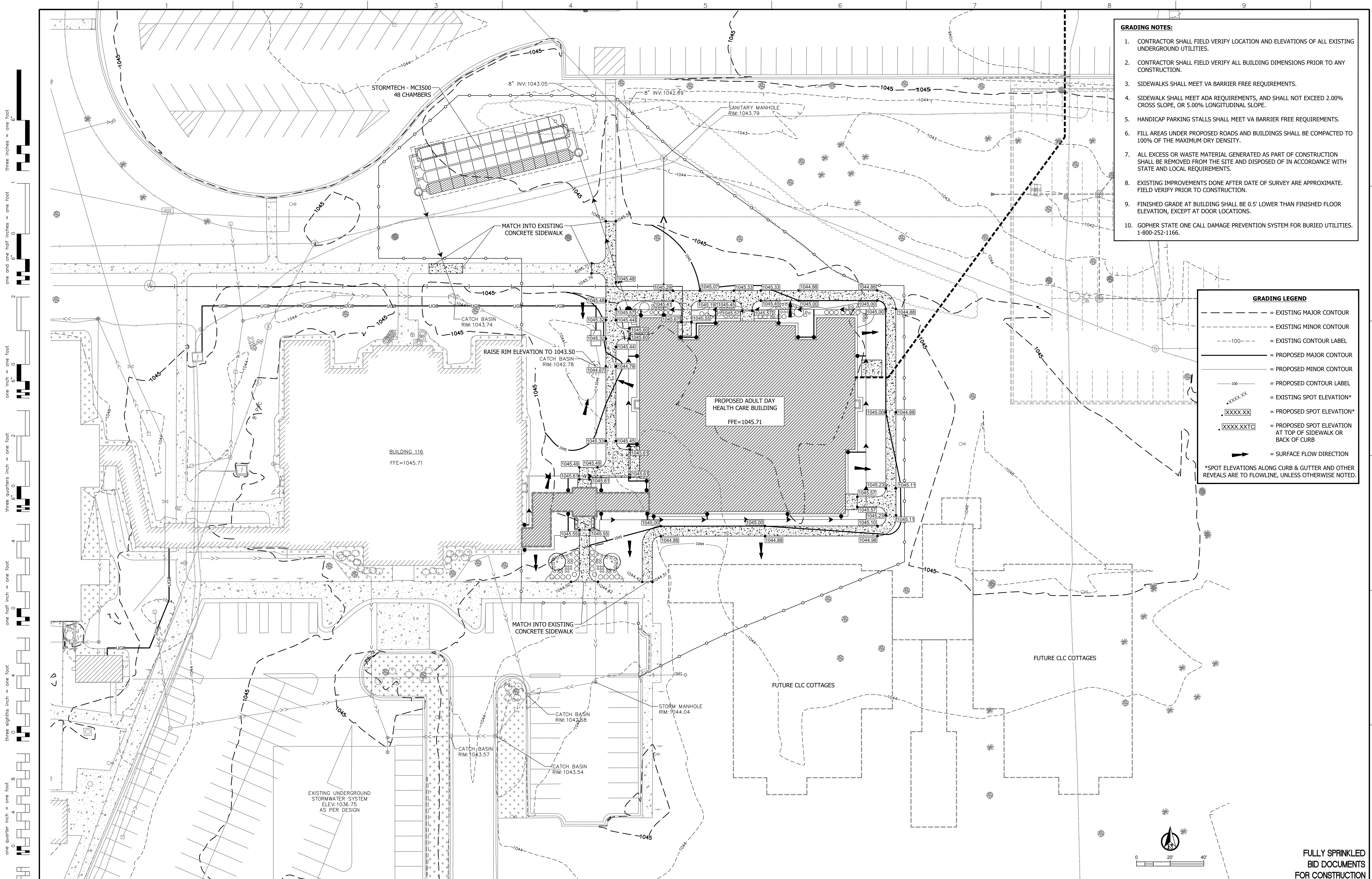
UTILITY LEGEND	
	= EXISTING HYDRANT
	= EXISTING CURB STOP
	= EXISTING GATE VALVE
	= EXISTING SANITARY MANHOLE
	= EXISTING CLEANOUT
	= EXISTING STORM MANHOLE
	= EXISTING CATCH BASIN
	= EXISTING CULVERT APRON
	= EXISTING WATER LINE
	= EXISTING SANITARY LINE
	= EXISTING STORM LINE
	= PROPOSED HYDRANT
	= PROPOSED CURB STOP
	= PROPOSED GATE VALVE
	= PROPOSED SANITARY MANHOLE
	= PROPOSED CLEANOUT
	= PROPOSED STORM MANHOLE
	= PROPOSED CATCH BASIN
	= PROPOSED CULVERT APRON
	= PROPOSED WATER LINE
	= PROPOSED SANITARY LINE
	= PROPOSED STORM LINE

- UTILITY NOTES:**
1. THE LOCATIONS AND ELEVATIONS OF THE EXISTING UTILITIES SHOWN HEREIN ARE APPROXIMATE. THEY HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND/OR RECORDS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ANY EXISTING UTILITIES (SHOWN OR NOT SHOWN) ARE NOT DAMAGED DURING CONSTRUCTION.
 2. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATIONS OF ALL EXISTING UNDERGROUND UTILITIES.
 3. CONTRACTOR SHALL FIELD VERIFY ALL BUILDING DIMENSIONS PRIOR TO ANY CONSTRUCTION.
 4. ALL WATER PIPING SHALL BE C900 PVC AND BURIED A MINIMUM OF 8'.
 5. STORM SEWER PIPING SHALL BE SCH 40 PVC.
 6. SEE WATER DETAILS SHEET FOR ADDITIONAL INFORMATION, SPECIFICATIONS AND DETAILS.
 7. MAINTAIN A MINIMUM OF 10' OF SEPARATION BETWEEN SANITARY SEWER LINES AND WATER LINES.
 8. SANITARY SEWER SERVICE PIPE AND FITTINGS SHALL BE SCH 40 PVC. SANITARY SEWER SERVICES SHALL INCLUDE 6" PVC WYE, 6" PVC 45° BEND, PVC SERVICE PIPE AND PVC CLEANOUT WITHIN 5' OF THE BUILDING FOR UNIT'S CONNECTION.
 9. SANITARY SEWER SERVICES SHALL HAVE A MINIMUM OF 1.00% GRADE
 10. ALL SANITARY SEWER SERVICES ARE 6" UNLESS NOTED OTHERWISE.
 11. CLEANOUT SPACING SHALL NOT EXCEED 100'.
 12. SEE SEWER DETAILS SHEET FOR ADDITIONAL INFORMATION, SPECIFICATIONS AND DETAILS.
 13. ALL IMPROVEMENTS SHALL REMAIN VISIBLE UNTIL INSPECTION BY THE VA STAFF.
 14. EXISTING IMPROVEMENTS DONE AFTER DATE OF SURVEY ARE APPROXIMATE. FIELD VERIFY PRIOR TO CONSTRUCTION.
 15. GOPHER STATE ONE CALL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES. 1-800-252-1166



FULLY SPRINKLED
 BID DOCUMENTS
 FOR CONSTRUCTION

ADDENDUM 1 - BID AND CONSTRUCTION DOCUMENTS 05/29/20 Revisions: _____ Date: _____	CONSULTANTS: St. Cloud Alexandria Rogers 320-217-5557	ARCHITECT/ENGINEERS: Architecture Engineering Design-Build 200 Envoy Circle #201, Louisville KY 40299 - PH: 502.339.8511 - www.paradigmusa.com	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINTED NAME: JERRY E. ANDERSON DATE: 12/27/2019 LICENSE #: 4123	Drawing Title PROPOSED CIVIL UTILITY PLAN Approved Project Director: _____	Project Title ST CLOUD ADH AND EC SUPPORT Location: ST CLOUD VA HEALTH CARE SYSTEM 4801 VETERANS DRIVE, ST. CLOUD MN 56303	Project Number 656-343 Building Number: _____ Drawing Number: C4.0	Office of Construction and Facilities Management
	Date: 12-27-2019 Checked: JEA Draw: RJK						



- GRADING NOTES:**
1. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATIONS OF ALL EXISTING UNDERGROUND UTILITIES.
 2. CONTRACTOR SHALL FIELD VERIFY ALL BUILDING DIMENSIONS PRIOR TO ANY CONSTRUCTION.
 3. SIDEWALKS SHALL MEET VA BARRIER FREE REQUIREMENTS.
 4. SIDEWALK SHALL MEET ADA REQUIREMENTS, AND SHALL NOT EXCEED 2.00% CROSS SLOPE, OR 5.00% LONGITUDINAL SLOPE.
 5. HANDICAP PARKING STALLS SHALL MEET VA BARRIER FREE REQUIREMENTS.
 6. FILL AREAS UNDER PROPOSED ROADS AND BUILDINGS SHALL BE COMPACTED TO 100% OF THE MAXIMUM DRY DENSITY.
 7. ALL EXCESS OR WASTE MATERIAL GENERATED AS PART OF CONSTRUCTION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.
 8. EXISTING IMPROVEMENTS DONE AFTER DATE OF SURVEY ARE APPROXIMATE. FIELD VERIFY PRIOR TO CONSTRUCTION.
 9. FINISHED GRADE AT BUILDING SHALL BE 0.5' LOWER THAN FINISHED FLOOR ELEVATION, EXCEPT AT DOOR LOCATIONS.
 10. GOPHER STATE ONE CALL DAMAGE PREVENTION SYSTEM FOR BURIED UTILITIES. 1-800-252-1166.

