

SITework FOR NEW LIQUID FERTILIZER FACILITY

LAKE CITY, FL



VAA, LLC 763.559.9100
2300 Berkshire Lane N, Suite 200 www.vaaeng.com
Plymouth, MN 55441 Project # 230384

CLIENT:



PROJECT:

NEW LIQUID
FERTILIZER FACILITY
LAKE CITY, FL

[illegible]

CERTIFICATION:

MARK D. MIELKE, PE
Registration No. 68730

This item has been digitally signed and sealed by Mark D. Mielke. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Digitally signed by Mark Mielke
Date: 2023.12.12 09:46:48 -0600

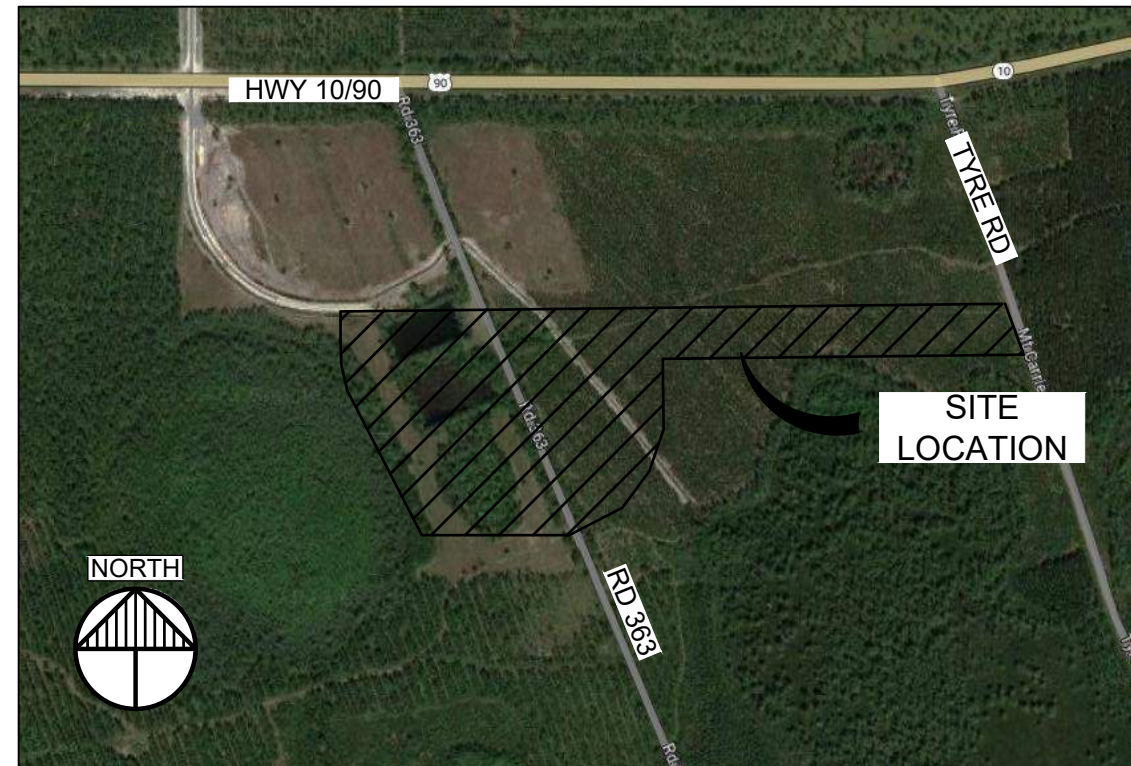
NOTICE: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, DETAILS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY OF VAA, LLC, AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALY EXPLOITED, IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.
COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

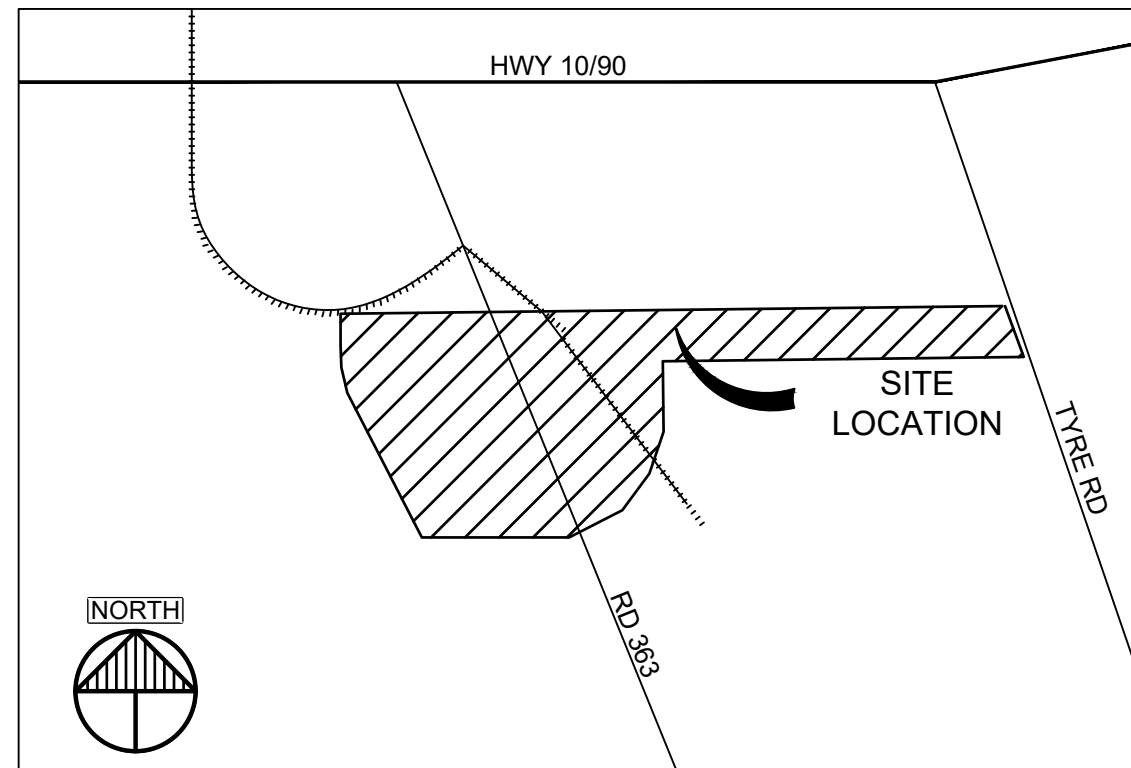
DRAWING TITLE:

TITLE SHEET AND
DRAWING INDEX

PROJECT NO: 230384	DRAWING NO: C001
SCALE: AS NOTED	



LOCATION MAP



PROJECT TEAM
OWNER:

TODD CRESSMSAN
AGROLIQUID
3055 W M-21
SAINT JOHNS, MI 48879

CONTRACTOR /
SITE MANAGER:

GREYSTONE CONSTRUCTION
2995 WINNERS CIRCLE DRIVE, SUITE 200
SHAKOPEE, MN 55379

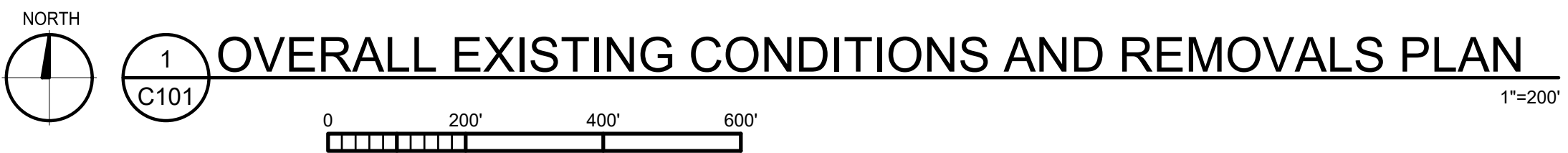
CIVIL:

VAA, LLC
2300 BERKSHIRE LANE NORTH, SUITE 200
PLYMOUTH, MN 55441
CONTACT: ALEX RAKOS
EMAIL: ARAKOS@VAAENG.COM
PHONE: (763) 559-9100

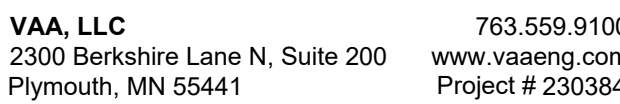
[illegible]

Date Plotted: Friday, November 03, 2023

**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**



1. ALL EXISTING INFORMATION TAKEN FROM SURVEY BY I.D. BRADLEY LAND SURVEYORS' PROJECT NUMBER 23-385, DATED 09/19/2023. EXISTING TOPOGRAPHY BASED ON LIDAR. BACKGROUND DESIGN TOPOGRAPHY BASED ON DESIGN PLANS BY MOORE BASS PROJECT NUMBER 2021-189, DATED 03/13/2018. BACKGROUND SURVEY ON THESE DRAWINGS IS FOR REFERENCE ONLY.
2. SUBSURFACE GEOTECHNICAL INVESTIGATIONS BY ARDMAN & ASSOCIATES' PROJECT NUMBER 113-20-40-1969, DATED 11/30/2020, AND PROJECT NUMBER 113-15-40-1182, DATED 09/16/2015.
3. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING LOCATIONS OF EXISTING PUBLIC AND PRIVATE UTILITIES, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION AND AFTER SITE CLEARING.
4. ALL EXISTING UTILITIES AND OTHER IMPROVEMENTS ARE TO REMAIN UNLESS NOTED OTHERWISE.
5. CONTRACTOR TO KEEP FROM DAMAGE ALL EXISTING IMPROVEMENTS, LANDSCAPING, STRUCTURES AND UTILITIES THAT ARE TO REMAIN. CONTRACTOR TO REPAIR ANY DAMAGE AT OWN EXPENSE.
6. ALL WORK TO CONFORM WITH COLUMBIA COUNTY AND STATE OF FLORIDA STANDARDS AND REGULATIONS.
7. ALL EXCAVATIONS MUST COMPLY WITH THE REQUIREMENTS OF OSHA 29 CFR, PART 1926, SUBPART P "EXCAVATIONS AND TRENCHES". THIS DOCUMENT STATES THAT EXCAVATION SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. COORDINATE LOCATION OF MANHOLE COVER AND CASTING SO THAT IT IS PROPERLY LOCATED AT THE BACK OF CURBLINE FOR THE CURB INLETS OR CENTERED IN THE AREA AS SHOWN ON THE PLAN FOR THE AREA DRAINS AND MANHOLE COVERS.
9. ALL PIPE LENGTHS INCLUDE FES. CONTRACTOR/SURVEYOR TO STAKE THE END OF FES FOR LOCATION.
10. PROVIDE TRAFFIC CONTROL AT STREETS AND SIDEWALKS PER COLUMBIA COUNTY AND MUTCD REQUIREMENTS. AS REQUIRED; TRAFFIC CONTROL DESIGN, RELATED PERMITTING, AND DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. ANY WORK PERFORMED OUTSIDE THE PROPERTY BOUNDARIES MUST BE APPROVED BY OWNER AND ALL REGULATING GOVERNMENT AGENCIES AND APPROPRIATE PERMITS MUST BE OBTAINED.
12. CONTRACTOR'S SURVEYOR SHALL RESET PERMANENT MONUMENTS AT LOCATIONS OF ALL FOUND MONUMENTS THAT ARE DISTURBED BY CONSTRUCTION AT NO COST TO OWNER. CONTRACTOR'S SURVEYOR SHALL PREPARE A MONUMENT PRESERVATION CERTIFICATE IN ACCORDANCE WITH STATE LAW.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL REQUIREMENTS OF THE ADJACENT RAILROAD PROPERTY. THIS INCLUDES BUT IS NOT LIMITED TO PERMITS, INSURANCE REQUIREMENTS, FLAGGERS, AND NOTIFICATIONS.
14. CONTRACTOR SHALL SCHEDULE AND PAY FOR RAILROAD FLAGMEN FOR ALL WORK, IN THIS CONTRACT, WITHIN 25' OF THE MAINLINE.
15. TRACKWORK & EARTHWORK SHALL NOT COMMENCE UNTIL ALL LEASE AGREEMENTS BETWEEN THE OWNER AND MAINLINE/SHORTLINE HAVE BEEN MADE. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO COMMENCING WORK.



