



March 21, 2023

Mariah Anderson
IMEG Group
175 N 27th Street Suite 1312
Billings MT 59101

RE: The Meadows Subdivision
Yellowstone County
E.Q. #22-2615

Dear Ms. Anderson:

The plans and supplemental information relating to the water supply, sewage, solid waste disposal, and storm drainage (if any) for the above referenced division of land have been reviewed as required by ARM Title 17 Chapter 36(101-805) and have been found to be in compliance with those rules.

Two copies of the Certificate of Subdivision Plat Approval are enclosed. The original is to be filed at the office of the county clerk and recorder. The duplicate is for your personal records.

Development of the approved subdivision may require coverage under the Department's General Permit for Storm Water Discharges Associated with Construction Activity, if your development has construction-related disturbance of one or more acre. If so, please contact the Storm Water Program at (406) 444-3080 for more information or visit the Department's storm water construction website at <http://www.deq.state.mt.us/wqinfo/MPDES/StormwaterConstruction.asp>. Failure to obtain this permit (if required) prior to development can result in significant penalties.

In addition, your project may be subject to Federal regulations relating to Class V injection wells. Please contact the United States Environmental Protection Agency regarding specific rules that may apply.

Your copy is to inform you of the conditions of the approval. Please note that you have specific responsibilities according to the plat approval statement primarily with regard to informing any new owner as to any conditions that have been imposed.

If you have any questions, please contact this office.

Sincerely,

A handwritten signature in blue ink, appearing to read "Shawn Rowland", is written over a horizontal line.

Shawn Rowland M.S. R.S.
Subdivision Section Supervisor
Engineering Bureau
Water Quality Division

SR/JL

cc: County Sanitarian
County Planning Board (e-mail)
Owner

STATE OF MONTANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
CERTIFICATE OF SUBDIVISION PLAT APPROVAL
(Section 76-4-101 et seq.)

TO: County Clerk and Recorder
Yellowstone County
Billings, Montana

EQ#: 22-2615

THIS IS TO CERTIFY THAT the plans and supplemental information relating the subdivision known as **The Meadows Subdivision:**

Being Tracts 2 and 3 of Certificate of Survey No.2335 located in the SE ¼ of Section 18, T.1S., R.25E.,
P.M.M., YELLOWSTONE COUNTY, MONTANA,
consisting of thirty-nine (39) lots, have been reviewed by personnel of the Water Quality Division, and,

THAT the documents and data required by ARM Chapter 17 Section 36 have been submitted and found to be in compliance therewith, and,

THAT approval of the application is made with the understanding that the following conditions shall be met:

THAT the parcel sizes as indicated on the COS filed with the county clerk and recorder will not be further altered without approval, and,

THAT each lot shall each be used for one living unit, and,

THAT the proposed individual water supply system for each lot shall consist of a well drilled to a minimum depth of 25 feet constructed in accordance with the criteria established in Title 17, Chapter 36, Sub-Chapters 1, 3 and 6 ARM and the most current standards of the Department of Environmental Quality, and,

THAT the proposed individual water wells for Lots 28-39 will be located by easement on neighboring Lots 12-15, 17, 18, 20, 21, 23-25 and 27 as indicated on approved lot layout plan, and,

THAT data provided indicates an acceptable water source at a depth of approximately 30-60 feet, and,

THAT the individual sewage treatment systems for each lot shall consist of a minimum 1,500 gallon septic tank with an effluent filter, an approved Level II recirculating trickling filter system, a minimum 500-gallon dosing tank with high-level alarm, and a pressure-dosed subsurface drainfield of such size and description as will comply with Title 17, Chapter 36, Sub-Chapters 1, 3 and 6 ARM, and the most current Yellowstone County Regulations for Sewage Treatment Systems, and,

THAT the conditions of approval for a Level II treatment system requires an Operation & Maintenance (O&M) contract, in accordance with ARM 17.30.718(8) and the service-related obligations listed in DEQ-4, Appendix D, in perpetuity, with an authorized Dealer/Representative, and,

THAT the O&M contract shall include a bi-annual on-site inspection of all major components of the wastewater treatment system for the first two (2) years after use of the system begins, and annually thereafter, in accordance with ARM 17.30.718(8)(a), and,

THAT annual sampling in accordance with ARM 17.30.718(8)(b) is required for the life of the system and shall include the following parameters: nitrate; nitrite, ammonia, total Kjeldahl nitrogen (TKN), biochemical oxygen demand (BOD), total suspended solids (TSS), fecal coliform, specific conductance and temperature. Effluent sampling shall be conducted after all treatment is complete and prior to discharge to the subsurface absorption system. All water analysis shall be conducted according to the EPA approved method by an independent laboratory, except for temperature, which shall be measured on-site. The monitoring results must be maintained by the service provider and made available to the Department by the service provider at any time the Department requests the results, and,

THAT the proposed subsurface drainfield on Lots 4, 19-25, 27, 32-36, and 38-39 will have an absorption area of sufficient size to provide for a 0.4 gpd/ft.sq. application rate and will be constructed in accordance with plans and specifications as submitted by IMEG dated May 2022, and,

THAT the proposed subsurface drainfield on Lots 1-3, 5-18, 26, 28-31 and 37 will have an absorption area of sufficient size to provide for a 0.3 gpd/ft.sq. application rate and will be constructed in accordance with plans and specifications as submitted by IMEG dated May 2022, and,

THAT the bottom of the drainfield shall be at least four feet above a limiting layer as defined in the ARM Title 17, Chapter 36, Subchapter 1, and,

THAT no sewage treatment system shall be constructed within 100 feet of the maximum high-water level of a 100-year flood of any stream, lake, watercourse, or irrigation ditch, nor within 100 feet of any domestic water supply source, and,

THAT the primary and replacement area drainfield areas shall be staked by a site evaluator or engineer prior to construction to ensure they are located as per the approved site plan and all setbacks are maintained, and,

THAT the stormwater drainage system shall consist of: irrigated lawn and landscaping, properly constructed county roads, and a minimum 92,161 cubic foot of retention swale(s) located and constructed in accordance with plans submitted by Kolten Knatterud, PE#38396 of IMEG Corp dated May 2022, and

THAT water supply systems, sewage collection and treatment systems and storm drainage systems will be located as shown on the approved plans, and,

THAT all sanitary facilities must be located as shown on the attached lot layout, and,

THAT the developer and/or owner of record shall provide the purchaser of property with a copy of the plat, approved location of water supply and sewage treatment system as shown on the attached lot layout, and a copy of this document, and,

THAT instruments of transfer for this property shall contain reference to these conditions, and,

THAT plans and specifications for any proposed sewage treatment systems will be reviewed and approved by the Yellowstone City-County Health Department and will comply with Yellowstone City-County Board of Health Rule #3 and Title 17, Chapter 36, Sub-Chapters 3 and 9, ARM, before construction is started.


Pursuant to Section 76-4-122 (2) (a), MCA, a person must obtain the approval of both the State under Title 76, Chapter 4, MCA, and local board of health under section 50-2-116 (1) (i), before filing a subdivision plat or COS with the county clerk and recorder.

THAT departure from any criteria set forth in the approved plans and specifications and Title 17, Chapter 36, Sub-Chapter 1, 3, & 6 ARM when erecting a structure and appurtenant facilities in said subdivision without Department approval, is grounds for injunction by the Department of Environmental Quality.

YOU ARE REQUESTED to record this certificate by attaching it to the plat filed in your office as required by law.

DATED this 17th Day of January, 2023.

BY: 
Adam Harris, RS
Environmental Health Services
Yellowstone City/County Health Department
d/b/a RiverStone Health

Chris Dorrington,
DIRECTOR

Shawn Rowland, MS RS, Section Supervisor
Subdivision Section & Engineering Bureau
Water Quality Division
Department of Environmental Quality

OWNERS NAME: M&J Land Company LLC

FOR MDEQ USE

RECEIVED STAMP:

RECEIVED

JAN 24 2023

Subdivisions & Public Water

EQ #: 22-2615

APPROVAL STAMP

Reviewed by the Local Reviewing Authority
Under contract with the
Department of Environmental Quality
Clara Janni 1/16/2023
Local Reviewer Date

Accepted under contract
Debra English 1-24-2023
DEQ Representative Date

LOT LAYOUT REQUIREMENTS - ARM 17.36.104(2):

- The name of the subdivision, and the county, section, township and range in which the proposed subdivision is located have been listed in the title block to the right.
- A north arrow and scale are shown on this sheet.
- The boundaries, dimensions, and total area of each lot are shown in the plan view for all lots.
- An identifier or number for each lot (e.g., "lot 1, lot 2", "tract 1, tract 2", or "parcel 1, parcel 2") has been included.
- Proposed easements are shown on the Lot Layout. There are utility easements on each lot, and easement for wells on some lots.
- Utilities as shown here are specific to water and sewer. This layout does not show existing or proposed electrical, gas, or communication utilities. It also does not show privately owned utilities such as sewer or water services lines, propane tanks/lines, electrical and gas service lines, or underground sprinkler systems. Locations of existing roads are shown and labeled. There are proposed public roads shown.
- There are proposed storm water structures as part of this project and are shown on the Lot Layout.
- Proposed drainage ways for this project are shown on the Lot Layout. The name and affiliation of the person who prepared the lot layout is listed in the lower right side and title block, respectively.
- All applicable information as set out in Table 1 for the specific water supply and wastewater systems in the development has been shown. All systems have been labeled or listed in the legend as "existing" or "proposed". The floodplain boundaries is not near the property.