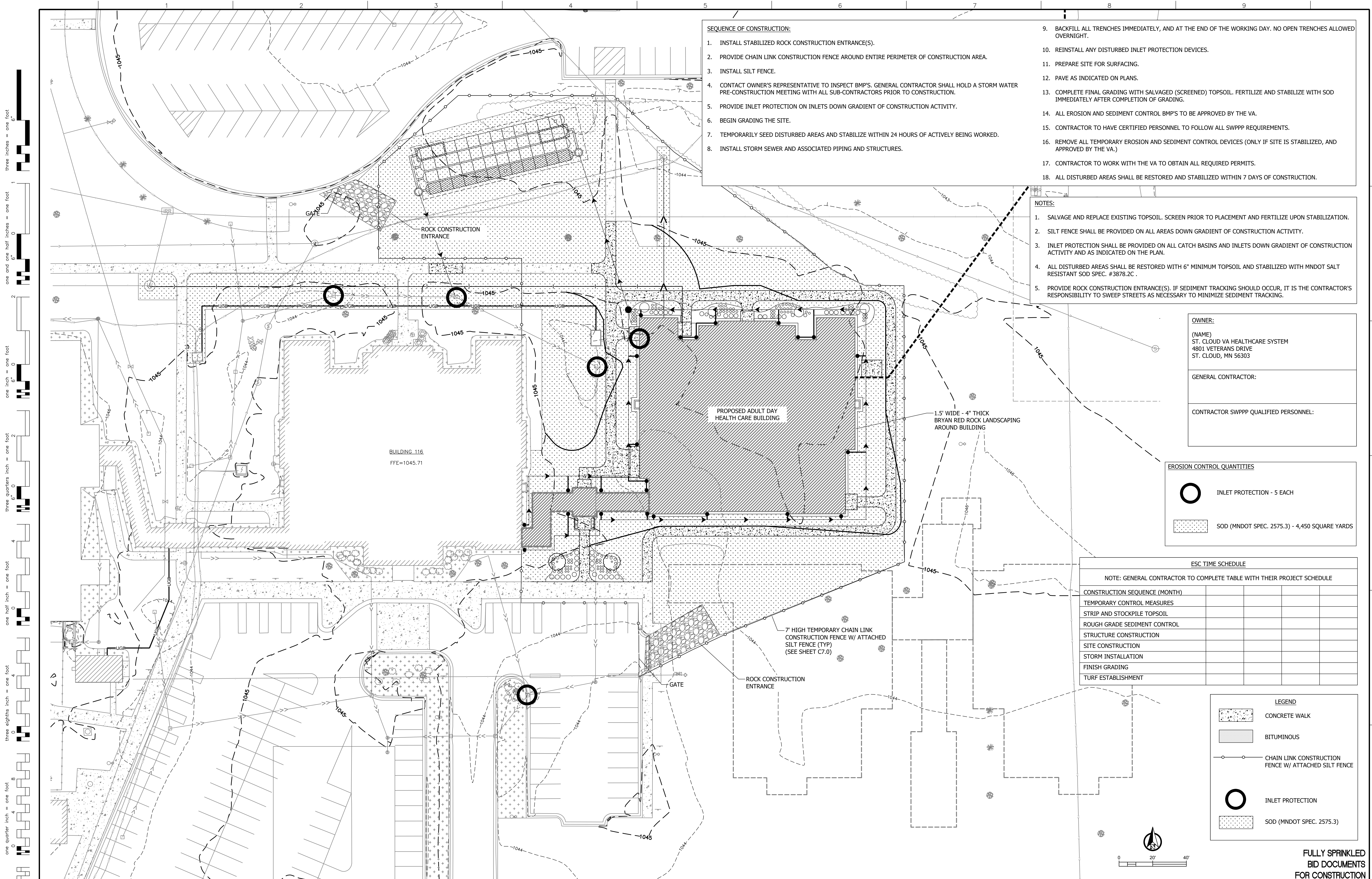
GRADING LEGEND

- - - - - = EXISTING MAJOR CONTOUR
- - - - - = EXISTING MINOR CONTOUR
- - - - - = EXISTING CONTOUR LABEL
- - - - - = PROPOSED MAJOR CONTOUR
- - - - - = PROPOSED MINOR CONTOUR
- - - - - = PROPOSED CONTOUR LABEL
- XXXXXX = EXISTING SPOT ELEVATION*
- XXXXXX = PROPOSED SPOT ELEVATION*
- XXXXXXC = PROPOSED SPOT ELEVATION AT TOP OF SIDEWALK OR BACK OF CURB
- = SURFACE FLOW DIRECTION

*SPOT ELEVATIONS ALONG CURB & GUTTER AND OTHER REVEALS ARE TO FLOWLINE, UNLESS OTHERWISE NOTED.

three quarters inch = one foot
 one half inch = one foot
 one inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 one sixteenth inch = one foot

<p>ADDDENDUM 1 - BID AND CONSTRUCTION DOCUMENTS 05/29/20</p> <p>Revisions: _____</p>		<p>CONSULTANTS:</p> <p>DESIGN TREE engineering + land surveying St. Cloud Alexandria Rogers 320-217-5557</p>		<p>ARCHITECT/ENGINEERS:</p> <p>paradigm Architecture Engineering Design-Build 200 Envoy Circle #201, Louisville KY 40299 - PH: 502.339.8511 - www.paradigmusa.com</p>		<p>I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.</p> <p><i>Jerry E. Anderson</i> JERRY E. ANDERSON DATE: 12/27/2019 LICENSE #: 4123</p>		<p>Drawing Title PROPOSED GRADING PLAN</p> <p>Approved Project Director</p>		<p>Project Title ST CLOUD ADH AND EC SUPPORT</p> <p>Location ST CLOUD VA HEALTH CARE SYSTEM 4801 VETERANS DRIVE, ST. CLOUD MN 56303</p> <p>Date 12-27-2019 Checked JEA Drawn RJK</p>		<p>Project Number 656-343</p> <p>Building Number ---</p> <p>Drawing Number C5.0</p>		<p>Office of Construction and Facilities Management</p>	
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- SEQUENCE OF CONSTRUCTION:**
1. INSTALL STABILIZED ROCK CONSTRUCTION ENTRANCE(S).
 2. PROVIDE CHAIN LINK CONSTRUCTION FENCE AROUND ENTIRE PERIMETER OF CONSTRUCTION AREA.
 3. INSTALL SILT FENCE.
 4. CONTACT OWNER'S REPRESENTATIVE TO INSPECT BMP'S. GENERAL CONTRACTOR SHALL HOLD A STORM WATER PRE-CONSTRUCTION MEETING WITH ALL SUB-CONTRACTORS PRIOR TO CONSTRUCTION.
 5. PROVIDE INLET PROTECTION ON INLETS DOWN GRADIENT OF CONSTRUCTION ACTIVITY.
 6. BEGIN GRADING THE SITE.
 7. TEMPORARILY SEED DISTURBED AREAS AND STABILIZE WITHIN 24 HOURS OF ACTIVELY BEING WORKED.
 8. INSTALL STORM SEWER AND ASSOCIATED PIPING AND STRUCTURES.

9. BACKFILL ALL TRENCHES IMMEDIATELY, AND AT THE END OF THE WORKING DAY. NO OPEN TRENCHES ALLOWED OVERNIGHT.
10. REINSTALL ANY DISTURBED INLET PROTECTION DEVICES.
11. PREPARE SITE FOR SURFACING.
12. PAVE AS INDICATED ON PLANS.
13. COMPLETE FINAL GRADING WITH SALVAGED (SCREENED) TOPSOIL. FERTILIZE AND STABILIZE WITH SOD IMMEDIATELY AFTER COMPLETION OF GRADING.
14. ALL EROSION AND SEDIMENT CONTROL BMP'S TO BE APPROVED BY THE VA.
15. CONTRACTOR TO HAVE CERTIFIED PERSONNEL TO FOLLOW ALL SWPPP REQUIREMENTS.
16. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED, AND APPROVED BY THE VA.)
17. CONTRACTOR TO WORK WITH THE VA TO OBTAIN ALL REQUIRED PERMITS.
18. ALL DISTURBED AREAS SHALL BE RESTORED AND STABILIZED WITHIN 7 DAYS OF CONSTRUCTION.

- NOTES:**
1. SALVAGE AND REPLACE EXISTING TOPSOIL. SCREEN PRIOR TO PLACEMENT AND FERTILIZE UPON STABILIZATION.
 2. SILT FENCE SHALL BE PROVIDED ON ALL AREAS DOWN GRADIENT OF CONSTRUCTION ACTIVITY.
 3. INLET PROTECTION SHALL BE PROVIDED ON ALL CATCH BASINS AND INLETS DOWN GRADIENT OF CONSTRUCTION ACTIVITY AND AS INDICATED ON THE PLAN.
 4. ALL DISTURBED AREAS SHALL BE RESTORED WITH 6" MINIMUM TOPSOIL AND STABILIZED WITH MNDOT SALT RESISTANT SOD SPEC. #3878.2C.
 5. PROVIDE ROCK CONSTRUCTION ENTRANCE(S). IF SEDIMENT TRACKING SHOULD OCCUR, IT IS THE CONTRACTOR'S RESPONSIBILITY TO SWEEP STREETS AS NECESSARY TO MINIMIZE SEDIMENT TRACKING.