CLIENT:



NEW LIQUID
FERTILIZER FACILITY
LAKE CITY, FL

[illegible]

CERTIFICATION:

MARK D. MIELKE, PE
Registration No. 68730

This item has been digitally signed and sealed by Mark D. Mielke. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

NOTICE: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, DETAILS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY OF VAA, LLC, AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALY EXPLOITED, IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.
COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

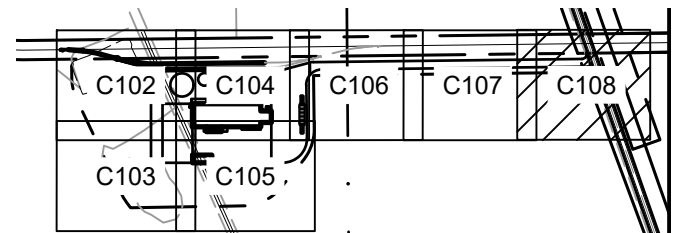
DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

DRAWING TITLE:

OVERALL EXISTING CONDITIONS AND REMOVALS PLAN

PROJECT NO: 230384	DRAWING NO: C101
SCALE: AS NOTED	

PROPOSED IMPROVEMENTS ARE
SHOWN FOR REFERENCE ONLY



2 KEY PLAN
C101

**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**



VAA, LLC 763.559.9100
300 Berkshire Lane N, Suite 200 www.vaaeng.com
Plymouth, MN 55441 Project # 23038

IENT:



PROJECT:

NEW LIQUID
FERTILIZER FACILITY
LAKE CITY, FL

[illegible]

CERTIFICATION

MARK D. MIELKE, PE
Registration No. 68730

This item has been digitally signed and sealed by Mark D. Mielke. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

NOTICE: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, DETAILS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY OF VAA, LLC, AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALY EXPLOITED, IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.
COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

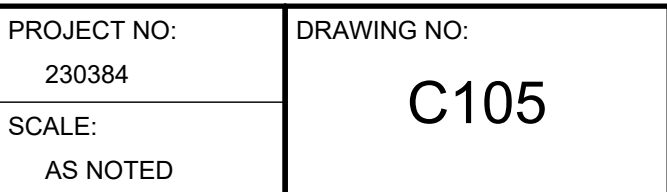
DRAWING TITLE

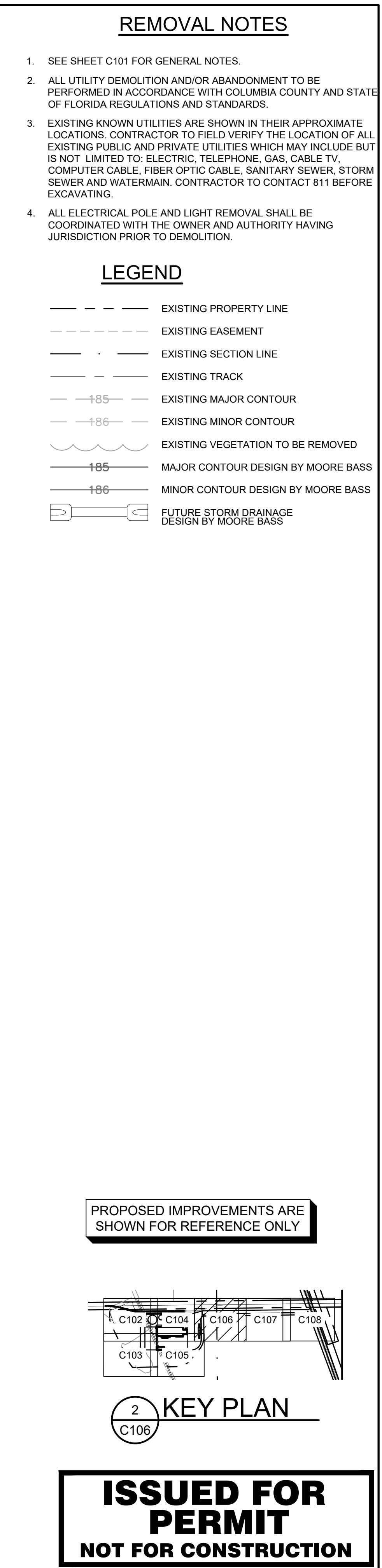
EXISTING CONDITIONS AND REMOVALS PLAN

PROJECT NO: 230384	DRAWING NO: C102
SCALE: AS NOTED	



Date Plotted: Friday, November 03, 2023

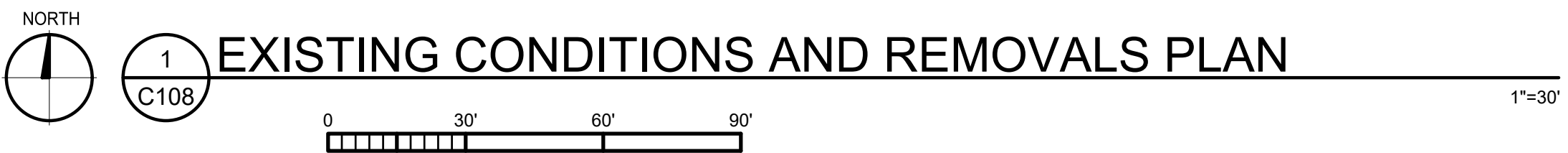




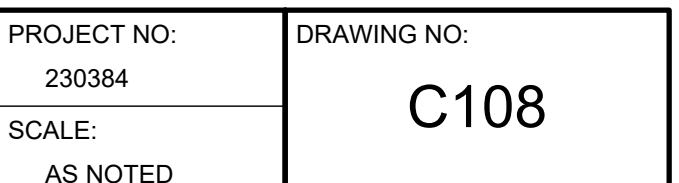
PROJECT NO: 230384	DRAWING NO: C106
SCALE: AS NOTED	



PROJECT NO: 230384	DRAWING NO: C107
SCALE: AS NOTED	



**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**



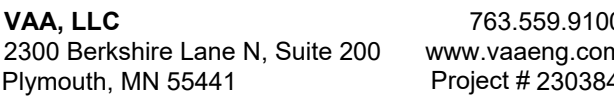


1. ALL EXISTING INFORMATION TAKEN FROM SURVEY BY L.D. BRADLEY LAND SURVEYORS PROJECT NUMBER 23-385, DATED 09/19/2023. EXISTING TOPOGRAPHY BASED ON LIDAR. BACKGROUND DESIGN TOPOGRAPHY BASED ON DESIGN PLANS BY MOORE BASS PROJECT NUMBER 2021-189, DATED 03/13/2018. BACKGROUND SURVEY ON THESE DRAWINGS IS FOR REFERENCE ONLY.
2. SUBSURFACE GEOTECHNICAL INVESTIGATIONS BY ARDAMAN & ASSOCIATES PROJECT NUMBER 113-20-40-1969, DATED 11/30/2020, AND PROJECT NUMBER 113-15-40-1182, DATED 09/16/2015.
3. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING LOCATIONS OF EXISTING PUBLIC AND PRIVATE UTILITIES, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION AND AFTER SITE CLEARING.
4. ALL EXISTING UTILITIES AND OTHER IMPROVEMENTS ARE TO REMAIN UNLESS NOTED OTHERWISE.
5. CONTRACTOR TO KEEP FROM DAMAGE ALL EXISTING IMPROVEMENTS, LANDSCAPING, STRUCTURES AND UTILITIES THAT ARE TO REMAIN. CONTRACTOR TO REPAIR ANY DAMAGE AT OWN EXPENSE.
6. ALL WORK TO CONFORM WITH COLUMBIA COUNTY AND STATE OF FLORIDA STANDARDS AND REGULATIONS.
7. ALL EXCAVATIONS MUST COMPLY WITH THE REQUIREMENTS OF OSHA 29 CFR, PART 1926, SUBPART P "EXCAVATIONS AND TRENCHES". THIS DOCUMENT STATES THAT EXCAVATION SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. COORDINATE LOCATION OF MANHOLE COVER AND CASTING SO THAT IT IS PROPERLY LOCATED AT THE BACK OF CURBLINE FOR THE CURB INLETS OR CENTERED IN THE AREA AS SHOWN ON THE PLAN FOR THE AREA DRAINS AND MANHOLE COVERS.
9. ALL PIPE LENGTHS INCLUDE FES. CONTRACTOR/SURVEYOR TO STAKE THE END OF FES FOR LOCATION.
10. PROVIDE TRAFFIC CONTROL AT STREETS AND SIDEWALKS PER COLUMBIA COUNTY AND MUTCD REQUIREMENTS. AS REQUIRED; TRAFFIC CONTROL DESIGN, RELATED PERMITTING, AND DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. ANY WORK PERFORMED OUTSIDE THE PROPERTY BOUNDARIES MUST BE APPROVED BY OWNER AND ALL REGULATING GOVERNMENT AGENCIES AND APPROPRIATE PERMITS MUST BE OBTAINED.
12. CONTRACTOR'S SURVEYOR SHALL RESET PERMANENT MONUMENTS AT LOCATIONS OF ALL FOUND MONUMENTS THAT ARE DISTURBED BY CONSTRUCTION AT NO COST TO OWNER. CONTRACTOR'S SURVEYOR SHALL PREPARE A MONUMENT PRESERVATION CERTIFICATE IN ACCORDANCE WITH STATE LAW.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL REQUIREMENTS OF THE ADJACENT RAILROAD PROPERTY. THIS INCLUDES BUT IS NOT LIMITED TO PERMITS, INSURANCE REQUIREMENTS, FLAGGERS, AND NOTIFICATIONS.
14. CONTRACTOR SHALL SCHEDULE AND PAY FOR RAILROAD FLAGMEN FOR ALL WORK, IN THIS CONTRACT, WITHIN 25' OF THE MAINLINE.
15. **TRACKWORK & EARTHWORK SHALL NOT COMMENCE UNTIL ALL LEASE AGREEMENTS BETWEEN THE OWNER AND MAINLINE/SHORTLINE HAVE BEEN MADE. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO COMMENCING WORK.**

EXISTING IMPERVIOUS AREA =	0.00 ACRE
PROPOSED IMPERVIOUS AREA =	11.29 ACRE (0.50% SITE AREA)
HEAVY DUTY CONCRETE =	15,150 SQ. YDS.
LIGHT DUTY CONCRETE =	110 SQ. YDS.
GRAVEL PAVEMENT =	25,025 SQ. YDS.
SUBBALLAST =	4,595 SQ. YDS.



**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**



CLIENT:



PROJECT:

NEW LIQUID
FERTILIZER FACILITY
LAKE CITY, FL

[illegible]

CERTIFICATION

MARK D. MIELKE, PE
Registration No. 68730

This item has been digitally signed and sealed by Mark D. Mielke. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

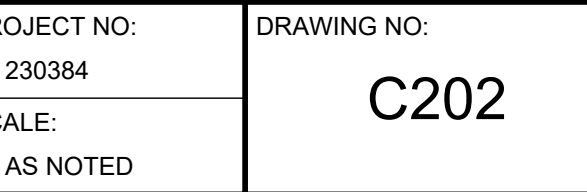
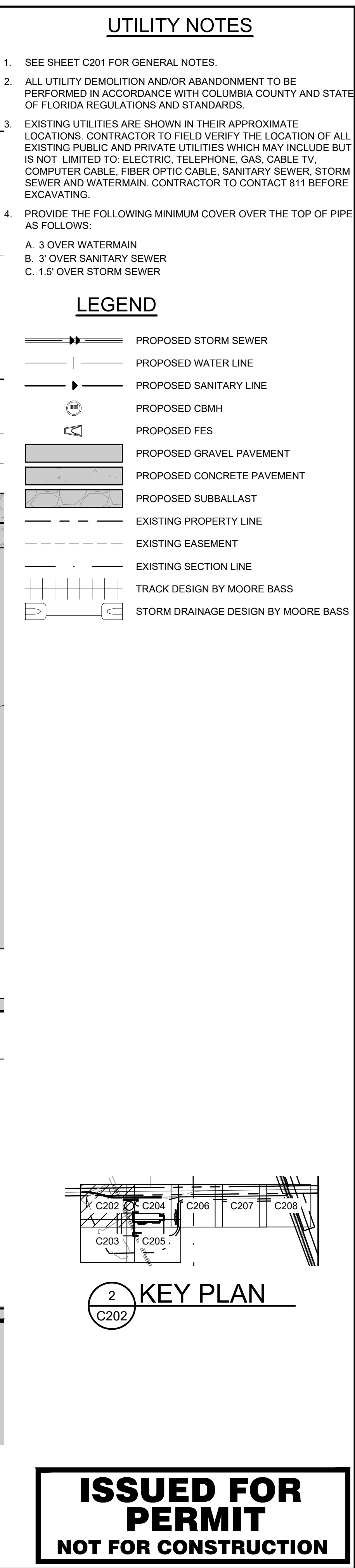
NOTICE: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, DETAILS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY VAA, LLC, AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.
COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

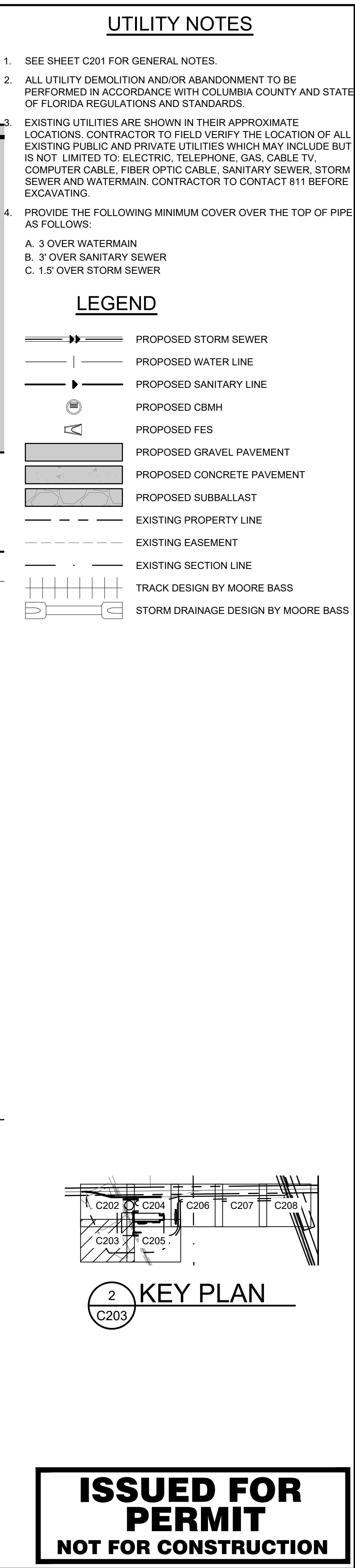
DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

DRAWING TITLE

OVERALL SITE PAVING AND UTILITY PLAN

PROJECT NO: 230384	DRAWING NO: C201
SCALE: AS NOTED	





CLIENT:



PROJECT:

NEW LIQUID
FERTILIZER FACILITY
LAKE CITY, FL

[illegible]

CERTIFICATION:

MARK D. MIELKE, PE
Registration No. 68730

This item has been digitally signed
and sealed by Mark D. Mielke.
Printed copies of this document are
not considered signed and sealed
and the signature must be verified on
any electronic copies.