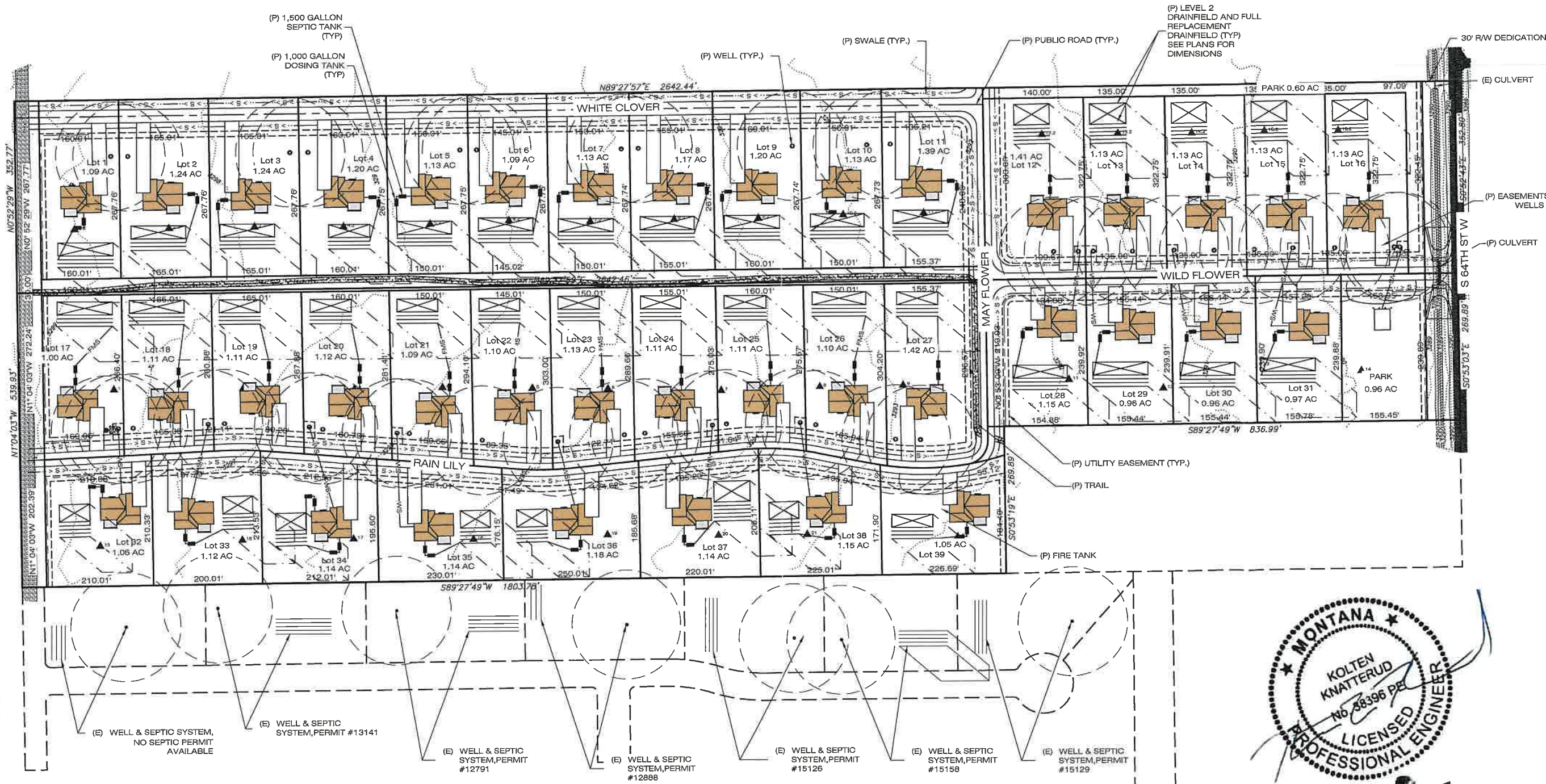
MDEQ LOT LAYOUT NOTES:

- Known existing, previously approved, or proposed wells, wastewater treatment systems, and mixing zones on or within 100' of the subdivision have been shown on this Lot Layout.
- All setbacks in ARM 17.36.323 are met.
- Proposed home locations are provided as conceptual in nature. This Lot Layout shall in no way act as a regulatory document for siting homes or driveways. No known sources of contamination within 500' of proposed well where found in regards to this development.

STORM DRAINAGE MAINTENANCE PLAN

- The following information is provided as the storm drainage maintenance plans as required by ARM 17.36.310.
- The drainage maintenance requirements including maintenance schedule is as follows:
 - The responsible entity should walk the site to look for any signs of storm drainage malfunctioning once a month. Signs of storm drainage malfunctioning include ponding storm; signs of ponding water such as water stain marks on pavement or vegetative differences due to saturation; overflow dripping along building gutters. Any signs of potential storm drainage failure should be investigated and fixed.
 - Building gutters shall be free of debris allowing building roof runoff to flow into downspouts. Gutters shall be checked for potential blockage in the spring and the fall or more frequently if deemed necessary by the responsible entity.
- Lot owners shall be responsible for maintenance of the lawn & landscaping, storm drainage retention ponds, and swales located on their respective lots. Maintenance includes removal of sediment and excess vegetation of the swales and other general maintenance and repair. The lawn & landscaping and swales should be checked at least every 6 months.

100 0 100 200
SCALE IN FEET



Subdivisions & Public Water

JAN 24 2023

RECEIVED



PH: 406.545.6420
FAX: 406.286.1181
www.imegcorp.com

DATE: JULY 2022
DESIGNED: MA
DRAFTED: MA
CHECKED: MA
DATE: MAY 2022

LOCATION: PARCEL 2 C.O.S. 3493
SECTION 18, T01S, R25E
YELLOWSTONE COUNTY
PREPARED FOR: M&J LAND CO LLC

THE MEADOWS
MDEQ LOT LAYOUT

PROJECT NAME: THE MEADOWS
PROJECT NO.: 22000048
SHEET: 1 OF 3

DATE: 5-27-22

PREPARED BY: MARIAH ANDERSON

FOR MDEQ USE

RECEIVED STAMP:

RECEIVED

JAN 24 2023

Subdivisions & Public Water

EQ #: 22-2215

APPROVAL STAMP

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Under contract with the
Department of Environmental Quality

Clara Jani 1/16/2023
Local Reviewer Date

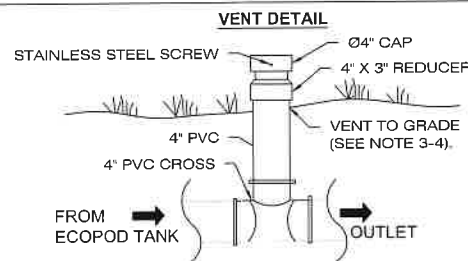
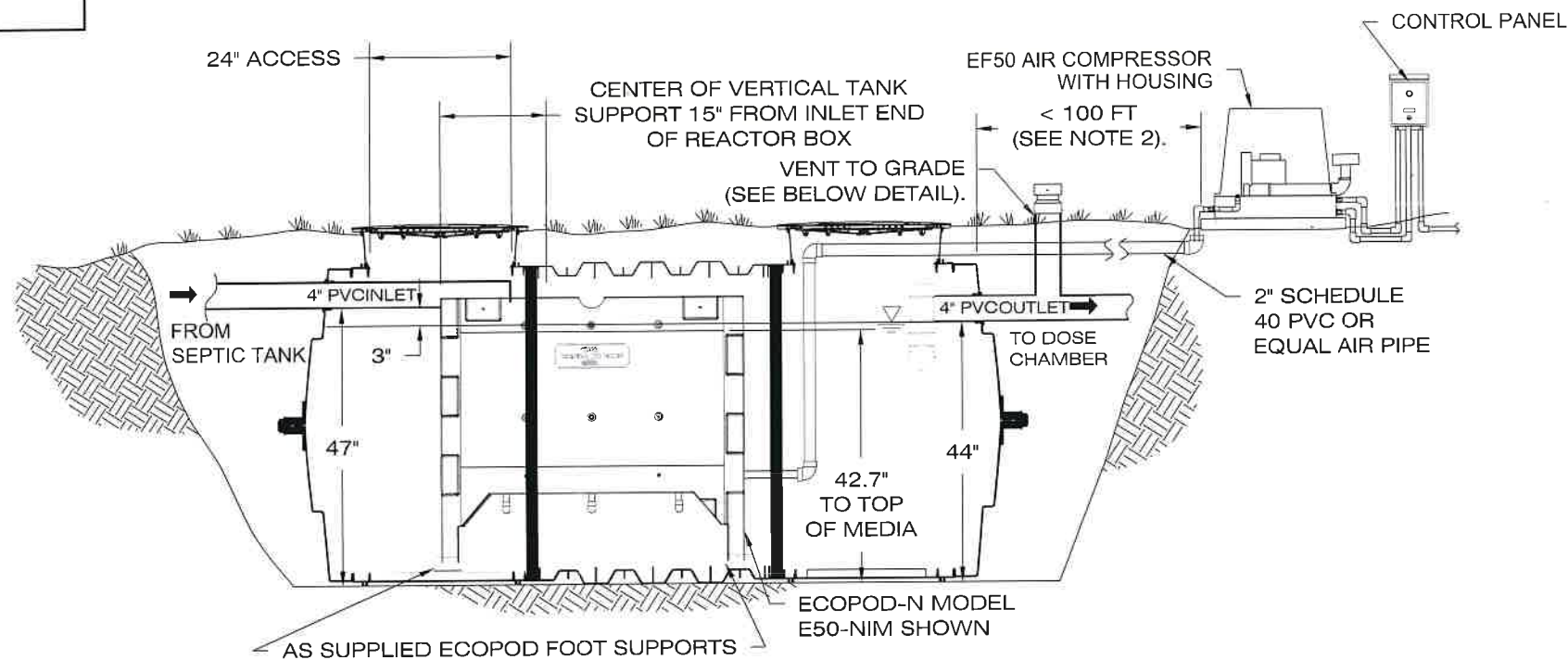
Accepted under contract

Delta English 1-24-2023
DEQ Representative Date

DELTA TREATMENT SYSTEMS, LLC

ECOPOD E50-NIM
INSTALLED WITH IM-1060 TANK
TYPICAL CROSS SECTION DETAIL
(NOT TO SCALE)

NOTE: SCHEMATIC TANK SHOWN
ACTUAL TANK WILL BE BILLINGS
PRECAST SDCE50N - DELTA
ECOPOD COMBINATION TANK



NOTES:

1. INSTALL TANK PER INSTALLATION INSTRUCTIONS
2. AIR COMPRESSOR INSTALLED WITHIN 100 FT OF THE TANK.
3. FOR STATE SPECIFIC DRAWINGS PLEASE CONTACT DELTA TREATMENT SYSTEMS, LLC.
4. VENT MUST BE LOCATED ABOVE FINAL GRADE TO AVOID INFILTRATION. SECURE CAP ON VENT WITH STAINLESS STEEL SCREW TO PREVENT UNAUTHORIZED ACCESS.

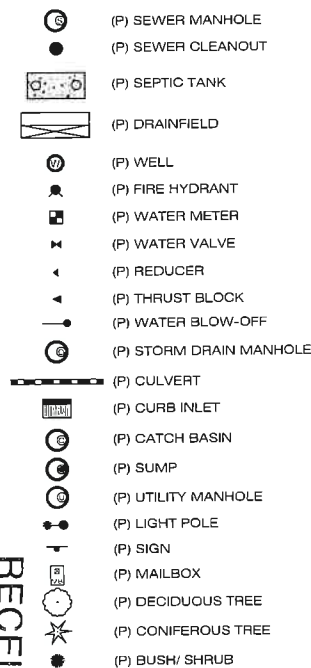
A
D1 DELTA ECOPOD E50-N

NOT TO SCALE

DELTA TREATMENT SYSTEMS, LLC.
9125 Comar Dr. Walker, LA 70785
(800) 219-9183

ECOPOD E-50NIM
INSTALLED WITH IM-1060 TANK
TYPICAL CROSS SECTION DETAIL

Drawn by: Date: 2/15/2019
Scale: NOT TO SCALE Checked by: DFH Sheet: 1 OF 1



DATE	REVISIONS

DESIGNED: MA
DRAFTED: MA
CHECKED: MA
DATE: MAY 2022

LOCATION: PARCEL 2, C.O.S. 3493
SECTION 18, T01S, R25E
YELLOWSTONE COUNTY
PREPARED FOR: M&J LAND CO LLC

THE MEADOWS
MDEQ LOT LAYOUT

PROJECT NO. 22000048
SHEET: D1 OF D2

PREPARED BY: MARIAH ANDERSON

NOTES

THE SEPTIC TANK MUST MEET THE REQUIREMENTS OF DEQ CIRCULAR 4, CHAPTER 5.