OWNER:
 (NAME)
 ST. CLOUD VA HEALTHCARE SYSTEM
 4801 VETERANS DRIVE
 ST. CLOUD, MN 56303

GENERAL CONTRACTOR:

CONTRACTOR SWPPP QUALIFIED PERSONNEL:

EROSION CONTROL QUANTITIES

- INLET PROTECTION - 5 EACH
- SOD (MNDOT SPEC. 2575.3) - 4,450 SQUARE YARDS

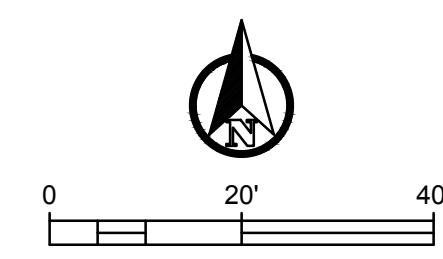
ESC TIME SCHEDULE

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR PROJECT SCHEDULE

CONSTRUCTION SEQUENCE (MONTH)					
TEMPORARY CONTROL MEASURES					
STRIP AND STOCKPILE TOPSOIL					
ROUGH GRADE SEDIMENT CONTROL					
STRUCTURE CONSTRUCTION					
SITE CONSTRUCTION					
STORM INSTALLATION					
FINISH GRADING					
TURF ESTABLISHMENT					

LEGEND

- CONCRETE WALK
- BITUMINOUS
- CHAIN LINK CONSTRUCTION FENCE W/ ATTACHED SILT FENCE
- INLET PROTECTION
- SOD (MNDOT SPEC. 2575.3)



FULLY SPRINKLED
 BID DOCUMENTS
 FOR CONSTRUCTION

ADDDENDUM 1 - BID AND CONSTRUCTION DOCUMENTS 05/29/20

Revisions	Date

CONSULTANTS:

DESIGN TREE
 engineering + land surveying

St. Cloud | Alexandria | Rogers
 320-217-5557

ARCHITECT/ENGINEERS:

paradigm
 Architecture | Engineering | Design-Build

200 Envoy Circle #201, Louisville KY 40299 - PH: 502.339.8511 - www.paradigmusa.com

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Signature
 JERRY E. ANDERSON
 DATE: 12/27/2019 LICENSE #: 4123

Drawing Title
 EROSION CONTROL PLAN

Approved Project Director

Project Title
 ST CLOUD ADH AND EC SUPPORT

Project Number
 656-343

Building Number

Location
 ST CLOUD VA HEALTH CARE SYSTEM
 4801 VETERANS DRIVE, ST. CLOUD MN 56303

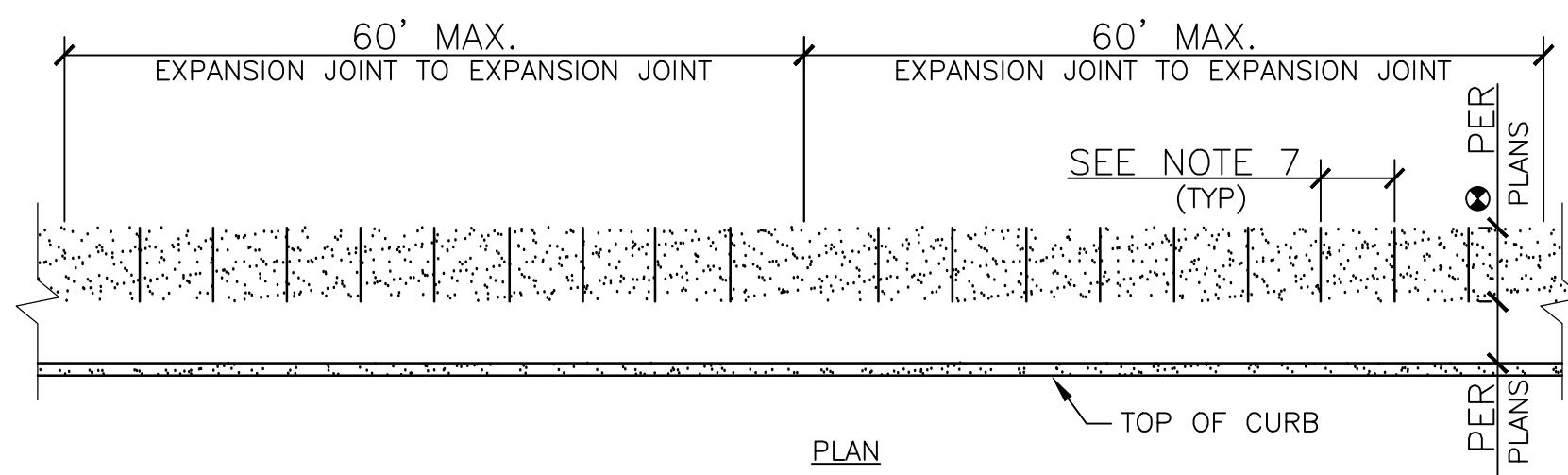
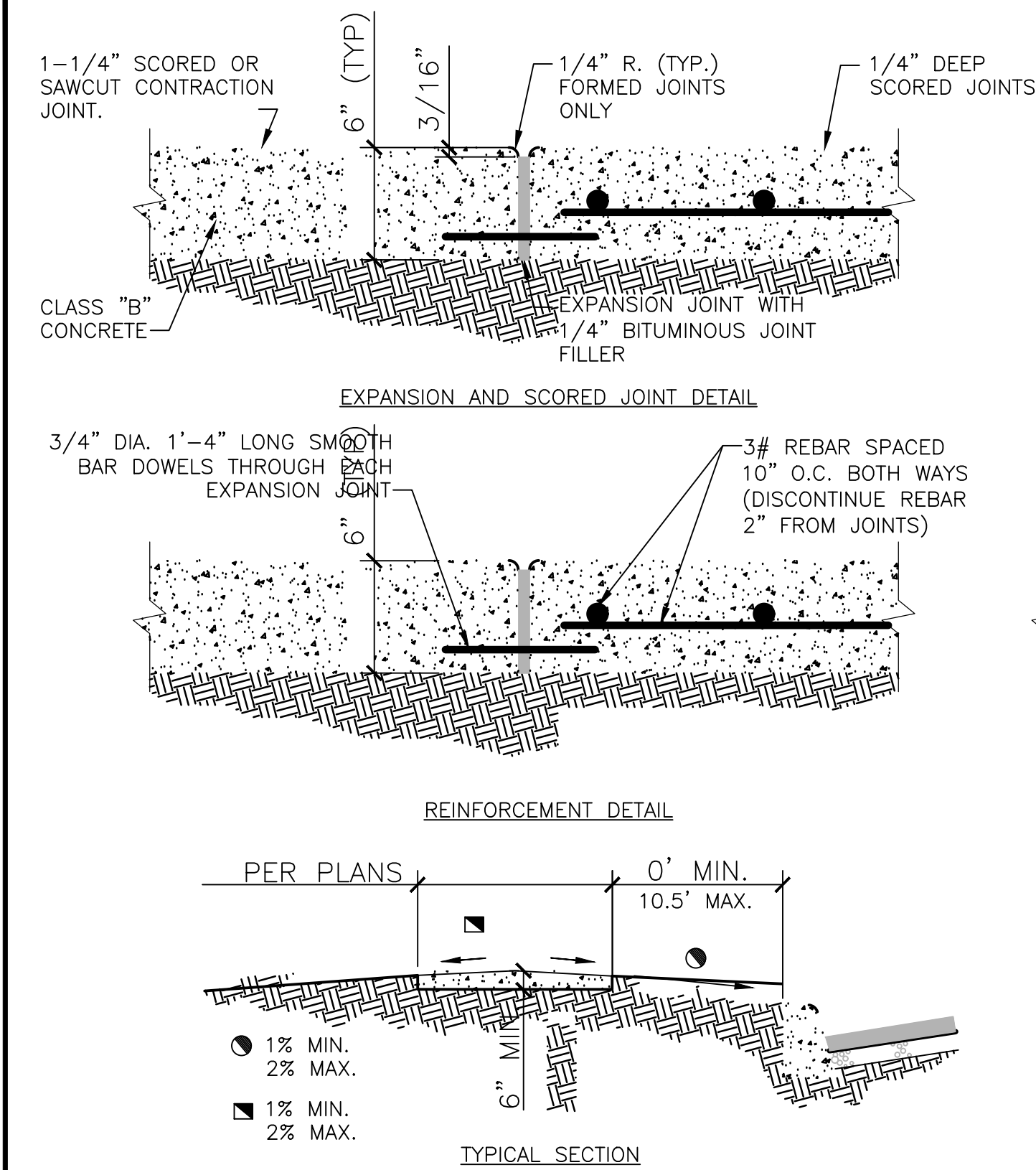
Date
 12-27-2019

Checked
 JEA

Drawn
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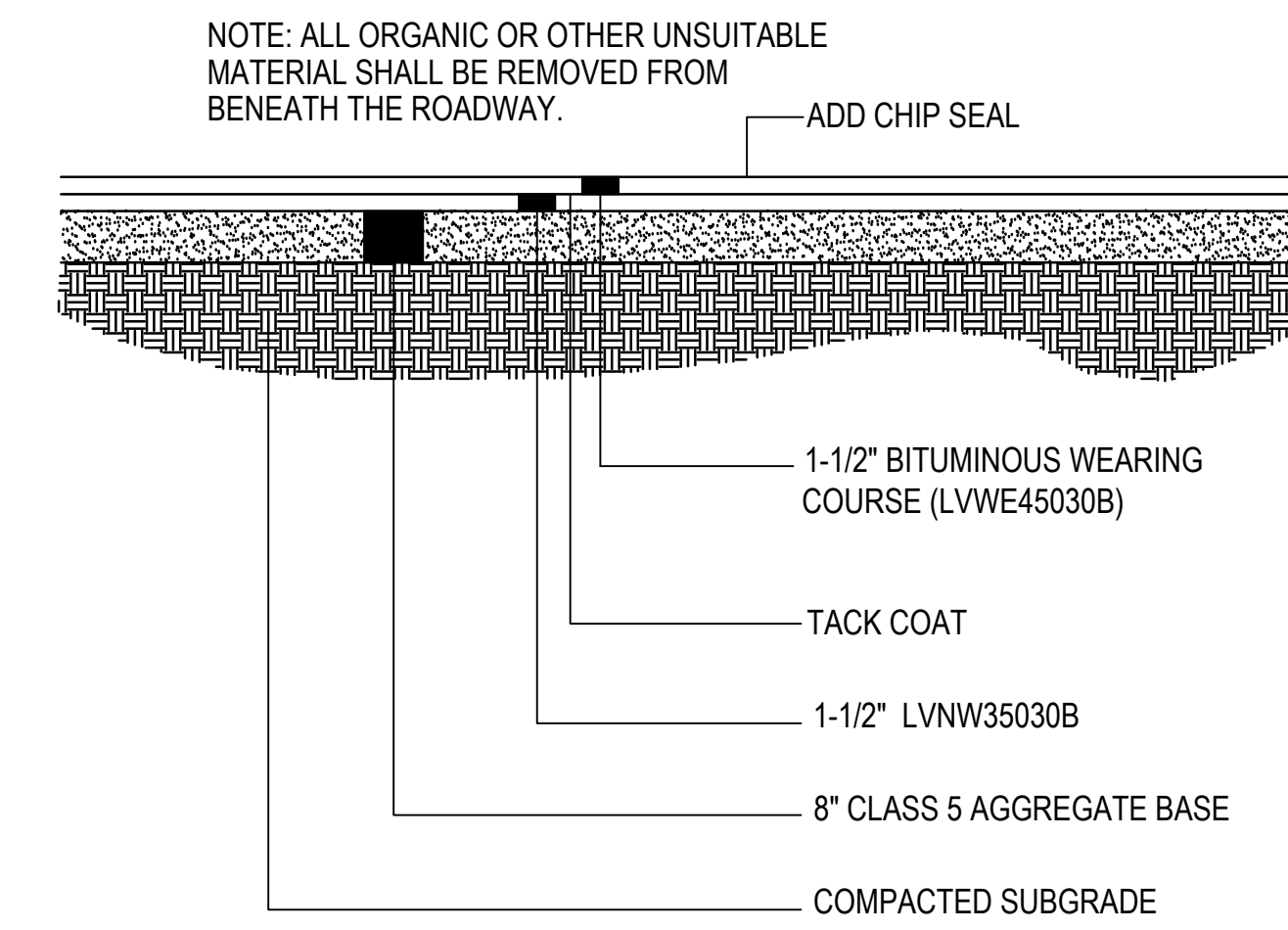
Drawing Number
 C6.0