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, PATENTS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY OF VAA, LLC AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.

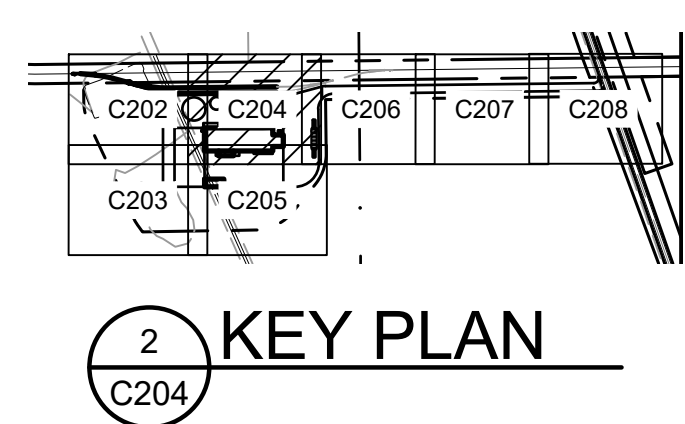
© COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

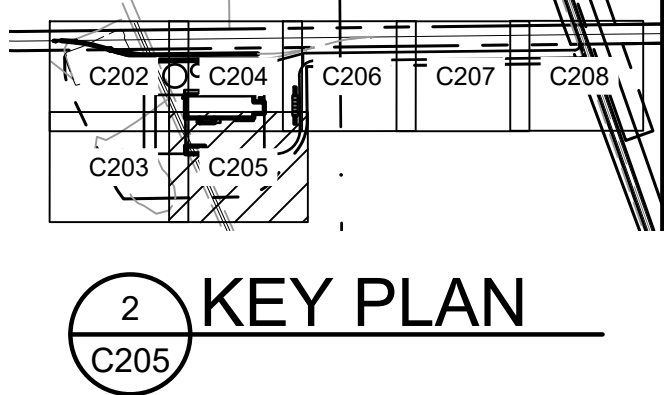
DRAWING TITLE:

SITE PAVING AND UTILITY PLAN

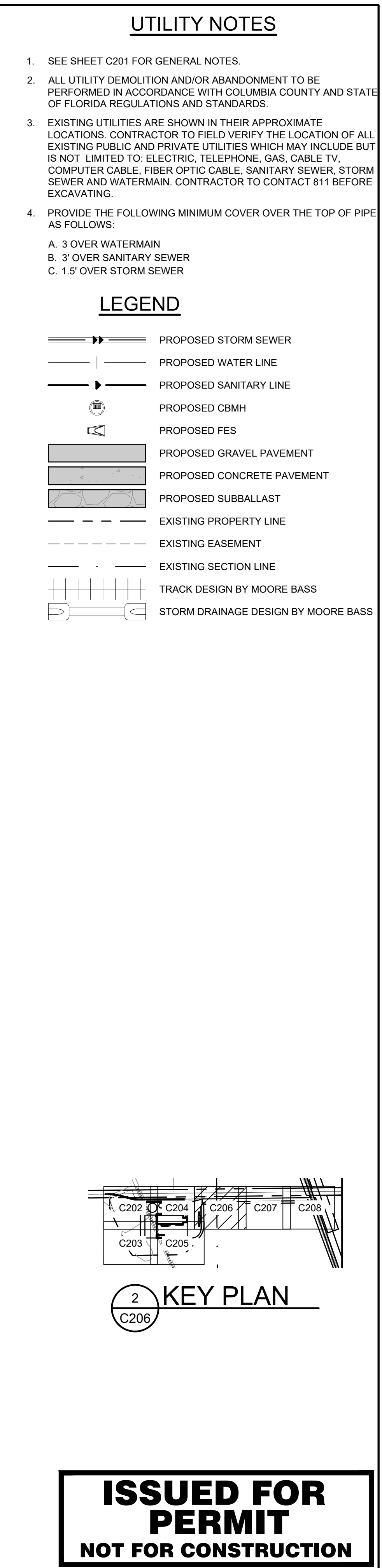
PROJECT NO: 230384	DRAWING NO: C203
SCALE: AS NOTED	



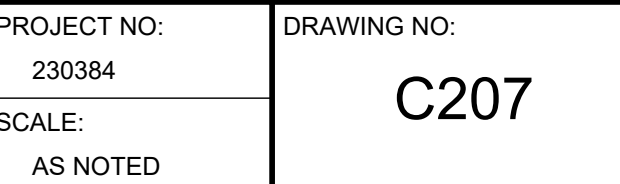
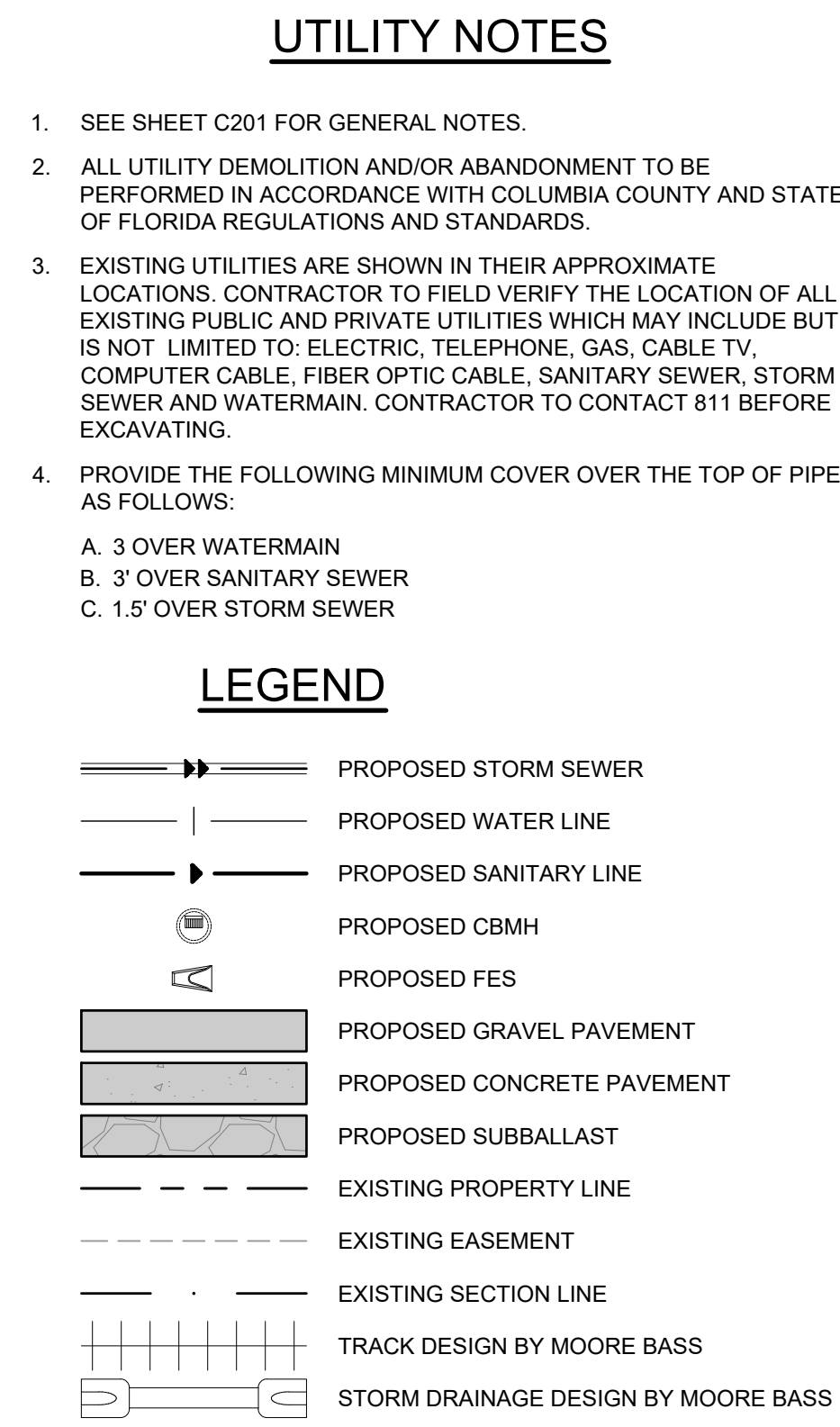
PROJECT NO: 230384	DRAWING NO: C204
SCALE: AS NOTED	

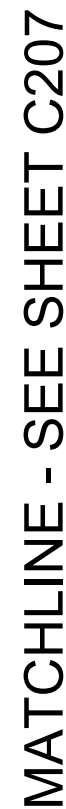


PROJECT NO: 230384	DRAWING NO: C205
SCALE: AS NOTED	



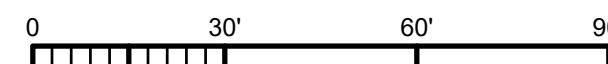
**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**





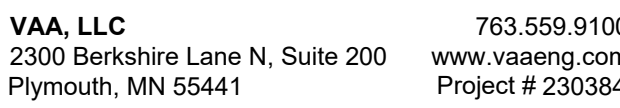
DESIGN WILL CHANGE ONCE —
PROPOSED UTILITY PLAN / TYRE
ROAD RECONSTRUCTION PLAN
INFORMATION IS OBTAINED

**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**

 $1''=30$ 



1. ALL EXISTING INFORMATION TAKEN FROM SURVEY BY L.D. BRADLEY LAND SURVEYORS' PROJECT NUMBER 23-385, DATED 09/19/2023. EXISTING TOPOGRAPHY BASED ON LIDAR. BACKGROUND DESIGN TOPOGRAPHY BASED ON DESIGN PLANS BY MOORE BASS PROJECT NUMBER 2021-189, DATED 03/13/2018. BACKGROUND SURVEY ON THESE DRAWINGS IS FOR REFERENCE ONLY.
2. SUBSURFACE GEOTECHNICAL INVESTIGATIONS BY ARDMAN & ASSOCIATES' PROJECT NUMBER 113-20-40-1969, DATED 11/30/2020, AND PROJECT NUMBER 113-15-40-1182, DATED 09/16/2015.
3. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING LOCATIONS OF EXISTING PUBLIC AND PRIVATE UTILITIES, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION AND AFTER SITE CLEARING.
4. ALL EXISTING UTILITIES AND OTHER IMPROVEMENTS ARE TO REMAIN UNLESS NOTED OTHERWISE.
5. CONTRACTOR TO KEEP FROM DAMAGE ALL EXISTING IMPROVEMENTS, LANDSCAPING, STRUCTURES AND UTILITIES THAT ARE TO REMAIN. CONTRACTOR TO REPAIR ANY DAMAGE AT OWN EXPENSE.
6. ALL WORK TO CONFORM WITH COLUMBIA COUNTY AND STATE OF FLORIDA STANDARDS AND REGULATIONS.
7. ALL EXCAVATIONS MUST COMPLY WITH THE REQUIREMENTS OF OSHA 29 CFR, PART 1926, SUBPART P "EXCAVATIONS AND TRENCHES". THIS DOCUMENT STATES THAT EXCAVATION SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. COORDINATE LOCATION OF MANHOLE COVER AND CASTING SO THAT IT IS PROPERLY LOCATED AT THE BACK OF CURBLINE FOR THE CURB INLETS OR CENTERED IN THE AREA AS SHOWN ON THE PLAN FOR THE AREA DRAINS AND MANHOLE COVERS.
9. ALL PIPE LENGTHS INCLUDE FES. CONTRACTOR/SURVEYOR TO STAKE THE END OF FES FOR LOCATION.
10. PROVIDE TRAFFIC CONTROL AT STREETS AND SIDEWALKS PER COLUMBIA COUNTY AND MUTCD REQUIREMENTS. AS REQUIRED; TRAFFIC CONTROL DESIGN, RELATED PERMITTING, AND DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. ANY WORK PERFORMED OUTSIDE THE PROPERTY BOUNDARIES MUST BE APPROVED BY OWNER AND ALL REGULATING GOVERNMENT AGENCIES AND APPROPRIATE PERMITS MUST BE OBTAINED.
12. CONTRACTOR'S SURVEYOR SHALL RESET PERMANENT MONUMENTS AT LOCATIONS OF ALL FOUND MONUMENTS THAT ARE DISTURBED BY CONSTRUCTION AT NO COST TO OWNER. CONTRACTOR'S SURVEYOR SHALL PREPARE A MONUMENT PRESERVATION CERTIFICATE IN ACCORDANCE WITH STATE LAW.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL REQUIREMENTS OF THE ADJACENT RAILROAD PROPERTY. THIS INCLUDES BUT IS NOT LIMITED TO PERMITS, INSURANCE REQUIREMENTS, FLAGGERS, AND NOTIFICATIONS.
14. CONTRACTOR SHALL SCHEDULE AND PAY FOR RAILROAD FLAGMEN FOR ALL WORK, IN THIS CONTRACT, WITHIN 25' OF THE MAINLINE.
15. TRACKWORK & EARTHWORK SHALL NOT COMMENCE UNTIL ALL LEASE AGREEMENTS BETWEEN THE OWNER AND MAINLINE/SHORTLINE HAVE BEEN MADE. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO COMMENCING WORK.



