ENHANCING OUR VIBRANT COMMUNITY AND IMPROVING OUR QUALITY OF LIFE

March 21, 2024
Special Planning Commission Meeting 3:30 p.m.

City Council Chambers
217 East Center Street
Moab, Utah 84532

1. 3:30PM Call To Order

2. Citizens To Be Heard
   To have your comments considered for the Citizens to Be Heard portion of the electronic meeting, please fill out the form found here:
   HTTPS://DOCS.GOOGLE.COM/FORMS/D/E/1FAIPQLSECP3KYU0F_F8J6J5ROFAEUPTNKW938GR8DVWEOJJH-AQFNGA/VIEWFORM?VC=0&C=0&W=1
   You must submit your comments by 5:00 pm on the day of the meeting. Please limit your comments to 400 words

3. Approval Of Minutes
   March 14, 2024, Regular Meeting

   Documents:

   MIN-PC-2024-03-14 DRAFT 032124.PDF

4. Action Item

4.1. Consideration And Possible Approval Of Planning Resolution 02-2024: A Planning Resolution Approving The Major Change Amendment To The Approved Remanded Level II Site Plan For The Cottonwood Condominiums 2023, On Property Located At 214 South 200 East, Moab UT 84532
   Briefing and possible action

   Documents:

   COTTONWOOD CONDOMINIUMS MAJOR CHANGE AMENDMENT TO APPROVED REMANDED SITE PLAN AGENDA SUMMARY 032124.PDF
   EXHIBIT A PLANNING RESOLUTION NO 02-2024 COTTONWOOD CONDOMINIUMS SITE PLAN 032124.PDF
   EXHIBIT B COTTONWOOD CONDO ARCHITECTURAL SITE PLAN REV 031124 031424.PDF
   EXHIBIT C COTTONWOOD CONDO CIVIL SITE PLAN REV 031124 031424.PDF
   EXHIBIT D COTTONWOOD CONDO DRAINAGE REPORT REV 031124 031424.PDF
   EXHIBIT E COTTONWOOD CONDO LANDSCAPE PLAN REV 031124 031424.PDF
   EXHIBIT F COTTONWOOD CONDOMINIUM MMC LANDSCAPE STANDARDS APPROVAL MATRIX 032124.PDF
   EXHIBIT 1 REMANDED PLANNING RESOLUTION NO 02-2023 COTTONWOOD CONDOMINIUMS SITE PLAN 071423.PDF
   EXHIBIT 2 VICINITY MAP COTTONWOOD CONDOMINIUMS SITE PLAN 030923.PDF
   EXHIBIT 3 APPLICANT NARRATIVE COTTONWOOD CONDOMINIUM 2022 SITE PLAN 030923.PDF
   EXHIBIT 4 COTTONWOOD CONDOMINIUM 2022 SITE PLAN DRAWINGS 030923.PDF

EXHIBIT 5 ELEVATION PLAN COTTONWOOD CONDOMINIUM SITE PLAN 030923.PDF
EXHIBIT 6 LANDSCAPE AND LIGHTING PLAN COTTONWOOD CONDOMINIUM 2022 SITE PLAN DRAWINGS 030923.PDF
EXHIBIT 7 COTTONWOOD CONDOMINIUM FINAL CIVIL PLANS 2023 030923.PDF
EXHIBIT 8 COTTONWOOD CONDOMINIUMS MUNICIPAL CODE REVIEW MATRIX 030923.PDF
EXHIBIT 9 NOTICE TO ADJACENT PROPERTY OWNERS MARCH 2 2023 030923.PDF
EXHIBIT 10 PLANNING COMMISSION MINUTES AUGUST 11 2022 COTTONWOOD CONDOMINIUM SITE PLAN 030923.PDF
EXHIBIT 11 COTTONWOOD CONDOMINIUMS SITE PLAN AGENDA SUMMARY AUGUST 11 2022 030923.PDF
EXHIBIT 12 PLANNING RESOLUTION NO 09 2022 COTTONWOOD CONDOMINIUM SITE PLAN 030923.PDF
EXHIBIT 13 MOAB.HARGER.APPEAL DETERMINATION 071423.PDF
EXHIBIT 14 ARCHITECTURAL AND LANDSCAPING AMENDMENTS TO SITE PLAN SUBMITTAL COTTONWOOD CONDOS 2023 071423.PDF
EXHIBIT 15 LANDSCAPING ELEMENTS NARRATIVE SUBMITTAL 071423.PDF
EXHIBIT 16 FINDINGS AND CONCLUSION PLANNING RESOLUTION 02-2023 COTTONWOOD CONDOMINIUMS PC 082123 032024.PDF

5. Future Agenda Items
6. Adjournment

Special Accommodations:

In compliance with the Americans with Disabilities Act, individuals needing special accommodations during this meeting should notify the Recorder's Office at 217 East Center Street, Moab, Utah 84532; or phone (435) 259-5121 at least three (3) working days prior to the meeting.

Check our website for updates at: www.moabcity.org

MOAB CITY PLANNING COMMISSION MINUTES—DRAFT
March 14, 2024

The Moab City Planning Commission held its regular meeting on the above date in Council chambers. Audio is archived at www.utah.gov/pmn and video is at www.youtube.com/watch?v=sQYQIaE5ed0.

Call to Order: Planning Commission Chair Kya Marienfeld called the meeting to order at 6:03 p.m. Commission Members Carolyn Conant, Machael Layton, Miles Loftin and Jill Tatton attended. City Planning Director Cory Shurtleff, Planning Administrator Anna Anglin, Assistant Planner Bryce Rogers, Community Development Director Michael Black and City Council liaison Luke Wojciechowski also attended, as well as two members of the public representing the applicant for an action item.

Approval of Minutes: Commission Member Loftin moved to approve the minutes of the January 25, 2024, Regular Planning Commission meeting. Commission Member Tatton seconded the motion. Planning Director Shurtleff noted one change. The motion passed unanimously.

Planning Commission Meeting Schedule—Approved
Motion and Vote: Commission Chair Marienfeld moved to approve the 2024 Planning Commission meeting schedule. Commission Member Loftin seconded the motion. The motion passed unanimously.

Citizens to be Heard: None. A written comment was referred to, for later discussion in the meeting.

Major Change to Level II Site Plan for Cottonwood Condominiums—Tabled
Presentation and Discussion: Planning Director Shurtleff presented for consideration and possible approval **Planning Resolution 02-2024:** a planning resolution approving a major change amendment to the approved remanded Level II Site Plan for the Cottonwood Condominiums 2023, on property located at 214 South 200 East, Moab UT 84532. He noted proposed structural changes and presented a brief history of the project approvals, appeals, defects, screening and buffering requirements, balcony structure amendments, and a final materials submittal dated March 11, 2024. He described the proposed amendments, which included two new balconies that were not included in the approved version. Shurtleff said the applicants had readdressed site drainage, removing a detention basin to accommodate buffering and landscape requirements. He described new drainage along the western property boundary to provide more pavement, in lieu of the originally proposed drainage feature. He described a fencing addition to meet buffering requirements and noted new balconies 11'5" from the southern property line. Shurtleff presented the findings and conclusions report, which resulted from a prior appeal, noting crushed granite as a specifically allowed landscape element. Commission Chair Marienfeld referred to an email comment from neighbor Keith Harger, as well as a communication from the applicant's attorney. Shurtleff spoke about the approval history and Mr. Harger's contesting of the pathway in the buffering area. He said staff determined the new ordinance fits the proposed use of the buffering area with a gravel path, and noted the Planning Commission will determine agreement with staff assessment. Marienfeld noted Mr. Harger does not agree with the pathway and pointed out the new ordinance does not allow for the intensity of use of a pathway. It was also noted Mr. Harger did not appeal the remanded site plan on that point. Shurtleff explained the buffer zone changed from 15' to 8' in the newly adopted landscape ordinance. Marienfeld brought up the balcony issue as it changed distance from the property line over time. Shurtleff pointed out there were no structural elements in the new buffer zone or setbacks and explained that the major change requested at this time was an alteration in the size of the structure regarding decks, and intensity of occupancy in the buffer zone. Marienfeld noted the current proposal was for 8' decks, not 6' as previously discussed. She also stated that the applicant had removed the decks in the contested submittal, which is the currently approved version of the site plan, and yet had constructed them anyway. The applicant's attorney, Christina Sloan, stated the applicant wants the decks. She said the applicant is passionate about the new landscape ordinance and has planned for expensive drainage and landscape compliance. She brought up proposed improvements

to landscaping, drainage and expansion of decks. Discussion ensued regarding the use of open space and vested rights in the amended site plan. Marienfeld reiterated the currently approved plan had no balconies on the center units and yet the balconies had been constructed. Shurtleff pointed out the balconies could be removed. Marienfeld clarified that the balconies were built illegally and now the applicant proposes an amended site plan to bring the structure into compliance. She noted she takes seriously the neighbor's concern about an invasion of privacy, as well as the Commission's duty to comply with code. She expressed an interest in having the City's attorney consider the matter. She stated she wanted to be clear about how new code applied to a vested project with regard to any other existing vestures. She said that if the new code applied to the vested project, she saw no conflict. She expressed frustration that the balconies were constructed without approval. She added that pavers, pathways and pony walls also appear to be allowed. Commission Member Loftin concurred. Commission Member Layton disagreed, stating the path is for use, not as an open space buffer. Marienfeld posited that buffers are regarding materials, not use. Layton reiterated her disagreement that a path is appropriate in a buffer. Commission Member Conant pointed out that, in the spirit of reducing impacts on neighboring uses, a path seemed counterintuitive. Commission Member Tatton stated the developer went about construction of balconies in the wrong way, and yet the project gained additional landscaping. Commission Chair Marienfeld said she had no problem denying applications in the future, even if elements were already illegally constructed, if it was determined code could not retroactively apply. She said it was unfortunate that it now complies. Commission Member Loftin agreed yet added that the unapproved balconies were constructed and the Commission has no recourse. He said it was an administrative decision.

Marienfeld reiterated her position that she wants the City attorney to review before the Commission makes a determination, to protect the Commission and staff. She requested the item be tabled and Loftin concurred. Shurtleff stated the latest submittal was late breaking so there was no time for attorney review before the meeting. He said he would seek clear procedures with vested properties, taking into account opposition regarding the gravel path and as it relates to Commission findings and conclusions. A special meeting was discussed.

Community Development Director Black spoke about the nature of buffering and passive use, and spoke in favor of a gravel path as part of a buffering element. He said that code that denies use of property is unsound and the goal is to keep structural elements out of the buffer zone. He stated his opinion that gravel paths are passive.

Motion and Vote: Commission Chair Marienfeld moved to table consideration of **Planning Resolution 02-2024:** a planning resolution approving a major change amendment to the approved remanded Level II Site Plan for the Cottonwood Condominiums 2023, on property located at 214 South 200 East, Moab UT 84532. Commission Member Layton seconded the motion. The motion passed unanimously.

Future Agenda Items: Planning Director Shurtleff and Planning Administrator Anglin announced several applications were in preparation, as well as a minor subdivision and an annexation. The upcoming code revision process was also mentioned.

Adjournment: Commission Chair Marienfeld adjourned the meeting at 7:39 p.m.

Moab Planning Commission Agenda Item

Planning Resolution No. 02-2024;
Major Change Amendment to the Approved
REMANDED Level II Site Plan
Meeting Date: March 21, 2024

Title: Consideration and Possible Approval of Planning Resolution No. 02-2024, A Major Change Amendment to the Approved Remanded Level II Site Plan for the Cottonwood Condominiums 2023, on Property Located at 214 South 200 East, Moab UT 84532

Disposition: Discussion and Possible Action

Staff Presenter: Cory P. Shurtleff, Planning Director

Attachment(s):
Exhibit A: Planning Resolution No. 02-2024
Exhibit B: Architectural Site Plan Submittal REV 031124
Exhibit C: Civil Site Plan Submittal REV 031124
Exhibit D: Drainage Report REV 031124
Exhibit E: Landscaping Plan REV 031124
Exhibit F: Moab Municipal Code Landscaping Standards Approval Matrix
Exhibit 1: Planning Resolution No. 02-2023; REMANDED
Exhibit 2: Vicinity Map
Exhibit 3: Applicant Narrative
Exhibit 4: Cottonwood Condominiums 2022 Site Plan Drawings
Exhibit 5: Elevation Plan
Exhibit 6: Landscape and Lighting Plan 2022
Exhibit 7: Cottonwood Condominiums Final Civil Plans 2023
Exhibit 8: Moab Municipal Code Approval Matrix
Exhibit 9: Notice to Adjacent Property Owners March 2, 2023
Exhibit 10: Planning Commission Minutes August 11, 2022
Exhibit 11: Cottonwood Condominiums Site Plan Agenda Summary August 11, 2022
Exhibit 12: Planning Resolution No. 09-2022
Exhibit 13: Appeal Determination 053023
Exhibit 14: Architectural and Landscaping Amendments to Site Plan Submittal
Exhibit 15: Landscaping Elements Narrative Submittal
Exhibit 16: Findings and Conclusions Planning Resolution No. 02-2023 082123

Options:
1. Approve with or without modifications; or
2. Continue or table action to a later meeting with specific direction to City Staff and Applicant as to additional information needed to make a decision; or
3. Deny the Site Plan Application, giving specific findings for decision.

