COMMUNITY DEVELOPMENT DEPARTMENT
455 Mountain Village Blvd.
Mountain Village, CO 81435
(970) 728-1392

Agenda Item # 16

TO: Mountain Village Town Council

FROM: Amy Ward, Community Development Director

FOR: March 20, 2025

DATE: March 11, 2025

RE: Consideration of a Dewatering and Discharge Agreement between the Town of Mountain Village and MVFHG Telluride Properties LLV

PROJECT GEOGRAPHY

Legal Description: Lot 161C-R, Town of Mountain Village, according to the plat recorded April 2, 1999, in Plat Book 1 at Page 2529 - 2530, County of San Miguel, State of Colorado AND Tract OS 3XRR-1, Tract OS 3XRR-2, and Tract OS 3BR-2R-1, more defined and described on the plat thereof recorded in the Clerk and Recorder's office of San Miguel County, Colorado, on September 26, 2023, at reception number 482496.

Address: TBD Mountain Village Blvd.
Applicant/Agent: Dale Reed, Merrimac Partners LLC and MVFHG Telluride Properties LLC
Owner: Town of Mountain Village

Zoning: Village Center
Existing Use: Vacant
Proposed Use: Temporary Dewatering for Excavation
Adjacent Land Uses:

- **North:** Mixed Use (Westermere)
- **South:** Mixed Use (Future Four Seasons)
- **East:** Mixed Use (Future Four Seasons)
- **West:** Mixed Use (Le Chamonix)

ATTACHMENTS

Exhibit A: DEWATERING AND DISCHARGE AGREEMENT
Exhibit B: Dewatering Plan

REQUEST

Future Development on Lots 161C-R, 67, 69R-2 AND 71R, TRACT OS-3Y, AND PORTIONS OF OS-3BR-2 AND OS-3XRR (TO BE REPLATTED AS 161C-RR) were approved through our Site Specific Development PUD and Major Subdivision processes on September 8, 2022. The original application was brought through by Merrimac Fort Partners, LLC, but once the land exchange is finalized a new entity created specifically for this development called MVFHG Telluride Properties LLC will be the landowner and development team. The development is a mixed use residential/hotel development with associated commercial spaces and is slated to become the home of the future Four Seasons Hotel and Residences.

During geotechnical explorations post approval, groundwater was found to be present on the site that would require temporary dewatering during excavation and foundation construction. The development team is requesting a license agreement for temporary discharge of water from 32 wells into the Gorrono Creek watershed. Water would be filtered before discharge, and a mandated schedule of testing is proposed to assure water quality meets Colorado Department of Health and Environment (CDPHE) standards as described in Exhibit C of the proposed agreement.

STAFF ANALYSIS AND RECOMMENDATION

Within the proposed agreement there are a number of items that were important to staff, some of which are summarized below:

- 2.2 generally describes the length of validity which is 18 months with an option for extension. This is a temporary agreement and is not intended to permit permanent dewatering
- 2.3.1 requires the developer to obtain all necessary permits and approvals, so if for instance this isn't permitted by CDPHE the Town would be under no obligation to allow discharge. Also allows for Town to have this plan reviewed by third party prior to installation of dewatering system
- 2.3.2 requires the developer to install a headgate at the pond outflow which allows for better control of pond levels during construction and into the future
- 2.3.3 requires an amendment to the discharge pipe specification that would better diffuse discharged water to prevent any undercutting of the stream bank at the point of discharge
- 2.3.4 describes required water testing of discharge and outflow of the pond and physical inspections of the downstream area

- 3.1 outlines developer liability including any damage to any real or personal property (in addition to Town property)

Staff feels that the agreement addresses any concerns raised by the Town and recommends approval of the Dewatering and Discharge Agreement as proposed.

PROPOSED MOTION

I move to approve the Dewatering and Discharge Agreement between the Town of Mountain Village and MVFHG Telluride Properties LLV as proposed in the staff memo of record dated March 11, 2025 and the findings of this meeting.

/aw

DEWATERING AND DISCHARGE AGREEMENT

THIS DEWATERING AND DISCHARGE AGREEMENT ("**Agreement**"), made effective as of _____, 2025 ("**Effective Date**"), is made by and between The Town of Mountain Village, Colorado, a Colorado home rule municipality and subdivision of the state of Colorado (the "**Town**") and MVFHG Telluride Properties LLC, a Delaware Limited Liability Company (the "**Developer**"). Town and Developer are sometimes collectively referred to as the "**Parties**" and sometimes individually referred to as a "**Party**".

RECITALS

A. The Town is the fee simple owner of certain real property located in San Miguel County, Colorado, as more fully described in **Exhibit A** attached hereto (the "**Town Property**"). A pond is located on the Town Property in the general location shown on **Exhibit A-1** hereto.

B. Developer is in the process of developing a major hotel project on that certain real property described on **Exhibit B** attached hereto (the "**Premises**") pursuant to Ordinance No. 2022-09 approved by the Town.

C. Developer has discovered groundwater on the Premises and wishes to drain and dewater the Premises by piping such water over and discharging such groundwater onto Town Property in the areas identified on Exhibit A-1 (the "**License Area**").

D. The general design and layout of the dewatering system is summarized and depicted on **Exhibit C** attached hereto (the "**Dewatering System**").

E. At the request of Developer, the Town has agreed to allow Developer to dewater the Premises into the License Area, subject to the continuing compliance with the terms, conditions, and restrictions of this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual promises and agreements made and entered into by the Parties, the sufficiency of which is hereby acknowledged, the undersigned Parties hereby agree as follows:

1. **Recitals**. The above Recitals are incorporated herein by this reference.

2. **Dewatering and Discharge Approval; Grant of License**.

2.1 Subject to the continuing compliance with terms, conditions and restrictions set forth herein, and subject to any modifications required by Colorado Department of Public Health and Environment ("CDPHE") requirements and/or Town staff review, the Town hereby agrees to allow Developer to drain groundwater from the Premises over and/or pipe and discharge groundwater from the Premises over and onto the License Area and grants Developer a license for the foregoing (the "**License**"). Pursuant to the License granted herein, Developer and its engineers, contractors, agents, employees, and consultants ("**Authorized Users**") (i) may install, use, operate, and maintain the Dewatering System on the License Area, (ii) shall have reasonable vehicular and pedestrian access to and use of the License Area for purposes necessary for and related to the License, and (iii) may use such equipment on the License Area as is reasonably necessary to facilitate the dewatering of the Premises ((i) – (iii) referred to collectively as the "**Authorized Uses**"). The License grant is temporary and revocable and otherwise a non-exclusive grant

and is subject to relocation and/or termination as provided for herein. Access to and use of the License Area shall be at the Authorized Users' sole risk and peril. The Town does not assume any risk, liability, or exposure to any Authorized User or other third party who accesses the License Area to undertake the Authorized Uses.