AGROLIQUID®

NEW LIQUID
FERTILIZER FACILITY
LAKE CITY, FL

[illegible]

MARK D. MIELKE, PE
Registration No. 68730

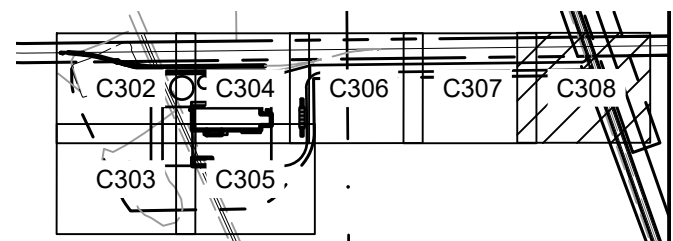
This item has been digitally signed and sealed by Mark D. Mielke. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

NOTICE: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, DETAILS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY OF VAA, LLC, AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALY EXPLOITED, IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.
COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

OVERALL GRADING AND DRAINAGE PLAN

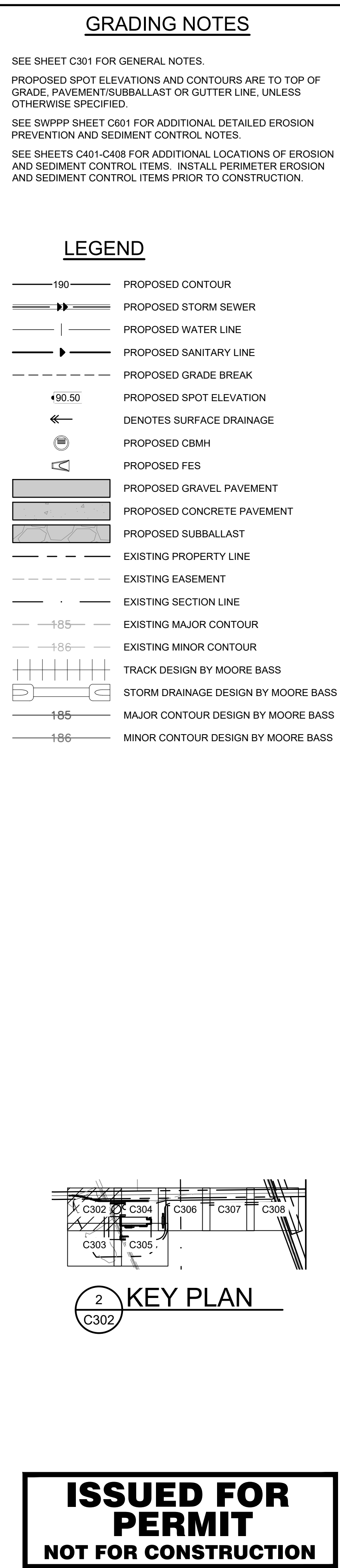
PROJECT NO: 230384	DRAWING NO: C301
SCALE: AS NOTED	



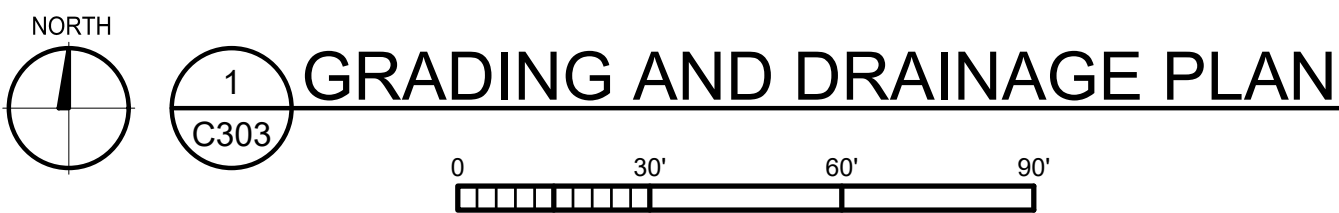
2
C301

KEY PLAN

**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**

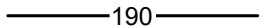



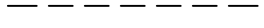
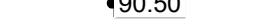











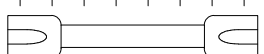





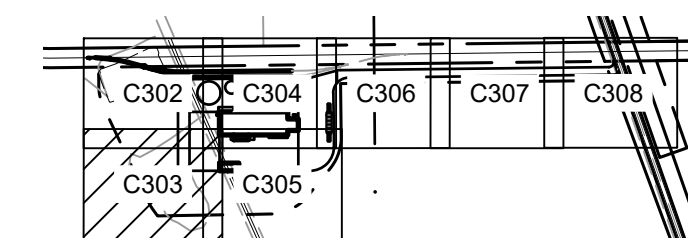
PROJECT NO: 230384	DRAWING NO: C302
SCALE: AS NOTED	



1. SEE SHEET C301 FOR GENERAL NOTES.
2. PROPOSED SPOT ELEVATIONS AND CONTOURS ARE TO TOP OF GRADE. PAVEMENT/SUBBALLAST OR GUTTER LINE, UNLESS OTHERWISE SPECIFIED.
3. SEE SWPPP SHEET C601 FOR ADDITIONAL DETAILED EROSION PREVENTION AND SEDIMENT CONTROL NOTES.
4. SEE SHEETS C401-C408 FOR ADDITIONAL LOCATIONS OF EROSION AND SEDIMENT CONTROL ITEMS. INSTALL PERIMETER EROSION AND SEDIMENT CONTROL ITEMS PRIOR TO CONSTRUCTION.

LEGEND

- | | |
|--|-------------------------------------|
|  | PROPOSED CONTOUR |
|  | PROPOSED STORM SEWER |
|  | PROPOSED WATER LINE |
|  | PROPOSED SANITARY LINE |
|  | PROPOSED GRADE BREAK |
|  | PROPOSED SPOT ELEVATION |
|  | DENOTES SURFACE DRAINAGE |
|  | PROPOSED CBMH |
|  | PROPOSED FES |
|  | PROPOSED GRAVEL PAVEMENT |
|  | PROPOSED CONCRETE PAVEMENT |
|  | PROPOSED SUBBALLAST |
|  | EXISTING PROPERTY LINE |
|  | EXISTING EASEMENT |
|  | EXISTING SECTION LINE |
|  | EXISTING MAJOR CONTOUR |
|  | EXISTING MINOR CONTOUR |
|  | TRACK DESIGN BY MOORE BASS |
|  | STORM DRAINAGE DESIGN BY MOORE BASS |
|  | MAJOR CONTOUR DESIGN BY MOORE BASS |
|  | MINOR CONTOUR DESIGN BY MOORE BASS |



2 KEY PLAN
C303

**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**



VAA, LLC 763.559.9100
2300 Berkshire Lane N, Suite 200 www.vaaeng.com
Plymouth, MN 55441 Project # 230384

CLIENT:



PROJECT:

NEW LIQUID
FERTILIZER FACILITY
LAKE CITY, FL

[illegible]

CERTIFICATION:

MARK D. MIELKE, PE
Registration No. 68730

This item has been digitally signed and sealed by Mark D. Mielke. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

NOTICE: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, DETAILS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY OF VAA, LLC, AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALLY EXPLOITED, IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.
COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

DRAWING TITLE:

GRADING AND DRAINAGE PLAN

PROJECT NO:

230384
SCALE: AS NOTED

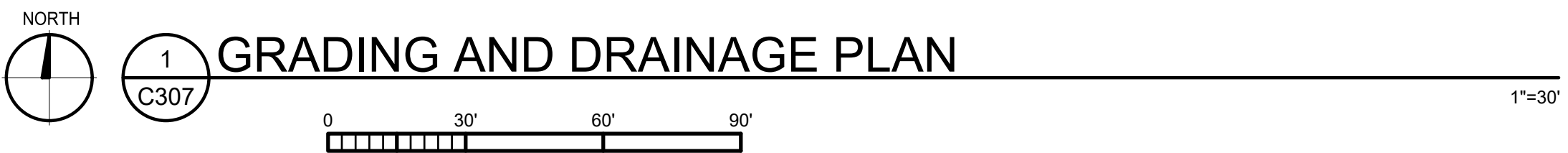
DRAWING NO:

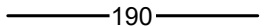















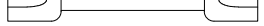




C303

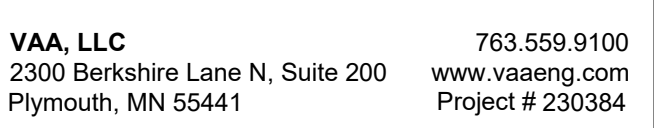


DRAWING NO:
C304





- ## LEGEND
- | | |
|---|-------------------------------------|
|  | PROPOSED CONTOUR |
|  | PROPOSED STORM SEWER |
|  | PROPOSED WATER LINE |
|  | PROPOSED SANITARY LINE |
|  | PROPOSED GRADE BREAK |
|  | PROPOSED SPOT ELEVATION |
|  | DENOTES SURFACE DRAINAGE |
|  | PROPOSED CBMH |
|  | PROPOSED FES |
|  | PROPOSED GRAVEL PAVEMENT |
|  | PROPOSED CONCRETE PAVEMENT |
|  | PROPOSED SUBBALLAST |
|  | EXISTING PROPERTY LINE |
|  | EXISTING EASEMENT |
|  | EXISTING SECTION LINE |
|  | EXISTING MAJOR CONTOUR |
|  | EXISTING MINOR CONTOUR |
|  | TRACK DESIGN BY MOORE BASS |
|  | STORM DRAINAGE DESIGN BY MOORE BASS |
|  | MAJOR CONTOUR DESIGN BY MOORE BASS |
|  | MINOR CONTOUR DESIGN BY MOORE BASS |



PROJECT:

NEW LIQUID
FERTILIZER FACILITY
LAKE CITY, FL

[illegible]

CERTIFICATION:

This item has been digitally signed and sealed by Mark D. Mielke.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

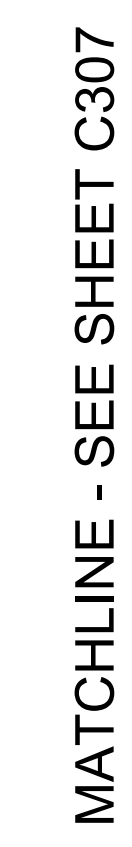
NOTICE: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, DETAILS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY OF VAA, LLC, AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALY EXPLOITED, IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.
COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

DRAWING TITLE:

GRADING AND
DRAINAGE PLAN

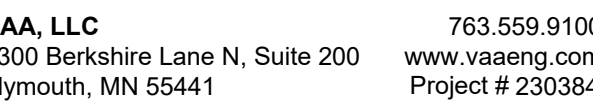
PROJECT NO: 230384	DRAWING NO: C307
SCALE: AS NOTED	