Motion for Approval: I move that the City of Moab Planning Commission Approve Major Change Amendment to the Approved Remanded Level II Site Plan for the Cottonwood Condominiums 2023 Project, on Property Located at 214 S 200 E, Moab, UT 84532.

Background:

The applicant, Sundra Hines, initially submitted on behalf of the property ownership, Garry Snook of GSS Properties LLC, the appropriate applications, and submittal materials for the Level II Site Plan on May 9, 2022. The Site Plan Application was reviewed by the Development Review Team (DRT) on May 10, 2022 and June 6, 2022. Following the response to DRT comments in the Resubmittal materials, submitted June 23, 2022, the DRT found the outstanding comments were sufficiently addressed. The Site Plan Application was submitted for review by the Moab City Planning Commission, on August 11, 2022, where the project was approved 4-0. The applicants pursued resolution of the conditions of approval concurrently with submission for Building Permit approval. Building Permit approval was granted February 9, 2023. Following receipt of an Appeal Application, the Applicants elected to cure procedural notice defects that were cited in the original approval process through resubmitting for Planning Commission Site Plan Approval as Planning Resolution No. 02-2023. The City accommodated this action in-line with policies for re-reviewing items that maintained procedural defects. The application status remained intact as a "Complete" Application, and was reviewed in the municipal code context of when it was originally reviewed. The Site Plan Application was submitted for review by the Moab City Planning Commission, on March 9, 2023. Motion for approval passed unanimously. Following the Planning Commission approval, the appeal process continued and was concluded upon determination made by the Land Use Hearing Officer and Appeal Authority for Moab City, Mary J. Woodhead. The determination concluded that certain ornamental and landscape features, including the gravel path and patio enclosures, as approved by the Planning Commission, were not arbitrary, capricious, or illegal; however the remaining elements related to structures on the property for which the evidence is not sufficiently clear as to whether they violate the 15-foot buffer, was remanded to the Commission for determination. The determination identified that the 15-foot buffer was to be measured from the property line; the elements permissible within this buffering area are to be determined and approved by the Planning Commission as the Land Use Authority. The remanded Site Plan Application, through the Remanded Planning Resolution 02-2023, was reviewed and approved by the City of Moab Planning Commission on July 14, 2023. Following the approval and adoption of the Water Efficient Landscaping Ordinance 2023-08, which refined the screening and buffering requirements for Multi-Household Dwellings, among additional regulations, the property owner and applicant resubmitted an amended Site Plan that expanded the balcony areas of the approved Cottonwood Condominium Site Plan, on December 4, 2023. This expansion was determined to be a Major Change to the Approved Site Plan, requiring that the original approval authority act as the amendment approval Land Use Authority. The structural expansion proposed would require that the whole property come into full compliance with the MMC 17.10 Landscaping Standards, additionally amending the required landscaping, screening, and buffering areas; also amending aspects of the drainage plan expressed through the Civil Site Plan. This submittal was reviewed by the DRT, with comments issued to the applicant December 13, 2023. The amendments were resubmitted for DRT review February 5, 2024, February 29, 2024, and for final confirmation on March 11, 2024. The Major Change Amendment to the Approved Remanded Level II Site Plan for the Cottonwood Condominiums 2023 was submitted for Planning Commission review during the regular Planning Commission Meeting March 14, 2024, and tabled with direction for staff to provide more information regarding the vesting application rights of the development, specifically addressing requirement to comply with the Active Employment Household zoning requirements. The Major Change Amendment has been submitted for Planning Commission review during the Special Planning Commission Meeting March 21, 2024.

Project Description:
Location: 214 S 200 E, Moab UT 84532
Property Owner: Garry Snook (GSS properties LLC)
Applicant: Christina Sloan (Sloan Law Firm, PLLC)

Parcel: 01-0B03-0007 (18,730.80 sf) (0.43 acres)
Zoning: R-3 Multi-Household Residential Zone
Proposed Use: Residential Multi-Household Condominiums
Project Size: 9-Unit Condominium Development
Parking: 16 spaces

Narrative Summary:
Provided by Applicant 2023:

The site is located within Block 3 of the Moab Townsite within the Northeast Quarter of Section 1. It is located at the corner of 200 East Street and 200 South Street Right of Way. The site is zoned R-3 and will adhere to the size and use requirement of the Municipal Code. The building will have 9 residential units: Four 1,689 sq. ft. 3br/2.5ba, Two 1,026 2br/2ba, and Three 622 sq. ft. 1br/1ba. The property has 13 parking spaces for residence and 3 guest parking spaces for a total of 16 parking spaces. The residence will share one driveway access to a single curb cut to 200 East Street. The building will be completed in one phase of construction that will take around 12 months.

Exhibit Summary:
Exhibits A,B,C are representative of the 2023 Appeal Determination and Applicant Resubmittals addressing the remanded aspects of the Site Plan.
Exhibits 1-12 are maintained as original exhibits to the March 9, 2023 Site Plan Approval.

Determination Excerpt:
Determination Section I. MOAB ORDIANCE CLEARLY REQUIRES GSS TO PROVIDE A 15 FOOT BUFFER MEASURED FROM THE PROPERTY LINE:
"Based on the foregoing, Utah law regarding the statutory interpretation of land use ordinances requires a finding that the buffer be measured from the lot line as set forth in 17.67.020."

Determination Section II. THIS MATTER IS REMANDED TO THE PLANNING COMMISSION TO REASSES THE SITE PLAN PURSUANT TO THIS DECISION:
"Because the Planning Commission considered the placement of various structural and landscaping features under an incorrect legal theory, this matter is remanded for the Commission to consider the project pursuant to the ordinance requirement that GSS maintain a 15-foot buffer between its property line and the structural elements of its project. Remand is necessary because the record is less than precise as to what if any elements of the site plan include forbidden intrusions within the 15-foot buffer.
Harger specifically objects to two elements of the site plan; a 4-foot patio wall and a gravel path, as being violations of both the buffer and the setback ordinance. The Planning Commission found both to fit within the requirements of the ordinance. As set forth above, to set aside a Planning Commission decision, the Land Use Appeal Authority must find that the site plan approval was arbitrary, capricious, or illegal. In this case, the Commission finding that the patio walls and gravel path fit within the ordinance landscaping requirements is not so clearly inconsistent with any specific element of the ordinance as to be subject to reversal. While the findings of the Planning Commission might be debatable, the ordinance is not so specific about the exact elements constituting ornament and landscape within the buffer and set-back to find the path and patio enclosure elements of the site plan to be arbitrary, capricious, or illegal. See,
Harger v. Moab City Page 7 Springville Citizens v. City of Springville, 979 P. 2nd 332, (Utah 1999).
There are remaining elements related to structures on the property for which the evidence is not sufficiently clear as to whether they violate the 15-foot buffer. Those matters are remanded to the Commission.

Staff Response to March 14, 2024 Planning Commission Direction:
Background: Applicant received site plan approval on July 14, 2023. After the site plan was approved, Moab City amended its landscaping ordinance. The amended ordinance made changes to the buffering and other landscaping requirements which had restricted Applicant's desired use of the site. Specifically, under the ordinance in place at the time of the site plan approval, two balconies, which applicant desired to construct, could not be constructed due to the required buffering between the proposed development and the neighboring property because they infringed on the required buffer. However, under the revised code, the horizontal distance of the buffer was essentially reduced and the proposed balconies no longer infringed on the required buffer.

Additionally, following the submission of the original application for the development, Moab City also adopted Moab City Code Section 17.64 - Active Employment Household (the "**AEH**"). Under the AEH, multi-household developments in the R-3 zone must place a deed restriction on a certain number of units.

Following the amendment of the landscaping ordinance, Applicant sought to amend the approved site plan to include the two balconies under the new ordinance. However, Applicant asserts that the AEH does not apply because Applicant's application was vested prior to the enactment of the AEH. In essence, a neighboring property owner, Keith Harger, asserts that to obtain an approved site plan amendment, Applicant must amend the development to come into compliance with all current ordinances, including the AEH. Mr. Harger's assertion came shortly before the Moab City Planning Commission was set to review the Applicant's amended site plan.

In order to provide Applicant and Staff time to review and respond to Mr. Harger's assertion, the Planning Commission tabled its review of the site plan. Moab City Staff requested both the applicant and Mr. Harger provide any additional comments relating to the question of vested interests and the AEH by 3:00 pm Tuesday, March 19, 2024. Moab City Staff received additional comments by Applicant, but did not receive any substantive comments from Mr. Harger.

Under Moab City Code, The Land Use Authority's Review of an Amendment to Site Plan is Limited to the Proposed Changes and not Site Plan Generally.

Site plans may be amended in accordance with the procedures set forth in Moab City Code Section 17.67.080. In accordance with Moab City Code Section 17.67.080 A, "[a]n approved site plan shall be binding upon the applicant" and "[a]mendments which change the character, building design, density or any other requirements or conditions contained in the site plan shall not be permitted without prior review and approval as set forth in [Section 17.67.080]." Under subsection C, "Major Changes" "shall be referred for review to the land use authority that originally authorized the site plan. Notably, the plain language of subsection C indicates that it is the "Major Changes" that are to be referred to the land use authority for review, it does not indicate that the entire site plan or unchanged elements are subject to further review.
Further, subsection D, provides that "[a] land use authority reviewing an amendment application may approve or approve with conditions, or deny ***the application***." Again, this subsection refers to the amendment application, and not the site plan in general.

Process: Site Plan Review
Section 17.67.050 of the Moab Municipal Code (MMC) regulates the Review Procedures for Major Change Amendments to Level II Site Plan Applications. The Planning Commission acting as the Land Use Authority shall provide the approval of the submitted Cottonwood Condominiums Major Change Amendment to the Approved Remanded Site Plan 2023 based on

the Approval Criteria and Amendment Procedures identified in MMC Section 17.67.

17.67.050
D. Level II Applications. Level II applications shall first be reviewed by the DRT, which shall issue a staff report identifying recommendations for the project. The land use authority for Level II applications shall be the Planning Commission, which may approve, approve subject to conditions, or deny the application.

17.67.060
Approval criteria.

A. The following criteria govern site plan approval:-

1. *Compliance with applicable Moab ordinances and building codes;*
2. *Availability of necessary utilities, including culinary water, sewer, electricity, natural gas, and the like;*
3. *Consistency of the design with Moab advisory documents; and*
4. *Accuracy and truthfulness of submittals or representations in the application.*

B. Discretion to Grant Conditional Approval. The applicable land use authority has discretion to impose conditions during the review process that address: (1) deficiencies in the application; (2) performance of the design in providing efficient access, vehicle circulation, connectivity, pedestrian/nonmotorized vehicle access; (3) buffering of off-site impacts; (4) storm water management and flood damage prevention; (5) landscaping and architectural design; (6) utility design issues; and/or (7) other provisions of Moab ordinances or advisory documents.

C. Statement of Reasons in the Event of Denial. Where an application is denied, the land use authority shall provide a statement of reasons explaining the basis for its denial.

17.67.080

Amendment procedures--Lapse of site plan.

A. Binding on Successors. An approved site plan shall be binding upon the applicant and any of its successors in title. Amendments which change the character, building design, density, or any other requirements or conditions contained in the site plan shall not be permitted without prior review and approval as set forth in this section.

B. Minor Changes. A minor change in the location or placement of buildings or specific improvements may be authorized by the DRT where unforeseen circumstances, such as site constraints, engineering problems, or the like require a change.

C. Major Changes. Major changes, such as alterations in the size, configuration, or change of use as defined in this chapter; significant realignments or changes to access, utilities, or storm water facilities; other changes which increase the density, scope, or intensity of occupancy; significant changes to project phasing; or other changes which significantly affect the overall design or intent of the project shall be treated as a major change, and shall be referred for review to the land use authority that originally authorized the site plan.

D. Review of Amendments. A land use authority reviewing an amendment application may approve, approve with conditions, or deny the application.

E. Lapse of Plan--Extension. If, within twelve months from the date of approval of a site plan, the applicant fails to satisfy approval conditions or diligently proceed with construction, then the City may declare a lapse of plan by delivering written notice to the applicant. A lapse of plan shall result in all prior approvals under this chapter being void and of no further effect. An extension of any site plan approval may be granted by the applicable land use authority upon a showing by the applicant of good cause, and provided that an extension is sought in writing within twelve months of the date of approval. Nothing in this section shall be deemed to alter or impair a phasing plan or construction schedule approved in a valid DIA. (Ord. 17-18 (part), 2017)

CITY OF MOAB PLANNING RESOLUTION NO. 02-2024

A RESOLUTION APPROVING THE MAJOR CHANGE AMENDMENT TO THE APPROVED REMANDED LEVEL II SITE PLAN FOR THE COTTONWOOD CONDOMINIUMS 2023, ON PROPERTY LOCATED AT 214 S 200 E, MOAB UT 84532.