Office of Construction and Facilities Management

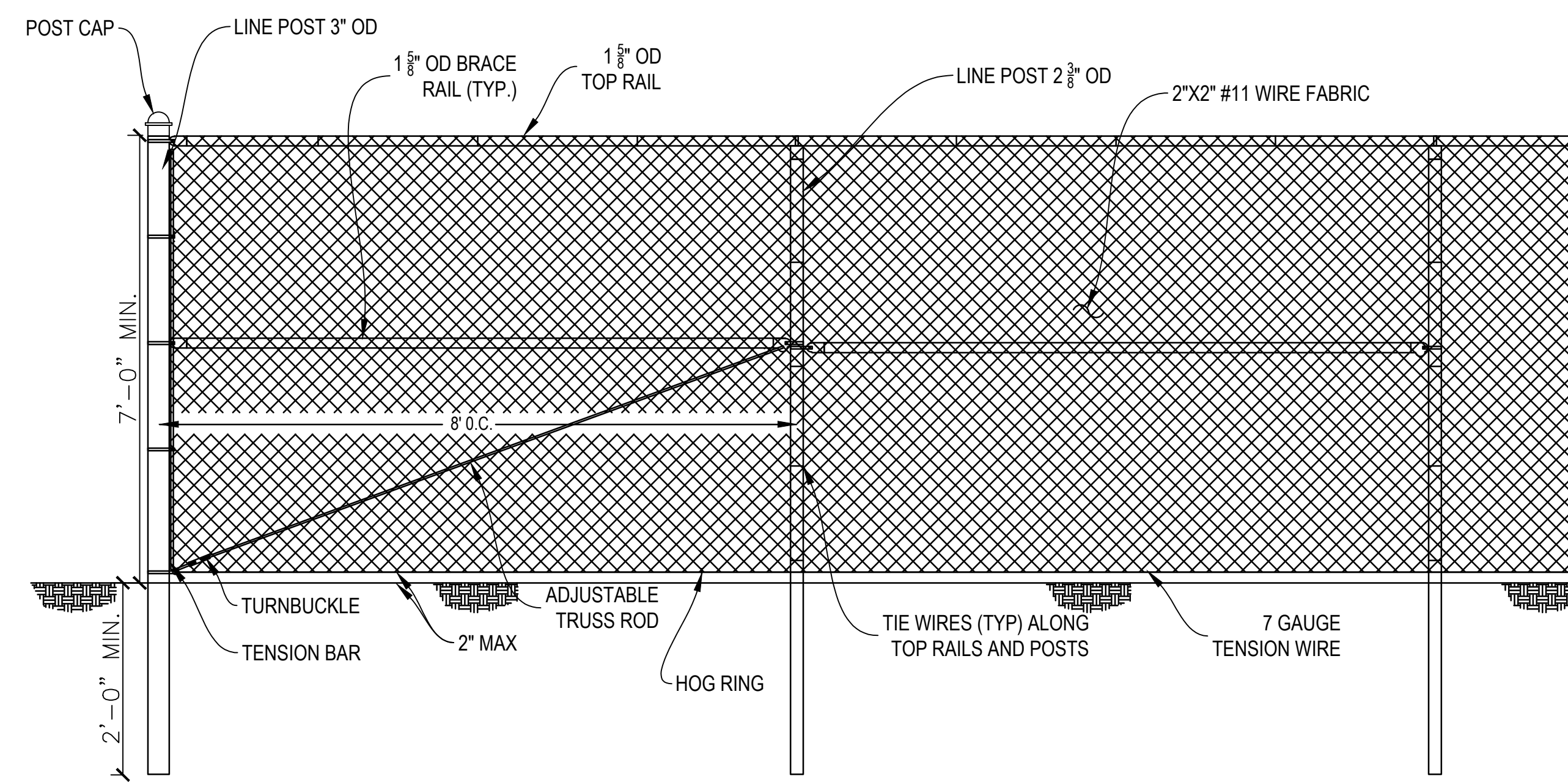


- NOTES:**
- EXPANSION JOINTS SHALL BE LOCATED WHERE SIDEWALK ABUTS CONCRETE DRIVEWAYS, CURB OR OTHER ADJACENT STRUCTURES.
 - ONE-HALF INCH BITUMINOUS JOINT FILLER SHALL BE INSTALLED AT EXPANSION JOINT LOCATIONS AND SHALL EXTEND THE FULL DEPTH OF THE CONCRETE.
 - 1-1/4" DEEP CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF APPROXIMATELY 12' OR AT A SPACING THAT MATCHES THE ADJACENT CURB.
 - FORMED CONTRACTION JOINTS SHALL BE FINISHED WITH A TOOL HAVING A 1/4" [6mm] RADIUS.
 - SCORED JOINTS SHALL BE 1/4" [6mm] DEEP AND PLACED AT THE SPACING INDICATED FOR THE WIDTH OF SIDEWALK OR MATCH SCORED JOINTS OF ADJACENT CURB.
 - CONCRETE SHALL BE FINISHED BY MEANS OF A FLOAT, STEEL TROWELLED AND BROOMED WITH A FINE BRUSH IN A TRANSVERSE DIRECTION.
 - 1/4" DEEP SCORED JOINTS (TYP) SPACED AT 6' [1829mm] OR EQUAL TO SIDEWALK WIDTH.

1 CONCRETE SIDEWALK
NTS



2 TYPICAL BITUMINOUS REPAIR SECTION
NTS



- NOTES:**
- ALL FENCE FABRIC, POSTS AND HARDWARE SHALL HAVE A GALVANIZED FINISH CONFORMING TO ASTM A153 OR 120/123.

3 7' TEMPORARY CHAIN LINK CONSTRUCTION FENCE DETAIL
NTS

FULLY SPRINKLED
BID DOCUMENTS
FOR CONSTRUCTION

ADDENDUM 1 - BID AND CONSTRUCTION DOCUMENTS	05/29/20
Revisions:	Date

CONSULTANTS:

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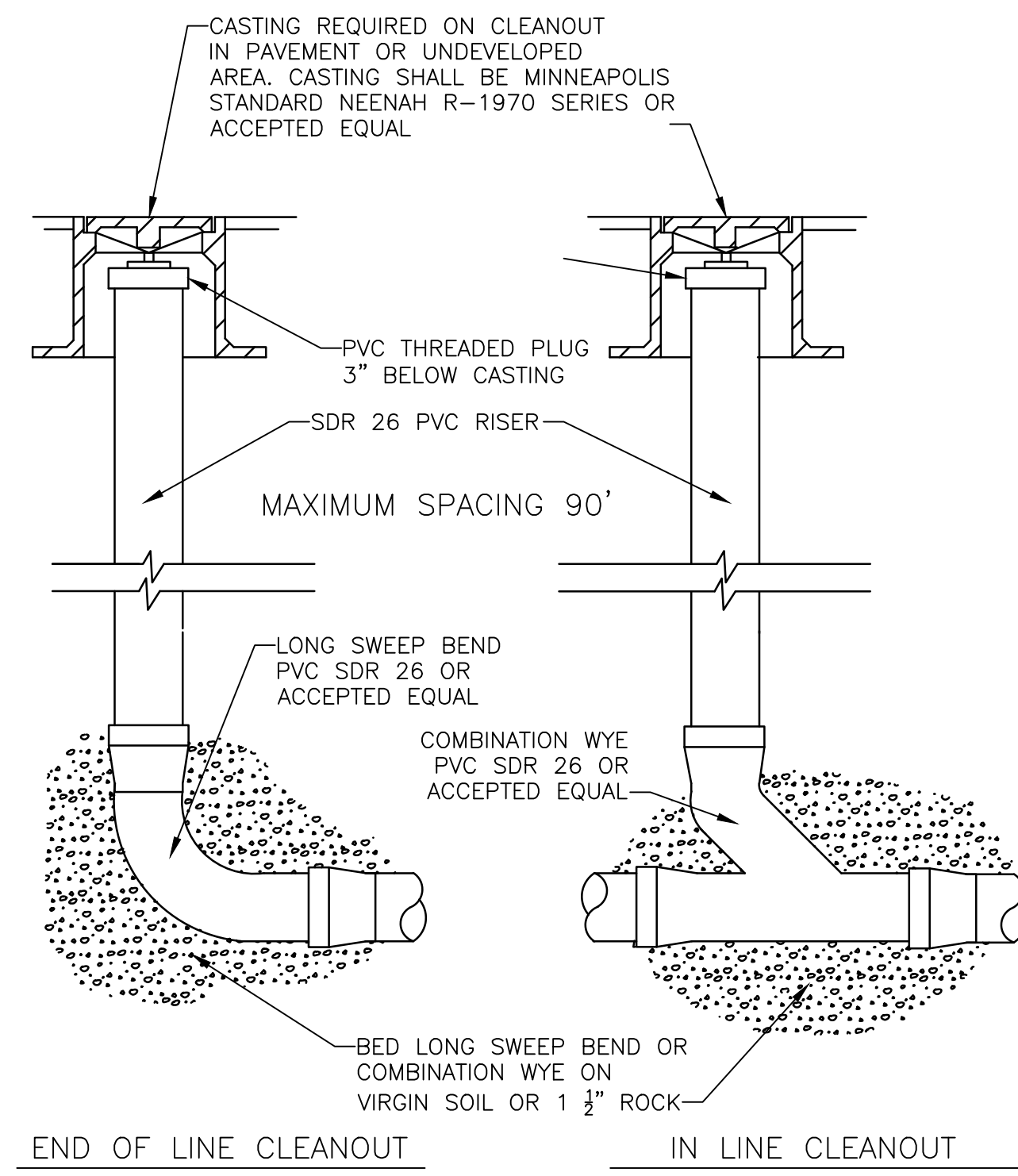
Signature
JERRY E. ANDERSON
DATE: 12/27/2019 LICENSE #: 41223