2.2 The License is granted for a term that shall commence upon the Effective Date and extend to and through the earliest to occur of: (a) the completion of the dewatering required by Developer, (b) the date that is eighteen (18) months from the Effective Date, or (c) an event of a default by Developer hereunder that remains uncured following notice and cure (the "**License Term**"). The License Term may be extended by mutual agreement of the Parties.

2.3 The use of the License Area by the Authorized Users and the exercise of their rights hereunder is subject to the following requirements, restrictions, and limitations:

2.3.1 Prior to installing any portion of the Dewatering System or commencing any work on or within the License Area, Developer, at its sole cost and expense, shall obtain all permits and approvals from all applicable and appropriate governmental entities or agencies necessary to perform the dewatering and discharge work contemplated herein. Developer shall be solely responsible for determining which permits and approvals are necessary for such work. Developer shall provide copies of all such permits and approvals to the Town prior to commencement of any work or activity on or in the License Area. Developer shall further submit to a review of the Dewatering System plans by a third-party entity to be designated by the Town, prior to installing any components of the Dewatering System.

2.3.2 Developer shall, at its cost and expense, install an improved headgate at the pond outflow to control pond levels. Specifications and completion of the improved headgate shall be reviewed by Town staff.

2.3.3 Prior to operating any portion of the Dewatering System, Developer shall provide discharge pipe specifications demonstrating that discharge water flow will not erode or undercut the western bank of Gorrono Creek. Developer will use a dewatering bag or hose monster to ensure discharge is not directed at the bank.

2.3.4 Developer shall, at its cost and expense, install and maintain a monitoring system on the inflow into the creek within the License Area to monitor water quality levels. Said system shall monitor standard quality indictors including, but not limited to, flow, as measured in million gallons per day, total volume, and duration, all to be calculated by the Rain for Rent discharge array with a digital recording device; total suspended solids, monitored monthly, calculated from data collected at the point of discharge; oil and grease content, monitored weekly by visual inspection, not to exceed a hydrocarbon presence of 10 milligrams per liter when present; pH, monitored monthly by a calibrated PH meter at the point of discharge, to be between 6.0 and 9 standard units. The foregoing may be subject to change to comply with the CDPHE permit obtained for the project. Developer shall also conduct a daily visual inspection of the Dewatering System and pond for physical blockages of the outlet from the pond to Mountain Village Blvd. Additionally, Developer shall monitor monthly the turbidity (suspended solids) from the outflow of the pond. In the event the readings show elevated levels in violation of applicable standards or other water quality issues or in the event of any physical blockage of the system or pond, Developer shall, without delay, take all actions necessary to remediate the issue(s) to the satisfaction of the Town including, without limitation, ceasing dewatering operations until the issue is resolved. The monitoring system shall remain in place and in good working order for the duration of the License Term and shall be removed by Developer at the end of the License Term.

2.3.5 Developer shall be solely responsible for and shall promptly pay for any and all costs and expenses

arising out of or related to designing, permitting, installing and, if applicable, removing the Dewatering System and restoring the License Area to substantially the same condition it was in as of the Effective Date. The Town shall have no liability or responsibility for the payment of any such costs/expenses.

2.3.6 The License and the License Area shall only be used for the Authorized Uses specified herein, and the Authorized Users shall have no right to use the License Area for any other or additional use or purpose, except as may be authorized from time to time in writing by the Town. No other uses, express or implied, are authorized by this Agreement.

2.3.7 While undertaking any work associated with the exercise of the Authorized Uses, Developer shall: (a) maintain the License Area and Town Property in a clean, safe, and orderly condition, consistent with general construction trade practices in the area; (b) adhere to appropriate safety measures and devices, (c) perform its work in a professional, workmanlike manner, (d) comply with all applicable federal, state, and local laws, rules, regulations, and safety standards, including, without limitation, all water quality standards; (e) minimize any disturbance to the Town Property, including any vegetation, ditches, structures, improvements or facilities located or to be located thereon; and (f) protect the Town Property from any impacts attributable to the work which would in any way negatively impact the Town Property and, if any such impacts do occur, Developer shall promptly remediate and restore the Town Property at its cost and expense, which shall be completed to the reasonable satisfaction of the Town. Upon completion of such work, Developer shall restore the Town Property to the condition that pre-existed prior to Developer's site disturbance activities and such restoration shall be completed to the reasonable satisfaction and approval of the Town.

3. **Indemnification and Liability of the Parties.**

3.1 Developer shall indemnify, defend, and hold the Town and its elected and appointed officials, employees, contractors, agents, and representatives (the "**Town Parties**") harmless from all actions, causes of action, claims, complaints (including regulatory complaints), demands, liabilities, losses, fines, costs and expenses (including attorneys' fees and costs), and damage or injury (including death) to any person or property (each a "**Claim**" and, collectively, "**Claims**") arising out of or related to the Authorized Users' use of the License Area or their performance of the dewatering work or otherwise under this Agreement, including, without limitation, Developer's failure to obtain all necessary permits and approvals per Section 2.3.1, above, and any damage caused to the Town Property or any other real or personal property or structures caused by any stoppage, flooding, or leakage related to the Dewatering System. Excluded from the foregoing are any Claims arising out of the negligent or intentional acts or omissions of the Town.

3.2. Developer shall be responsible for and reimburse the Town for any and all damage to Town Property and injury or damage to persons or property thereon caused by the acts or omissions of Developer or its employees, agents, invitees, licensees, or contractors.

3.3. Developer shall protect, indemnify, defend, and hold the Town Parties harmless from and against any and all Claims directly or indirectly arising out of or attributable to the presence, release, spill, discharge, leak, disposal, or emission of any hazardous materials as defined under federal law on, under, or about the License Area including, without limitation: (1) all actual damages; (2) the costs of any required or necessary repair, remediation or detoxification of the License Area or abutting property; and (3) the preparation and implementation of any closure, remedial, or other required plans; provided, however, that this indemnity shall not include hazardous materials which existed on the License Area prior to the Effective Date.

3.4. The provisions of this Section 3 and its subparts shall survive the expiration or termination of this Agreement and the exercise of any other remedy by the Town.