WHEREAS, the following describes the intent and purpose of this resolution:

a. Christina Sloan, as the Applicant on behalf of the Owner of record, Garry Snook of GSS Properties LLC, for property located at 214 S 200 E, Moab, Utah 84532, has applied for a Major Change Amendment to the Approved Remanded Level II Site Plan for the Cottonwood Condominiums; and

b. The Applicant has furnished a site plan and description of the property located at 214 S 200 E Moab Utah, 84532; Parcel 01-0B03-0007 (18,730.80 sf) (0.43 acres); and

c. The City adopted Site Plan Review regulations in order to promote the health, safety and the general public welfare of the residents of the City by establishing standards for development in zones including the R-3 Multi-Household Residential Zone; and

d. The Moab Planning Commission reviewed the application for Level II Site Plan for the residential multi-household condominium development in a regularly scheduled meeting held on August 11, 2022. Following receipt of an Appeal Application, the Applicants elected to cure procedural notice defects, cited in the original approval process, by resubmitting for Planning Commission Site Plan Approval as Planning Resolution No. 02-2023, on March 9, 2023; and

e. Following the conclusion of the appeal process and determination, aspects of the application approval were remanded to the Planning Commission to make a final determination under the clarification provided by the appeal determination; and

f. The Moab Planning Commission reviewed the remanded matters of the determination, through Remanded Planning Resolution No. 02-2023, on July 14, 2023, where the Remanded Site Plan was Approved; and

g. Following the approval and adoption of the Water Efficient Landscaping Ordinance No. 2023-08, which refined the screening and buffering requirements for Multi-Household Dwellings, among additional regulations, the property owner and applicant resubmitted an amended Site Plan that expanded the balcony areas of the approved Cottonwood Condominium Site Plan, on December 4, 2023; and

h. This expansion was determined to be a Major Change to the Approved Site Plan, requiring that the original approval authority act as the amendment approval Land Use Authority; and

i. Sufficient evidence provided by the applicant proved that standards of development can meet or exceed the requirements and regulations outlined in the MMC Chapter 17.67 Site Plan Approval; and

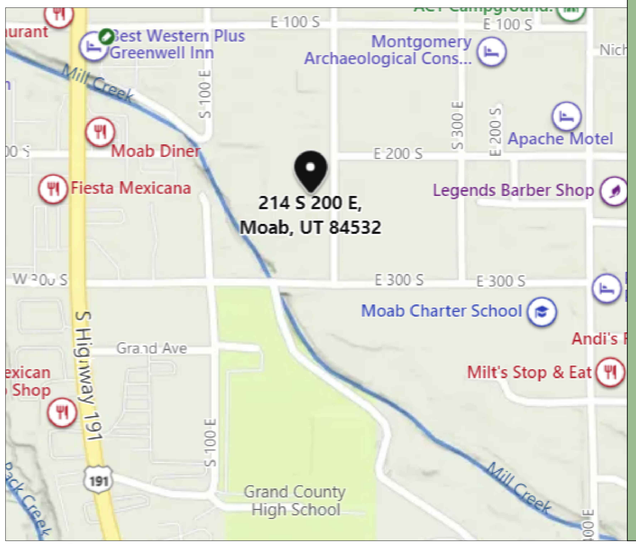
j. Following the consideration of the technical aspects of the pertinent code sections, the Moab Planning Commission, pursuant to Planning Resolution No. 02-2024, hereby finds, that all applicable provisions of the Moab Municipal Code have or can be met.

NOW, THEREFORE, BE IT RESOLVED BY THE MOAB PLANNING COMMISSION, the Major Change Amendment to the Approved Remanded Level II Site Plan 2023 for the Cottonwood Condominiums is hereby APPROVED.

PASSED AND APPROVED in an open meeting of the Planning Commission by a majority vote of the Governing Body of the Moab Planning Commission on March 21, 2024.

SIGNED: _____

Kya Marienfeld, Chair



VICINITY MAP

COTTONWOOD CONDOMINIUMS

Project Discription:

Project Description: Construction of a new Multi-Family Building
on undeveloped land
Project Location: Parcel 01-0B03-0007
214 South 200 East
Moab, Utah
Zoning: R3 Maximum Building Height = 30'-0"
Building Code: IBC 2018
Project Size: 9 unit Condo Complex with varying unit size
Total Gross Building Area: 11,776 sq.ft.
Parking Requirements: 14 parking spaces required, 15 spaces + 1 ADA van space

General Notes

1. All work shall conform with all City of Delta codes and ordinances, and the latest adopted editions of the IBC, NEC, UMC, &OSHA.
2. All trenching for footings and foundations to be inspected by Structural Engineer prior to any concrete placement.
3. Provide foundation wall drainage per structural drawings.
4. Provide smoke detectors (hardwire and battery backup) per IBC.
5. No changes are to be made to this project without written approval of Owner.
6. No structural changes are to be made to this project without written approval of Structural Engineer.
7. Any discrepancies between architectural and structural drawings are to be brought to the designer.
8. All framing dimensions are to face of stud unless noted otherwise. All concrete and ICF (insulated concrete form) dimensions are to face.
9. At the end of each daily work period the contractor shall secure, protect, barricade and broom clean the work area and leave unused material stacked or stored neatly. Upon completion of work, contractor shall remove all debris, equipment, etc. generated by, or necessary for, construction and leave the premises broom clean. All debris shall be removed to an approved dump site.
10. Discrepancies and/or ommissions from these drawings that are discovered during the construction by the contractor or any question regarding meaning or intent shall be immediately brought to the attention of the Assoc. Architect for interpretation and clarification. The contractor is responsible for reviewing dimensions and to notify the Assoc. Architect of any conflicts between the drawings and actual field conditions. This must be done prior to work.
11. Contractors & subcontractors shall be required to take precautions and verify the following prior to commencement of construciton:
    a- Familiarize themselves with local standards and requirements, this set of construction documents and the construction site.
    b- Complete all work in acceptable industry standard craftsman like mannner, per codes and ordinaces.
    c- Protect the public and adjacent properties from damage throughout construction.
12. Indemnification: To the fullest extent permitted by law, the contractor shall indemnify and hold harmless the owner, architect, their agents and employees from and against all claims, damages, losses and expenses, including but not limited to attorney's fees arising out of or resulting from the performance of the work provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease, death of, injury to, or destruction of tangible property (other than work itself) including the loss of use resulting therefrom.
13. Contractor is responsible for locating and providing all necessary blocking within any walls for any wall mounted fixtures, displays, grab bars, equipment, etc. Coordinate location and blocking requirements with owner where necessary.
14. Damages to property of the owner or adjacent property owners shall be repaired or paid for by the party responsible for the damage. This shall include but not be limited to damage to the building grounds, plantings, walls, pavement, appliances, vehicles, utilities, furnishings, and other properties.
15. The contractor shall verify locations of existing utilities before commencing work. Care shall be taken to protect all utilities which are to remain.

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C 100 SITE PLAN
C 100 SITE PLAN SUPERCEDED
C 200 UTILITY PLAN
C 300 IRRIGATION, GRADING & DRAINAGE PLAN
C 300 IRRIGATION, GRADING & DRAINAGE PLAN - SUPERCEDED
C 400 DETAILS
C 401 DETAILS
C 401 DETAILS - SUPERCEDED
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C 402 SPECS - SUPERCEDED

LANDSCAPE DRAWINGS:
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L102 CONCEPT IMAGES
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S 1.0 SECOND FLOOR & WALL FRAMING
S 2.0 ROOF FRAMING
S 3.0 STRUCTURAL LOAD PATH

ARCHITECTURAL DRAWINGS:
T 1.0 TITLE SHEET
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A 1.3 EGRESS PLAN
A 2.1 FIRST FLOOR PLAN
A 2.2 SECOND FLOOR PLAN
A 2.3 DOOR SCHEDULES
A 3.1 ROOF PLAN & DETAILS
A 4.1 BUILDING ELEVATIONS & WINDOW SCHEDULE
A 5.1 BUILDING SECTIONS
A 5.2 BUILDING SECTIONS
A 5.3 DETAILS
A 6.1 STUDIO & FLAT INTERIOR ELEVATIONS
A 6.2 TOWN HOME INTERIOR ELEVATIONS
E 1.1 FIRST FLOOR ELECTRICAL
E 1.2 SECOND FLOOR ELECTRICAL

PROJECT INFORMATION

PROJECT ADDRESS: 214 S. 200 E MOAB, UTAH

OWNER: GSS PROPERTIES, LLC

APPLICANT: GARRY SNOOK
(970)948-9508

ARCHITECT: HINES DESIGNS
SUNDRA HINES
188 MARIE STREET
RIDGWAY, CO 81432
(970)626-2300

CIVIL ENGINEER: MOUNTAIN CIVIL CONSULTING LLC
712 EAGLE PASS
DURANGO, CO 81301
(970)946-3175

LEGAL COUNCIL: THE SLOAN LAW FIRM
76 S. MAIN ST.
MOAB, UT 84532

LANDSCAPE ARCHITECT: PRIME
DUSTIN HISLOP
801-528-2856

CONTRACTOR: GUANTANAMERA
JARED WILLIAMS
(435)229-6289

HINES DESIGNS, LLC
PHONE : (970) 626 2300
188 MARIE STREET RIDGWAY, CO 81432

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COTTONWOOD CONDOMINIUMS
214 S 200 E
MOAB, UTAH

STATE OF UTAH
SUNDRA HINES
No. 8866253
LICENSED ARCHITECT

SET DATES
August 19, 2022
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Current Phase:
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January 30, 2024

T1.0

REFER TO LANDSCAPE & IRRIGATION PAGES FOR PLANTING & HARDSACPE.

LANDSCAPE CALCULATION:
18,735 sq.ft. total lot size/
3,109 sq.ft. total landscaping =
16.6% landscaping

LIGHTING LEGEND

B — LIGHT B = WALL MOUNT- EXTERIOR SCONCES

LIGHTING CALC:

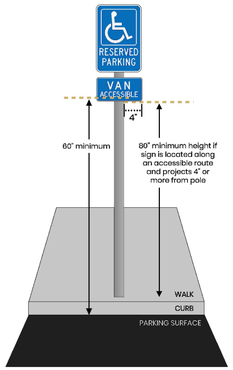
(13) B TYPE FIRST FLOOR SAFETY LIGHTING @ 580 LUMENS EACH = 7,540

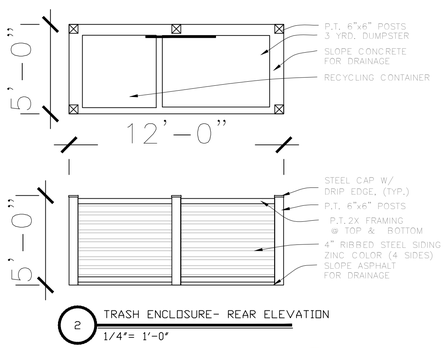
(8) B TYPE SECOND FLOOR DECK LIGHTING @ 580 LUMENS EACH = 4,560

MAILBOX SPEC:
SALSBURY CLUSTER BOX UNIT W/12 DOORS
MODEL #3312GRY-U
COLOR: GREY
CONTRACTOR TO PREPARE PAD PER SPECS.
THIS PRODUCT IS USPS APPROVED
& MEETS ANSI 309 REQS.

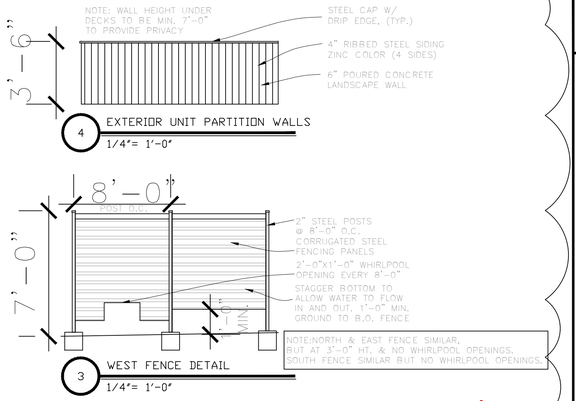
LIGHT B- MAX. LUMENS 3000K PER FIXTURE.