Drawing Title	CIVIL DETAILS
Approved Project Director	

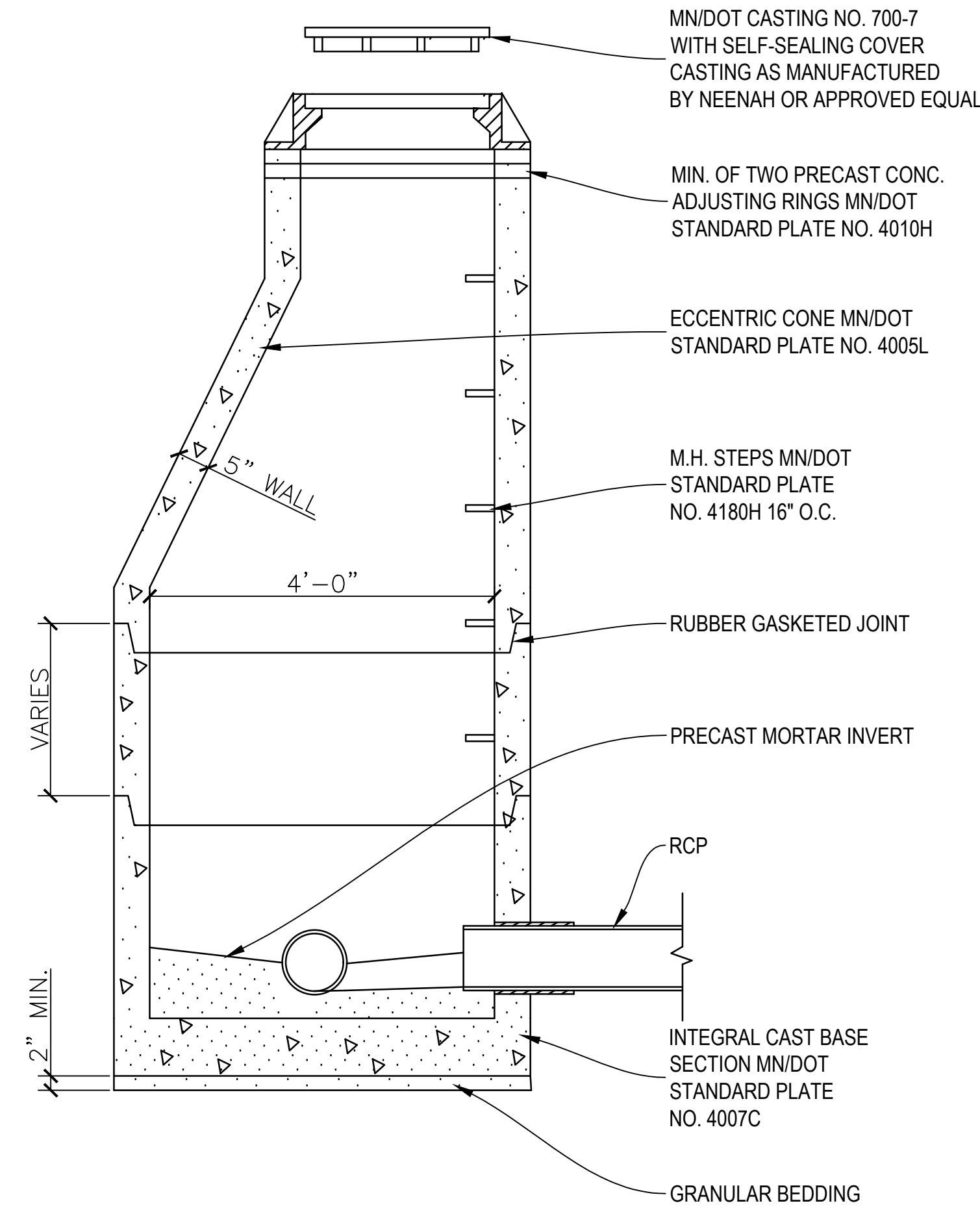
Project Title	ST CLOUD ADH AND EC SUPPORT
Location	ST CLOUD VA HEALTH CARE SYSTEM 4801 VETERANS DRIVE, ST. CLOUD MN 56303
Date	12-27-2019
Checked	JEA
Drawn	RJK

Project Number	656-343
Building Number	---
Drawing Number	C7.0

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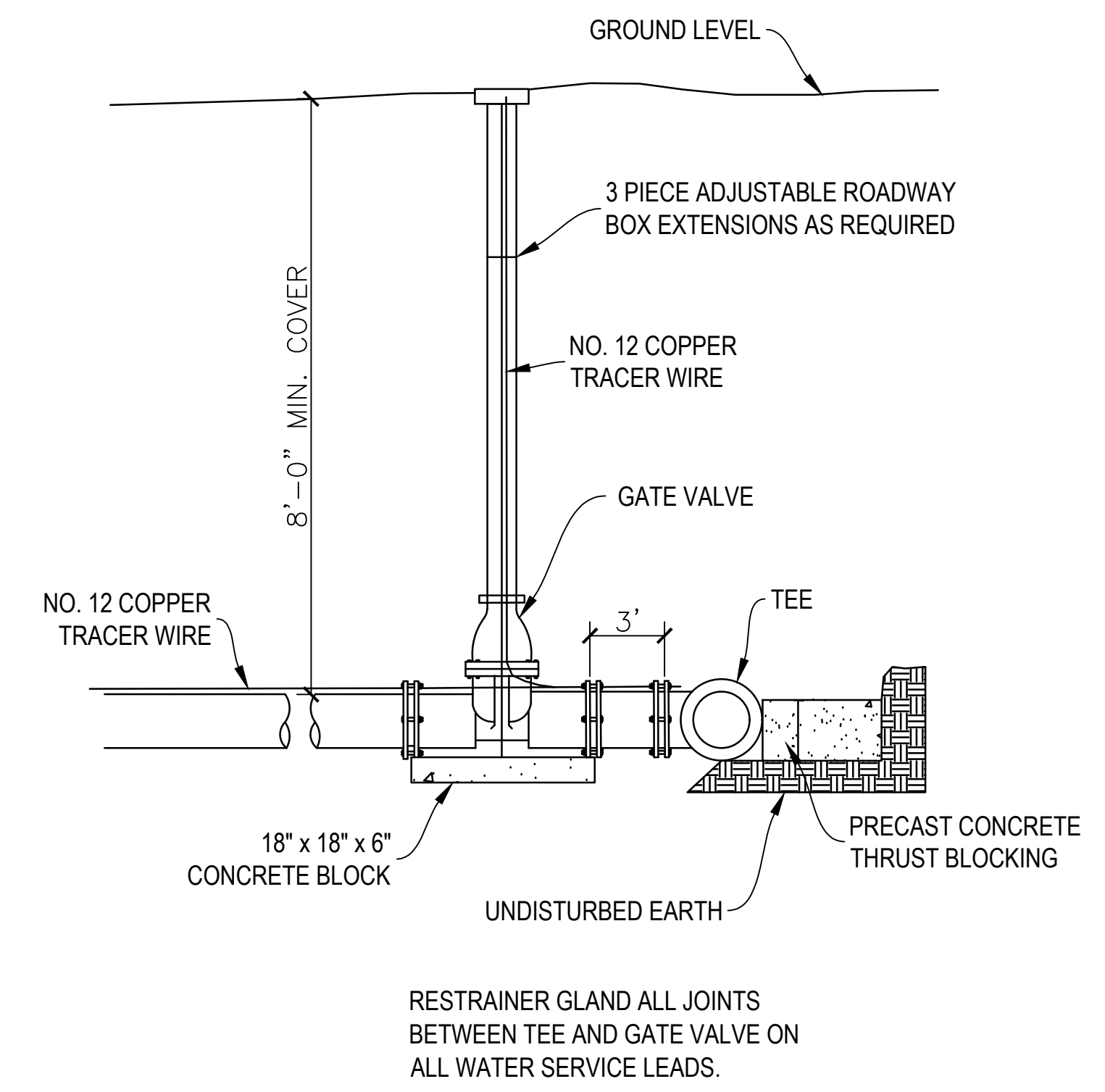