4. **Miscellaneous**

4.1 **Assignment**. Developer may not assign this Agreement to any third-party without the prior written consent of the Town, which consent shall not be unreasonably withheld. The Town may assign this Agreement to a successor owner of the Town Property without notice to or consent of Developer.

4.2 **Recording.** This Agreement shall not be recorded unless approved by both parties.

4.3 **Time of the Essence.** Time is of the essence of this Agreement and for the performance of each of the duties and obligations provided herein.

4.4 **Governing Law; Remedies; Costs and Expenses**. This Agreement shall be construed under and governed by the laws of the State of Colorado, with jurisdiction and venue restricted to a court of competent jurisdiction in San Miguel County, Colorado. The parties consent to the jurisdiction and venue of such courts. A party may pursue any and all available remedies under applicable law, including, without limitation, injunctive relief and specific performance. All of the rights and remedies of the parties under this Agreement shall be cumulative. In any action to enforce or construe the terms of this Agreement, the substantially prevailing party shall be entitled to recover all legal and related court costs, including all reasonable attorneys' fees and expert witness fees, costs, and expenses. In the event of a default, the Town shall send written notice to the Developer stating the grounds for the default and the steps that need to be taken to cure the default within a reasonable cure period stated in the notice of default.

4.5 **Severability**. Wherever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under applicable law. If any provision of this Agreement shall be found invalid or unenforceable, such finding shall not affect the validity of the remaining provisions of this Agreement, and the remaining provisions shall remain in full force and effect.

4.6 **Notice.** All notices, demands or writings in this Agreement provided to be given or made or sent that may be given or made or sent by either party hereto to the other, shall be deemed to have been fully given or made or sent when made in writing and delivered either by personal delivery, Email, or United States Mail (certified, return receipt requests and postage pre-paid), and addressed to the party at the below-stated mailing address or email address. The mailing address or email address to which any notice, demand, or writing shall be sent may be changed by sending written notice to each party notifying the party of the change.

Town: Town of Mountain Village Attn.: Paul Wisor, Town Manager 455 Mountain Village Blvd., Suite A Mountain Village, CO 81435 Email: pwisor@mtnvillage.org	**Developer:** MVFHG Telluride Properties LLC 17 NE 4th Street Fort Lauderdale, FL 33301
With a Copy to: Garfield & Hecht, P.C. 910 Grand Ave., Suite 201 Glenwood Springs, CO 81601 Email: dmcconaughy@garfieldhecht.com	**With a Copy to:**

4.7 **Parties Representations**. In entering into this Agreement, Developer acknowledges and agrees and represents and warrants that Developer: (a) will perform its duties and obligations in a commercially reasonable and good faith manner and that this commitment is being relied upon by the Town; (b) is a duly

qualified and existing entity, capable of doing business in the state of Colorado; and (c) has actual and express authority to execute this Agreement, has taken all actions necessary to obtain such authorization, the Agreement constitutes a binding obligation of Developer, and the person signing below is duly authorized and empowered to execute this Agreement on behalf of Developer.

4.8 **Entire Agreement**. This Agreement contains the entire agreement and understanding of the Parties with respect to the subject matter hereof, and no other representations, promises, agreements or understandings or obligations with respect to the payment of consideration or agreements to undertake other actions regarding the subject matter hereof shall be of any force or effect unless in writing, executed by all Parties hereto and dated after the date hereof.

4.9 **Modifications and Waiver**. No amendment, modification or termination of this Agreement or any portion thereof shall be valid or binding unless it is in writing, dated subsequent to the date hereof and signed by each of the Parties hereto. No waiver of any breach, term or condition of this Agreement by any party shall constitute a subsequent waiver of the same or any other breach, term or condition.

4.10 **Counterparts and Electronic Copies and Signatures**. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same document. Scanned/emailed, DocuSign, or facsimile copies of any party's signature hereon shall be deemed an original for all purposes of this Agreement, and the parties consent to the use of electronic signatures hereon.

4.11 **Governmental Immunity.** Nothing herein is intended to waive and does not waive any rights, privileges, or protections available to the Town under the Colorado Governmental Immunity Act, C.R.S. §§ 24-10-101, *et seq*. ("CGIA"), and the Town expressly reserves all such rights, privileges, and protections of the CGIA.

4.12 **TABOR.** All direct and indirect financial obligations of the Town under this Agreement are subject to appropriation, budgeting, and availability of funds to discharge such obligations. No provision of this Agreement shall be construed or interpreted: i) to directly or indirectly obligate the Town to make any payment in any year in excess of amounts budgeted and appropriated for such year; ii) as creating a debt or multiple fiscal year direct or indirect debt or other financial obligation whatsoever within the meaning of Article X, Section 20 of the Colorado Constitution or any other constitutional or statutory limitation or provision; or iii) as a donation or grant by the Town to or in aid of any person, company, or corporation within the meaning Colorado law.

[*Signature Page to Follow*]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement, intending it to be effective as of the Effective Date.

TOWN:

Town of Mountain Village,
A Colorado home rule municipality

By: _____
Paul Wisor, Town Manager

DEVELOPER:

MVFHG Telluride Properties LLC
A Delaware limited liability company

By:_____
Name:
Title:

EXHIBIT A
(Town Property)

Tract OS 3XRR-1, Tract OS 3XRR-2, and Tract OS 3BR-2R-1, more defined and described on the plat thereof recorded in the Clerk and Recorder's office of San Miguel County, Colorado, on September 26, 2023, at reception number 482496.

EXHIBIT A
(Depiction of License Area)