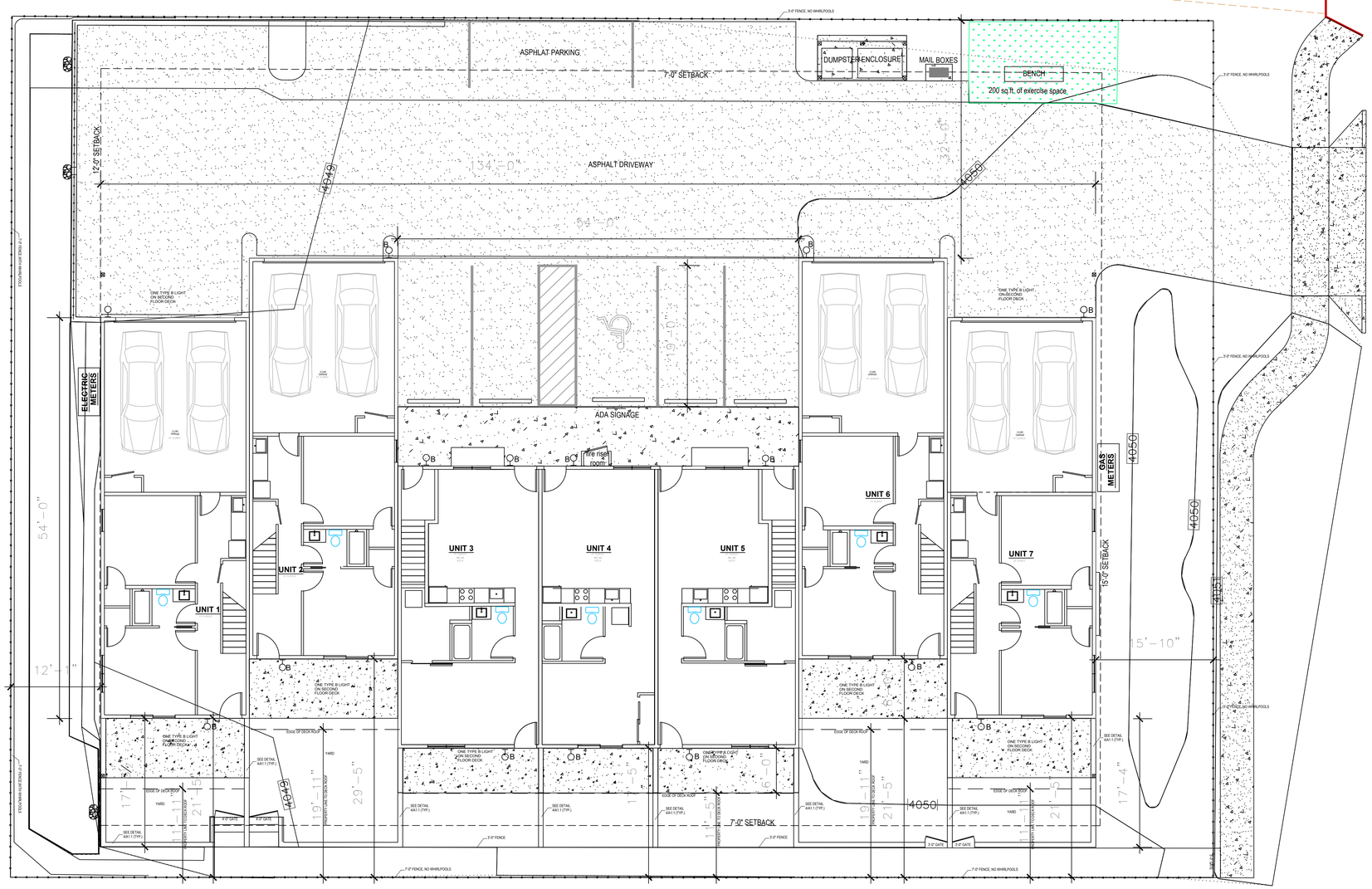
LIGHT B- MOUNTED W/ B.O. FIXTURE @ 80" ABV. FIN. FLOOR





2 TRASH ENCLOSURE- REAR ELEVATION
1/4"= 1'-0"





1 SITE PLAN & LIGHTING PLAN
1/8" = 1'-0"

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SITE PLAN

A1.1

Code: IBC 2018

Occupancy: Residential R-2, Apartment houses

Construction type: VB

Sprinkler: NFPA 13

Building height: actual = 24'-10 ½ " allowable = 60'

Number of stories: actual = 2 allowable = 3

Building Area: actual = 11,280 sf (FF=6,372 sf SF=6,372 sf)
allowable = 22,750 sq.ft.
506.2.3 Calculation
Aa = [At + (NS x If)] x Sa
At = 7,000 sq.ft. per Table 506.2
NS = 7,000 sq.ft. per Table 506.2
If = 0.25(East & North sides of the building have over 30' of open space/public way, see sheet A1.1)
Sa = 2 (two stories above grade)
Aa = [7,000 + (7,000 x 0.25)] x 2
Aa = 22,750 sq.ft.

Section 420: Groups I-1, R-1, R-2, R-3, and R-4

420.1 General

Occupancies in Groups I-1, R-1, R-2, R-3, and R-4 shall comply with the provisions of Section 420.1 through 420.10

420.2 Separation walls.

Walls separating dwelling units in the same building shall be constructed as fire partitions in accordance with section 708

708.3 Fire-resistance rating
Fire partitions shall have a fire resistance rating of not less than one hour

Exception 2: dwelling unit and sleeping unit separations in buildings of type VB construction shall have fire resistance ratings of not less than ½ hour in buildings equipped throughout with an automatic sprinkler system in accordance with section 903.3.1.1

708.4 continuity
Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below and be securely attached to one of the following
1. The underside of the floor or roof sheathing, deck or slab above
2. The underside of a floor/ceiling or roof/ceiling assembly having a fire resistance rating that is not less than the fire resistance rating of the fire partition

420.3 Horizontal separation

Floor assemblies separating dwelling units in the same building shall be constructed as horizontal assemblies in accordance with section 711

711.2.4 Fire-resistance rating
The fire resistance rating of horizontal assemblies shall comply with Sections 711.2.4.1 through 711.2.4.6

711.2.4.3 Dwelling units and sleeping units.
Horizontal assemblies serving as dwelling or sleeping unit separation in accordance of Section 420.3 shall be not less than 1-hour fire-resistance rated construction.

Exception: Horizontal assemblies separating dwelling units and sleeping units shall be not less than ½-hour fire-resistance-rated construction in a building of Types IB, IIB and VB construction, where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1

420.4 Automatic sprinkler system

Group R occupancy's shall be equipped throughout with an automatic sprinkler system in accordance with 903.2.8

903.2.8 Group R
An automatic sprinkler system installed in accordance with 903.3 shall be provided throughout all buildings with a Group R fire area.

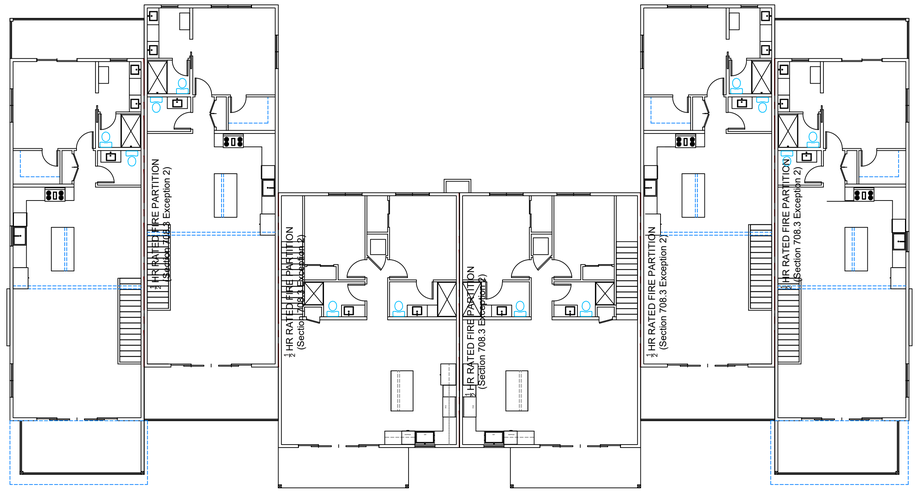
903.3 Installation requirements
Automatic sprinkler systems shall be designed and installed in accordance with Sections 903.3.1 through 903.3.8

420.5 Fire alarm systems and smoke alarms

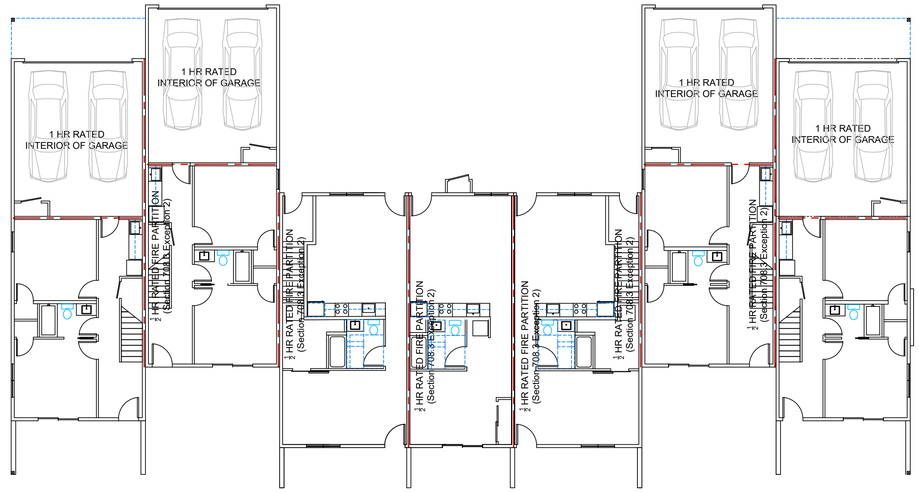
Fire alarm systems and smoke alarms shall be provided in group R-2 occupancy's in accordance with sections 907.2.6, 907.2.8 and 907.2.9, respectively

A supervisory and waterflow fire alarm system will be installed per sections 901.6 and 903.4.

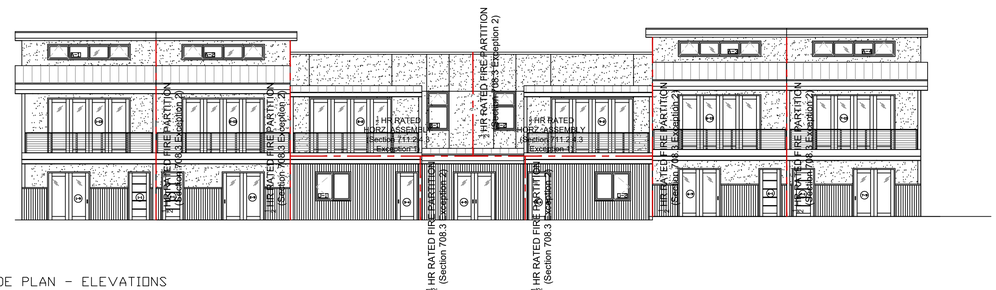
NOTE: FIRE SUPPRESSION CONTRACTOR TO DESIGN, INSTALL AND PERMIT SPRINKLER SYSTEMS. DRAWINGS AND DESIGNS WILL BE SUPPLIED TO THE BUILDING DEPT. AT THE TIME THE CONTRACTED IS AWARDED AND PRIOR TO INSTALLATION.