THE REVIEWING AUTHORITY OR DESIGNER MAY REQUIRE TANKS INTENDED FOR OTHER USES TO BE TESTED. TANKS MUST BE TESTED USING ONE OF THE FOLLOWING METHODS:

- A. VACUUM TESTING: SEAL THE EMPTY TANK AND APPLY A VACUUM TO 4 INCHES (100mm) MERCURY. THE TANK IS APPROVED IF 90% OF THE VACUUM IS HELD FOR 2 MINUTES; OR
- B. WATER PRESSURE TESTING: SEAL THE TANK, FILL WITH WATER, AND LET STAND FOR AT LEAST 24 HOURS. REFILL THE TANK. THE TANK IS APPROVABLE IF IT HOLDS WATER.

THE SEPTIC TANK OUTLET MUST BE EQUIPPED WITH AN EFFLUENT FILTER WITH A MAXIMUM 1/8 INCH OPENING.

THE ET SYSTEM MUST BE CONSTRUCTED BY A SEPTIC INSTALLER CERTIFIED BY THE RIVERSTONE HEALTH DEPARTMENT AND MUST BE CONSTRUCTED IN ACCORDANCE WITH THE RIVERSTONE HEALTH DEPARTMENT REGULATIONS.

CLEANOUTS MUST BE INSTALLED EVERY 100 FEET WITH AT LEAST ONE BETWEEN THE HOUSE AND SEPTIC TANK ON THE SEWER LINE.

OWNER/CONTRACTOR MUST OBTAIN REQUIRED PERMITS PRIOR TO STARTING CONSTRUCTION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY LOCATES, CALL 1-800-424-5555 FOR "ONE-CALL LOCATOR"

ALL MATERIALS SHALL BE AS SPECIFIED ON PLANS. FOLLOWING IS A LIST OF COMPONENTS & THEIR SPECIFIED SIZES:

- FORCE MAIN = 1.5"
- MANIFOLD = 1.5"
- LATERALS = 1.5"
- ORIFICE SIZE = 5/32"

CONSTRUCTION METHODS SHALL BE SUCH THAT THE SOILS BELOW THE ET SYSTEM ARE NOT COMPACTED. AFTER EXCAVATION OF THE ET BED, THE BOTTOM & SIDES MUST BE RAKED TO SCARIFY SMEARED SOIL SURFACES. IF A SAMPLE OF SOIL WITHIN THE WORKING DEPTH CAN BE EASILY ROLLED INTO THE SHAPE OF A WIRE OR CAST, THE SOIL MOISTURE CONTENT IS TOO HIGH & CONSTRUCTION SHALL BE POSTPONED.

EXCAVATE SEPTIC TANK BOTTOM TO GRADE. DO NOT OVER EXCAVATE. IF OVER EXCAVATION OCCURS, ONLY A CRUSHED 1" MINUS GRAVEL SHALL BE USED AS BACKFILL. TANK SHALL BE INSTALLED IN ACCORDANCE WITH THE YELLOWSTONE COUNTY HEALTH CODES.

INSTALL COMPONENTS IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED BY THE SUPPLIER.

COORDINATE THE LOCATION OF THE DOSE CONTROL PANEL WITH THE PROJECT OWNER.

COORDINATE ALL TESTING WITH RIVERSTONE HEALTH DEPARTMENT & ENGINEER.

PROVIDE OWNERS OF SYSTEM WITH ALL MANUFACTURER'S OPERATION AND MAINTENANCE DOCUMENTATION UPON COMPLETION.

CONTROL PANEL NOTES:

1. CONTRACTOR SHALL COORDINATE WITH OWNER FOR LOCATION OF CONTROL PANEL.
2. CONTROL PANEL SHOULD BE LOCATED IN EASILY ACCESSIBLE AND HIGHLY VISIBLE LOCATION.
3. ENGINEER STRONGLY RECOMMENDS CONTROL PANEL INCLUDE AN ELAPSED TIME METER AND EVENT COUNTER TO ASSIST TROUBLESHOOTING AND POTENTIAL FUTURE MAINTENANCE ISSUES. CONTROL PANEL SHOULD ALSO INCLUDE A HEATER IF INSTALLED OUTSIDE, OR IN UN-HEATED BUILDING/ GARAGE.

DOSING CHAMBER COMPONENT NOTES:

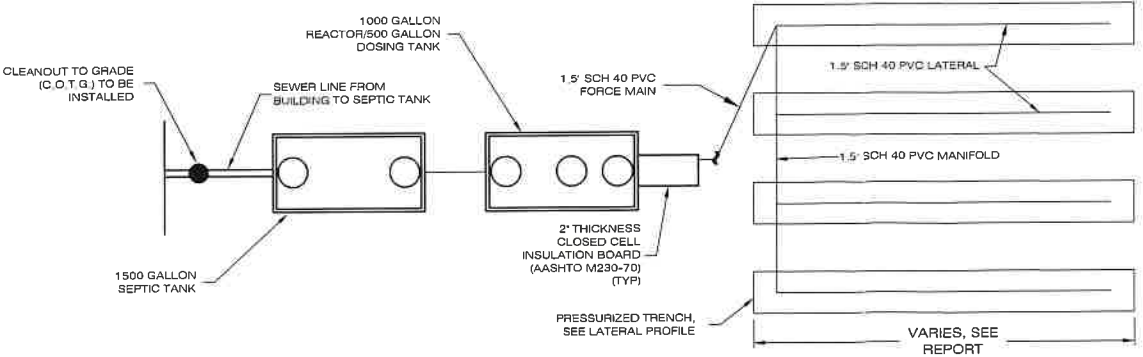
1. INSTALL A LIFTING ROPE OR CHAIN TO THE PUMP FOR EASY REMOVAL. ATTACH UPPER PART OF ROPE OR CHAIN TO INSIDE OF RISER AND LEAVE IN ORDERLY FASHION WITHOUT EXCESSIVE LENGTH. ZIP TIE ONTO HOOK TO PREVENT ACCIDENTAL DROPPING OF ROPE OR CHAIN INTO CHAMBER.
2. FLOAT ASSEMBLY SHALL BE EASILY REMOVABLE VIA A PVC CLIP AS PROVIDED BY MANUFACTURER, OR OTHER ONE-HANDED OPERATION. DO NOT SCREW OR BOLT FLOAT ASSEMBLY TO RISER OR TANK. A 1" HANDLE SHALL BE PROVIDED ON TOP END OF FLOAT ASSEMBLY.
3. PUMP OFF FLOAT MUST BE HIGHER THAN TOP OF PUMP FOR THIS DESIGN.

SEPTIC/DOSING TANK NOTES:

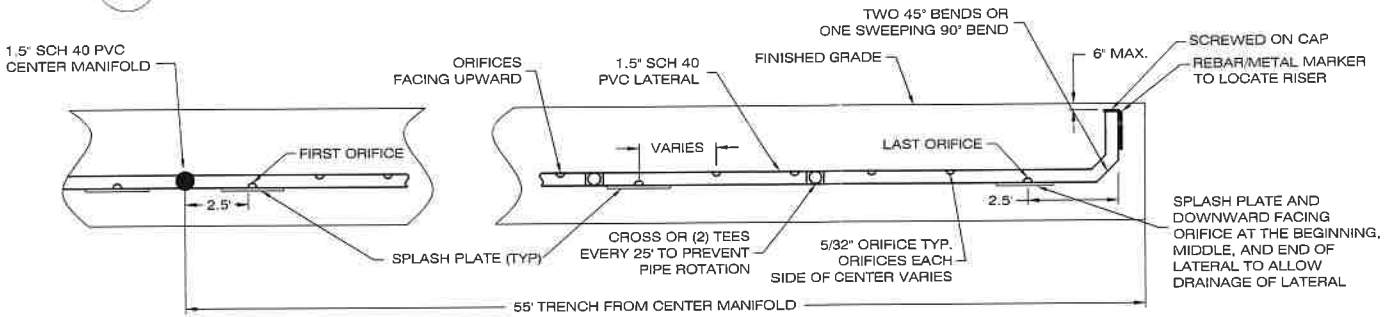
1. RISER HEIGHT MAY VARY DUE TO STEEP SLOPES AND FINAL CONFIGURATION OF TANK ON SITE. ENGINEER RECOMMENDS ALL RISERS REMAIN VISIBLE AND ACCESSIBLE TO FACILITATE MAINTENANCE.
2. EXCAVATE SEPTIC TANK BOTTOM TO GRADE. DO NOT OVER-EXCAVATE. IF OVER EXCAVATION OCCURS, ONLY A CRUSHED 1" MINUS GRAVEL SHALL BE USED AS BACKFILL. TANK SHALL BE INSTALLED IN ACCORDANCE WITH THE RIVERSTONE HEALTH CODES.
3. IF TANKS ARE MOVED FROM PROPOSED LOCATION ON THESE PLANS, AN ENGINEER SHALL CONFIRM PUMP SIZING. FORCE MAIN LENGTH AND TANK ELEVATION AFFECT PUMP SIZING.