The License Area includes the pond and intervening land circled in red, below

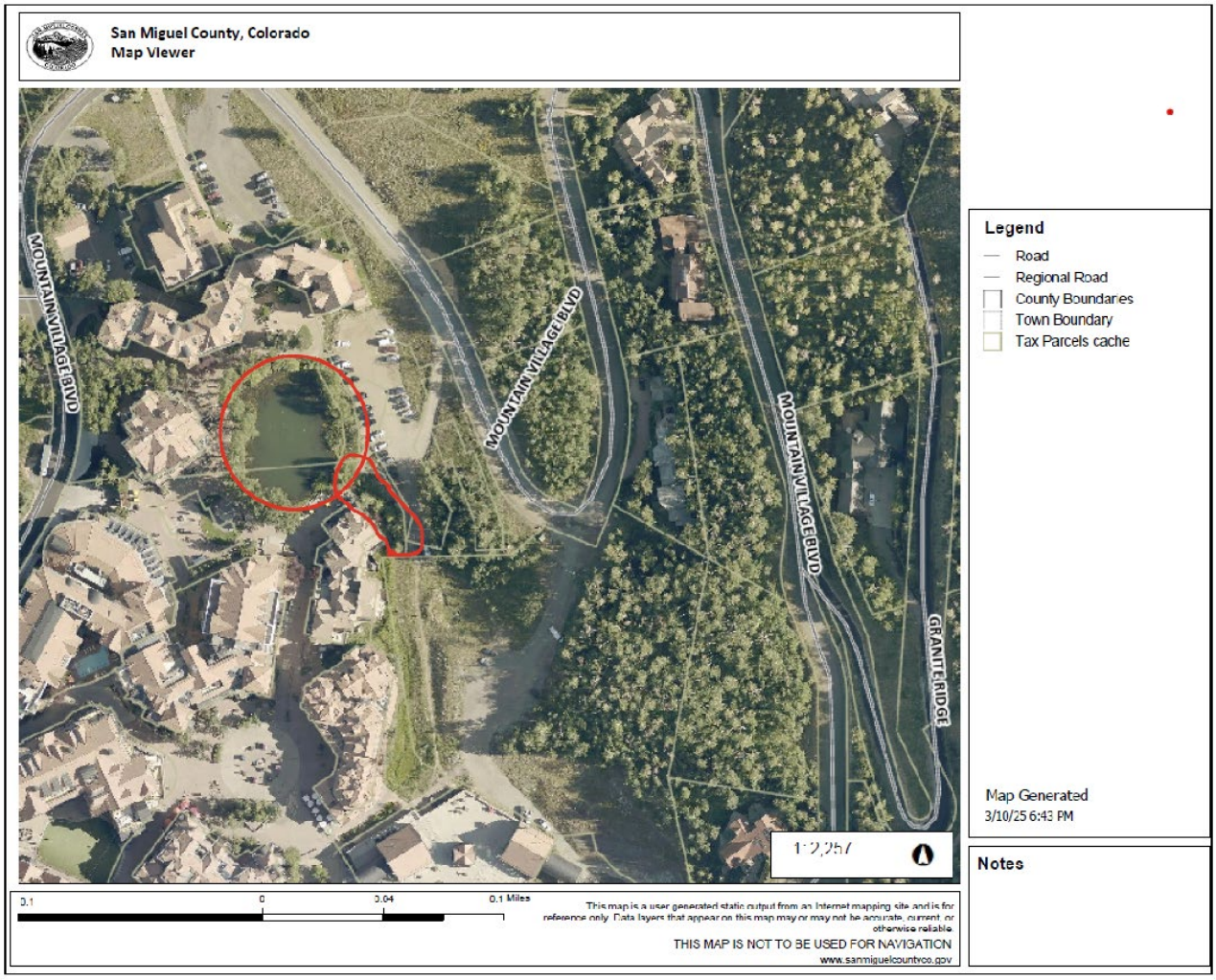

Exhibit B
(Description of Premises)

Lot 161C-R, Town of Mountain Village, according to the plat recorded April 2, 1999, in Plat Book 1 at Page 2529 - 2530, County of San Miguel, State of Colorado.

Exhibit C
(Description and Depiction of Dewatering System)

DEWATERING NARRATIVE

Lot 161-CRR project is a multi-structure hotel and residence project located in the Town of Mountain Village on a series of lots that have been platted for a hotel since the original PUD that formed the Mountain Village. During geotechnical testing groundwater was found to be present at depths near 20' below grade (location dependent) on average. Excavations on the most upslope portions of the site will be approximately 60' deep for foundation elements. An array of dewatering wells is intended for the upslope portions of the site to capture groundwater before it enters the excavation area. The wells will be connected via a manifold structure with discharge routed through a treatment system if necessary. Final discharges will be directed to the Village Pond or Gorrono Creek upstream of the pond. After foundation systems are in place, perimeter drainage will direct the local groundwater regime along its footer elevation, which at its lowest point, will drain into a series of sub-grade dry wells, as required by Town of Mountain Village building codes.

The team has engaged Rain for Rent to assist with the construction dewatering well installation and operations involving piping, settling tanks and filtration systems. There will be a total of (32) deep wells spaced 30ft apart. The wells will be drilled such that the bottom of the bore hole lies below the deepest point of excavation. Each well will have a minimum 12in diameter bore hole with a minimum 6in diameter slotted well casing. Each well will have a submersible pump with a 2in discharge hose with check valve and ball valve before connecting to a common 6in header discharge hose to the tank locations shown on the plan.

Target volumes for dewatering are approximately 400 gpm and the estimated outflow capacity from the pond is approximately 3,141 gpm which shows ample capacity. Site planning has identified a location on the downslope side of the project for the settling tanks and filters. A conservative approach was used with regard to the treatment system scale, and the limitations of staging areas on the site. Other best management practices will be installed/maintained in conjunction with a parallel Construction Stormwater Permit currently under review at CDPHE.

RAIN FOR RENT ENGINEERING
Western Oilfields Supply Company
3404 State Road; Bakersfield, CA 93308
Phone: 661-399-9128, Fax: 661-399-3211

To: Joe Ramos
Branch: 1073 - Cortez
Customer: Weitz
Project: Weitz Telluride Dewatering

Liquid Ingenuity©

ENGINEER: Ryan Dufresne
DATE: 6/24/2024
ENG JOB NO: 01-29497
ENG DOC NO: 01-29497-01-02
QUOTE NO: -
REVISION: **Original**
ZOHO NO: #116789

GIVEN INFORMATION:

This recommendation is for a dewatering system with a peak design flow rate of 400gpm, based on flow rate estimations from the dewatering section of the provided Geotechnical report. The discharge location has been assumed to be 200ft away.

ENGINEERED SOLUTION:

Professionally engineered solution to ensure a safely designed, and operable system.