3 CODE PLAN - SECOND FLOOR
3/32" = 1'-0"



2 CODE PLAN - FIRST FLOOR
3/32" = 1'-0"



1 CODE PLAN - ELEVATIONS
3/32" = 1'-0"

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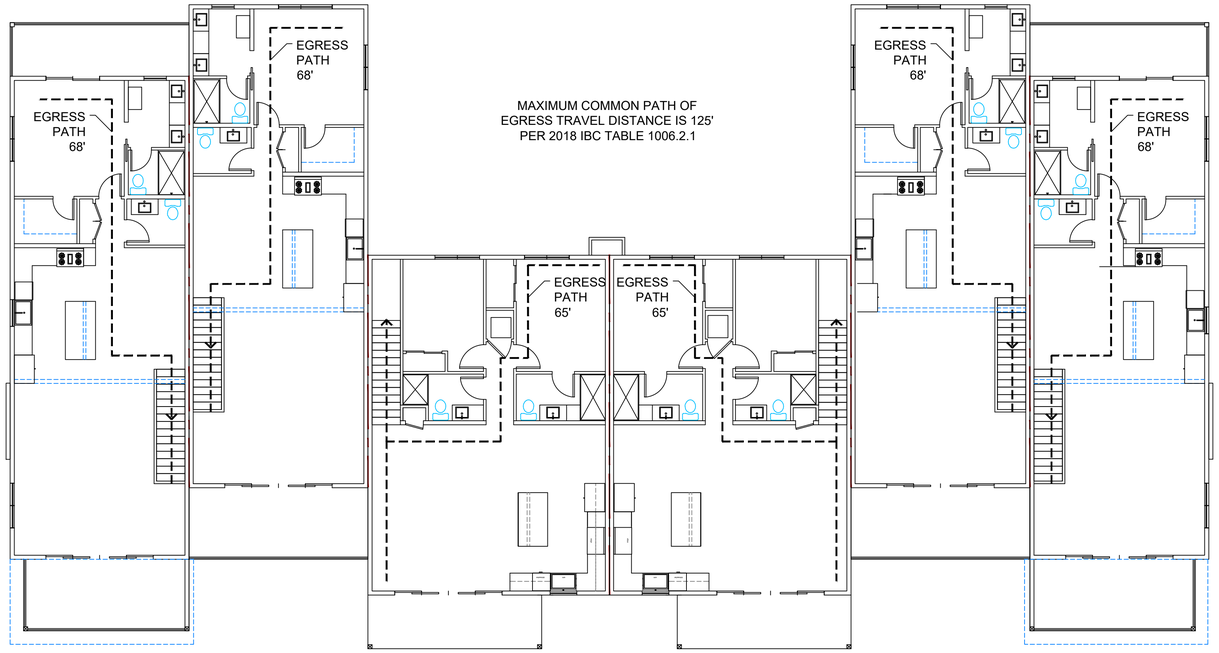
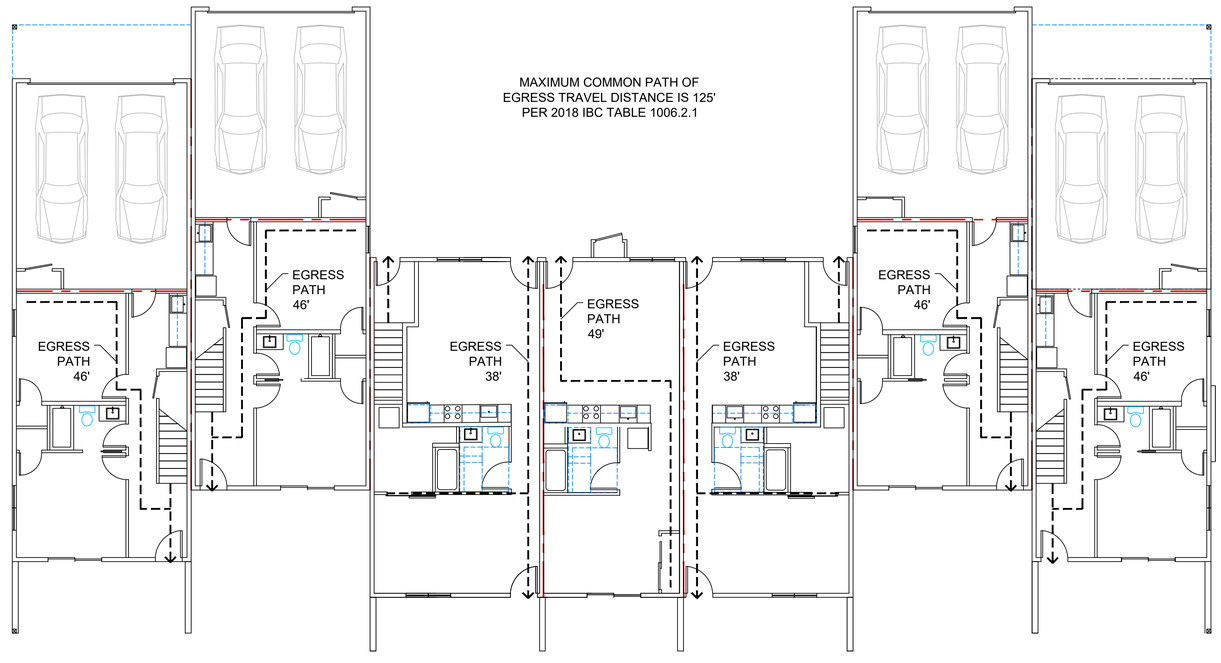
CODE REVIEW

A 1.2



2 EGRESS PLAN - SECOND FLOOR

1/8" = 1'-0"



1 EGRESS PLAN - FIRST FLOOR

1/8" = 1'-0"

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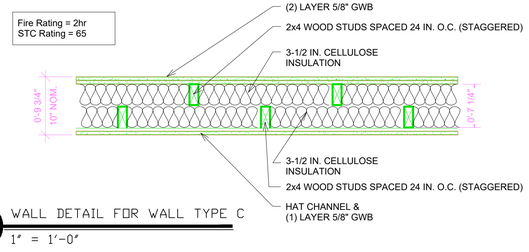
EGRESS PLAN

A 1.3

PARTITION TYPES

TAG	STUD TYPE	INSULATION	NOTED SIDE SURFACE MATERIAL	NOTED SIDE SURFACE HEIGHT	OPPOSITE SIDE SURFACE MATERIAL	OPPOSITE SIDE SURFACE HEIGHT	REMARKS
A	2x6 WOOD STUDS	5-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	REFER TO SECTIONS & EXTERIOR ELEVATIONS	---	TYPICAL EXTERIOR LOAD-BEARING WALL
B	2x6 WOOD STUDS	5-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	1-HOUR FIRE RESISTIVE RATING
C	STAGGERED 2x4 WOOD STUDS 24" O.C.	CELLULOSE INSULATION	(2) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	HAT CHANNEL & (1) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	2-HOUR FIRE RESISTIVE RATING SEE PARTY WALL DETAIL
D	2x4 WOOD STUDS	3-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	TYPICAL INTERIOR NON-LOAD-BEARING WALL
E	2x6 WOOD STUDS	5-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	LOAD-BEARING WALL
F	2x6 WOOD STUDS	CELLULOSE INSULATION	(2) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	HAT CHANNEL & (1) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	1-HOUR FIRE RESISTIVE RATING SEE PARTY WALL DETAIL

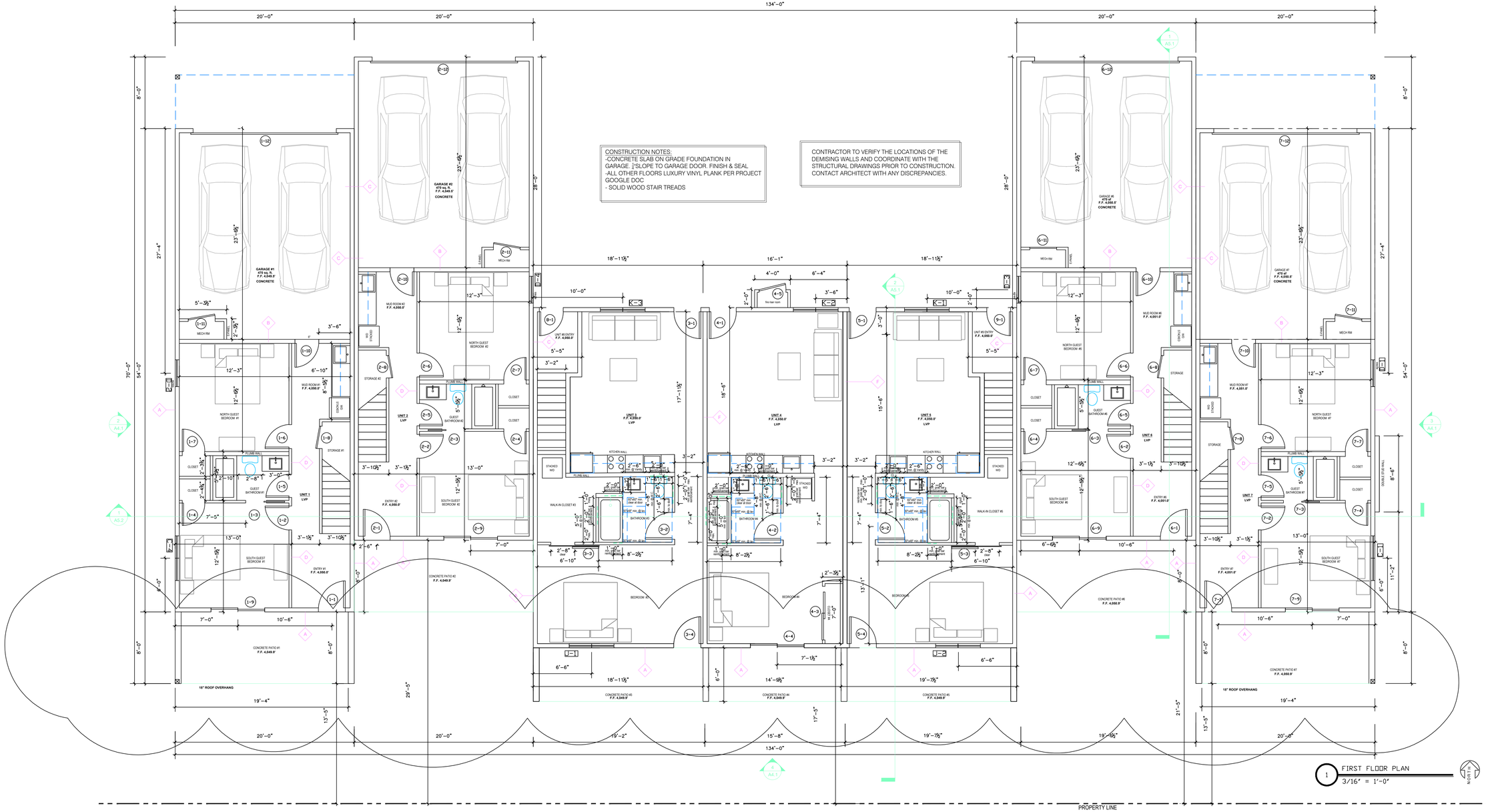
1. ALL WOOD STUDS SHALL BE 16" O.C., (UNLESS NOTED OTHERWISE)
2. ALL EXPOSED GYPSUM WALL BOARD SHALL BE TAPED & COATED SMOOTH, READY FOR PAINT.
3. USE 2x6 WOOD STUDS AND INSTALL MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL "WET WALL" LOCATIONS.
4. AT EXTERIOR WALLS, RETURN GYPSUM WALL BOARD INTO WINDOW JAMBS AND HEAD. (UNLESS NOTED OTHERWISE)



2 WALL DETAIL FOR WALL TYPE C
1" = 1'-0"

CONSTRUCTION NOTES:
-CONCRETE SLAB ON GRADE FOUNDATION IN GARAGE. ¼"SLOPE TO GARAGE DOOR. FINISH & SEAL
-ALL OTHER FLOORS LUXURY VINYL PLANK PER PROJECT GOOGLE DOC
- SOLID WOOD STAIR TREADS

CONTRACTOR TO VERIFY THE LOCATIONS OF THE DEMISING WALLS AND COORDINATE WITH THE STRUCTURAL DRAWINGS PRIOR TO CONSTRUCTION. CONTACT ARCHITECT WITH ANY DISCREPANCIES.



1 FIRST FLOOR PLAN
3/16" = 1'-0"

NORTH

HINES DESIGNS, LLC
PHONE: (970) 626.2300
188 MARIE STREET RIDGWAY, CO 81432

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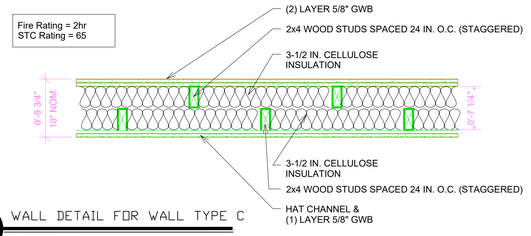
FLOOR PLAN
A 2.1

PARTITION TYPES

TAG	STUD TYPE	INSULATION	NOTED SIDE SURFACE MATERIAL	NOTED SIDE SURFACE HEIGHT	OPPOSITE SIDE SURFACE MATERIAL	OPPOSITE SIDE SURFACE HEIGHT	REMARKS
A	2x6 WOOD STUDS	5-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	REFER TO SECTIONS & EXTERIOR ELEVATIONS	—	TYPICAL EXTERIOR LOAD-BEARING WALL
B	2x6 WOOD STUDS	5-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	1-HOUR FIRE RESISTIVE RATING
C	STAGGERED 2x4 WOOD STUDS 24" O.C.	CELLULOSE INSULATION	(2) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	HAT CHANNEL & (1) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	2-HOUR FIRE RESISTIVE RATING SEE PARTY WALL DETAIL
D	2x4 WOOD STUDS	3-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	TYPICAL INTERIOR NON-LOAD-BEARING WALL
E	2x6 WOOD STUDS	5-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	LOAD-BEARING WALL
F	2x6 WOOD STUDS	CELLULOSE INSULATION	(2) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	HAT CHANNEL & (1) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	1-HOUR FIRE RESISTIVE RATING SEE PARTY WALL DETAIL