4 CLEANOUT CASING
NTS



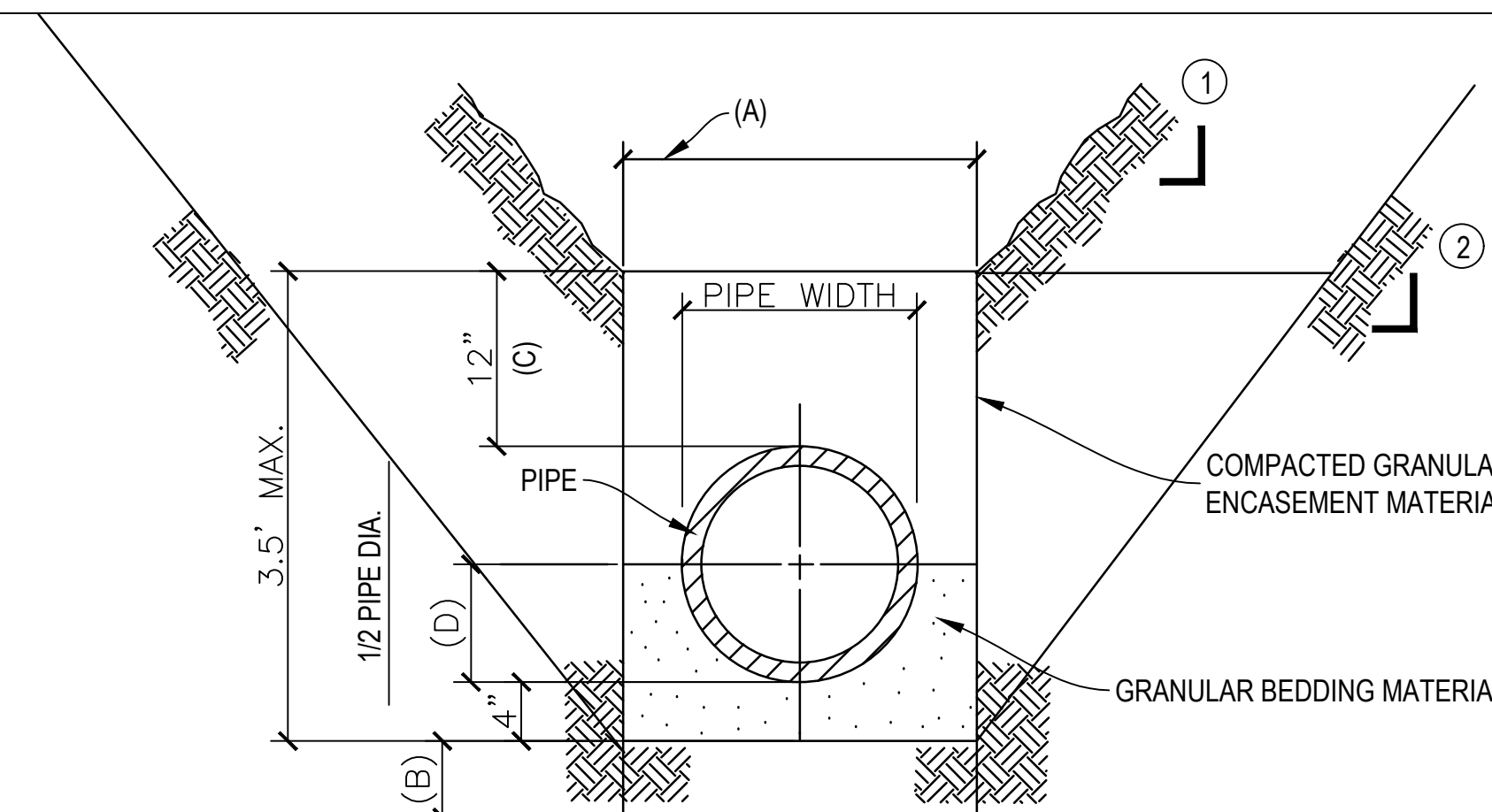
NOTE:
1. USE METAL SHIMS ONLY AT ADJUSTING RINGS WHEN LEVELING.

5 STANDARD DESIGN 'F' STORM MANHOLE
NTS



RESTRAINER GLAND ALL JOINTS BETWEEN TEE AND GATE VALVE ON ALL WATER SERVICE LEADS.

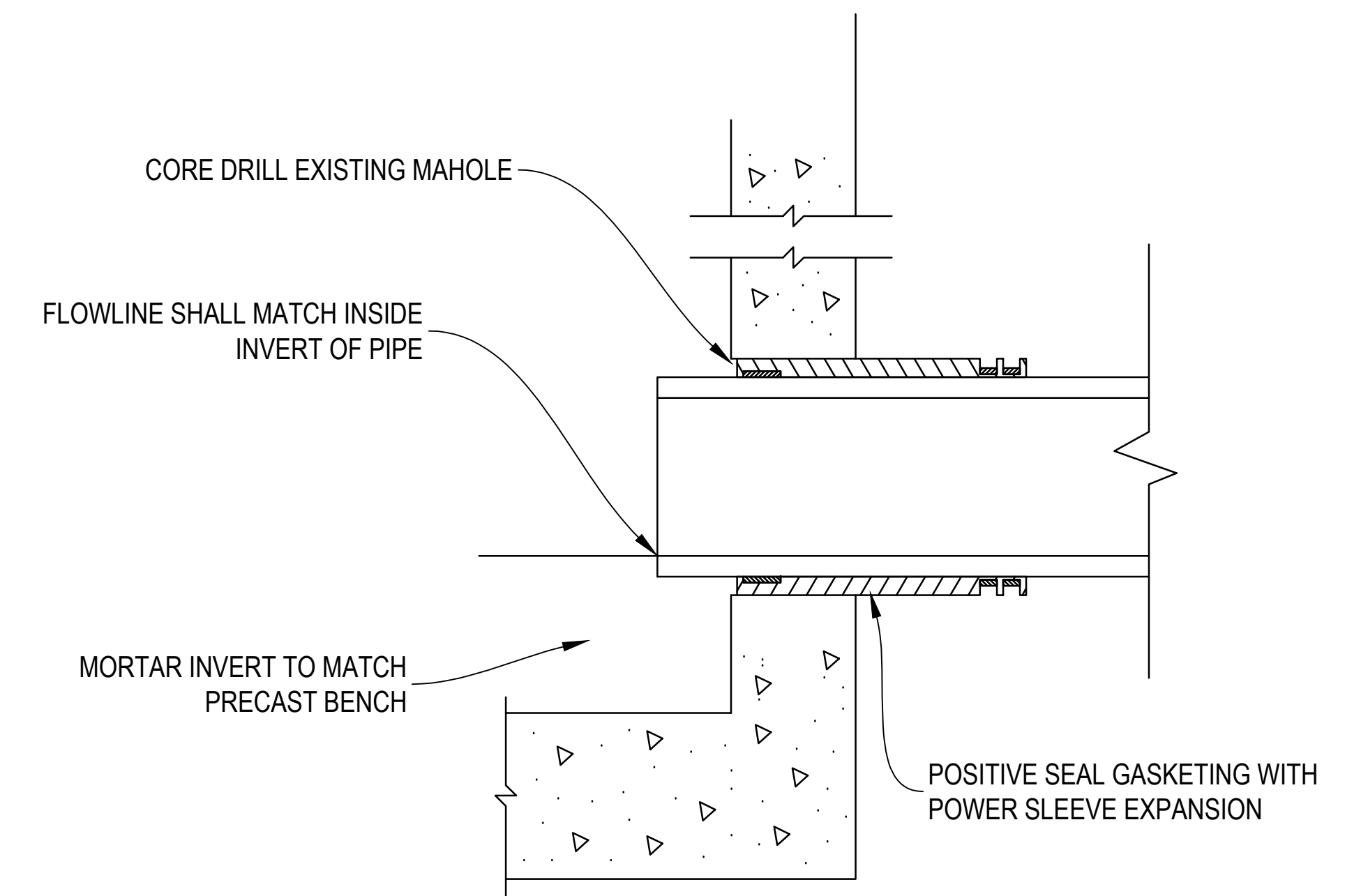
6 WATER SERVICE CONNECTION DETAIL
NTS



NOTES:
THIS DETAIL APPLIES TO SANITARY SEWER, STORM SEWER, WATERMAIN, AND ALL SERVICE PIPES.

- ① 0-12' DEPTH TRENCH SLOPE DEPENDS ON SOIL TYPE.
 - ② 12-20' DEPTH TRENCH SLOPE DEPENDS ON SOIL TYPE.
 - ③ 0-20' DEPTH TRENCH SUPPORT OR SHIELD SYSTEM CAN BE UTILIZED TO REDUCE TRENCH WIDTH.
 - ④ 20' OR GREATER DEPTH TRENCH EXCAVATION MUST BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER. CONTRACTOR SHALL HAVE THE DESIGN COMPLETED AT HIS EXPENSE AND PROVIDE A COPY TO THE OWNER AND THE PROJECT ENGINEER.
- (A) MINIMUM TRENCH WIDTH SHALL ALLOW FOR SIX INCHES OF CLEARANCE ON EACH SIDE OF PIPE JOINT HUB.
- (B) THE TRENCH MAY BE OVEREXCAVATED A MIN. OF 6\"/>

7 TYPICAL PIPE BEDDING DETAIL
NTS



8 CORE DRILL TO EXISTING MANHOLE DETAIL
NTS

FULLY SPRINKLED
BID DOCUMENTS
FOR CONSTRUCTION

CONSULTANTS:



ARCHITECT/ENGINEERS:



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PRINTED BY: JERRY E. ANDERSON
DATE: 12/27/2019 LICENSE #: 4123