SEPTIC TANK WATER TIGHTNESS TESTING NOTE:

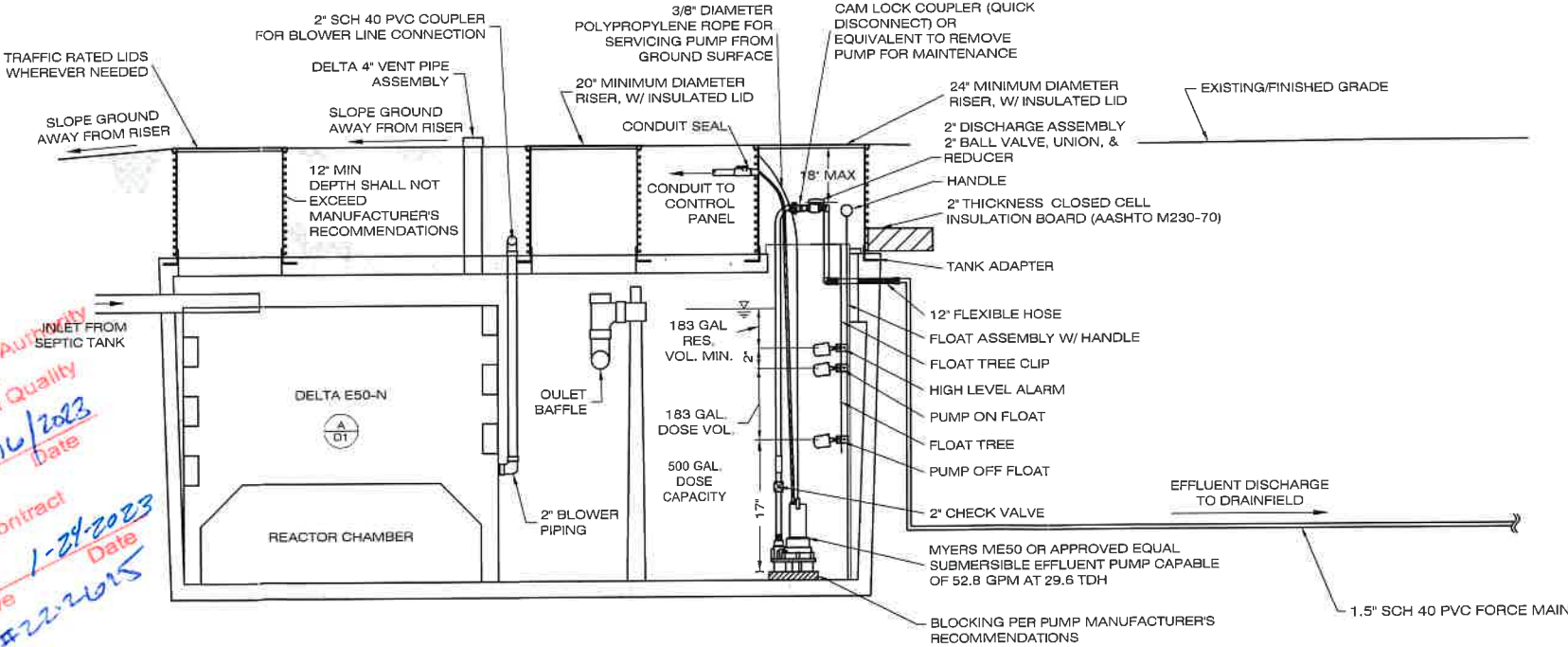
WATER TESTING MUST BE CONDUCTED BY SEALING OUTLETS, FILLING SEPTIC TANK TO 6" ABOVE TANK LID, AND ALLOWING TANK TO STAND FOR AT LEAST 8 HOURS. IF THERE IS A MEASURABLE LOSS (1 INCHES OR MORE), REFILL THE TANK AND LET STAND FOR ANOTHER 8 HOURS. IF THERE IS AGAIN A MEASURABLE LOSS, THE TANK MUST BE REJECTED.



A D2 PRESSURIZED DRAINFIELD SCHEMATIC PLAN VIEW



B D2 DRAINFIELD LATERAL PROFILE



D D2 1000 GALLON REACTOR/500 GALLON DOSE COMBINATION TANK

C D2 1500 GALLON SEPTIC TANK

SEPTIC/DOSING TANK NOTES:

1. RISER HEIGHT MAY VARY DUE TO STEEP SLOPES AND FINAL CONFIGURATION OF TANK ON SITE. ENGINEER RECOMMENDS ALL RISERS REMAIN VISIBLE AND ACCESSIBLE TO FACILITATE MAINTENANCE.
2. EXCAVATE SEPTIC TANK BOTTOM TO GRADE. DO NOT OVER-EXCAVATE. IF OVER EXCAVATION OCCURS, ONLY A CRUSHED 1" MINUS GRAVEL SHALL BE USED AS BACKFILL. TANK SHALL BE INSTALLED IN ACCORDANCE WITH THE YELLOWSTONE-COUNTY HEALTH CODES.
3. IF TANK IS MOVED FROM PROPOSED LOCATION ON THESE PLANS, AN ENGINEER SHALL CONFIRM PUMP SIZING. FORCE MAIN LENGTH AND TANK ELEVATION AFFECT PUMP SIZING.

RECEIVED

JAN 24 2023

Subdivisions & Public Water

Reviewed by the Local Reviewing Authority
Under contract with the
Department of Environmental Quality
Local Reviewer
Accepted under contract
Date 1-24-2023
Date 1-22-2023
EQ#22-2015

DATE	
REVISIONS	
DESIGNED: MA	
DRAFTED: MA	
CHECKED: MA	
DATE: MAY 2022	

LOCATION: PARCEL 2, C.O.S. 3493
SECTION 18, T10S, R25E
YELLOWSTONE COUNTY
PREPARED FOR: M&J LAND CO LLC

PROJECT NAME: THE MEADOWS
SHEET TITLE: MDEQ LOT LAYOUT

PROJECT NO: 22000048
SHEET: D2 OF D2

FOR MDEQ USE

RECEIVED STAMP:

RECEIVED

JAN 24 2023

Subdivisions & Public Water

EQ #: 22-2615

APPROVAL STAMP

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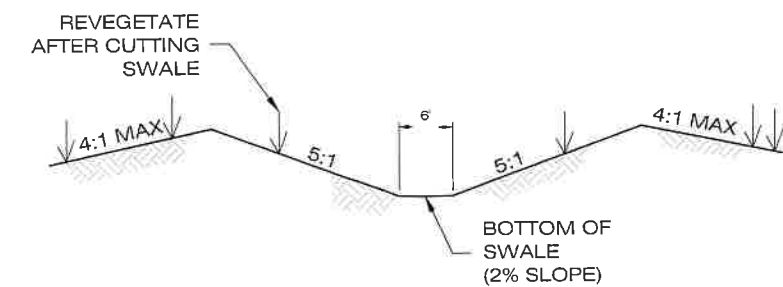
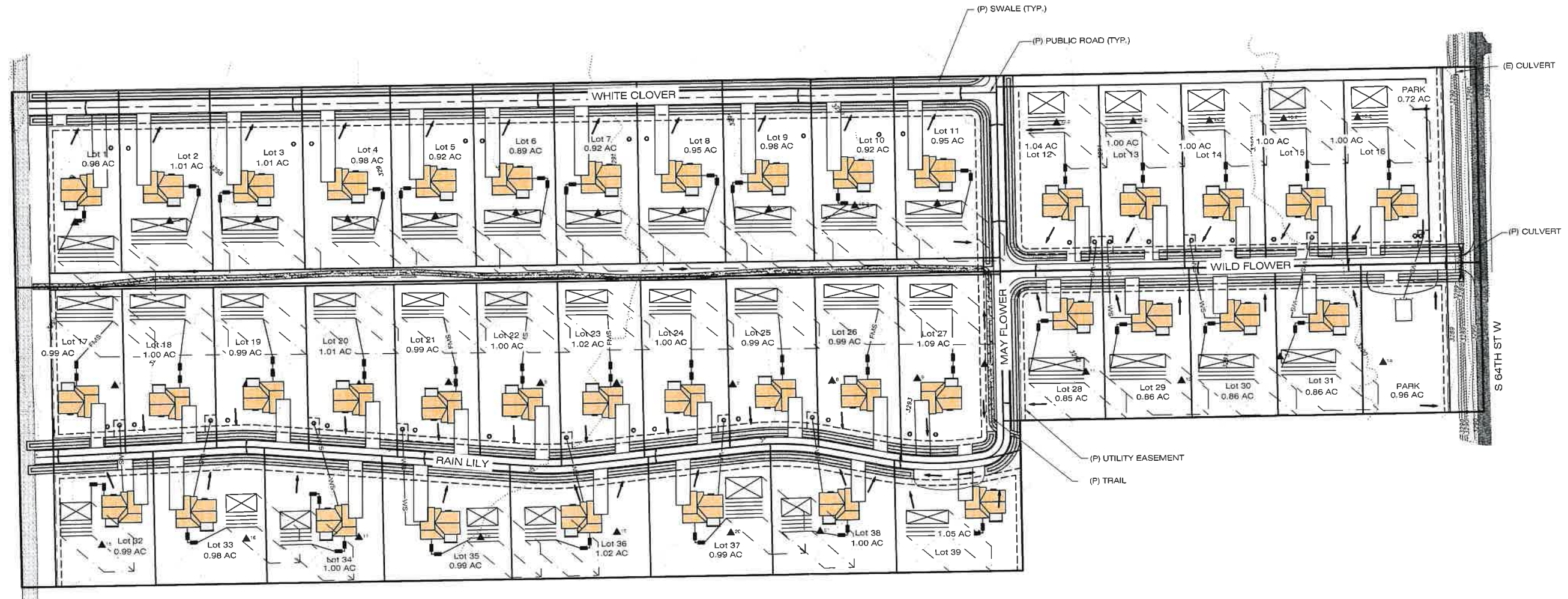
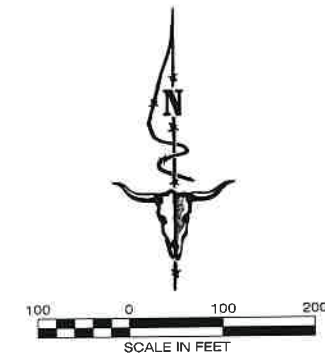
Patricia Harris 1/16/2023
Local Reviewer Date

Accepted under contract

Debra English 1-24-2023
DEQ Representative Date

DRAINAGE BASIN EXHIBIT - NOTES:

- (a) 92,161 CF OF STORAGE TO BE PROVIDED FROM THE SWALES SHOWN. THIS VOLUME IS GREATER THAN THE 86,776 CF OF REQUIRED STORAGE FOR THE 100-YEAR STORM.
(b) TIME TO DRAIN IN THE SWALES IS 10 HOURS, WITH A DEPTH TO DRAIN OF 11.3 INCHES FOR THE 100-YEAR STORM.
(c) STORAGE CALCULATIONS WERE CONSIDERED USING THE POST-DEVELOPMENT STORAGE REQUIRED VOLUME FOR THE 100-YEAR STORM.



A 1 TYPICAL SWALE DETAIL

NOT TO SCALE

PREPARED BY: MARIAH ANDERSON



PH: 406.545.6420
FAX: 406.255.1151
WWW.IMEGCP.COM
175 N. 27TH ST., STE. 1312
BILINGS, MT 59101

DATE: JULY 2022

REVISIONS: SITE LAYOUT UPDATE

DESIGNED: MA
DRAFTED: MA
CHECKED: MA
DATE: MAY 2022

LOCATION: PARCEL 2, C.O.S. 3499
SECTION 18, T01S, R25E
YELLOWSTONE COUNTY
PREPARED FOR: M&J LAND CO LLC

THE MEADOWS

DRAINAGE BASIN EXHIBIT

PROJECT NO: 22000048

SHEET TITLE: 1 OF 1

Subdivisions & Public Water

JAN 24 2023

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March 21, 2023

Mariah Anderson
IMEG Group
175 N 27th Street Suite 1312
Billings MT 59101

RE: The Meadows Subdivision
Yellowstone County
E.Q. #22-2615

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Development of the approved subdivision may require coverage under the Department's General Permit for Storm Water Discharges Associated with Construction Activity, if your development has construction-related disturbance of one or more acre. If so, please contact the Storm Water Program at (406) 444-3080 for more information or visit the Department's storm water construction website at <http://www.deq.state.mt.us/wqinfo/MPDES/StormwaterConstruction.asp>. Failure to obtain this permit (if required) prior to development can result in significant penalties.