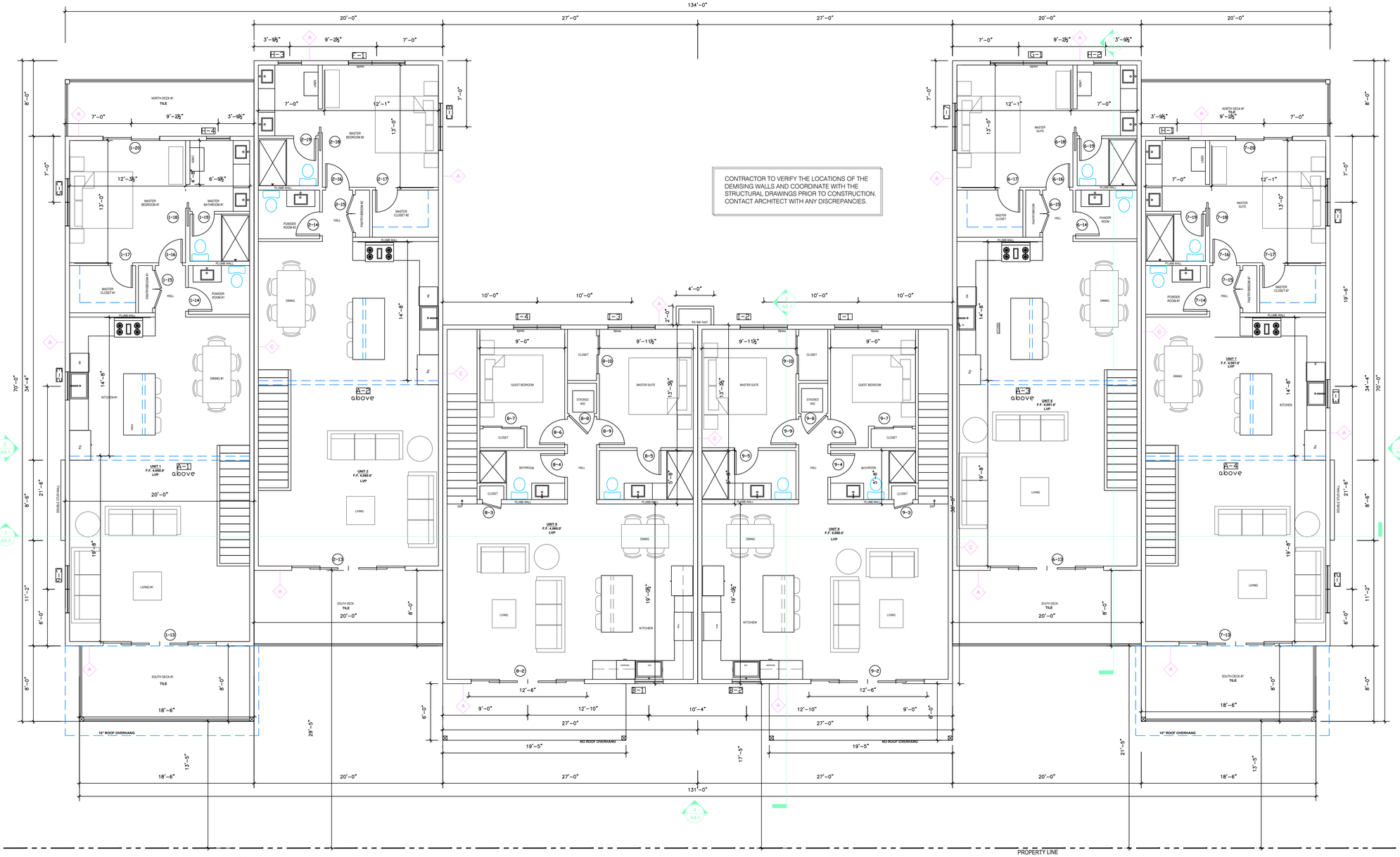
1. ALL WOOD STUDS SHALL BE 16" O.C., (UNLESS NOTED OTHERWISE)
2. ALL EXPOSED GYPSUM WALL BOARD SHALL BE TAPED & COATED SMOOTH, READY FOR PAINT.
3. USE 2x6 WOOD STUDS AND INSTALL MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL "WET WALL" LOCATIONS.
4. AT EXTERIOR WALLS, RETURN GYPSUM WALL BOARD INTO WINDOW JAMBS AND HEAD, (UNLESS NOTED OTHERWISE)

Fire Rating = 2hr
STC Rating = 65



2 WALL DETAIL FOR WALL TYPE C
1" = 1'-0"

CONTRACTOR TO VERIFY THE LOCATIONS OF THE DEMISING WALLS AND COORDINATE WITH THE STRUCTURAL DRAWINGS PRIOR TO CONSTRUCTION. CONTACT ARCHITECT WITH ANY DISCREPANCIES.



1 SECOND FLOOR PLAN
3/16" = 1'-0"

COTTONWOOD CONDOMINIUMS

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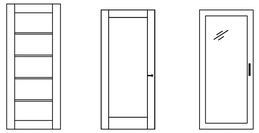
FLOOR PLAN

A 2.2

INTERIOR DOORS SOLID CORE PAINT GRADE W/ SHAKER PROFILE
PAINT: OYSTER WHITE SATIN SHEEN, HINGES TO MATCH DOOR HARDWARE, SEE GOOGLE DOC FOR HARDWARE

ENTRY DOOR THERMA TRU PULSE PROFILE, PAINT: BLACK MAJIC SATIN SHEEN, HINGES, TO MATCH DOOR HARDWARE, SEE GOOGLE DOC FOR HARDWARE

BARN DOOR HARDWARE: MATTE BLACK



UNIT 1 DOOR SCHEDULE

NOTE: ALL EXTERIOR DOORS SET TO OUTSIDE FACE OF WALLS

MARK	CONSTR.	WIDTH	HEIGHT	JAMB SIZE	LOCK SET	STYLE	HANDING	REMARKS
1-1	SOLID WOOD	3'-0"	7'-0"	2X6	YES	A	RH	
1-2	SOLID CORE	2'-8"	6'-8"	2X4	YES	B	RH	
1-3	SOLID CORE	2'-4"	6'-8"	2X4	YES	B	POCKET	
1-4	SOLID CORE	2'-6"	6'-8"	2X4	NO	B	LHR	
1-5	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	LH	
1-6	SOLID CORE	2'-8"	6'-8"	2X4	YES	B	LH	
1-7	SOLID CORE	2'-6"	6'-8"	2X6	NO	B	RHR	
1-8	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	LHR	
1-9	ALUM CLAD	PR. 3'-0"	7'-0"	2X6	YES	C	SLIDE BY	FULL CLEAR LITE
1-10	FIBERGLASS	2'-8"	6'-8"	2X6	YES	B	RH	20 MIN. RATED
1-11	FIBERGLASS	3'-0"	6'-8"	2X6	NO	B	RHR	
1-12	GARAGE	16'-0"	8'-0"	2X6			GARAGE	
1-13	ALUM CLAD	12'-0" (4X3'-0")	8'-0"	2X6	YES	C	OXXO	FULL CLEAR LITE
1-14	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	RH	
1-15	SOLID CORE	PR. 2-0"	6'-8"	2X4	YES	B	BOTH	
1-16	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	RH	
1-17	SOLID CORE	2'-4"	6'-8"	2X6	NO	B	POCKET	
1-18	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	POCKET	
1-19	SOLID CORE	2'-4"	6'-8"	2X6	YES	B	RH	
1-20	ALUM CLAD	PR. 3'-0"	8'-0"	2X6	YES	C	SLIDE BY	FULL CLEAR LITE

UNIT 2 DOOR SCHEDULE

NOTE: ALL EXTERIOR DOORS SET TO OUTSIDE FACE OF WALLS

MARK	CONSTR.	WIDTH	HEIGHT	JAMB SIZE	LOCK SET	STYLE	HANDING	REMARKS
2-1	SOLID WOOD	3'-0"	7'-0"	2X6	YES	A	LH	
2-2	SOLID CORE	2'-8"	6'-8"	2X4	YES	B	LH	
2-3	SOLID CORE	2'-4"	6'-8"	2X4	YES	B	POCKET	
2-4	SOLID CORE	2'-6"	6'-8"	2X4	NO	B	RHR	
2-5	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	RH	
2-6	SOLID CORE	2'-8"	6'-8"	2X4	YES	B	RH	
2-7	SOLID CORE	2'-6"	6'-8"	2X6	NO	B	LHR	
2-8	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	RHR	
2-9	ALUM CLAD	PR. 3'-0"	7'-0"	2X6	YES	C	SLIDE BY	FULL CLEAR LITE
2-10	FIBERGLASS	2'-8"	6'-8"	2X6	YES	B	LH	20 MIN. RATED
2-11	FIBERGLASS	3'-0"	6'-8"	2X6	NO	B	LHR	
2-12	GARAGE	16'-0"	8'-0"	2X6			GARAGE	
2-13	ALUM CLAD	12'-0" (4X3'-0")	8'-0"	2X6	YES	C	OXXO	FULL CLEAR LITE
2-14	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	LH	
2-15	SOLID CORE	PR. 2-0"	6'-8"	2X4	YES	B	BOTH	
2-16	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	LH	
2-17	SOLID CORE	2'-4"	6'-8"	2X6	NO	B	POCKET	
2-18	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	POCKET	
2-19	SOLID CORE	2'-4"	6'-8"	2X6	YES	B	LH	

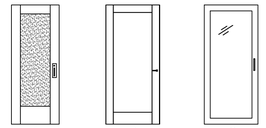
UNIT 6 DOOR SCHEDULE

NOTE: ALL EXTERIOR DOORS SET TO OUTSIDE FACE OF WALLS

MARK	CONSTR.	WIDTH	HEIGHT	JAMB SIZE	LOCK SET	STYLE	HANDING	REMARKS
6-1	SOLID WOOD	3'-0"	7'-0"	2X6	YES	A	RH	
6-2	SOLID CORE	2'-8"	6'-8"	2X4	YES	B	RH	
6-3	SOLID CORE	2'-4"	6'-8"	2X4	YES	B	POCKET	
6-4	SOLID CORE	2'-6"	6'-8"	2X4	NO	B	LHR	
6-5	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	LH	
6-6	SOLID CORE	2'-8"	6'-8"	2X4	YES	B	LH	
6-7	SOLID CORE	2'-6"	6'-8"	2X6	NO	B	RHR	
6-8	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	LHR	
6-9	ALUM CLAD	PR. 3'-0"	7'-0"	2X6	YES	C	SLIDE BY	FULL CLEAR LITE
6-10	FIBERGLASS	2'-8"	6'-8"	2X6	YES	B	RH	20 MIN. RATED
6-11	FIBERGLASS	3'-0"	6'-8"	2X6	NO	B	RHR	
6-12	GARAGE	16'-0"	8'-0"	2X6			GARAGE	
6-13	ALUM CLAD	12'-0" (4X3'-0")	8'-0"	2X6	YES	C	OXXO	FULL CLEAR LITE
6-14	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	RH	
6-15	SOLID CORE	PR. 2-0"	6'-8"	2X4	YES	B	BOTH	
6-16	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	RH	
6-17	SOLID CORE	2'-4"	6'-8"	2X6	NO	B	POCKET	
6-18	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	POCKET	
6-19	SOLID CORE	2'-4"	6'-8"	2X6	YES	B	RH	

INTERIOR DOORS SOLID CORE PAINT GRADE W/ SHAKER PROFILE
PAINT: OYSTER WHITE SATIN SHEEN, HINGES TO MATCH DOOR HARDWARE, SEE GOOGLE DOC FOR HARDWARE

ENTRY DOOR THERMA TRU PULSE PROFILE, PAINT: BLACK MAJIC SATIN SHEEN, HINGES, TO MATCH DOOR HARDWARE, SEE GOOGLE DOC FOR HARDWARE



UNIT 3 DOOR SCHEDULE

NOTE: ALL EXTERIOR DOORS SET TO OUTSIDE FACE OF WALLS

MARK	CONSTR.	WIDTH	HEIGHT	JAMB SIZE	LOCK SET	STYLE	HANDING	REMARKS
3-1	FIBERGLASS	3'-0"	7'-0"	2X6	YES	A	LH	FULL FROSTED LITE
3-2	SOLID CORE	3'-0"	6'-8"	2X4	YES	B	LH	THRESHOLD MAX. 1/2"HT.
3-3	SOLID CORE	3'-0"	7'-0"	2X4	NO	B	BARN	2'-8"X6'-8" FINISHED OPENING
3-4	FIBERGLASS	3'-0"	7'-0"	2X6	YES	C	RH	FULL CLEAR LITE

UNIT 4 DOOR SCHEDULE

NOTE: ALL EXTERIOR DOORS SET TO OUTSIDE FACE OF WALLS

MARK	CONSTR.	WIDTH	HEIGHT	JAMB SIZE	LOCK SET	STYLE	HANDING	REMARKS
4-1	FIBERGLASS	3'-0"	7'-0"	2X6	YES	A	RH	FULL FROSTED LITE PROVIDE A 10" KICK PLATE PER ANSI 404.2.9 THRESHOLD MAX. 1/2"HT.
4-2	SOLID CORE	3'-0"	6'-8"	2X4	YES	B	LH	THRESHOLD MAX. 1/2"HT.
4-3	SOLID CORE	PR. 3'-0"	6'-8"	2X4	NO	B	SLIDE BY	THRESHOLD MAX. 1/2"HT.
4-4	FIBERGLASS	PR. 3'-0"	7'-0"	2X6	YES	C	SLIDE BY	FULL CLEAR LITE THRESHOLD MAX. 3/4"HT.
4-5	FIBERGLASS	3'-0"	7'-0"	2X6	YES	B	RHR	THRESHOLD MAX. 1/2"HT.