Drawing Title
CIVIL DETAILS

Approved Project Director

Project Title
ST CLOUD ADH AND EC SUPPORT

Location ST CLOUD VA HEALTH CARE SYSTEM
4801 VETERANS DRIVE, ST. CLOUD MN 56303

Date
12-27-2019

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JEA

Drawn
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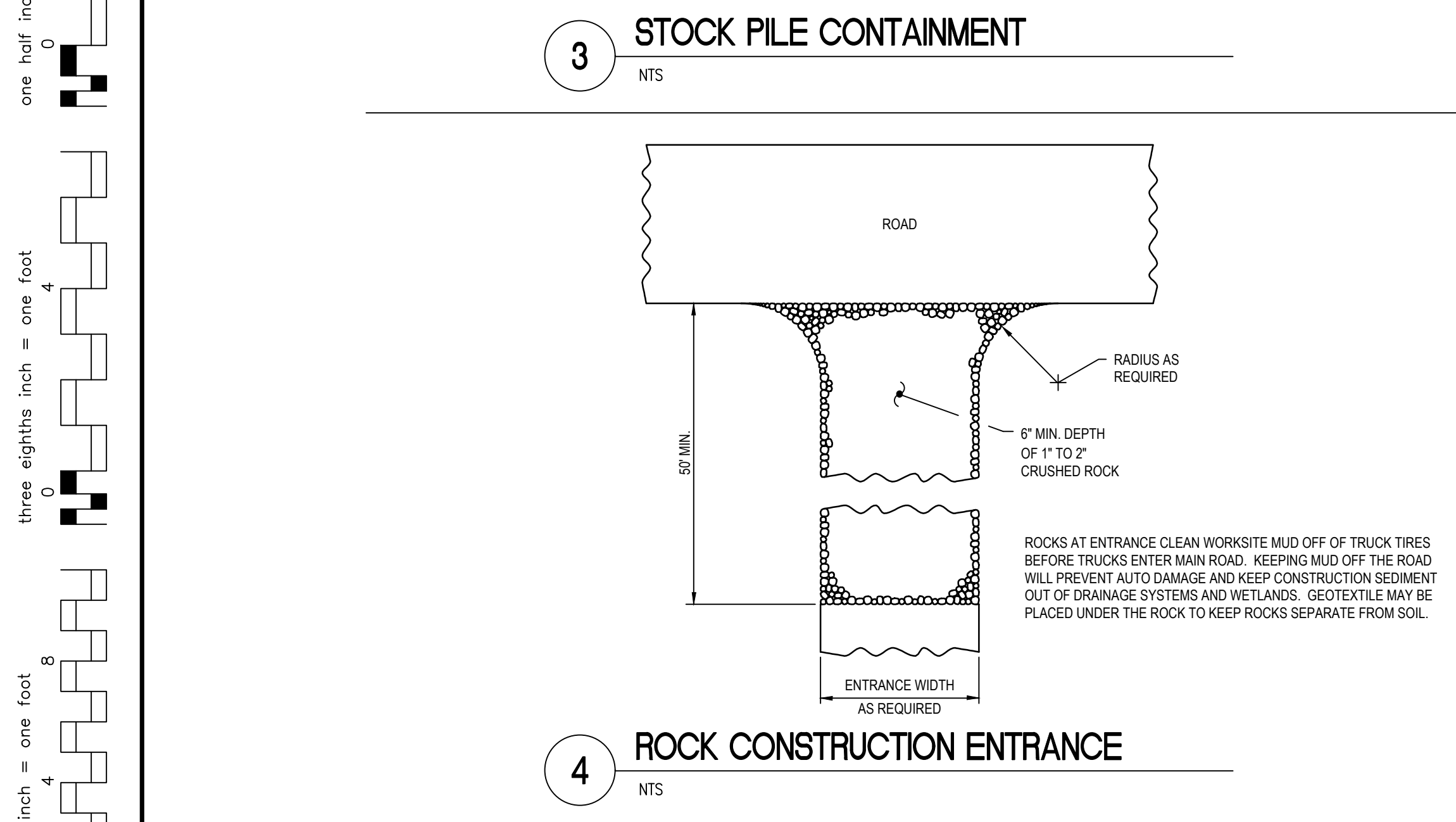
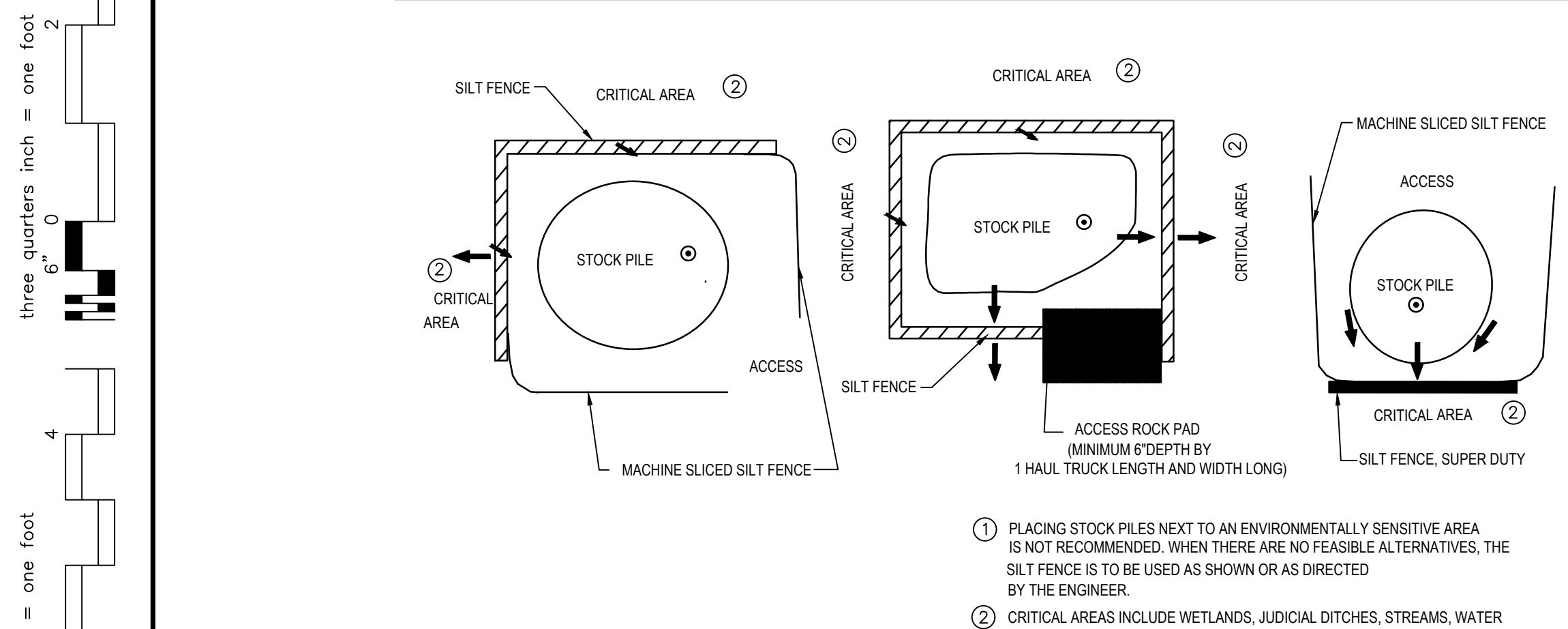
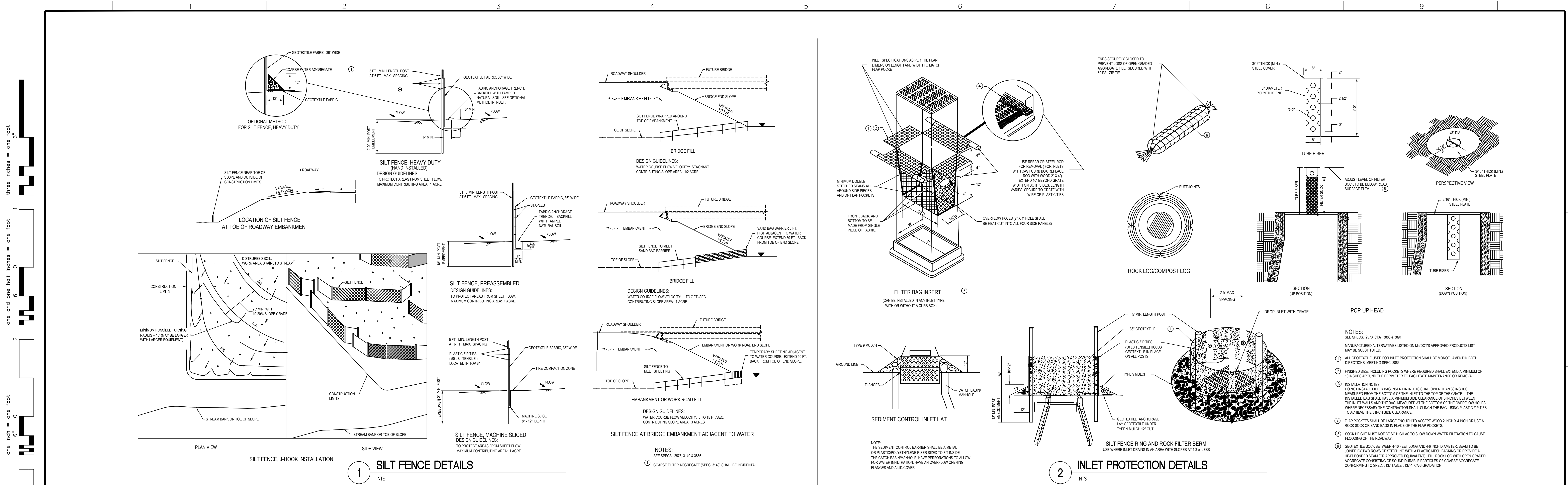
Project Number
656-343

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Drawing Number
C7.1

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Scale indicators on the left margin: three inches = one foot, one and one half inches = one foot, one inch = one foot, three quarters inch = one foot, one half inch = one foot, one quarter inch = one foot, three eighths inch = one foot, one eighth inch = one foot.



- EROSION NOTES**
- CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE CODES AND BE CONSTRUCTED AS SUCH, WHERE A CONFLICT EXISTS BETWEEN LOCAL JURISDICTIONS STANDARD SPECIFICATIONS AND DESIGN TREE ENGINEERING STANDARD SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY.
 - THE CONTRACTOR IS CAUTIONED THAT THE LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND THE VA. THE SUBSURFACE UTILITY INFORMATION SHOWN IS LEVEL D. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES. THE LOCATIONS OF UTILITIES SHALL BE OBTAINED BY CALLING MINNESOTA GOPHER STATE ONE CALL AND THE VA.
 - THE DESIGN SHOWN IS BASED UPON THE ENGINEERS UNDERSTANDING OF THE EXISTING CONDITIONS. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY, IT WILL BE CONTRACTORS RESPONSIBILITY AND EXPENSE TO HAVE TOPOGRAPHIC SURVEY DONE BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO OWNER FOR REVIEW.
 - THE CONTRACTORS SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES. CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES THAT MAY OCCUR.
 - THE SWPPP IS COMPRISED OF THE EROSION AND SEDIMENT CONTROL PLAN, THE STANDARD DETAILS, THE SWPPP NARRATIVE, PLUS THE PERMIT AND ALL RELATED DOCUMENTS.
 - THE CONTRACTOR SHALL ASSIST THE VA IN COMPLETING AND SUBMITTING THE APPLICATION FOR THE MPCA GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE SWPPP AND NPDES PERMIT AND BECOME FAMILIAR WITH THEIR CONTENTS. THE SWPPP AND ALL OTHER RELATED DOCUMENTS MUST BE KEPT ON SITE DURING CONSTRUCTION. CONTRACTOR MUST PROVIDE CERTIFIED PERSONNEL FOR SWPPP RECORDS.
 - CONTRACTOR SHALL IMPLEMENT BMP'S AS REQUIRED BY THE SWPPP AND PERMITS. THE CONTRACTOR SHALL OVERSEE THE INSPECTION AND MAINTENANCE OF THE BMP'S AND EROSION AND SEDIMENT PREVENTION FROM BEGINNING OF CONSTRUCTION TO COMPLETION OF CONSTRUCTION, AND NOTICE OF COMPLETION HAS BEEN FILED WITH THE MPCA BY EITHER THE OWNER OR THE OPERATOR ON THE PERMIT. ADDITIONAL BMP'S AND MAINTENANCE SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
 - BMP'S SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
 - ESC PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
 - THE CONTRACTOR SHALL MINIMIZE CLEARING AS REQUIRED BY THE GENERAL PERMIT. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY DELINEATED ON THE SITE BEFORE WORK BEGINS.

- GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AREA, EMPLOYEE PARKING AREA, AND AREA FOR PORTABLE FACILITIES. NO VEHICLE CLEANING ALLOWED ON SITE.
- NO TRUCK WASHOUT ALLOWED ON SITE.
- SUFFICIENT OIL AND GREASE ABSORBING MATERIALS SHALL BE MAINTAINED ON SITE AND READILY AVAILABLE FOR USE.
- DUST ON THE SITE SHALL BE CONTROLLED.
- SOLID WASTE: CONSTRUCTION WASTE MUST BE DISPOSED OF PROPERLY, AND COMPLY WITH MPCA REQUIREMENTS.
- HAZARDOUS MATERIALS MUST BE PROPERLY STORED IN CONTAINERS, AND PROTECTED FROM ELEMENTS.
- THE CONTRACTOR SHALL INCLUDE SECONDARY CONTAINMENT FOR HAZARDOUS MATERIALS PER OSHA REQUIREMENTS.
- ALL STORM WATER POLLUTION PREVENTION MEASURES ON THIS PLAN, AND IN THE SWPPP, MUST BE INITIATED PRIOR TO ANY SITE WORK.
- DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED SHALL BE TEMPORARILY SEEDED. SEEDING WILL BE IN ACCORDANCE WITH MNDOT SPEC. 2575.
- DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY ESTABLISHED.
- CONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM CONVEYANCES AND FROM TEMPORARY SEDIMENT BASINS.
- ON AND OFF SITE SOIL STOCK PILES AND BORROW AREAS SHALL BE PROTECTED WITH BMP'S.
- TEMPORARY STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT AND EROSION CONTROLS.
- SLOPES SHALL BE LEFT IN A ROUGH CONDITION TO HELP ELIMINATE RILLING.
- DUE TO GRADE CHANGES DURING THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE ESC MEASURES TO PREVENT EROSION AND SEDIMENTATION.
- ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH DAY. THIS INCLUDES BACKFILLING OF TRENCHES AND PLACEMENT OF GRAVEL OR BITUMINOUS.
- NO STOCKPILE OF MATERIALS NOT TO BE USED ON SITE.
- ALL EXCESS MATERIALS TO BE REMOVED FROM SITE DAILY.
- NO CONCRETE WASHOUT ALLOWED ON VA PROPERTY - TRUCKS TO BE TAKEN OFF SITE.

- MAINTENANCE**
- ALL MEASURES STATED ON THIS ESC PLAN, AND IN THE SWPPP SHALL BE MAINTAINED UNTIL NO LONGER REQUIRED. ALL ESC MEASURES SHALL BE CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
- ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION MUST BE PROTECTED BY BMP'S UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.
 - ALL SODDED AREAS SHALL BE CHECKED TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE WATERED AND FERTILIZED AS NEEDED.
 - SILT FENCE SHALL BE REPAIRED OR REPLACED TO ORIGINAL CONDITION BY THE CONTRACTOR IF DAMAGED. SEDIMENT MUST BE REMOVED WHEN IT REACHES ONE THIRD THE HEIGHT OF THE SILT FENCE. THIS WORK MUST BE DONE WITHIN 24 HOURS OF DISCOVERY.
 - VEHICLE TRACKING OF SEDIMENT FROM THE CONSTRUCTION SITE MUST BE MINIMIZED BY BMP'S. STREET SWEEPING MUST BE USED IF BMP'S ARE NOT ADEQUATE TO PREVENT TRACKING. TRACED SEDIMENT MUST BE REMOVED WITHIN 24 HOURS.
 - THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION.
- SITE STAGING**
- CONTRACTOR TO PROVIDE A FINALIZED PLAN FOR VA APPROVAL SHOWING PARKING, STAGING, CONSTRUCTION FENCES, AND STORAGE AREAS PRIOR TO ANY WORK TAKING PLACE.
 - CONTRACTOR PARKING, STORAGE, AND INITIAL STAGING CAN BE LOCATED EAST OF BUILDING 96 AS SHOWN ON THE DRAWINGS.
 - MAINTAIN STAFF AND PATIENT ACCESS TO ALL BUILDINGS.
 - WORK TO BE DONE IN STREETS MUST BE APPROVED BY VA STAFF. WORK MUST BE DONE BETWEEN THE HOURS OF 6:00 PM AND 6:00 AM. ROADS MUST BE OPENED TO TRAFFIC BY 6:00 AM THE FOLLOWING DAY. CONTRACTOR MUST PROVIDE A TRAFFIC CONTROL AND DETOUR PLAN TO VA. ALL EMERGENCY SERVICES MUST BE NOTIFIED.

CONSULTANTS: DESIGN TREE engineering + land surveying St. Cloud Alexandria Rogers 320-217-5557		ARCHITECT/ENGINEERS: paradigm Architecture Engineering Design-Build 200 Envoy Circle #201, Louisville KY 40299 - PH: 502.339.8511 - www.paradigmusa.com		I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. JEREMY E. ANDERSON DATE: 12/27/2019 LICENSE #: 41223		Drawing Title EROSION CONTROL DETAILS		Project Title ST CLOUD ADH AND EC SUPPORT		Project Number 656-343		Office of Construction and Facilities Management
Approved Project Director JEA		Location ST CLOUD VA HEALTH CARE SYSTEM 4801 VETERANS DRIVE, ST. CLOUD MN 56303		Building Number ---		Building Number ---		Drawn RJK				
Date 12-27-2019		Checked JEA		Drawn RJK		Drawing Number C7.2		Revisions: ADDENDUM 1 - BID AND CONSTRUCTION DOCUMENTS 05/29/20				

STORMWATER CHAMBER SPECIFICATIONS

- 1. CHAMBERS SHALL BE STORMTECH MC-3500 OR APPROVED EQUAL.
2. CHAMBERS SHALL BE MADE FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
4. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
5. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
6. CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2797, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
7. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL, BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
a. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2797 AND BY AASHTO FOR THERMOPLASTIC.
b. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET, THE 50-YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
c. STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
8. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

- 1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURERS REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS.
STORMTECH RECOMMENDS 3 BACKFILL METHODS:
• STONESHOOTER LOCATED OFF THE CHAMBER BED
• BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
• BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HIRE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELLED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM 9" (230 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4" (20-50 mm) MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUMPLE.

NOTES FOR CONSTRUCTION EQUIPMENT

- 1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED.
• NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
• NO RUBBER-TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
• WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. FULL 30" (762 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.
USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

UNDERDRAIN DETAIL NTS, MC-3500 TECHNICAL SPECIFICATION NTS, INSERTA TEE DETAIL NTS. Includes diagrams of chamber sections and end caps, and a table of chamber specifications.

MC-3500 ISOLATOR ROW DETAIL NTS. Cross-section diagram showing the isolator row construction with labels for MC-3500 CHAMBER, MC-3500 END CAP, INSPECTION PORT, and various materials like ADS GEOSYNTHETICS and HOPE PIPE.

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
A. INSPECTION PORTS (IF PRESENT)
A.1. REMOVE LID ON NYLOPLAST INLINE DRAIN
A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
A.3. USING A FLASHLIGHT AND STADIUM ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
B. ALL ISOLATOR ROWS
B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE(S). MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY. FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE.
B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
A. A FRIED CULVERT CLEANING NOZZLE WITH REAR FACING SPRAY OF 45° (1.1 m) OR MORE IS PREFERRED
B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKLASH WATER IS CLEAN
C. VACUUM STRUCTURE SUMP AS REQUIRED
STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS, RECORD OBSERVATIONS AND ACTIONS.
STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- 1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

MC-3500 6" INSPECTION PORT DETAIL NTS. Detailed diagram of the inspection port assembly showing concrete collar, concrete slab, and various components.

MC-SERIES END CAP INSERTION DETAIL NTS

Diagram showing the end cap insertion detail for MC-series chambers, including labels for Stormtech End Cap, Manifold Stub, and Manifold Header.

PLAN ELEVATIONS & PIPE SIZES

TOP OF STONE ELEVATION: 1241.50
TOP OF CHAMBER ELEVATION: 1240.50
BOTTOM OF CHAMBER ELEVATION: 1236.75
BOTTOM OF STONE ELEVATION: 1236.00
24" HOPE INVERT INTO ISOLATOR ROW: 1237.42
12" MANIFOLD INV: 1238.92 (MAXIMUM) (TYPICAL OF ALL MANIFOLDS)
8" PVC OUTLET INV: 1240.52

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

Table with 4 columns: Material, Location, Description, and Compaction Requirements. Includes rows for AASHTO M43, Foundation Stone, and Initial Fill.

- PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED TO 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.

Diagram showing the acceptable fill materials and construction details for the chamber system, including labels for Perimeter Stone, Excavation Wall, and Subgrade Soils.

- NOTES:
1. MC-3500 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2797 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIALS, LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
5. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
7. ONCE LAYER 'C' IS PLACED, ANY SOLID MATERIAL CAN BE PLACED IN LAYER 'C' OR 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBGRADE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

Project information block containing consultant details (Design Tree), architect/engineer details (Paradigm), drawing title (Stormtech Details), project title (ST Cloud ADH and EC Support), location (ST Cloud VA Health Care System), date (12-27-2019), and other project metadata.