In addition, your project may be subject to Federal regulations relating to Class V injection wells. Please contact the United States Environmental Protection Agency regarding specific rules that may apply.

Your copy is to inform you of the conditions of the approval. Please note that you have specific responsibilities according to the plat approval statement primarily with regard to informing any new owner as to any conditions that have been imposed.

If you have any questions, please contact this office.

Sincerely,

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Shawn Rowland M.S. R.S.
Subdivision Section Supervisor
Engineering Bureau
Water Quality Division

SR/JL

cc: County Sanitarian
County Planning Board (e-mail)
Owner

THAT the proposed subsurface drainfield on Lots 4, 19-25, 27, 32-36, and 38-39 will have an absorption area of sufficient size to provide for a 0.4 gpd/ft.sq. application rate and will be constructed in accordance with plans and specifications as submitted by IMEG dated May 2022, and,

THAT the proposed subsurface drainfield on Lots 1-3, 5-18, 26, 28-31 and 37 will have an absorption area of sufficient size to provide for a 0.3 gpd/ft.sq. application rate and will be constructed in accordance with plans and specifications as submitted by IMEG dated May 2022, and,

THAT the bottom of the drainfield shall be at least four feet above a limiting layer as defined in the ARM Title 17, Chapter 36, Subchapter 1, and,

THAT no sewage treatment system shall be constructed within 100 feet of the maximum high-water level of a 100-year flood of any stream, lake, watercourse, or irrigation ditch, nor within 100 feet of any domestic water supply source, and,

THAT the primary and replacement area drainfield areas shall be staked by a site evaluator or engineer prior to construction to ensure they are located as per the approved site plan and all setbacks are maintained, and,

THAT the stormwater drainage system shall consist of: irrigated lawn and landscaping, properly constructed county roads, and a minimum 92,161 cubic foot of retention swale(s) located and constructed in accordance with plans submitted by Kolten Knatterud, PE#38396 of IMEG Corp dated May 2022, and

THAT water supply systems, sewage collection and treatment systems and storm drainage systems will be located as shown on the approved plans, and,

THAT all sanitary facilities must be located as shown on the attached lot layout, and,

THAT the developer and/or owner of record shall provide the purchaser of property with a copy of the plat, approved location of water supply and sewage treatment system as shown on the attached lot layout, and a copy of this document, and,

THAT instruments of transfer for this property shall contain reference to these conditions, and,

THAT plans and specifications for any proposed sewage treatment systems will be reviewed and approved by the Yellowstone City-County Health Department and will comply with Yellowstone City-County Board of Health Rule #3 and Title 17, Chapter 36, Sub-Chapters 3 and 9, ARM, before construction is started.

Pursuant to Section 76-4-122 (2) (a), MCA, a person must obtain the approval of both the State under Title 76, Chapter 4, MCA, and local board of health under section 50-2-116 (1) (i), before filing a subdivision plat or COS with the county clerk and recorder.

THAT departure from any criteria set forth in the approved plans and specifications and Title 17, Chapter 36, Sub-Chapter 1, 3, & 6 ARM when erecting a structure and appurtenant facilities in said subdivision without Department approval, is grounds for injunction by the Department of Environmental Quality.

YOU ARE REQUESTED to record this certificate by attaching it to the plat filed in your office as required by law.

DATED this 17th Day of January, 2023.

BY:



Adam Harris, RS
Environmental Health Services
Yellowstone City/County Health Department
d/b/a RiverStone Health

Chris Dorrington,
DIRECTOR



Shawn Rowland, MS RS, Section Supervisor
Subdivision Section & Engineering Bureau
Water Quality Division
Department of Environmental Quality

OWNERS NAME: M&J Land Company LLC

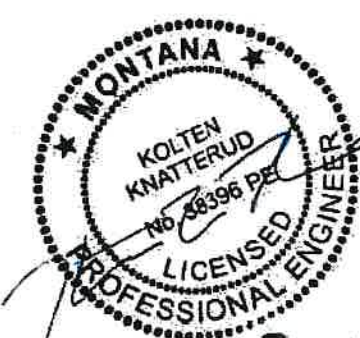
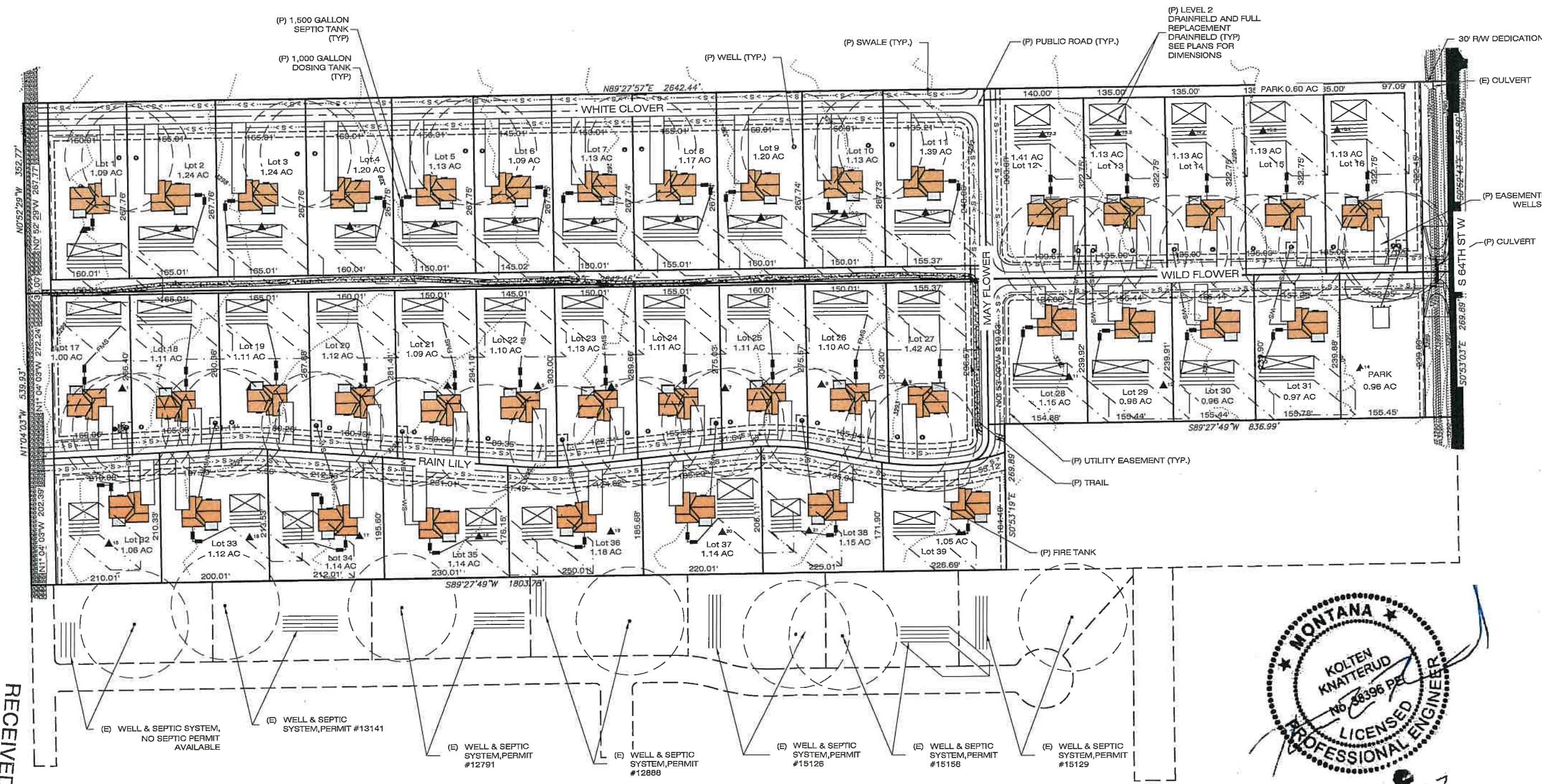
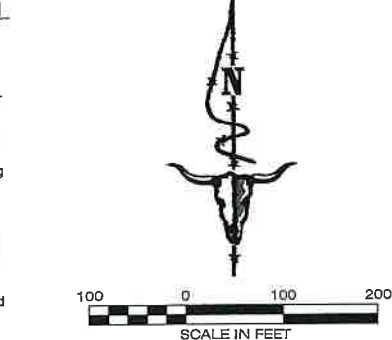
FOR MDEQ USE
RECEIVED STAMP:
RECEIVED
JAN 24 2023
Subdivisions & Public Water
EQ #: 22-2615

APPROVAL STAMP
Reviewed by the Local Reviewing Authority
Under contract with the
Department of Environmental Quality
Champlain 1/10/2023
Local Reviewer Date
Accepted under contract
Asta English 1-24-2023
DEQ Representative Date

LOT LAYOUT REQUIREMENTS - ARM 17.36.104(2):
(a) The name of the subdivision, and the county, section, township and range in which the proposed subdivision is located have been listed in the title block to the right.
(b) A north arrow and scale are shown on this sheet.
(c) The boundaries, dimensions, and total area of each lot are shown in the plan view for all lots.
(d) An identifier or number for each lot (e.g., 'lot 1, lot 2', 'tract 1, tract 2', or 'parcel 1, parcel 2') has been included.
(e) Proposed easements are shown on the Lot Layout. There are utility easements on each lot, and easement for wells on some lots.
(f) Utilities as shown here are specific to water and sewer. This layout does not show existing or proposed electrical, gas, or communication utilities. It also does not show privately owned utilities such as sewer or water services lines, propane tanks/lines, electrical and gas service lines, or underground sprinkler systems. Locations of existing roads are shown and labeled. There are proposed public roads shown.
(g) There are proposed storm water structures as part of this project and are shown on the Lot Layout.
(h) Proposed drainage ways for this project are shown on the Lot Layout. The name and affiliation of the person who prepared the lot layout is listed in the lower right side and title block, respectively.
(i) All applicable information as set out in Table 1 for the specific water supply and wastewater systems in the development has been shown. All systems have been labeled or listed in the legend as 'existing' or 'proposed'. The floodplain boundaries is not near the property.

MDEQ LOT LAYOUT NOTES:
• Known existing, previously approved, or proposed wells, wastewater treatment systems, and mixing zones on or within 100' of the subdivision have been shown on this Lot Layout.
• All setbacks in ARM 17.36.323 are met.
• Proposed home locations are provided as conceptual in nature. This Lot Layout shall in no way act as a regulatory document for siting homes or driveways.
• No known sources of contamination within 500' of proposed well where found in regards to this development.