UNIT 5 DOOR SCHEDULE

NOTE: ALL EXTERIOR DOORS SET TO OUTSIDE FACE OF WALLS

MARK	CONSTR.	WIDTH	HEIGHT	JAMB SIZE	LOCK SET	STYLE	HANDING	REMARKS
5-1	FIBERGLASS	3'-0"	7'-0"	2X6	YES	A	RH	FULL FROSTED LITE
5-2	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	RH	THRESHOLD MAX. 1/2"HT.
5-3	SOLID CORE	3'-0"	7'-0"	2X4	NO	B	BARN	2'-8"X6'-8" FINISHED OPENING
5-4	FIBERGLASS	3'-0"	7'-0"	2X6	YES	C	LH	FULL CLEAR LITE

GARAGE DOORS:
16' WIDE 8' TALL
WAYNE DALTON
8300. BLACK
CONTEMPORARY PANEL
FROSTED VERTICAL WINDOWS
OR EQUIVALENT

UNIT 7 DOOR SCHEDULE

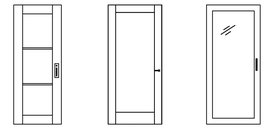
NOTE: ALL EXTERIOR DOORS SET TO OUTSIDE FACE OF WALLS

MARK	CONSTR.	WIDTH	HEIGHT	JAMB SIZE	LOCK SET	STYLE	HANDING	REMARKS
7-1	SOLID WOOD	3'-0"	7'-0"	2X6	YES	A	LH	
7-2	SOLID CORE	2'-8"	6'-8"	2X4	YES	B	LH	
7-3	SOLID CORE	2'-4"	6'-8"	2X4	YES	B	POCKET	
7-4	SOLID CORE	2'-6"	6'-8"	2X4	NO	B	RHR	
7-5	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	RH	
7-6	SOLID CORE	2'-8"	6'-8"	2X4	YES	B	RH	
7-7	SOLID CORE	2'-6"	6'-8"	2X6	NO	B	LHR	
7-8	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	RHR	
7-9	ALUM CLAD	PR. 3'-0"	7'-0"	2X6	YES	C	SLIDE BY	FULL CLEAR LITE
7-10	FIBERGLASS	2'-8"	6'-8"	2X6	YES	B	LH	20 MIN. RATED
7-11	FIBERGLASS	3'-0"	6'-8"	2X6	NO	B	LHR	
7-12	GARAGE	16'-0"	8'-0"	2X6			GARAGE	
7-13	ALUM CLAD	12'-0" (4X3'-0")	8'-0"	2X6	YES	C	OXXO	FULL CLEAR LITE
7-14	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	LH	
7-15	SOLID CORE	PR. 2-0"	6'-8"	2X4	YES	B	BOTH	
7-16	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	LH	
7-17	SOLID CORE	2'-4"	6'-8"	2X6	NO	B	POCKET	
7-18	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	POCKET	
7-19	SOLID CORE	2'-4"	6'-8"	2X6	YES	B	LH	
7-20	ALUM CLAD	PR. 3'-0"	8'-0"	2X6	YES	C	SLIDE BY	FULL CLEAR LITE

INTERIOR DOORS SOLID CORE PAINT GRADE W/ SHAKER PROFILE
PAINT: OYSTER WHITE SATIN SHEEN, HINGES TO MATCH DOOR HARDWARE, SEE GOOGLE DOC FOR HARDWARE

ENTRY DOOR THERMA TRU PULSE PROFILE, PAINT: BLACK MAJIC SATIN SHEEN, HINGES, TO MATCH DOOR HARDWARE, SEE GOOGLE DOC FOR HARDWARE

BARN DOOR HARDWARE: MATTE BLACK



UNIT 8 DOOR SCHEDULE

NOTE: ALL EXTERIOR DOORS SET TO OUTSIDE FACE OF WALLS

MARK	CONSTR.	WIDTH	HEIGHT	JAMB SIZE	LOCK SET	STYLE	HANDING	REMARKS
8-1	SOLID WOOD	2'-8"	7'-0"	2X6	YES	A	RH	FULL CLEAR LITE
8-2	ALUM CLAD	12'-0" (4X3'-0")	8'-0"	2X6	YES	C	OXXO	FULL CLEAR LITE
8-3	SOLID CORE	2'-0"	6'-8"	2X6	NO	B	LHR	
8-4	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	RH	
8-5	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	LH	
8-6	SOLID CORE	2'-8"	6'-8"	2X4	YES	B	LH	
8-7	SOLID CORE	PR. 2'-0"	6'-8"	2X4	NO	B	SLIDE-BY	
8-8	SOLID CORE	2'-8"	6'-8"	2X4	NO	B	LHR	
8-9	SOLID CORE	2'-8"	6'-8"	2X4	YES	B	RH	
8-10	SOLID CORE	PR. 2'-0"	6'-8"	2X4	NO	B	SLIDE-BY	

UNIT 9 DOOR SCHEDULE

NOTE: ALL EXTERIOR DOORS SET TO OUTSIDE FACE OF WALLS

MARK	CONSTR.	WIDTH	HEIGHT	JAMB SIZE	LOCK SET	STYLE	HANDING	REMARKS
9-1	SOLID WOOD	2'-8"	7'-0"	2X6	YES	A	LH	FULL FROSTED LITE
9-2	ALUM CLAD	12'-0" (4X3'-0")	8'-0"	2X6	YES	C	OXXO	FULL CLEAR LITE
9-3	SOLID CORE	2'-0"	6'-8"	2X6	NO	B	RHR	
9-4	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	LH	
9-5	SOLID CORE	2'-6"	6'-8"	2X4	YES	B	RH	
9-6	SOLID CORE	2'-8"	6'-8"	2X4	YES	B	RH	
9-7	SOLID CORE	PR. 2'-0"	6'-8"	2X4	NO	B	SLIDE-BY	
9-8	SOLID CORE	2'-8"	6'-8"	2X4	NO	B	RHR	
9-9	SOLID CORE	2'-8"	6'-8"	2X4	YES	B	RH	
9-10	SOLID CORE	PR. 2'-0"	6'-8"	2X4	NO	B	SLIDE-BY	

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COTTONWOOD CONDOMINIUMS
214 S 200 E
MOAB, UTAH

STATE OF UTAH
SUNDRA HINES
No. 8866253
LICENSED ARCHITECT

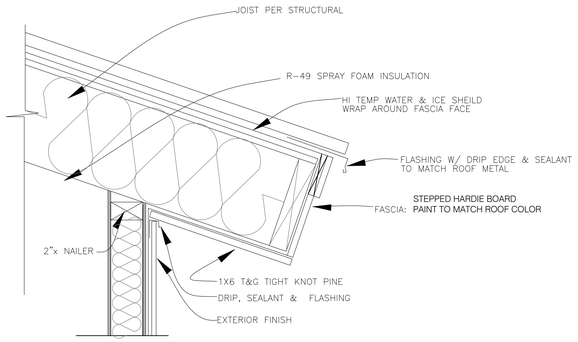
Date
Phase
Permit Set August 19, 2022
November 01, 2022

Current Phase:
Permit Set-revised

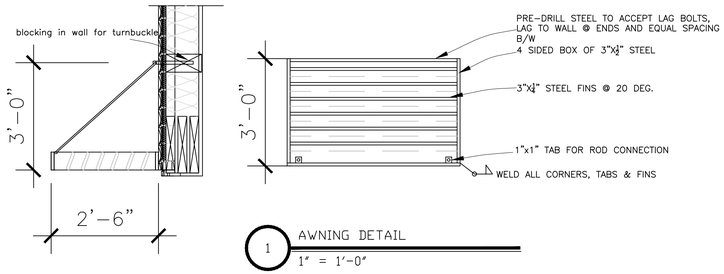
December 13, 2022

SCHEDULES

A 2.3



3 EAVE DETAIL
1/2" = 1'-0"



1 AWNING DETAIL
1" = 1'-0"

ROOFING LEGEND

TPO ROOF

METAL ROOF

ROOFING SPECIFICATIONS:

METAL ROOFING: STANDING SEAM
COLOR: CHARCOAL

TOP ROOFING: INSTALL PER MANUFACTURER'S SPEC
COLOR: WHITE

GUTTERS & DOWNSPOUTS: TO MATCH ROOFING

UNDERLAYMENT: GRACE VYCOR OR EQUIV. ICE & WATER SHIELD ROOFING UNDERLAYMENT OVER ENTIRE ROOF. USE DOUBLE LAYER @ FLASHING, COUNTER FLASHING, ROOF PENETRATIONS, SIDEWALLS, ROOF PITCH CHANGE, VALLEYS, @ EAVES.

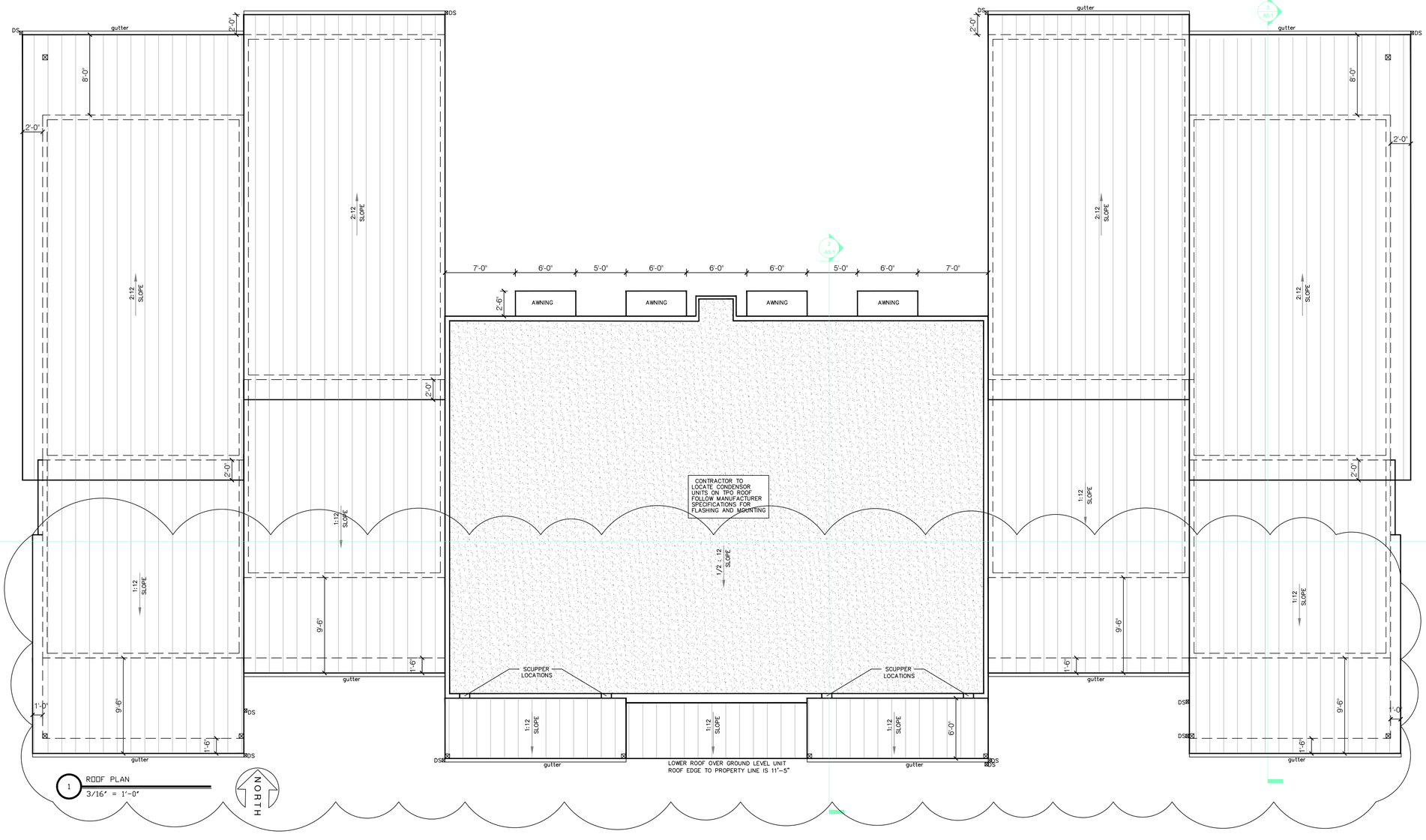
STRUCTURE: PRE-MANUFACTURED TRUSSES & TJI'S

INSULATION: MIN. R-49 SPRAY FOAM

ROOF ACCESSORIES: FOLLOW MANUFACTURERS SPECS & INSTALLATION GUIDES TO ENSURE WARRANTY.