DESIGN WILL CHANGE ONCE
PROPOSED UTILITY PLAN / TYRE
ROAD RECONSTRUCTION PLAN
INFORMATION IS OBTAINED



1. ALL EXISTING INFORMATION TAKEN FROM SURVEY BY L.D. BRADLEY LAND SURVEYORS' PROJECT NUMBER 23-385, DATED 09/19/2023. EXISTING TOPOGRAPHY BASED ON LIDAR. BACKGROUND DESIGN TOPOGRAPHY BASED ON DESIGN PLANS BY MOORE BASS PROJECT NUMBER 2021-189, DATED 03/13/2018. BACKGROUND SURVEY ON THESE DRAWINGS IS FOR REFERENCE ONLY.
2. SUBSURFACE GEOTECHNICAL INVESTIGATIONS BY ARDMAN & ASSOCIATES' PROJECT NUMBER 113-20-40-1969, DATED 11/30/2020, AND PROJECT NUMBER 113-15-40-1182, DATED 09/16/2015.
3. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING LOCATIONS OF EXISTING PUBLIC AND PRIVATE UTILITIES, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION AND AFTER SITE CLEARING.
4. ALL EXISTING UTILITIES AND OTHER IMPROVEMENTS ARE TO REMAIN UNLESS NOTED OTHERWISE.
5. CONTRACTOR TO KEEP FROM DAMAGE ALL EXISTING IMPROVEMENTS, LANDSCAPING, STRUCTURES AND UTILITIES THAT ARE TO REMAIN. CONTRACTOR TO REPAIR ANY DAMAGE AT OWN EXPENSE.
6. ALL WORK TO CONFORM WITH COLUMBIA COUNTY AND STATE OF FLORIDA STANDARDS AND REGULATIONS.
7. ALL EXCAVATIONS MUST COMPLY WITH THE REQUIREMENTS OF OSHA 29 CFR, PART 1926, SUBPART P "EXCAVATIONS AND TRENCHES". THIS DOCUMENT STATES THAT EXCAVATION SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. COORDINATE LOCATION OF MANHOLE COVER AND CASTING SO THAT IT IS PROPERLY LOCATED AT THE BACK OF CURBLINE FOR THE CURB INLETS OR CENTERED IN THE AREA AS SHOWN ON THE PLAN FOR THE AREA DRAINS AND MANHOLE COVERS.
9. ALL PIPE LENGTHS INCLUDE FES. CONTRACTOR/SURVEYOR TO STAKE THE END OF FES FOR LOCATION.
10. PROVIDE TRAFFIC CONTROL AT STREETS AND SIDEWALKS PER COLUMBIA COUNTY AND MUTCD REQUIREMENTS. AS REQUIRED; TRAFFIC CONTROL DESIGN, RELATED PERMITTING, AND DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. ANY WORK PERFORMED OUTSIDE THE PROPERTY BOUNDARIES MUST BE APPROVED BY OWNER AND ALL REGULATING GOVERNMENT AGENCIES AND APPROPRIATE PERMITS MUST BE OBTAINED.
12. CONTRACTOR'S SURVEYOR SHALL RESET PERMANENT MONUMENTS AT LOCATIONS OF ALL FOUND MONUMENTS THAT ARE DISTURBED BY CONSTRUCTION AT NO COST TO OWNER. CONTRACTOR'S SURVEYOR SHALL PREPARE A MONUMENT PRESERVATION CERTIFICATE IN ACCORDANCE WITH STATE LAW.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL REQUIREMENTS OF THE ADJACENT RAILROAD PROPERTY. THIS INCLUDES BUT IS NOT LIMITED TO PERMITS, INSURANCE REQUIREMENTS, FLAGGERS, AND NOTIFICATIONS.
14. CONTRACTOR SHALL SCHEDULE AND PAY FOR RAILROAD FLAGMEN FOR ALL WORK, IN THIS CONTRACT, WITHIN 25' OF THE MAINLINE.
15. TRACKWORK & EARTHWORK SHALL NOT COMMENCE UNTIL ALL LEASE AGREEMENTS BETWEEN THE OWNER AND MAINLINE/SHORTLINE HAVE BEEN MADE. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO COMMENCING WORK.



CLIENT:



NEW LIQUID
FERTILIZER FACILITY
LAKE CITY, FL

[illegible]

CERTIFICATION:

MARK D. MIELKE, PE
Registration No. 68730

This item has been digitally signed and sealed by Mark D. Mielke. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

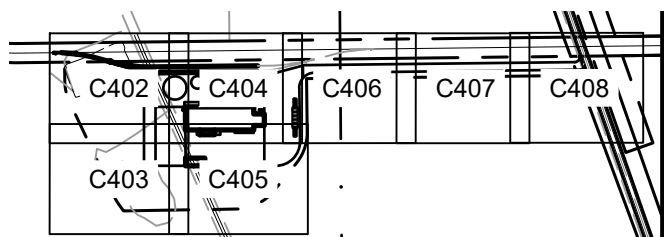
NOTICE: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, DETAILS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY OF VAA, LLC, AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALY EXPLOITED, IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.
COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

DRAWING TITLE:

OVERALL EROSION AND SEDIMENT CONTROL PLAN

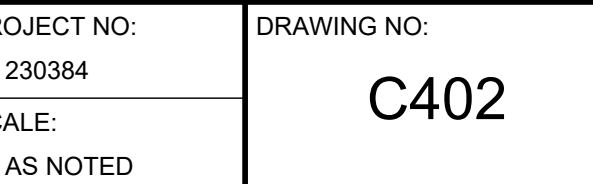
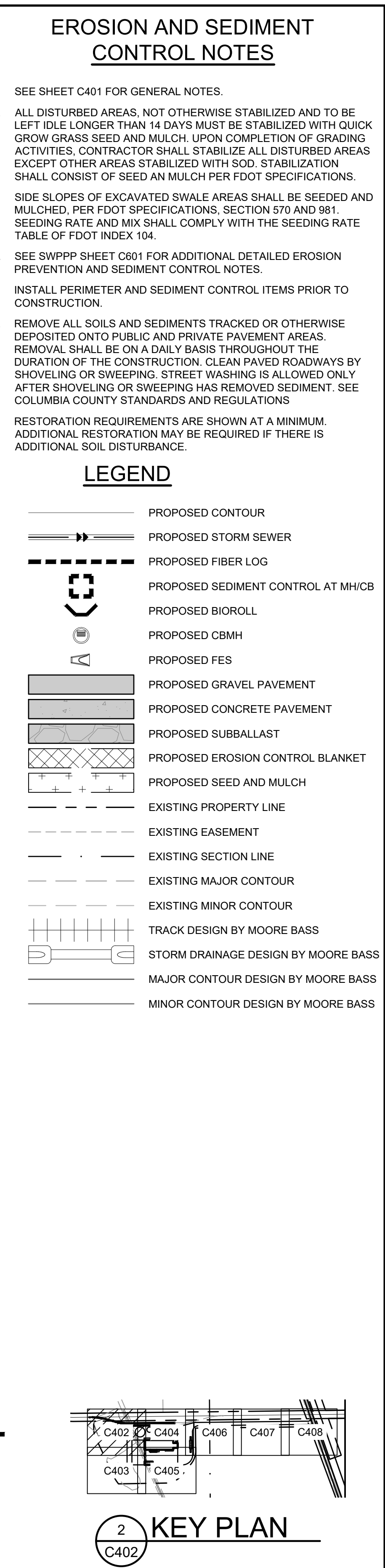
PROJECT NO: 230384	DRAWING NO: C401
SCALE: AS NOTED	

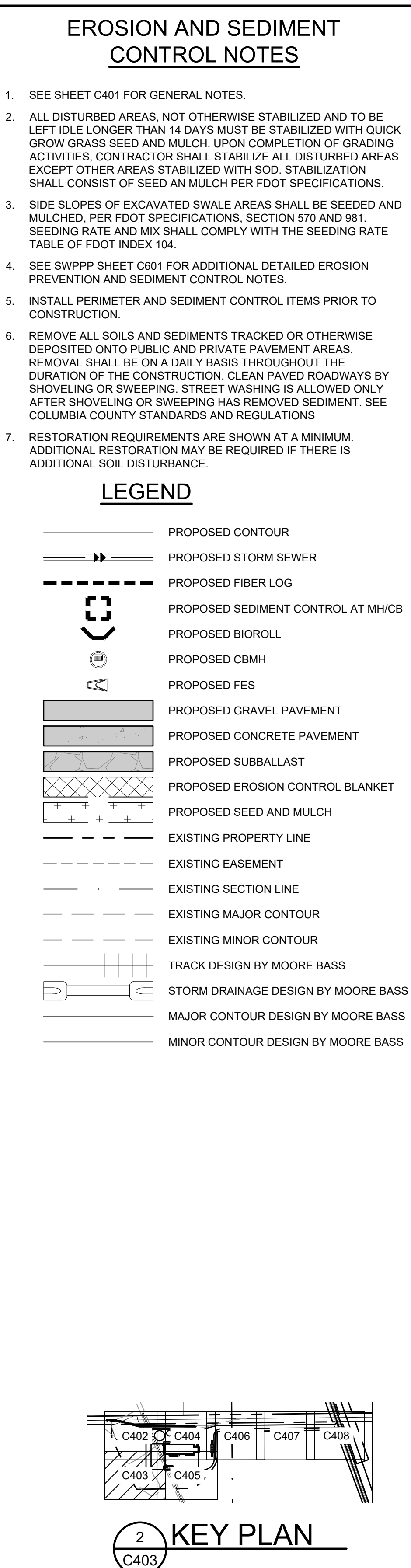


2
C401

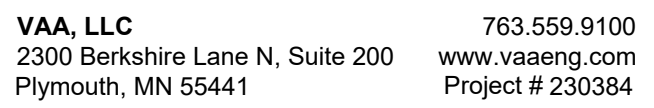
KEY PLAN

**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**





**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**



NEW LIQUID
FERTILIZER FACILITY
LAKE CITY, FL

[illegible]

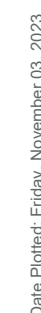
This item has been digitally signed and sealed by Mark D. Mielke. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

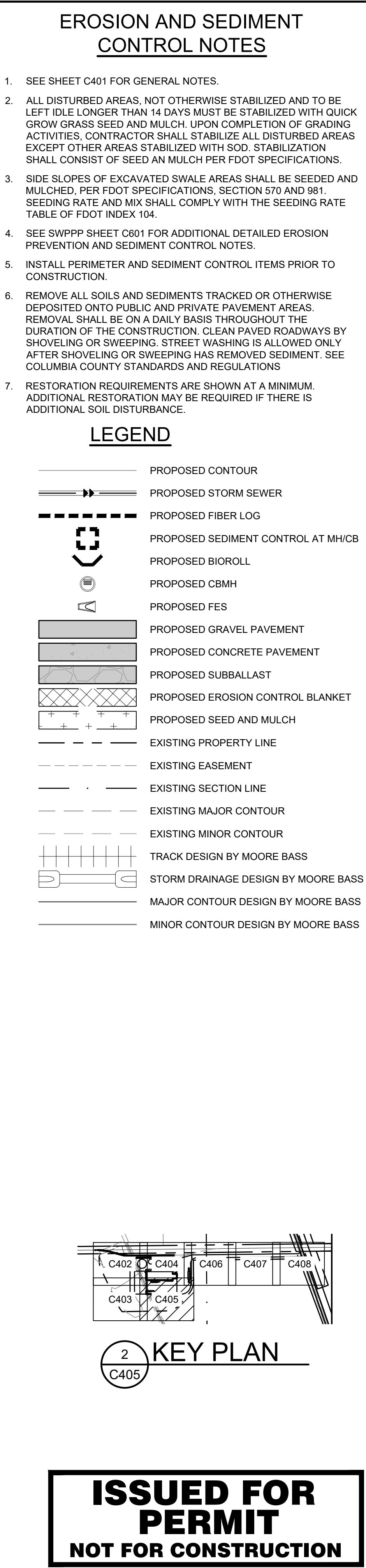
NOTICE: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, DETAILS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY OF VAA, LLC, AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALY EXPLOITED, IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.
COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

EROSION AND SEDIMENT CONTROL PLAN

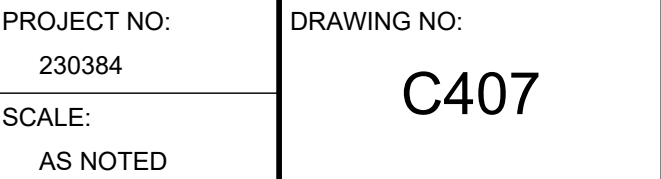
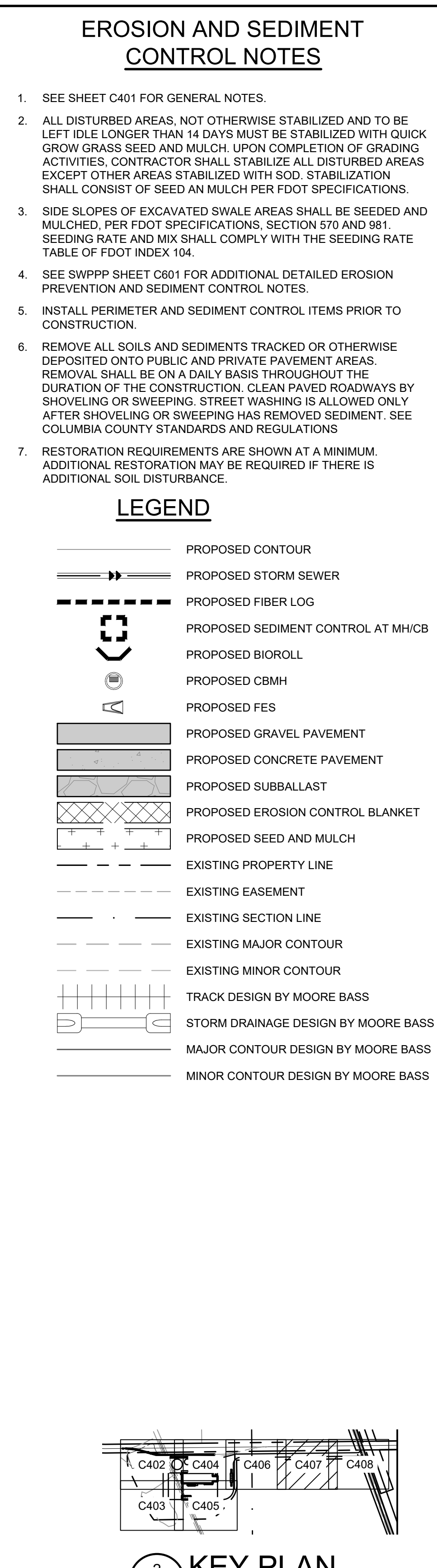
PROJECT NO: 230384	DRAWING NO: C403
SCALE: AS NOTED	