STORM DRAINAGE MAINTENANCE PLAN
1. The following information is provided as the storm drainage maintenance plans as required by ARM 17.36.310.
2. The drainage maintenance requirements including maintenance schedule is as follows:
2.1. The responsible entity should walk the site to look for any signs of storm drainage malfunctioning once a month. Signs of storm drainage malfunctioning include ponding storm, signs of ponding water such as water stain marks on pavement or vegetative differences due to saturation; overflow dripping along building gutters. Any signs of potential storm drainage failure should be investigated and fixed.
2.2. Building gutters shall be free of debris allowing building roof runoff to flow into downspouts. Gutters shall be checked for potential blockage in the spring and the fall or more frequently if deemed necessary by the responsible entity.
3. Lot owners shall be responsible for maintenance of the lawn & landscaping, storm drainage retention ponds, and swales located on their respective lots. Maintenance includes removal of sediment and excess vegetation of the swales and other general maintenance and repair. The lawn & landscaping and swales should be checked at least every 6 months.



DESIGNED: MA DRAFTED: MA CHECKED: MA DATE: MAY 2023		LOCATION: PARCEL 2, C.O.S. 3493 SECTION 18, T01S, R25E YELLOWSTONE COUNTY	
REVISIONS SITE LAYOUT UPDATE DATE: JULY 2022		PREPARED FOR: M&J LAND CO LLC	
PROJECT NO: 22000048		THE MEADOWS MDEQ LOT LAYOUT	
SHEET: 1 OF 3		SHEET TITLE: M&J LAND CO LLC	

Subdivisions & Public Water
JAN 24 2023
RECEIVED

FOR MDEQ USE

RECEIVED STAMP:

RECEIVED

JAN 24 2023

Subdivisions & Public Water

EQ #: 22-2615

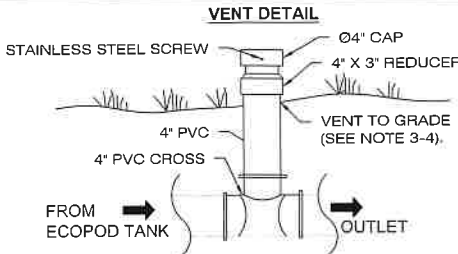
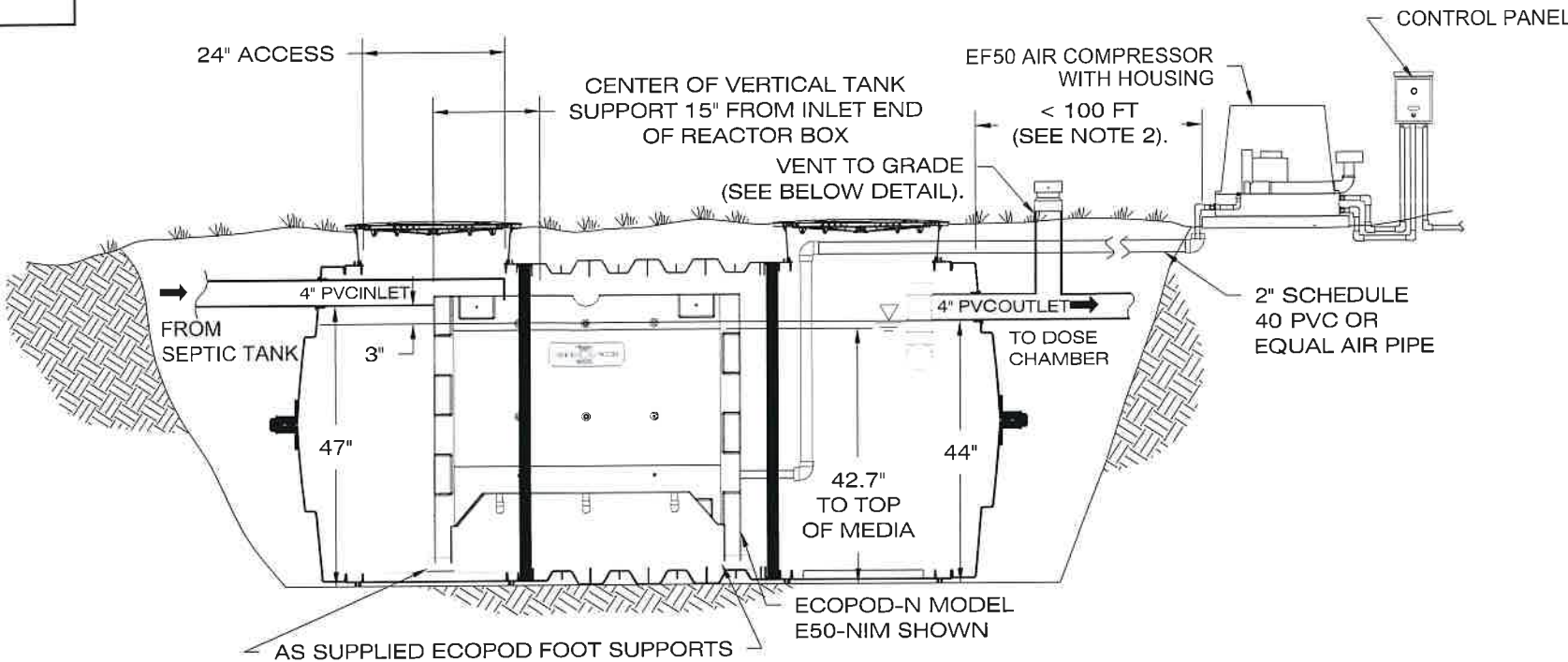
APPROVAL STAMP

Reviewed by the Local Reviewing Authority
Under contract with the
Department of Environmental Quality
Alanna Hawn 1/16/2023
Local Reviewer Date

Accepted under contract
Delta Engineering 1-24-2023
DEQ Representative Date

DELTA TREATMENT SYSTEMS, LLC
ECOPOD E50-NIM
INSTALLED WITH IM-1060 TANK
TYPICAL CROSS SECTION DETAIL
(NOT TO SCALE)

NOTE: SCHEMATIC TANK SHOWN
ACTUAL TANK WILL BE BILLINGS
PRECAST SDCE50N - DELTA
ECOPOD COMBINATION TANK



- NOTES:
1. INSTALL TANK PER INSTALLATION INSTRUCTIONS
 2. AIR COMPRESSOR INSTALLED WITHIN 100 FT OF THE TANK.
 3. FOR STATE SPECIFIC DRAWINGS PLEASE CONTACT DELTA TREATMENT SYSTEMS, LLC.
 4. VENT MUST BE LOCATED ABOVE FINAL GRADE TO AVOID INFILTRATION. SECURE CAP ON VENT WITH STAINLESS STEEL SCREW TO PREVENT UNAUTHORIZED ACCESS.

DELTA TREATMENT SYSTEMS, LLC.
9125 Comar Dr. Walker, LA 70785
(800) 219-9183

ECOPOD E-50NIM
INSTALLED WITH IM-1060 TANK
TYPICAL CROSS SECTION DETAIL

Drawn by: Date 2/15/2019
Scale: NOT TO SCALE Checked by: DFH Sheet 1 OF 1

A
D1 DELTA ECOPOD E50-N

NOT TO SCALE



DATE	
REVISIONS	
DESIGNED: MA	
DRAFTED: MA	
CHECKED:	
DATE: MAY 2022	

LOCATION:	PARCEL 2, C.O.S. 3493 SECTION 18, T01S, R25E YELLOWSTONE COUNTY
PREPARED FOR:	M&J LAND CO LLC

PROJECT NAME:	THE MEADOWS
SHEET TITLE:	MDEQ LOT LAYOUT

PROJECT NO.:	22000048
SHEET:	D1 OF D2

NOTES

THE SEPTIC TANK MUST MEET THE REQUIREMENTS OF DEQ CIRCULAR 4, CHAPTER 5.

THE REVIEWING AUTHORITY OR DESIGNER MAY REQUIRE TANKS INTENDED FOR OTHER USES TO BE TESTED. TANKS MUST BE TESTED USING ONE OF THE FOLLOWING METHODS:

- A. VACUUM TESTING: SEAL THE EMPTY TANK AND APPLY A VACUUM TO 4 INCHES (100mm) MERCURY. THE TANK IS APPROVED IF 90% OF THE VACUUM IS HELD FOR 2 MINUTES; OR
- B. WATER PRESSURE TESTING: SEAL THE TANK, FILL WITH WATER, AND LET STAND FOR AT LEAST 24 HOURS. REFILL THE TANK. THE TANK IS APPROVABLE IF IT HOLDS WATER.

THE SEPTIC TANK OUTLET MUST BE EQUIPPED WITH AN EFFLUENT FILTER WITH A MAXIMUM 1/8 INCH OPENING.

THE ET SYSTEM MUST BE CONSTRUCTED BY A SEPTIC INSTALLER CERTIFIED BY THE RIVERSTONE HEALTH DEPARTMENT AND MUST BE CONSTRUCTED IN ACCORDANCE WITH THE RIVERSTONE HEALTH DEPARTMENT REGULATIONS.

CLEANOUTS MUST BE INSTALLED EVERY 100 FEET WITH AT LEAST ONE BETWEEN THE HOUSE AND SEPTIC TANK ON THE SEWER LINE.

OWNER/CONTRACTOR MUST OBTAIN REQUIRED PERMITS PRIOR TO STARTING CONSTRUCTION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY LOCATES. CALL 1-800-424-5555 FOR "ONE-CALL LOCATOR"

ALL MATERIALS SHALL BE AS SPECIFIED ON PLANS. FOLLOWING IS A LIST OF COMPONENTS & THEIR SPECIFIED SIZES:

- FORCE MAIN = 1.5"
- MANIFOLD = 1.5"
- LATERALS = 1.5"
- ORIFICE SIZE = 5/32"

CONSTRUCTION METHODS SHALL BE SUCH THAT THE SOILS BELOW THE ET SYSTEM ARE NOT COMPACTED. AFTER EXCAVATION OF THE ET BED, THE BOTTOM & SIDES MUST BE RAKED TO SCARIFY SMEARED SOIL SURFACES. IF A SAMPLE OF SOIL WITHIN THE WORKING DEPTH CAN BE EASILY ROLLED INTO THE SHAPE OF A WIRE OR CAST, THE SOIL MOISTURE CONTENT IS TOO HIGH & CONSTRUCTION SHALL BE POSTPONED.

EXCAVATE SEPTIC TANK BOTTOM TO GRADE. DO NOT OVER EXCAVATE. IF OVER EXCAVATION OCCURS, ONLY A CRUSHED 1" MINUS GRAVEL SHALL BE USED AS BACKFILL. TANK SHALL BE INSTALLED IN ACCORDANCE WITH THE YELLOWSTONE COUNTY HEALTH CODES.

INSTALL COMPONENTS IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED BY THE SUPPLIER.

COORDINATE THE LOCATION OF THE DOSE CONTROL PANEL WITH THE PROJECT OWNER.

COORDINATE ALL TESTING WITH RIVERSTONE HEALTH DEPARTMENT & ENGINEER.

PROVIDE OWNERS OF SYSTEM WITH ALL MANUFACTURER'S OPERATION AND MAINTENANCE DOCUMENTATION UPON COMPLETION.