Submersible Pump (Peak):

Flow:	400 gpm <Peak>	Static Suction Lift:	80.0 ft (fluid level to grade)
TDH:	92 ft		
		Total Friction Losses:	12.0 ft
DP: 13gpm @ 92ft TDH		Required Submergence:	0.5 ft (suction line to fluid level)

Submersible Pump (Average):

Flow:	300 gpm <Average>	Static Suction Lift:	80.0 ft (fluid level to grade)
TDH:	87 ft		
		Total Friction Losses:	6.9 ft
DP: 9gpm @ 87ft TDH		Required Submergence:	0.4 ft (suction line to fluid level)

PUMPS, PIPE, & HOSE: (approximate total lengths)

(32) GOL 3SDM3/8 Pumps
(32) 20 - 100 LF 2" Pump Discharge Hose
990 LF +/- 6" Header Discharge Hose
200 LF +/- 6" Common Discharge Hose

***Spillguards, PipeStax, and Hose Bridges are recommended**

SYSTEM DESIGN NARRATIVE:

The Rain for Rent Engineering Department is proposing a deep well dewatering system around the eastern perimeter of the excavation. There will be a total of (32) deep wells spaced 30ft apart. Due to differing grade elevations at the site, the deep wells shall be drilled such that the bottom of the bore hole lies at 9,500ft ASL. Each well will have a minimum 12in diameter bore hole diameter with a minimum 6in diameter slotted well casing. Each well will have a submersible pump. The discharge off of each pump shall be 2in discharge hose going to a 2in check valve and 2in gate/ball valve before connecting to a common 6in header discharge hose that discharges nearby. An air/vacuum vent is required upstream of each 2in check valve.

The recommendations contained herein were derived from calculations using published pump curves and information provided by customers, end users, project engineers, and/or other sources. Actual pump and system performance may vary. Any variations of the system's characteristics, including but not limited to, flow, suction lift, discharge distance, and/or submergence may require changes to the system(s). Any system recommendation changes may result in additional cost. In such cases, a change order will be required to proceed. All information contained herein or disclosed by this document is considered confidential and proprietary. Any disclosure, reproduction and/or distribution of this document in whole or in part without the written authorization from Rain for Rent's Engineering Department is prohibited. Please see your estimate and rental agreement for additional terms and conditions, these recommendations are incorporated as a part of those contractual documents.

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Western Oilfields Supply Company
3404 State Road; Bakersfield, CA 93308
Phone: 661-399-9128, Fax: 661-399-3211

To: Joe Ramos
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ENGINEER: Ryan Dufresne
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REVISION: **Original**
ZOHO NO: #116789

PUMP INFORMATION:

	PUMP MODEL	NO	FLOW	SYSTEM FLOW	TDH
Primary Pump(s):	GOL Pumps 3SDM3/8	32	13 gpm each	400 gpm 0.58 MGD	92.0 ft
Backup Pump(s):	GOL Pumps 3SDM3/8		13 gpm each		92.0 ft

Operating primary and backup pump(s) all at once may cause an unsafe flow velocity in discharge piping

PIPE INFORMATION:

Pipe Specifications	Discharge - Pump	Discharge - Common
Type	Discharge Hose	Discharge Hose
Minimum Pressure Rating	150 psi	150 psi
Fitting	Camlock	Camlock
Nominal Dia (in)	2	6
I.D. (in)	2.000	6.000
Length (ft)	100	200
Max Flow (gpm)	13	400
Max Velocity (ft/s)	1.3	4.5
C-Value	140	140

CALCULATIONS:

Total Dynamic Head (TDH) - Peak Flow Rate

Friction Loss (FT)	Description
80.00	Ft. Fluid Level ==> Grade
0.41	Ft. Pump Discharge Piping
0.06	Ft. Pump Discharge Valves/Fitting/Etc.
7.55	Ft. Header Pipe
0.17	Ft. Check Valve(s)
0.29	Ft. Manifolding
2.38	Ft. Common Discharge Piping
0.72	Ft. Common Discharge Valves/Fittings/Etc.
0.06	Ft. Entrance Loss
0.32	Ft. Exit Loss
0.00	Ft. Elevation Change
92.0	**FT**
39.8	**PSI**

Suction Hose/Pipe Required Minimum Submergence = 0.5 ft

Formulas:

Hazen-Williams:

$$h_f = 0.002083 * \mathrm{L}\left(\frac{100}{C}\right)^{1.85}\left(\frac{Q^{1.85}}{d^{4.8655}}\right)$$

Fitting Loss:

$$h_f = K\left(\frac{V^2}{2g}\right)$$

Submergence:

$$S = d + 0.574\frac{gpm}{d^{1.5}}$$

The recommendations contained herein were derived from calculations using published pump curves and information provided by customers, end users, project engineers, and/or other sources. Actual pump and system performance may vary. Any variations of the system's characteristics, including but not limited to, flow, suction lift, discharge distance, and/or submergence may require changes to the system(s). Any system recommendation changes may result in additional cost. In such cases, a change order will be required to proceed. All information contained herein or disclosed by this document is considered confidential and proprietary. Any disclosure, reproduction and/or distribution of this document in whole or in part without the written authorization from Rain for Rent's Engineering Department is prohibited. Please see your estimate and rental agreement for additional terms and conditions, these recommendations are incorporated as a part of those contractual documents.

RAIN FOR RENT ENGINEERING
Western Oilfields Supply Company
3404 State Road; Bakersfield, CA 93308
Phone: 661-399-9128, Fax: 661-399-3211

To: Joe Ramos
Branch: 1073 - Cortez
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ENGINEER: Ryan Dufresne
DATE: 6/24/2024
ENG JOB NO: 01-29497
ENG DOC NO: 01-29497-01-02
QUOTE NO: -
REVISION: **Original**
ZOHO NO: #116789

PUMP INFORMATION:

	PUMP MODEL	NO	FLOW	SYSTEM FLOW	TDH
Primary Pump(s):	GOL Pumps 3SDM3/8	32	9 gpm each	300 gpm 0.43 MGD	86.9 ft
Backup Pump(s):	GOL Pumps 3SDM3/8		9 gpm each		86.9 ft

Operating primary and backup pump(s) all at once may cause an unsafe flow velocity in discharge piping

PIPE INFORMATION:

Pipe Specifications	Discharge - Pump	Discharge - Common
Type	Discharge Hose	Discharge Hose
Minimum Pressure Rating	150 psi	150 psi
Fitting	Camlock	Camlock
Nominal Dia (in)	2	6
I.D. (in)	2.000	6.000
Length (ft)	100	200
Max Flow (gpm)	9	300
Max Velocity (ft/s)	1.0	3.4
C-Value	140	140

CALCULATIONS:

Total Dynamic Head (TDH) - Peak Flow Rate

Friction Loss (FT)	Description
80.00	Ft. Fluid Level ==> Grade
0.24	Ft. Pump Discharge Piping
0.03	Ft. Pump Discharge Valves/Fitting/Etc.
4.34	Ft. Header Pipe
0.09	Ft. Check Valve(s)
0.16	Ft. Manifolding
1.40	Ft. Common Discharge Piping
0.41	Ft. Common Discharge Valves/Fittings/Etc.
0.04	Ft. Entrance Loss
0.18	Ft. Exit Loss
0.00	Ft. Elevation Change
86.9	**FT**
37.6	**PSI**