Date Plotted: Friday, November 03, 2023



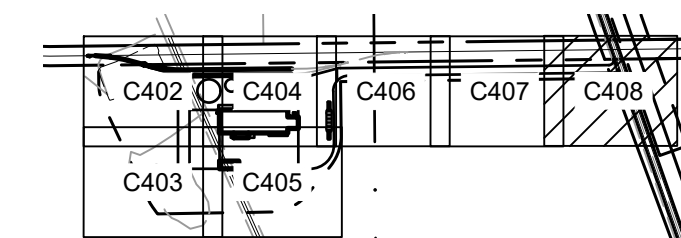
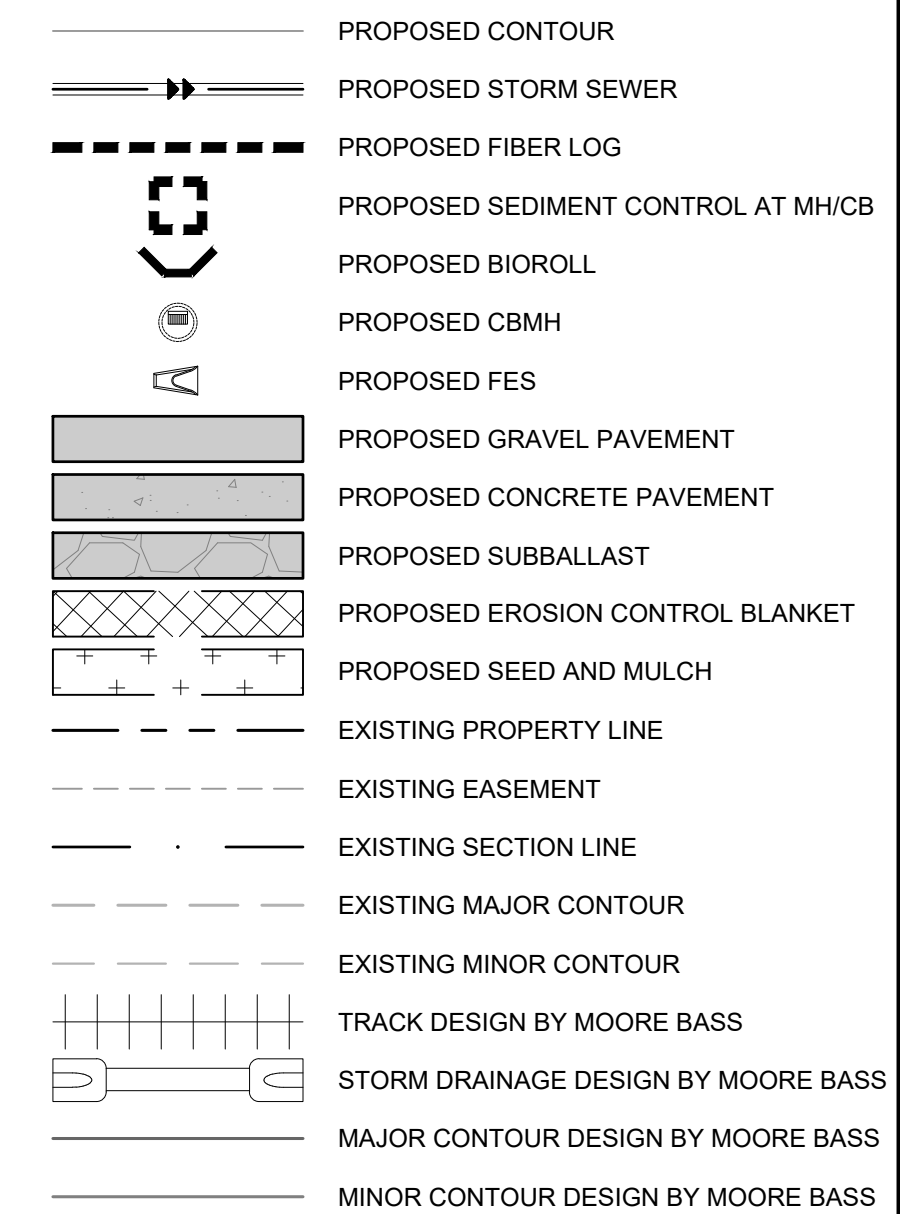


Date Plotted: Friday, November 03, 2023



1. SEE SHEET C401 FOR GENERAL NOTES.
2. ALL DISTURBED AREAS, NOT OTHERWISE STABILIZED AND TO BE LEFT IDLE LONGER THAN 14 DAYS MUST BE STABILIZED WITH QUICK GRASS SEED AND MULCH. UPON COMPLETION OF GRADING ACTIVITIES, CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS EXCEPT OTHER AREAS STABILIZED WITH SOD. STABILIZATION SHALL CONSIST OF SEED AN MULCH PER FDOT SPECIFICATIONS.
3. SIDE SLOPES OF EXCAVATED SWALE AREAS SHALL BE SEEDDED AND MULCHED, PER FDOT SPECIFICATION SECTION 576 AND 98. SEEDING RATE AND MIX SHALL COMPLY WITH THE SEEDING RATE TABLE OF FDOT INDEX 104.
4. SEE SWPPP SHEET C601 FOR ADDITIONAL DETAILED EROSION PREVENTION AND SEDIMENT CONTROL NOTES.
5. INSTALL PERIMETER AND SEDIMENT CONTROL ITEMS PRIOR TO CONSTRUCTION.
6. REMOVE ALL SOILS AND SEDIMENTS TRACKED OR OTHERWISE DEPOSITED OUTON PUBLIC AND PRIVATE PAVEMENT AREAS. REMOVAL SHALL BE ON A DAILY BASIS THROUGHOUT THE DURATION OF THE CONSTRUCTION. CLEAN PAVED ROADWAYS BY SHOVELING OR SWEEPING. STREET WASHING IS ALLOWED ONLY AFTER SHOVELING OR SWEEPING HAS REMOVED SEDIMENT. SEE COLUMBIA COUNTY STANDARDS AND REGULATIONS
7. RESTORATION REQUIREMENTS ARE SHOWN AT A MINIMUM. ADDITIONAL RESTORATION MAY BE REQUIRED IF THERE IS ADDITIONAL SOIL DISTURBANCE.

LEGEND



2
C408

**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**



VAA, LLC 763.559.9100
2300 Berkshire Lane N, Suite 200 www.vaaeng.com
Plymouth, MN 55441 Project # 230384

CLIENT:



PROJECT:

NEW LIQUID
FERTILIZER FACILITY
LAKE CITY, FL

[illegible]

CERTIFICATION:

MARK D. MIELKE, PE
Registration No. 68730

This item has been digitally signed and sealed by Mark D. Mielke. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