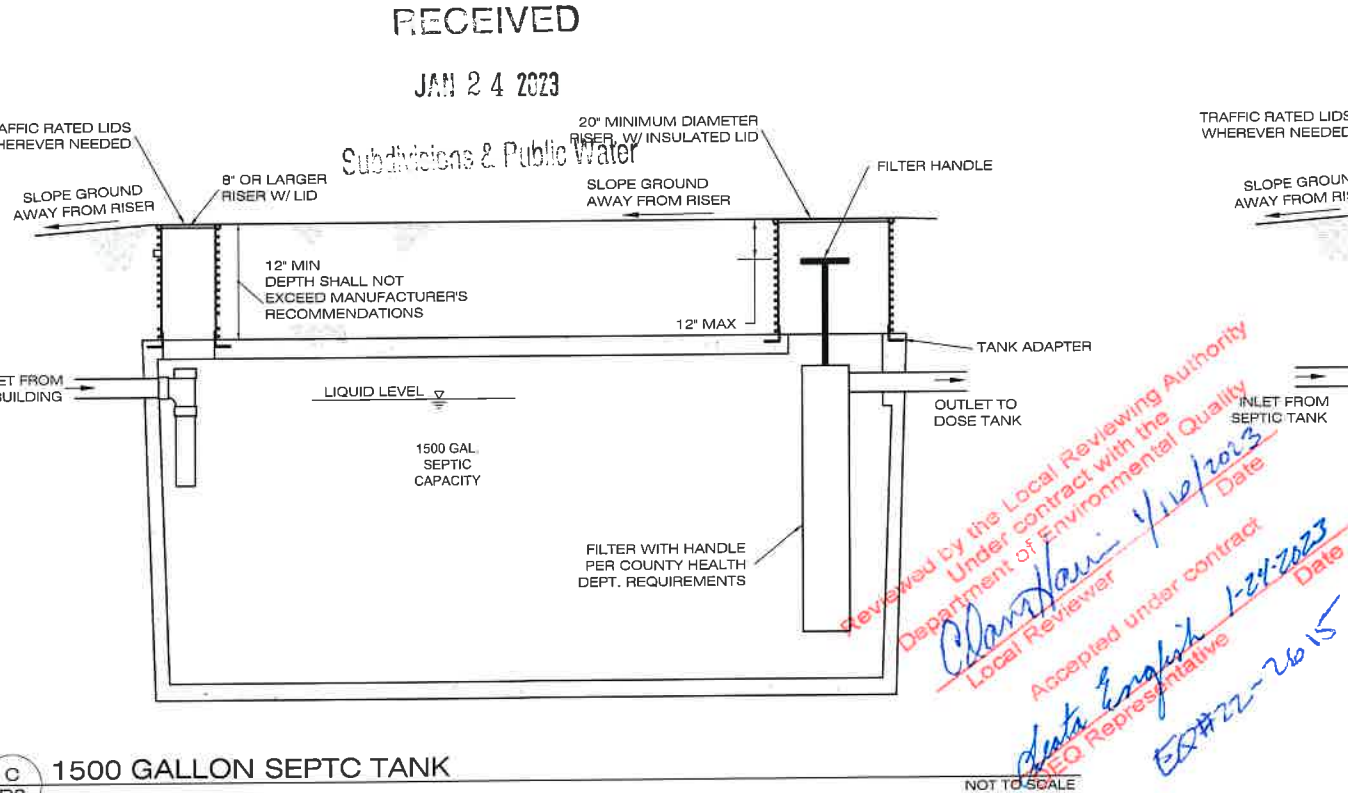
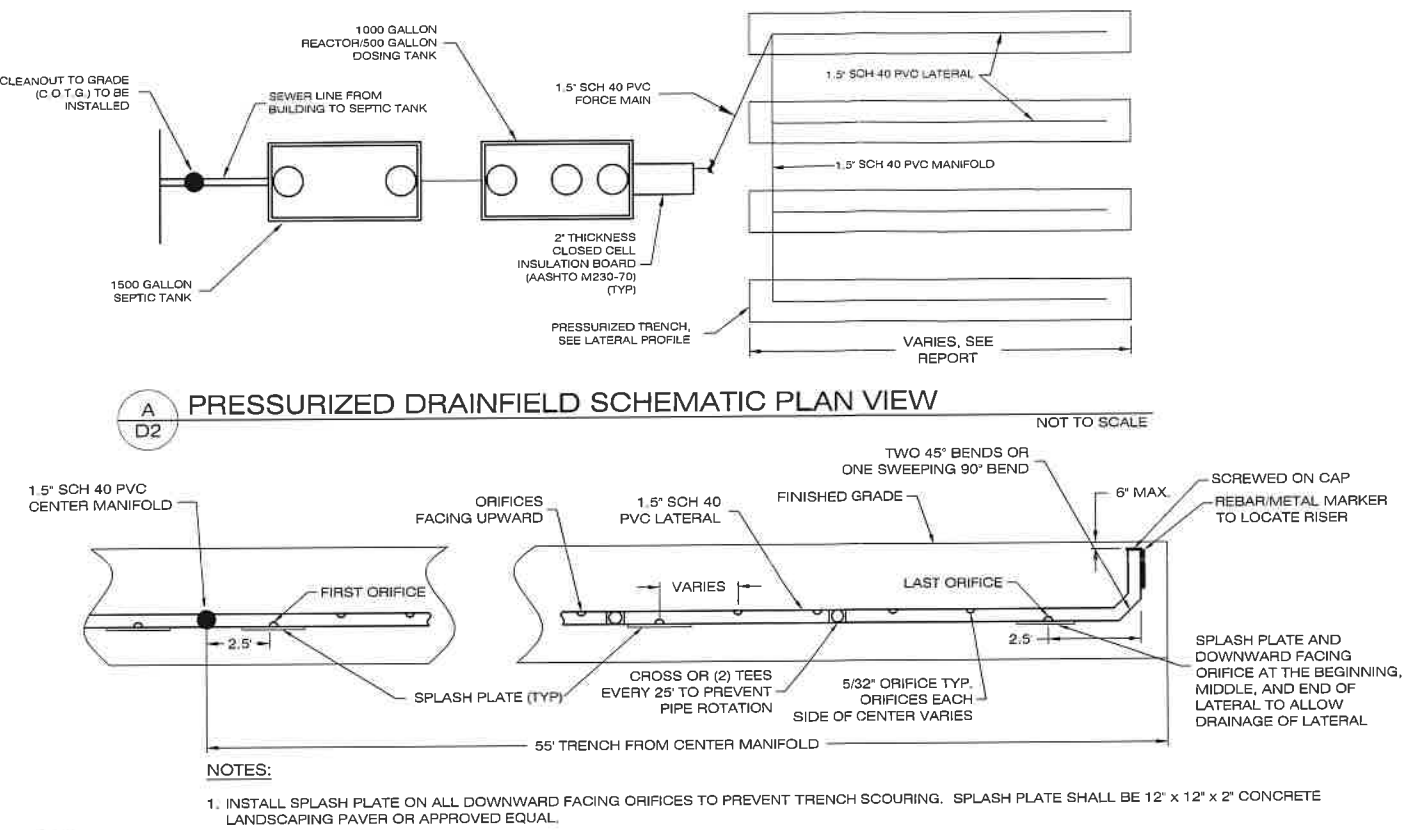
- CONTROL PANEL NOTES:
- 1. CONTRACTOR SHALL COORDINATE WITH OWNER FOR LOCATION OF CONTROL PANEL.
 - 2. CONTROL PANEL SHOULD BE LOCATED IN EASILY ACCESSIBLE AND HIGHLY VISIBLE LOCATION.
 - 3. ENGINEER STRONGLY RECOMMENDS CONTROL PANEL INCLUDE AN ELAPSED TIME METER AND EVENT COUNTER TO ASSIST TROUBLESHOOTING AND POTENTIAL FUTURE MAINTENANCE ISSUES. CONTROL PANEL SHOULD ALSO INCLUDE A HEATER IF INSTALLED OUTSIDE, OR IN UN-HEATED BUILDING/ GARAGE.

- DOSING CHAMBER COMPONENT NOTES:
- 1. INSTALL A LIFTING ROPE OR CHAIN TO THE PUMP FOR EASY REMOVAL. ATTACH UPPER PART OF ROPE OR CHAIN TO INSIDE OF RISER AND LEAVE IN ORDERLY FASHION WITHOUT EXCESSIVE LENGTH. ZIP TIE ONTO HOOK TO PREVENT ACCIDENTAL DROPPING OF ROPE OR CHAIN INTO CHAMBER
 - 2. FLOAT ASSEMBLY SHALL BE EASILY REMOVABLE VIA A PVC CLIP AS PROVIDED BY MANUFACTURER, OR OTHER ONE-HANDED OPERATION. DO NOT SCREW OR BOLT FLOAT ASSEMBLY TO RISER OR TANK. A 1" HANDLE SHALL BE PROVIDED ON TOP END OF FLOAT ASSEMBLY.
 - 3. PUMP OFF FLOAT MUST BE HIGHER THAN TOP OF PUMP FOR THIS DESIGN.