Suction Hose/Pipe Required Minimum Submergence = 0.4 ft

Formulas:

Hazen-Williams:

$$h_f = 0.002083 * \mathrm{L}\left(\frac{100}{C}\right)^{1.85}\left(\frac{Q^{1.85}}{d^{4.8655}}\right)$$

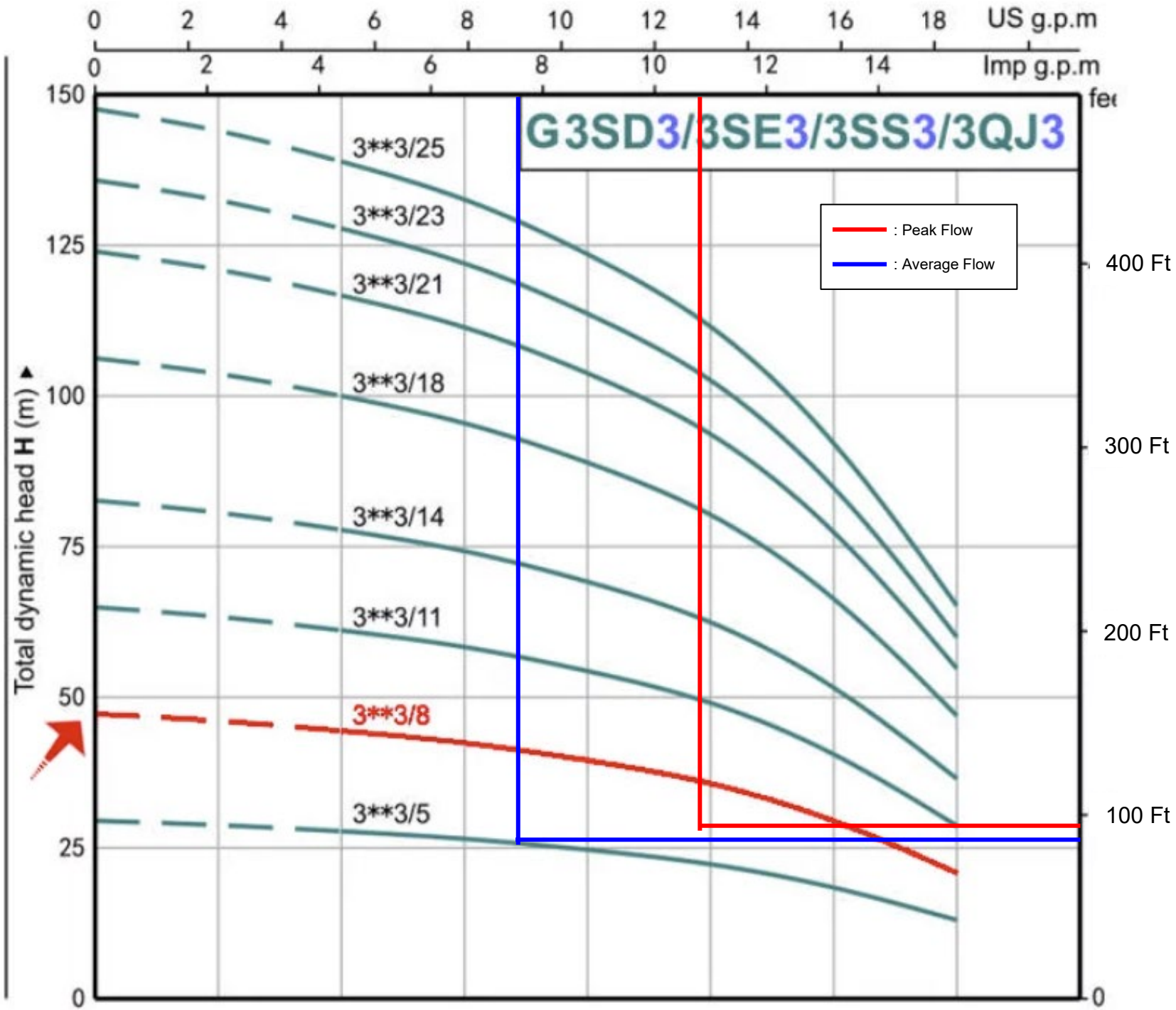
Fitting Loss:

$$h_f = K\left(\frac{V^2}{2g}\right)$$

Submergence:

$$S = d + 0.574\frac{gpm}{d^{1.5}}$$

The recommendations contained herein were derived from calculations using published pump curves and information provided by customers, end users, project engineers, and/or other sources. Actual pump and system performance may vary. Any variations of the system's characteristics, including but not limited to, flow, suction lift, discharge distance, and/or submergence may require changes to the system(s). Any system recommendation changes may result in additional cost. In such cases, a change order will be required to proceed. All information contained herein or disclosed by this document is considered confidential and proprietary. Any disclosure, reproduction and/or distribution of this document in whole or in part without the written authorization from Rain for Rent's Engineering Department is prohibited. Please see your estimate and rental agreement for additional terms and conditions, these recommendations are incorporated as a part of those contractual documents.


US g.p.m
Imp g.p.m
fe
G3SD3/3SE3/3SS3/3QJ3
: Peak Flow
: Average Flow
Total dynamic head H (m)
150
125
100
75
50
25
0
400 Ft
300 Ft
200 Ft
100 Ft
0
3**3/25
3**3/23
3**3/21
3**3/18
3**3/14
3**3/11
3**3/8
3**3/5

Transfer of System Operations

Date:	Time:
Weather / Temperature:	

S M T W Th F S

Project Name: Weitz Telluride Dewatering	Location:
Customer / Client:	Manager:
Contract #:	Rain for Rent Rep:
Rain for Rent Engineering Job #: 01-29497-01-02	

System Details

Hydrotest Passed? Y N	Start Time:	#REF!
	End Time:	Actual Flows:
PSI Achieved:		Ideal System RPM:
Pressure Source:		#REF!