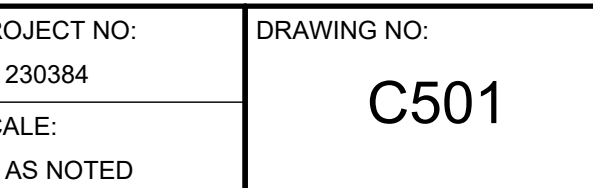
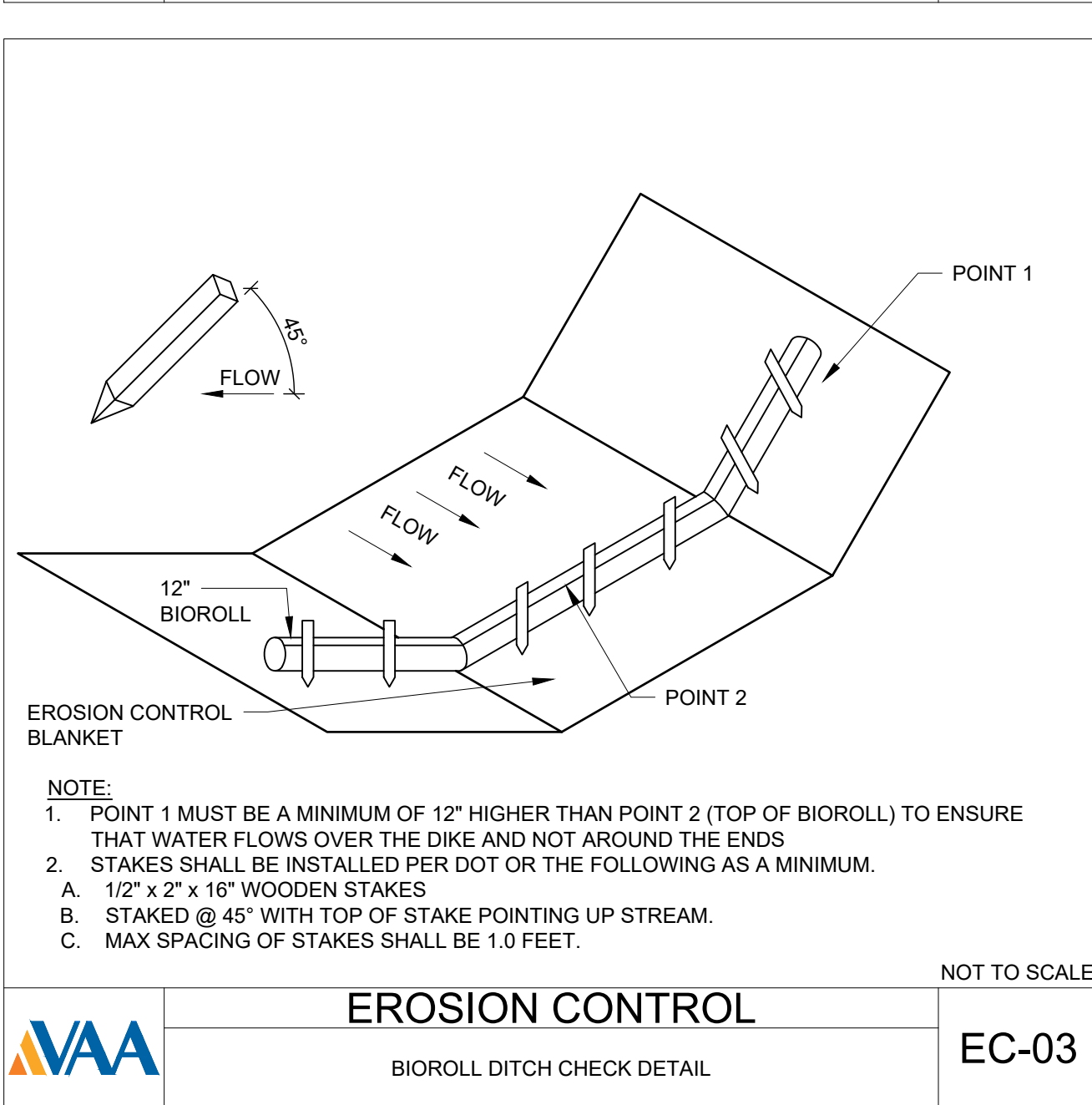
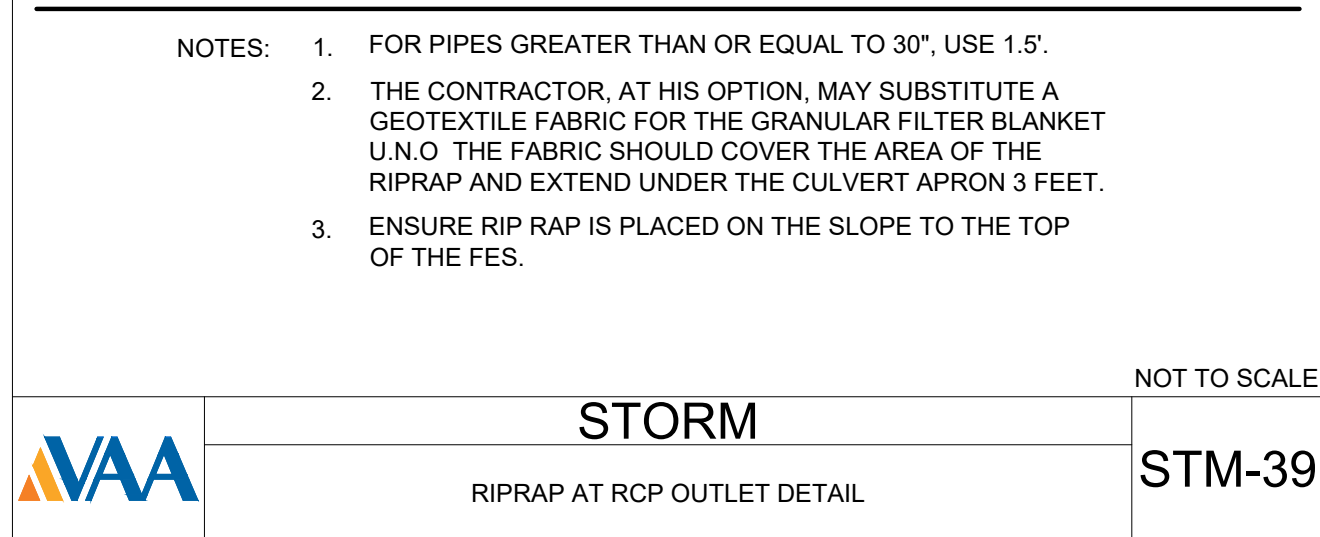
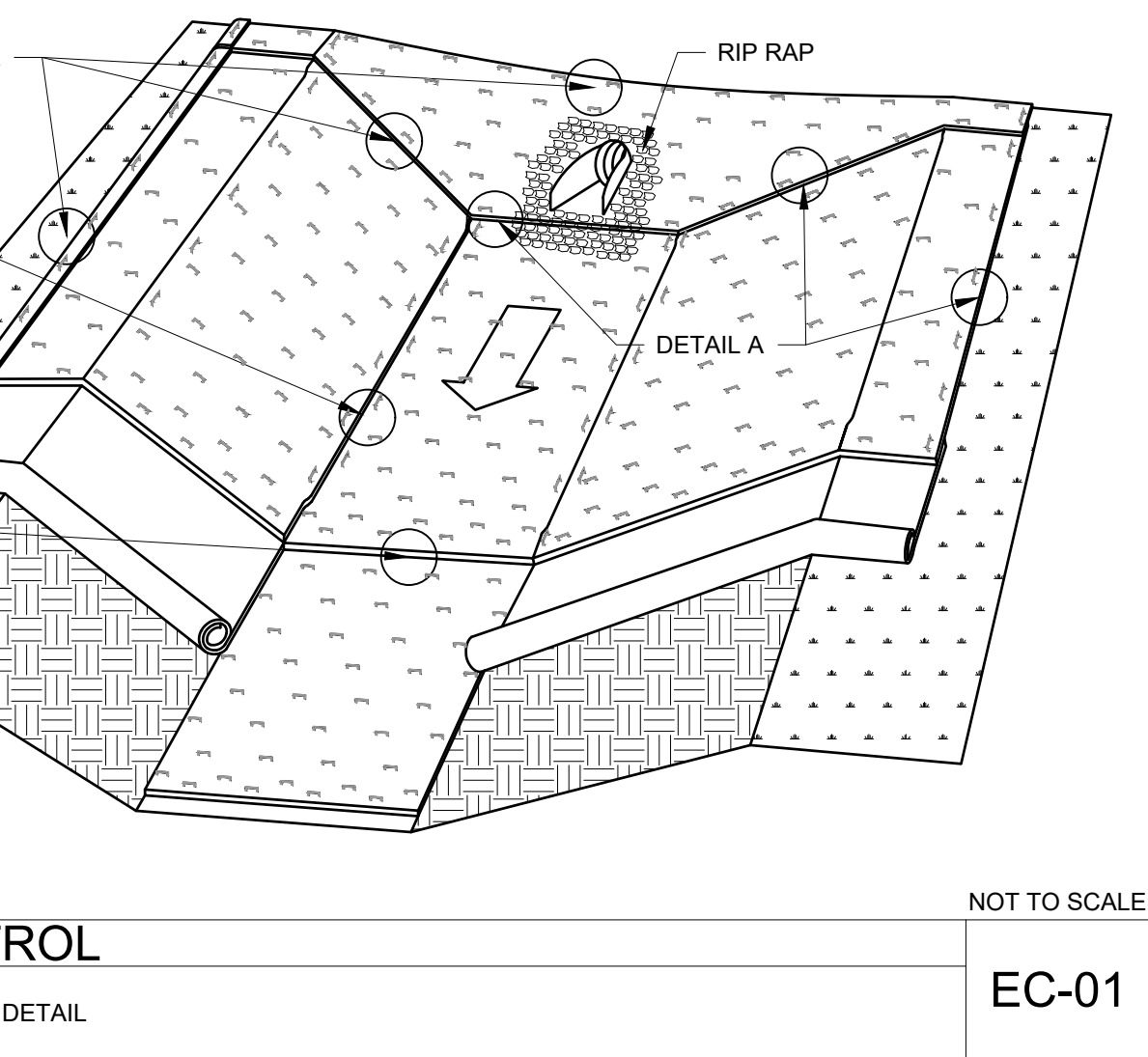
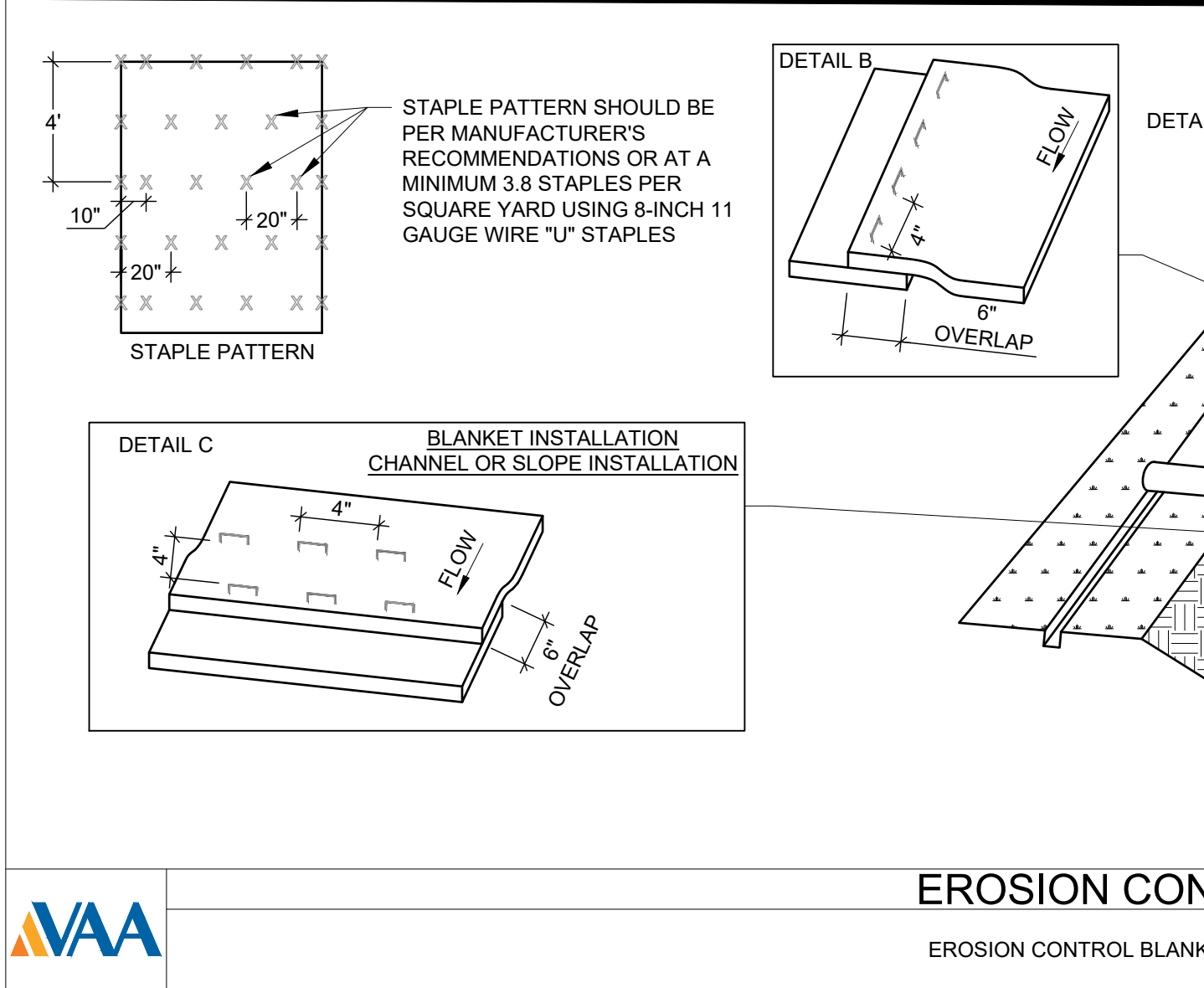
NOTICE: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, DETAILS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY VAA, LLC, AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.
COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

DRAWING TITLE:

EROSION AND SEDIMENT CONTROL PLAN

PROJECT NO: 230384	DRAWING NO: C408
SCALE: AS NOTED	



**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**

			COLUMBIA COUNTY			
			GATE VALVE AND BOX DETAIL			
Date	Revisions	Appr. by	Date: Sept. 1996	Scale: N.T.S.	Dwg: Q400	Fig: 400

			COLUMBIA COUNTY			
			VALVE COLLAR DETAIL			
Date	Revisions	Appr. by	Date: Sept. 1996	Scale: N.T.S.	Dwg: Q107	Fig: 107

			COLUMBIA COUNTY			
			TYPE B BEDDING AND TRENCHING DETAIL			
Date	Revisions	Appr. by	Date: Sept. 1996	Scale: N.T.S.	Dwg: Q100	Fig: 100

		COLUMBIA COUNTY
1	1	TYPE A BEDDING AND TRENCHING DETAIL
1	1	
1	1	
1	1	



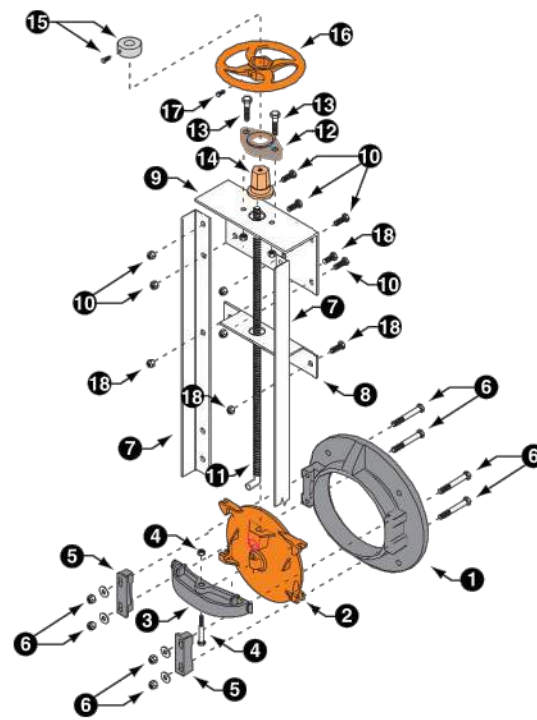
SERIES 6400 MODEL 20-10C SLIDE GATE



Series 6400 Slide Gate

Features

- Unique cross bar design provides uniform wedging action around seating surface.
- Roll threaded rising stem ensures ease of operation and extended stem life.
- Rugged Cast Iron seat and cover.
- Available for mounting to headwalls or corrugated pipe.
- Precision machined seating surfaces.
- Rated for up to 20 ft. seating head and 10 ft. unseating head.