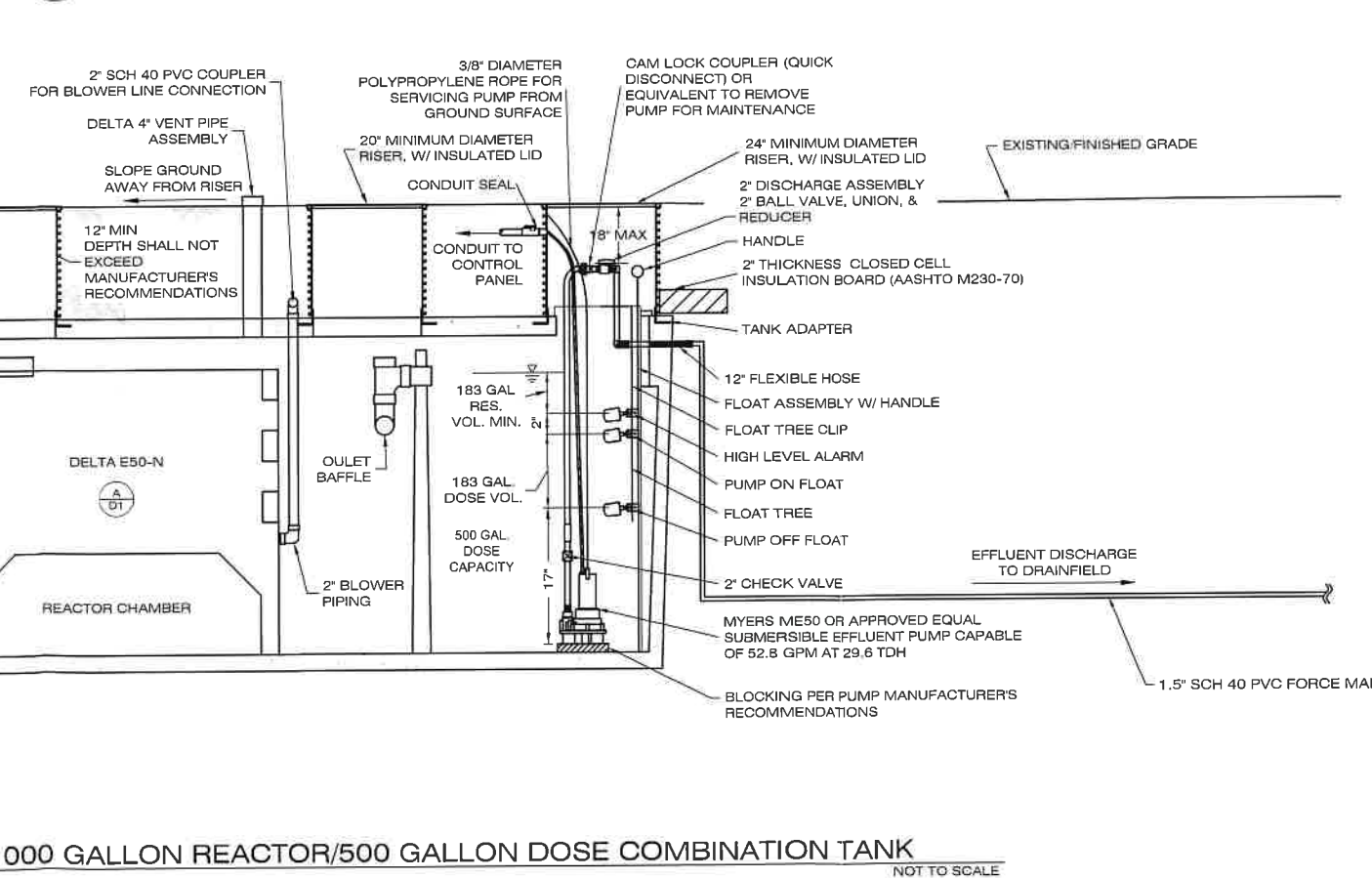
- SEPTIC/DOSING TANK NOTES:
- 1. RISER HEIGHT MAY VARY DUE TO STEEP SLOPES AND FINAL CONFIGURATION OF TANK ON SITE. ENGINEER RECOMMENDS ALL RISERS REMAIN VISIBLE AND ACCESSIBLE TO FACILITATE MAINTENANCE.
 - 2. EXCAVATE SEPTIC TANK BOTTOM TO GRADE. DO NOT OVER-EXCAVATE. IF OVER EXCAVATION OCCURS, ONLY A CRUSHED 1" MINUS GRAVEL SHALL BE USED AS BACKFILL. TANK SHALL BE INSTALLED IN ACCORDANCE WITH THE RIVERSTONE HEALTH CODES.
 - 3. IF TANKS ARE MOVED FROM PROPOSED LOCATION ON THESE PLANS, AN ENGINEER SHALL CONFIRM PUMP SIZING. FORCE MAIN LENGTH AND TANK ELEVATION AFFECT PUMP SIZING.

SEPTIC TANK WATER TIGHTNESS TESTING NOTE:

WATER TESTING MUST BE CONDUCTED BY SEALING OUTLETS, FILLING SEPTIC TANK TO 6" ABOVE TANK LID, AND ALLOWING TANK TO STAND FOR AT LEAST 8 HOURS. IF THERE IS A MEASURABLE LOSS (1 INCHES OR MORE), REFILL THE TANK AND LET STAND FOR ANOTHER 8 HOURS. IF THERE IS AGAIN A MEASURABLE LOSS, THE TANK MUST BE REJECTED.



- SEPTIC/DOSING TANK NOTES:
- 1. RISER HEIGHT MAY VARY DUE TO STEEP SLOPES AND FINAL CONFIGURATION OF TANK ON SITE. ENGINEER RECOMMENDS ALL RISERS REMAIN VISIBLE AND ACCESSIBLE TO FACILITATE MAINTENANCE.
 - 2. EXCAVATE SEPTIC TANK BOTTOM TO GRADE. DO NOT OVER-EXCAVATE. IF OVER EXCAVATION OCCURS, ONLY A CRUSHED 1" MINUS GRAVEL SHALL BE USED AS BACKFILL. TANK SHALL BE INSTALLED IN ACCORDANCE WITH THE YELLOWSTONE-COUNTY HEALTH CODES.
 - 3. IF TANK IS MOVED FROM PROPOSED LOCATION ON THESE PLANS, AN ENGINEER SHALL CONFIRM PUMP SIZING. FORCE MAIN LENGTH AND TANK ELEVATION AFFECT PUMP SIZING.



175 N. 27TH ST., STE 1312
BILLINGS, MT 59101
PH: 406.545.5420
FAX: 406.545.2545
www.imegcorp.com

DATE

REVISIONS

DESIGNED: MA

DRAFTED: MA

CHECKED: MA

DATE: MAY 2022

LOCATION

PARCEL 2, C.O.S. 3493
SECTION 18, T01S, R25E
YELLOWSTONE COUNTY

PREPARED FOR

M&J LAND CO LLC

PROJECT NAME

THE MEADOWS

PROJECT NO.

22000048

SHEET TITLE

MDEQ LOT LAYOUT

SHEET

D2 of D2

PREPARED BY: MARIAH ANDERSON

FOR MDEQ USE

RECEIVED STAMP:

RECEIVED

JAN 24 2023

Subdivisions & Public Water

EQ #: 22-2615

APPROVAL STAMP

Reviewed by the Local Reviewing Authority
Under contract with the
Department of Environmental Quality

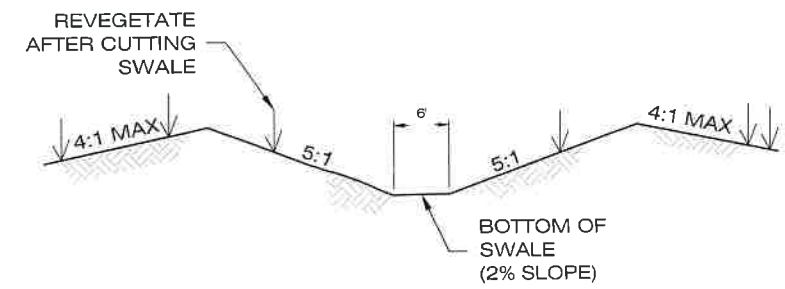
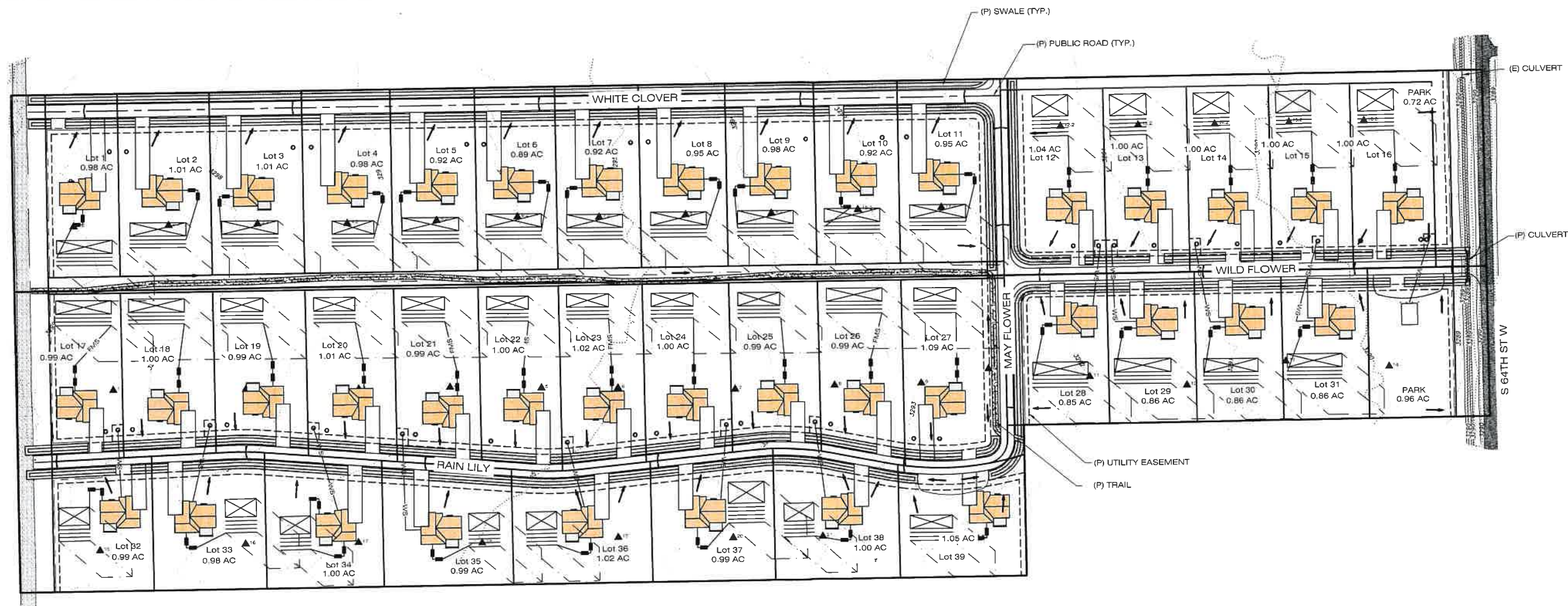
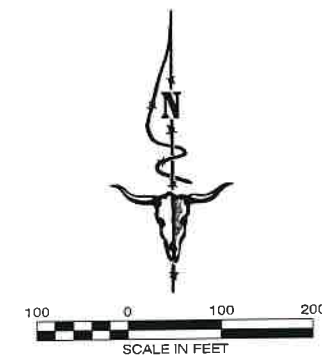
Clam Harris 1/10/2023
Local Reviewer Date

Accepted under contract

Debra English 1-24-2023
DEQ Representative Date

DRAINAGE BASIN EXHIBIT - NOTES:

- (a) 92,161 CF OF STORAGE TO BE PROVIDED FROM THE SWALES SHOWN. THIS VOLUME IS GREATER THAN THE 86,776 CF OF REQUIRED STORAGE FOR THE 100-YEAR STORM.
(b) TIME TO DRAIN IN THE SWALES IS 10 HOURS, WITH A DEPTH TO DRAIN OF 11.3 INCHES FOR THE 100-YEAR STORM.
(c) STORAGE CALCULATIONS WERE CONSIDERED USING THE POST-DEVELOPMENT STORAGE REQUIRED VOLUME FOR THE 100-YEAR STORM.



DATE	JULY 2022
REVISIONS	
SITE LAYOUT UPDATE	
DESIGNED:	MA
DRAFTED:	MA
CHECKED:	
DATE:	MAY 2022

LOCATION	PARCEL 2, C.O.S. 3493 SECTION 18, T01S, R26E YELLOWSTONE COUNTY
PREPARED FOR	M&J LAND CO LLC

PROJECT NAME	THE MEADOWS
SHEET TITLE	DRAINAGE BASIN EXHIBIT

PROJECT NO.	22000048
SHEET	1 OF 1