System Performance Acknowledgement / Understanding

	Both Party Initials	
The system installed meets all contractual expectations and design flows to date and has been tested to ensure that flow rates and performance meet customer requirements		
The system may shut down due to (but not limited to) excessive debris, stuck rags/mops/rope, lack of fuel, excessive flows, exceeded suction lift, etc.		
It is the duty of _____ to ensure the functionality of the system if such things cause the disruption of system performance; this process may involve removal of pump parts to remove debris/obstructions		
Customer is responsible for safe and effective system operation in all circumstances ,including, but not limited to manual operation onsite, remote control or system automation using other means.		
Rain for Rent has recommended that at least ___ men, trained on this system, be on site at all times w/ backup lifting equipment/tools necessary to ensure timely restoration of a down system		
Contact with sewage or non-potable water sources poses a health hazard; proper PPE and immunizations are necessary to prevent illnesses to those working on this system		
Your Rain for Rent contact person is _____ and can be reached at _____		
If Rain for Rent responds to system issues that are not the fault of Rain for Rent, you will be billed on a T&M basis with a minimum 4 hour call out time		
Increasing the system RPM's will not always increase flow rates; Use recommended settings. If flows exceed system design, customer is responsible for resulting issues that will occur		
Spills not caused by Rain for Rent will be the responsibility of the customer to mitigate		

I have verified that the information on this form is true and accurate to the best of my knowledge.
I agree that this system has been properly transferred to the above named customer.

Customer / Client Approval

_____ **(Print Name)**

_____ **(Sign)**

Rain for Rent Approval

_____ **(Print Name)**

_____ **(Sign)**

RO# WO#

WQ TESTING NARRATIVE

The State of Colorado CDPHE General Permit (COG080000) for Short-Term Dewatering has not been issued yet, so the exact terms and conditions of the permit are not yet known, however some assumptions can be made based on information and guidance provided by CDPHE. Typically, monitoring parameters will include the following required elements for dewatering via the use of dewatering wells as we propose to use:

- Flow, measured in Million Gallons per Day - This will be calculated by the Rain for Rent discharge array with a digital recording device.
- Flow, measured as Total Volume - This will be calculated by the Rain for Rent discharge array with a digital recording device.
- Flow, measured as Duration - This will be calculated by the Rain for Rent discharge array with a digital recording device.
- Total Suspended Solids - This will likely be a Monthly monitoring requirement, collected at the point of discharge after any treatment by the Rain for Rent array and sent to a lab for analytical results.
- Oil and Grease - This is a Visual monitoring requirement on a Weekly basis (in a practical sense it is a daily observation) looking for any oil sheen on a water surface. If a sheen is observed then a weekly sample is required with a maximum allowed hydrocarbon presence of 10 mg/L (milligrams per Liter).
- pH - This is a Monthly monitoring requirement, with monitoring completed at the point of discharge after the Rain for Rent array. Use of a calibrated pH meter in the field (Insitu) provides instantaneous results. pH must be between 6.0-9.0 s.u. (Standard Unit).

Water Quality monitoring will be a coordinated effort between Weitz, Rain for Rent and The Terra Firm, Inc.

The Construction Stormwater Permit typically is focused on the limitation of discharge of sediment to a water body from the job site. Sediment discharges are discussed in terms of Turbidity - a measurement of how much sediment is suspended in a water column (Total Suspended Solids). This discharge is typically managed through the installation and

maintenance of a construction site's BMP's (Best Management Practices) which include the use of straw wattles, straw bales, silt fencing and other settling/filtration management tools. All of the deployed BMP's are inspected as required by the site's Stormwater Management Plan - a guidance tool that defines the location of the BMP's and an associated maintenance schedule. Typically, BMP's are inspected weekly, or directly following a storm event. A Stormwater Management Plan is intended to be a dynamic document that is frequently updated with changes to installations and maintenance logs, and made available for review by CDPHE officials when requested. A Construction Stormwater Permit is required by CDPHE for all projects with greater than 1 acre of exposed ground on the job site. In a practical sense, all projects in the Town of Mountain Village are required to use BMP's to limit the movement of sediment off the job site.

Weitz will be the primary lead on BMP inspection and BMP maintenance. Rain for Rent will offer treatment solutions if sediment management is problematic through traditional BMP's. Weitz will also visually inspect the outflow and The Terra Firm, Inc. will play a supporting role in BMP inspections and offer guidance as appropriate.

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Telluride, CO 81435
(970) 729-0683 dballode@msn.com

June 14, 2022

Stormwater Study:

Section 17.5.7 of the CDC requires that a Stormwater Study be demonstrate the capability of conveying a 25-year storm and show that drainage patterns are not being changed.

In general, the drainage patterns are not being changed. Currently, the undeveloped lots sheet drain downhill to the riparian corridor that exists at the toe of the slope. Once the buildings are built, the downspouts and landscaping will do the same. The roof downspouts will be pipe to the creek will be conveyed using a combination of pipes and open channel swales.

The overall site will generate higher stormwater flows due to the additional impervious areas of the roof and hardscape. Using the Rational Method (Q=c*i*A) this can be calculated by suing the change in the run-off coefficient (c goes from 0.4 to 0.95, so 0.55), the Town's given intensity for a 25-year storm at a 10-minute Time of Concentration (3.4) and the impervious area in acres (1.5). Using these coefficients, this results in an additional volume of Q = (0.55) * (3.4) * (1.5) = 2.8 cfs or an additional 1680 cf of run-off for the design storm.

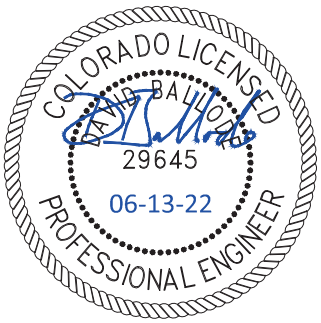
All of that additional water is being diverted to the riparian corridor and pond. The pond is approx. 14,000 SF, so the additional water would only raise the pond 0.12' (an inch and a half) if that entire volume were going to be stored. However, the requirement is just to convey that amount.