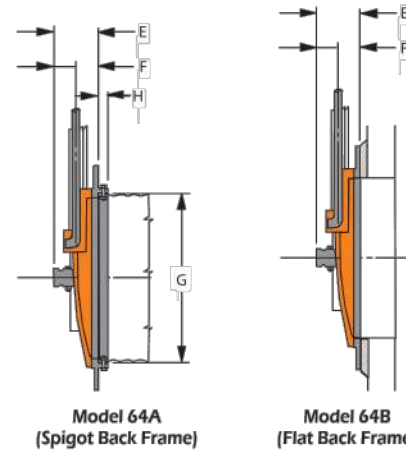
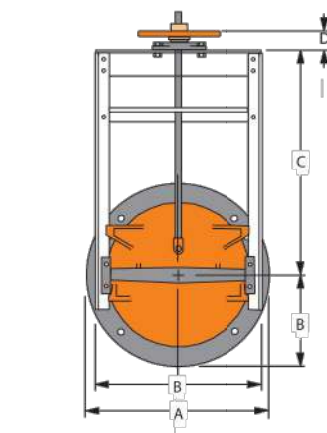


Material Specifications

Item	Description	Material	Specification
1	Seat	Cast Iron	ASTM A126, Class B
2	Slide	Cast Iron	ASTM A126, Class B
3	Cross Bar	Cast Iron	ASTM A126, Class B
4	Cross Bar Bolt & Nut	Steel, Plated	ASTM A307, A164
5	Wedge	Cast Iron	ASTM A126, Class B
6	Wedge Fasteners	Steel, Plated	ASTM A307, A164
7	Side Angle	Steel, Galvanized	ASTM A36
8	Stem Support	Steel, Galvanized	ASTM A36
9	Head Bar	Steel, Galvanized	ASTM A36
10	Head Bar Fasteners	Steel, Plated	ASTM A307, A164
11	Stem	Steel	ASTM A572, Grade 105
12	Keeper	Cast Iron	ASTM A126, Class B
13	Keeper Bolts & Nuts	Steel, Plated	ASTM A307, A164
14	Lift Nut	Brass	ASTM B594, A194
15	Stop Nut	Brass	ASTM B16
16	Handwheel	Cast Iron	ASTM A126, Class B
17	Handwheel Set Screw	Steel, Plated	ASTM A307, A164
18	Stem Stop, Bolt/Nut	Steel, Plated	ASTM A307, A164



SPECIFICATIONS



Dimensional Information

Gate Size (inches)	Dimensions (inches)								Anchor Bolt	Lift Data			
	A	B	C	D	E	F	G	H		Qty.	Size	Lift Type	H/Wheel/Lift
8	13.50	13.50	18.00	2.88	6.11	3.00	8.75	1.50	4.0	1/2 x 12	H1	10.0	7/8
	16.00	13.38	21.00	2.88	6.44	3.00	10.75	1.50	4.0	1/2 x 12	H1	10.0	7/8
12	19.00	15.38	24.00	2.88	6.63	3.00	13.25	1.50	4.0	1/2 x 12	H1	10.0	7/8
16	21.00	17.38	27.00	2.88	6.81	3.00	15.75	1.50	4.0	1/2 x 12	H1	10.0	7/8
	25.00	18.38	28.00	2.88	7.69	3.31	16.25	1.50	4.0	1/2 x 12	H1	10.0	7/8
20	23.50	19.38	30.00	2.88	7.94	3.31	17.25	1.50	4.0	1/2 x 12	H1	10.0	7/8
	26.00	22.88	33.25	2.88	9.00	4.10	19.25	1.50	4.0	5/8 x 12	H1	14.0	1-1/8
24	27.50	24.88	35.25	2.88	9.56	4.10	21.25	1.50	4.0	5/8 x 12	H1	14.0	1-1/8
	21.50	25.88	37.75	2.88	9.56	4.10	22.25	1.50	4.0	5/8 x 12	H1	14.0	1-1/8
32	32.00	28.88	42.25	2.88	10.94	4.19	25.25	1.50	4.0	5/8 x 12	H1	14.0	1-1/8
	36	38.75	38.50	1.50	15.50	5.23	47.5	3.25	6.0	1 1/2 x 12	H2	18.0	1-1/2
40	46.00	41.75	46.50	3.50	13.50	5.23	47.5	3.25	6.0	1 1/2 x 12	H2	24.0	1-1/2
	44.00	53.00	47.88	6.50	13.50	5.23	47.5	3.25	6.0	3/4 x 12	H2	30.0	1-1/2

NOT TO SCALE

STORM

SLUICE (CANAL) GATE

STM-88

			COLUMBIA COUNTY		
			PVC PIPE LOCATING WIRE DETAIL		
Date	Revisions	Drawn by	Date: FEB. 2010	Scale: N.T.S.	Dwg: Q108
					Fig: 108



VAA, LLC 763.559.9100
2300 Berkshire Lane N, Suite 200 www.vaaeng.com
Plymouth, MN 55441 Project # 230384

CLIENT:



PROJECT:

NEW LIQUID
FERTILIZER FACILITY
LAKE CITY, FL

[illegible]

CERTIFICATION:

MARK D. MIELKE, PE
Registration No. 68730

This item has been digitally signed and sealed by Mark D. Mielke. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

NOTICE: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, DETAILS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY OF VAA, LLC, AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALY EXPLOITED, IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.
COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

DRAWING TITLE:

CIVIL DETAILS

PROJECT NO:

230384
SCALE: AS NOTED

DRAWING NO:

C503

**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**

THE GENERAL STORMWATER NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT IS REQUIRED FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. THE PERMITEE(S) AS INDICATED IN THE PERMIT, MUST IMPLEMENT THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS DEMONSTRATED HEREIN AND WITHIN THE SWPPP NARRATIVE. THE BEST MANAGEMENT PRACTICES (BMP'S) IDENTIFIED MUST BE INSTALLED IN AN APPROPRIATE AND FUNCTIONAL WAY TO PREVENT DIRT AND/OR DEBRIS FROM ENTERING THE STORM SEWER OR BEING TRANSPORTED OFF SITE IN AN UNCONTROLLED MANNER.

EROSION PREVENTION PRACTICES

- THESE AREAS INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTED STORMWATER MANAGEMENT POND, SIDE SLOPES, AND ANY EXPOSED SOIL AREAS WITH A POSITIVE SLOPE TO STORMWATER CONVEYANCE SYSTEM, SUCH AS A CURB AND GUTTER SYSTEM, STORM SEWER INLET, TEMPORARY OR PERMANENT DRAINAGE DITCH OR OTHER NATURAL OR MANMADE SYSTEMS THAT DISCHARGE TO A SURFACE WATER.

3. PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER. CONTRACTOR TO PREVENT DIRT AND/OR DEBRIS FROM ENTERING STORM SEWER OR BEING TRANSPORTED OFF-SITE IN AN UNCONTROLLED MANNER. CONTRACTOR TO VERIFY AT PROJECT CLOSE-OUT THAT STORM SEWER SYSTEM IS CLEAR OF SEDIMENT AND/OR DEBRIS AND IS FULLY FUNCTIONAL. CONTRACTOR TO FOLLOW BEST MANAGEMENT PRACTICES (BMP'S).

5. IN ORDER TO MAINTAIN SHEET FLOW AND MINIMIZE HILLS AND/OR GULLIES, THERE SHALL BE NO UNBROKEN SLOPE LENGTH OF GREATER THAN 75 FEET FOR SLOPES WITH A GRADE OF 3:1 OR STEEPER.

- ## SEDIMENT CONTROL PRACTICES

2. TEMPORARY ROCK CONSTRUCTION ENTRANCE SHALL BE LOCATED AT ALL CONSTRUCTION ACCESS LOCATIONS. SEE DETAIL EC-04/C501.

4. SEDIMENT CONTROL PRACTICES MUST DETER SEDIMENT FROM ENTERING SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS AND STORM SEWER INLETS SEE DETAIL EC-11/C501.

6. SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.

7. IF THE DOWN GRADIENT TREATMENT SYSTEM IS OVERLOADED, ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES MUST BE INSTALLED TO ELIMINATE THE OVERLOADING, AND THE SWPPP MUST BE AMENDED TO IDENTIFY THESE ADDITIONAL PRACTICES.

8. THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES. ANY SHORT-TERM ACTIVITY MUST BE COMPLETED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL PRACTICES MUST BE INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. HOWEVER, SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.

9. CONTRACTOR TO INSTALL AND MAINTAIN INLET PROTECTION AROUND ALL EXISTING CATCHBASINS, CATCHBASIN MANHOLES, AND FLARED END SECTIONS PRIOR TO THE START OF LAND DISTURBING ACTIVITIES AND AROUND ALL NEW CATCHBASINS, CATCHBASIN MANHOLES, AND FLARED END SECTIONS AFTER THEY ARE INSTALLED, UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. SEE DETAILS EC-11/C501, EC-09/C501.

10. TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORM WATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES.

11. STOCKPILE AREAS WHICH REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE SEEDED, MULCHED, AND SURROUNDED BY SILT FENCE.

12. THE PERMITEE(S) MUST INSTALL TEMPORARY SEDIMENTATION BASINS AS REQUIRED PER THE AUTHORITY HAVING JURISDICTION. IT IS RECOMMENDED THAT THE TEMPORARY BASIN BE INSTALLED IN THE LOCATION OF THE PERMANENT BASIN. CONTRACTOR TO CLEAN OUT ALL SEDIMENT AND RETURN BASIN TO DESIGN CAPACITY PRIOR TO FINAL STABILIZATION.

1. DEWATERING OR BASIN DRAINAGE (E.G. PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) RELATED TO THE CONSTRUCTION ACTIVITY THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE WATER MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE WHENEVER POSSIBLE. IF THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMPs, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM LANDOWNERS. THE PERMITEE(S) MUST ENSURE THAT DISCHARGE POINTS ARE ADEQUATELY PROTECTED FROM EROSION AND SCOUR. THE DISCHARGE MUST BE DEPOSITED TO EITHER NATURAL SOIL OR GRAP, SAND OR BEDROCK. OTHER THAN ACCEPTED ENERGY DISSIPATION MEASURES, ADEQUATE SEDIMENTATION CONTROL MEASURES ARE REQUIRED FOR DISCHARGE WATER THAT CONTAINS SUSPENDED SOLIDS.

2. ALL WATER FROM DEWATERING OR BASIN DRAINING ACTIVITIES MUST BE DISCHARGED IN A MANNER THAT DOES NOT CAUSE NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS OR ON DOWNSLOPE PROPERTIES, OR INUNDATION IN WETLANDS CAUSING SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.

3. ANY DEWATERING ACTIVITY SHALL BE APPROVED BY THE ENGINEER AND THE APPROPRIATE GOVERNING AGENCIES PRIOR TO CONSTRUCTION.

INSPECTIONS AND MAINTENANCE ARE CONDUCTED BY THE SUPERVISOR/CONTRACTOR AND MUST CONFORM TO THE SWPPP NARRATIVE.

OWNER:
TODD CRESSMSAN
AGROLIQUID
3055 W M-21
SAINT JOHNS, MI 48879

CONTRACTOR:
GREYSTONE CONSTRUCTION
2995 WINNERS CIRCLE DRIVE, SUITE 200
SHAKOPEE, MN 55379

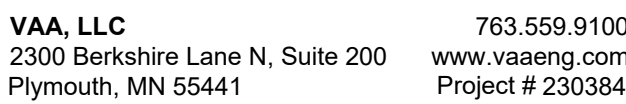
INSTALL SEDIMENT PONDS AT RATE OF 1800 CF OF DEAD STORAGE PER ACRE OF DISTURBED LAND. TEMPORARY SEDIMENT BASINS SHALL BE OPERATIONAL UNTIL PERMANENT COVER IS ESTABLISHED FOR THE ENTIRE DRAINAGE AREA OF THE TEMPORARY BASIN. TEMPORARY SEDIMENT BASINS MUST BE CONSTRUCTED AND MADE OPERATIONAL CONCURRENTLY WITH THE START OF SOIL DISTURBANCE THAT IS UPGRADIENT OF THE AREA AND CONTRIBUTES RUNOFF TO THE POND.

	BEFORE CONSTRUCTION	AFTER CONSTRUCTION
TOTAL PROJECT AREA	X	X
DISTURBED AREA	X	X
TOTAL ESTIMATED IMPERVIOUS	X	X
TOTAL ESTIMATED PERVIOUS	X	X
RUNOFF COEFFICIENT OR CN VALUE	X	X

BMP	ESTIMATED QUANTITIES OF BMP'S	UNITS
SILT FENCE	X	LF
OUTLET PROTECTION WITH RIP RAP	X	CY
FES INLET PROTECTION	X	LF
BIO-ROLLS	X	LF
SEED	X	ACRES
FERTILIZER	X	ACRES
MULCH	X	ACRES
CONSTRUCTION ENTRANCE	X	EA
EROSION CONTROL BLANKET	X	SY
CHECK DAM	X	SY
SOD	X	EA

THE SITE CONTRACTOR IS THE PARTY RESPONSIBLE TO OVERSEE THE IMPLEMENTATION OF THE SWPPP AND INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMP'S BEFORE, DURING, AND AFTER CONSTRUCTION UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED AND THE "NOTICE OF TERMINATION" IS SUBMITTED. SEE THE GENERAL STORMWATER PERMIT FROM THE AUTHORITY HAVING JURISDICTION FOR REGULATIONS.

ESTIMATED PROJECT START DATE: XX/XX/XXXX
ESTIMATED PROJECT COMPLETION DATE: XX/XX/XXXX



CLIENT:



PROJECT:

NEW LIQUID FERTILIZER FACILITY LAKE CITY, FL

[illegible]

CERTIFICATION:

MARK D. MIELKE, PE
Registration No. 68730

This item has been digitally signed and sealed by Mark D. Mielke. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

NOTICE: THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, DETAILS, DEVELOPMENTS, GRAPHICS AND MODELS THEREOF, ARE THE EXCLUSIVE PROPERTY OF VAA, LLC, AND CANNOT BE COPIED, DUPLICATED, REPRODUCED OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART, NOR CAN ANY DERIVATIVE WORK BE MADE UNLESS EXPRESSLY AUTHORIZED IN WRITING BY VAA, LLC.
COPYRIGHT VAA, LLC 2023 - ALL RIGHTS RESERVED.

DATE: 10/19/2023		DRAWN: RCQ	
DESIGNED: AJR	CHECKED: ARL	APPROVED: MDM	

DRAWING TITLE:

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

PROJECT NO: 230384	DRAWING NO: C601
SCALE: AS NOTED	

**ISSUED FOR
PERMIT
NOT FOR CONSTRUCTION**