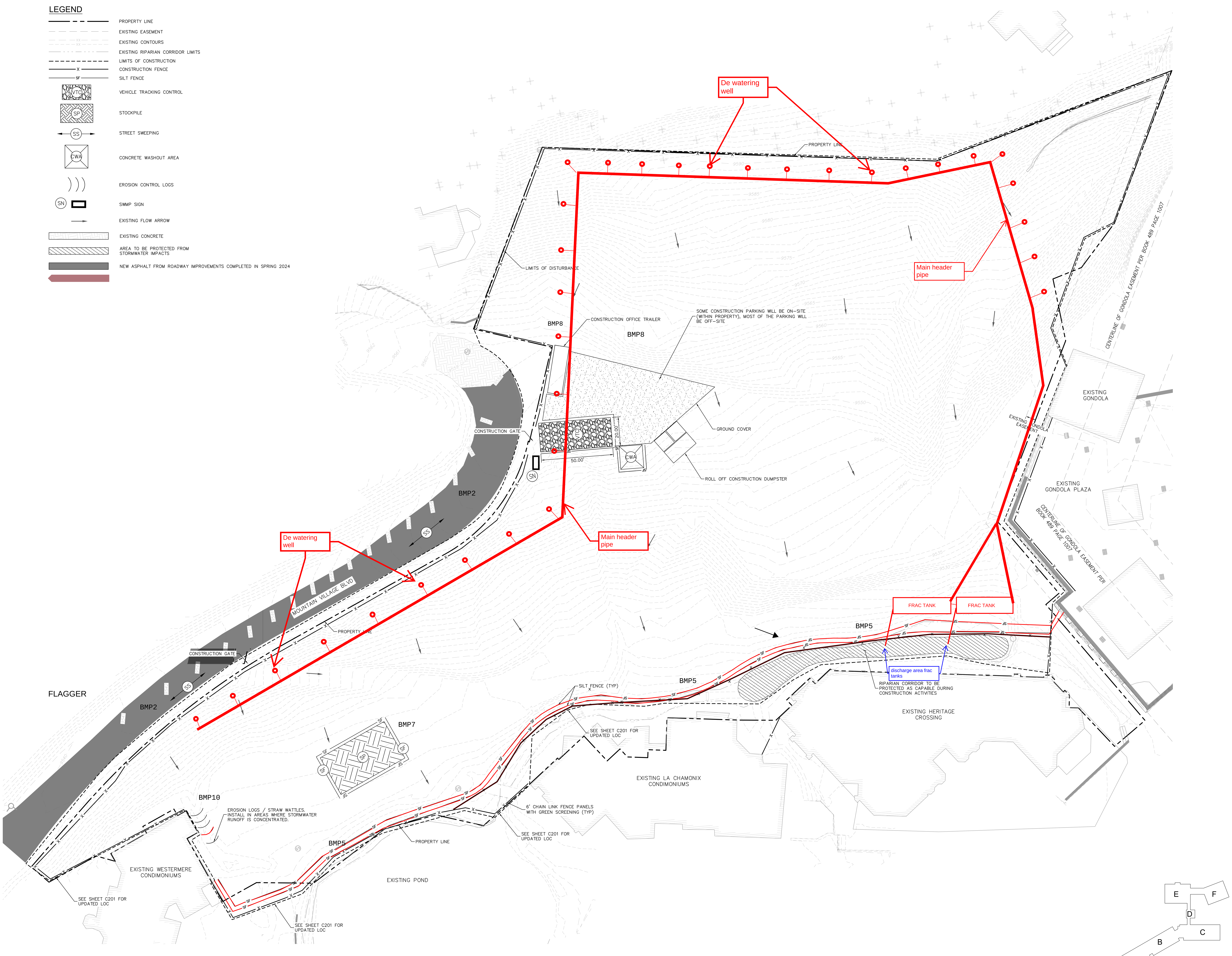
The existing pond is conveyed under the plaza via an 18" culvert with a Flared End Section (see photo on the second page). That culvert can convey approx. 7 cfs but is currently blocked with sandbags in order to raise the surface elevation of the pond. Clearly, capacity isn't an issue. I discussed installing improving the outlet with Public Works. If a drop-log structure were installed, then the storage capacity of the pond could be increased and the actual outlfow to the culvert could also be increased. So a small improvement at the outlet will result in storing all of the additional run-off and provides a better way to maintain the outlet. Public Works is in favor of this concept.

After discussing the pond with Public Works, the bigger issue is that the pond can run out of water during dry years, so they are in favor of routing as much run-off as possible to the creek/pond.

During construction, the excavation will be into the shale formation. Typically, groundwater is traveling on top of that shale or seeping between the shale layers. If intercepted, that groundwater will also be diverted to the creek via a water management system designed into the shoring.

David Ballode, P.E.
Uncompahgre Engineering, LLC





LEGEND
PROPERTY LINE
EXISTING EASEMENT
EXISTING CONTOURS
EXISTING RIPARIAN CORRIDOR LIMITS
LIMITS OF CONSTRUCTION
CONSTRUCTION FENCE
SILT FENCE
VEHICLE TRACKING CONTROL
STOCKPILE
STREET SWEEPING
CONCRETE WASHOUT AREA
EROSION CONTROL LOGS
SWMP SIGN
EXISTING FLOW ARROW
EXISTING CONCRETE
AREA TO BE PROTECTED FROM STORMWATER IMPACTS
NEW ASPHALT FROM ROADWAY IMPROVEMENTS COMPLETED IN SPRING 2024
De watering well
Main header pipe
PROPERTY LINE
LIMITS OF DISTURBANCE
BMP8
CONSTRUCTION OFFICE TRAILER
SOME CONSTRUCTION PARKING WILL BE ON-SITE (WITHIN PROPERTY), MOST OF THE PARKING WILL BE OFF-SITE
GROUND COVER
ROLL OFF CONSTRUCTION DUMPSTER
CONSTRUCTION GATE
20.00'
50.00'
BMP2
MOUNTAIN VILLAGE BLVD
FLAGGER
FRAC TANK
discharge area frac tanks
BMP5
RIPARIAN CORRIDOR TO BE PROTECTED AS CAPABLE DURING CONSTRUCTION ACTIVITIES
EXISTING HERITAGE CROSSING
SILT FENCE (TYP)
SEE SHEET C201 FOR UPDATED LOC
BMP7
BMP10
EROSION LOGS / STRAW WATTLES. INSTALL IN AREAS WHERE STORMWATER RUNOFF IS CONCENTRATED.
6' CHAIN LINK FENCE PANELS WITH GREEN SCREENING (TYP)
EXISTING LA CHAMONIX CONDIMONIUMS
EXISTING WESTERMERE CONDIMONIUMS
EXISTING POND
EXISTING GONDOLA
EXISTING GONDOLA EASEMENT
EXISTING GONDOLA PLAZA
CENTERLINE OF GONDOLA EASEMENT PER BOOK 489 PAGE 1007
GRAPHIC SCALE IN FEET
0 10 20 40
NORTH
KEY MAP (N.T.S)
A B C D E F

Kimley»Horn
310 MARKET STREET
SUITE 116
BASALT, COLORADO, 81621
303.228.2300

FOUR SEASONS HOTEL & RESIDENCES

Mountain Village, CO

REVISIONS:

NO	DATE	DESCRIPTION

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION
Kimley»Horn
Kimley-Horn and Associates, Inc.

PROJECT NUMBER:
119096

DATE:
07/26/2024

ISSUED FOR:
GMP

SHEET TITLE:
INITIAL EROSION CONTROL PLAN

SHEET NUMBER
C200