FASCIA MATERIAL: HARDIE BOARD PAINTED TO MATCH ROOF COLOR

SOFFIT MATERIAL: 1X6 T&G TIGHT KNOT PINE, STAIN TBD



1 ROOF PLAN
3/16" = 1'-0"

NORTH

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June 19, 2023
September 12, 2023
December 04, 2023
January 30, 2024
February 29, 2024

Current Phase:
Permit Set-revised

March 11, 2024

ROOF PLAN

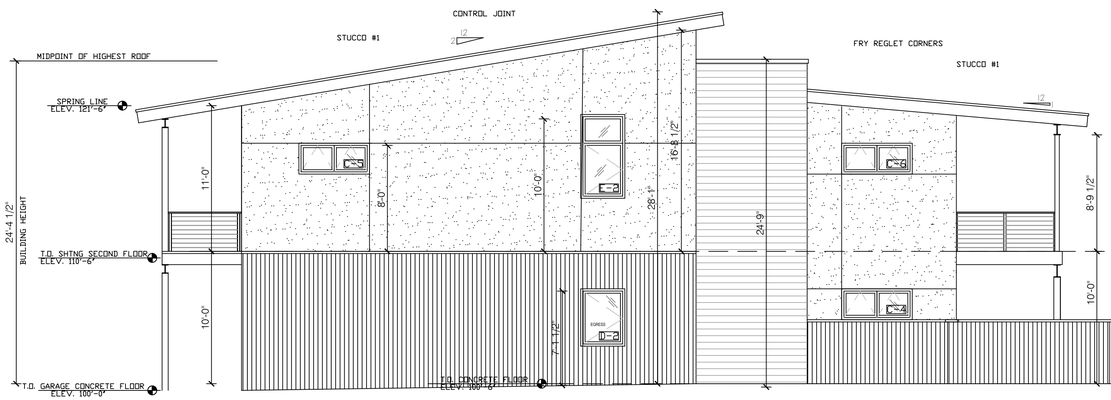
A 3.1

4 SOUTH ELEVATION
3/16" = 1'-0"

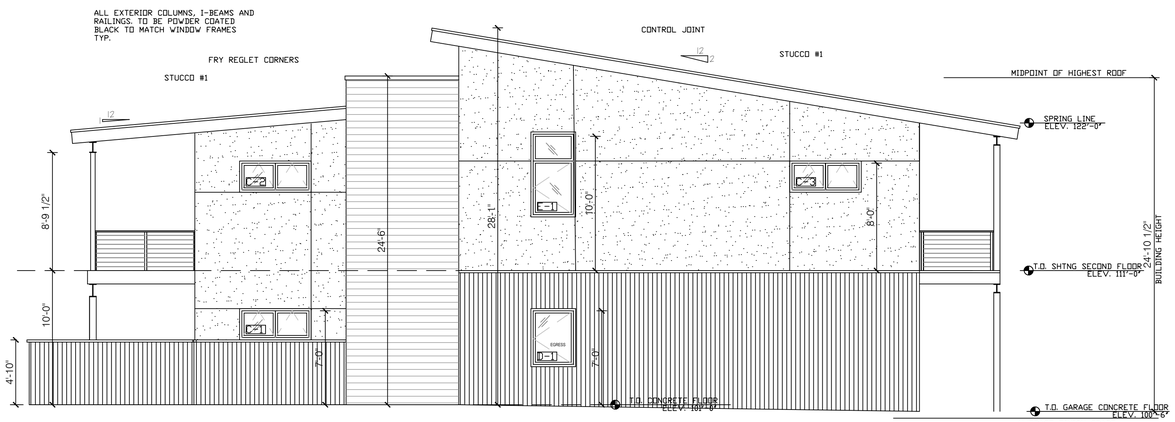
MATERIALS LEGEND

- METAL ROOFING STANDING SEAM COLOR: CHARCOAL
- STUCCO 1" MECHANICALLY FASTENED EIFS SYSTEM STUCCO # 1 COLOR: DOVER SKY #104 STUCCO #2 COLOR: SPECTRUM BROWN #142
- RUSTIC SERIES, WOOD TONE FIBER CEMENT LAP SIDING COLOR: SMOKEY ALDER
- METAL SIDING 4" RIB, 22 GAUGE COLOR: ANTIQUE SILVER

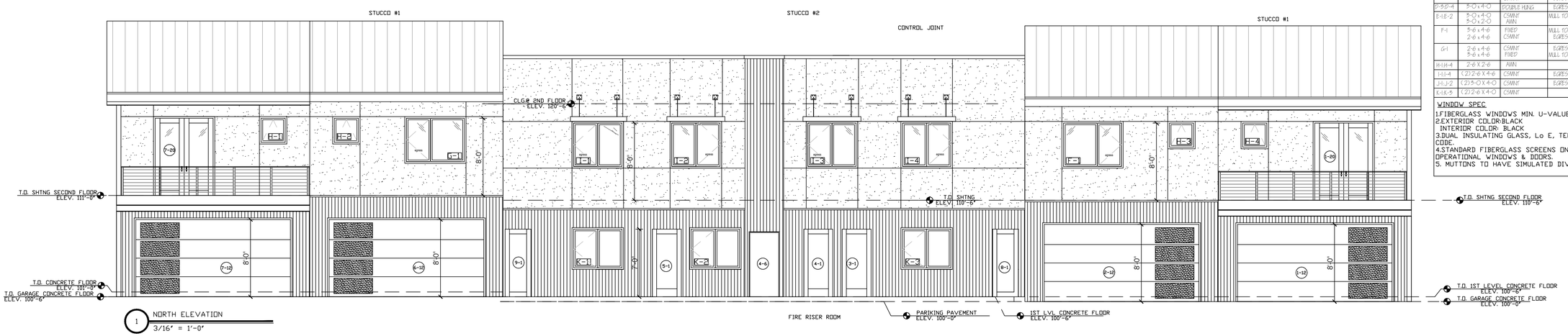
CONTRACTOR TO SUPPLY OWNER AND ARCHITECT WITH SAMPLES PRIOR TO INSTALLATION



2 WEST ELEVATION
1/4" = 1'-0"



3 EAST ELEVATION
1/4" = 1'-0"



1 NORTH ELEVATION
3/16" = 1'-0"

WINDOW SCHEDULE			
MARK	UNIT SIZE (WxH)	TYPE	REMARKS
A-1 A-2	(4) 3'-0 x 2'-0	AWN / FIXED	
B-1 B-2	3'-0 x 5'-6 3'-0 x 2'-0	FIXED AWN	
C-1 C-3	(2) 2'-6 x 2'-0	AWN	
D-1 & D-2	3'-0 x 4'-0	CSMNT	EGRESS
E-3 E-4	3'-0 x 4'-0	DOUBLE HUNG	EGRESS
E-1 E-2	3'-0 x 4'-0 3'-0 x 2'-0	CSMNT AWN	WALL TOGETHER
F-1	3'-6 x 4'-6 2'-6 x 4'-6	FIXED CSMNT	WALL TOGETHER EGRESS
G-1	2'-6 x 4'-6 3'-6 x 4'-6	CSMNT FIXED	EGRESS WALL TOGETHER
H-1 H-4	2'-6 X 2'-6	AWN	
I-1 I-4	(2) 2'-6 X 4'-6	CSMNT	EGRESS
J-1 J-2	(2) 3'-0 X 4'-0	CSMNT	EGRESS
K-1 K-3	(2) 2'-6 X 4'-0	CSMNT	

WINDOW SPEC

1.FIBERGLASS WINDOWS MIN. U-VALUE .30
2.EXTERIOR COLOR:BLACK
INTERIOR COLOR: BLACK
3.DUAL INSULATING GLASS, Lo E, TEMPERED PER CODE.
4.STANDARD FIBERGLASS SCREENS ON ALL OPERATIONAL WINDOWS & DOORS.
5. MUTTONS TO HAVE SIMULATED DIVIDED LITES.

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COTTONWOOD CONDOMINIUMS

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MOAB, UTAH

STATE OF UTAH
SUNDRA HINES
No. 8866253
LICENSED ARCHITECT

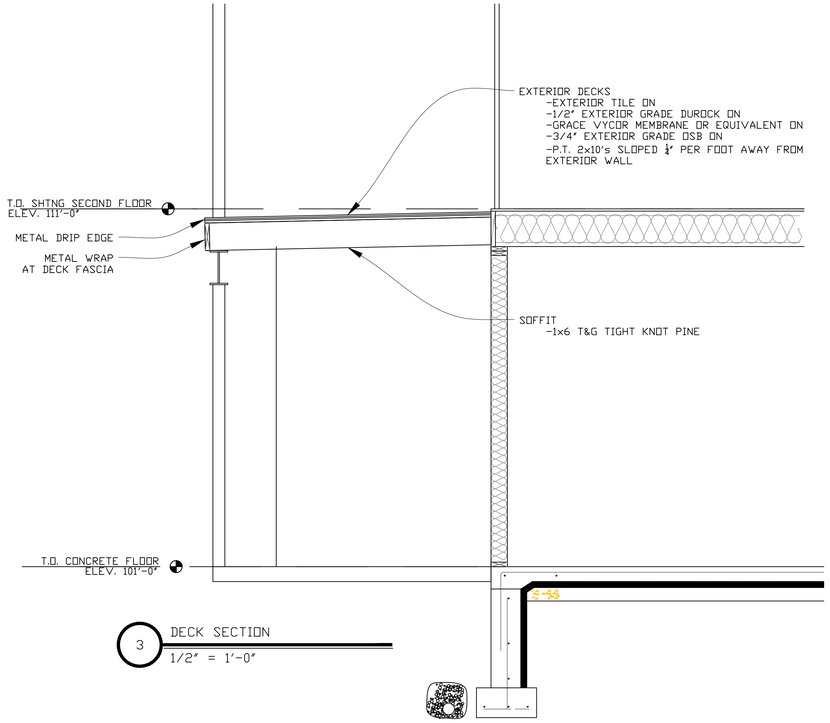
SET DATES
August 19, 2022
November 01, 2022
December 13, 2022
January 06, 2023
January 12, 2023
June 14, 2023
June 19, 2023
September 12, 2023
December 04, 2023

Current Phase:
Permit Set-revised

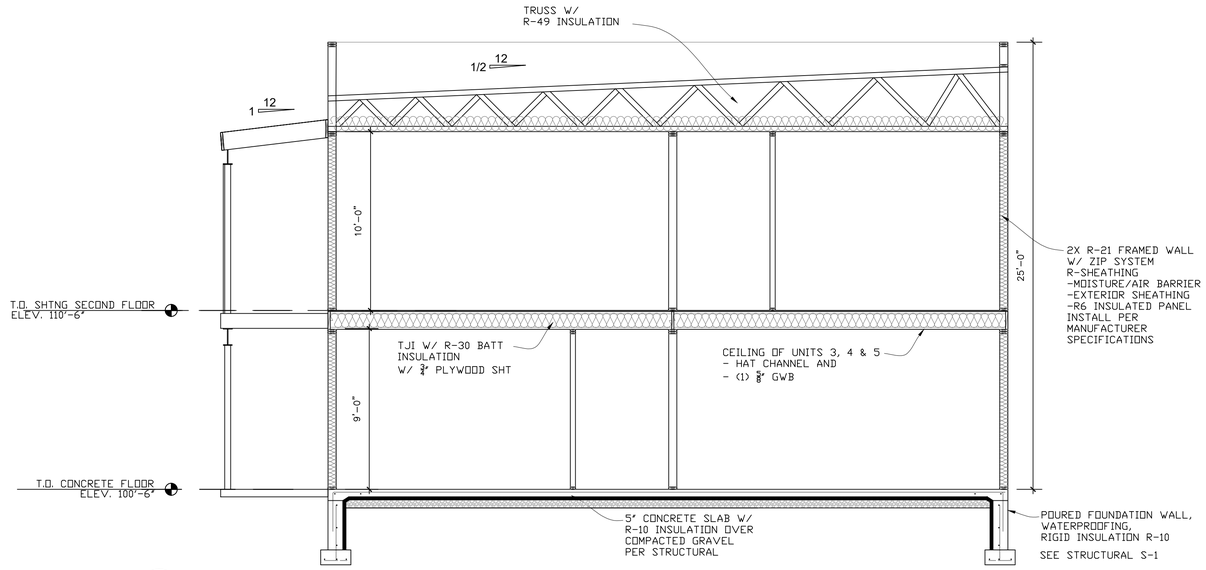
January 30, 2024

ELEVATIONS

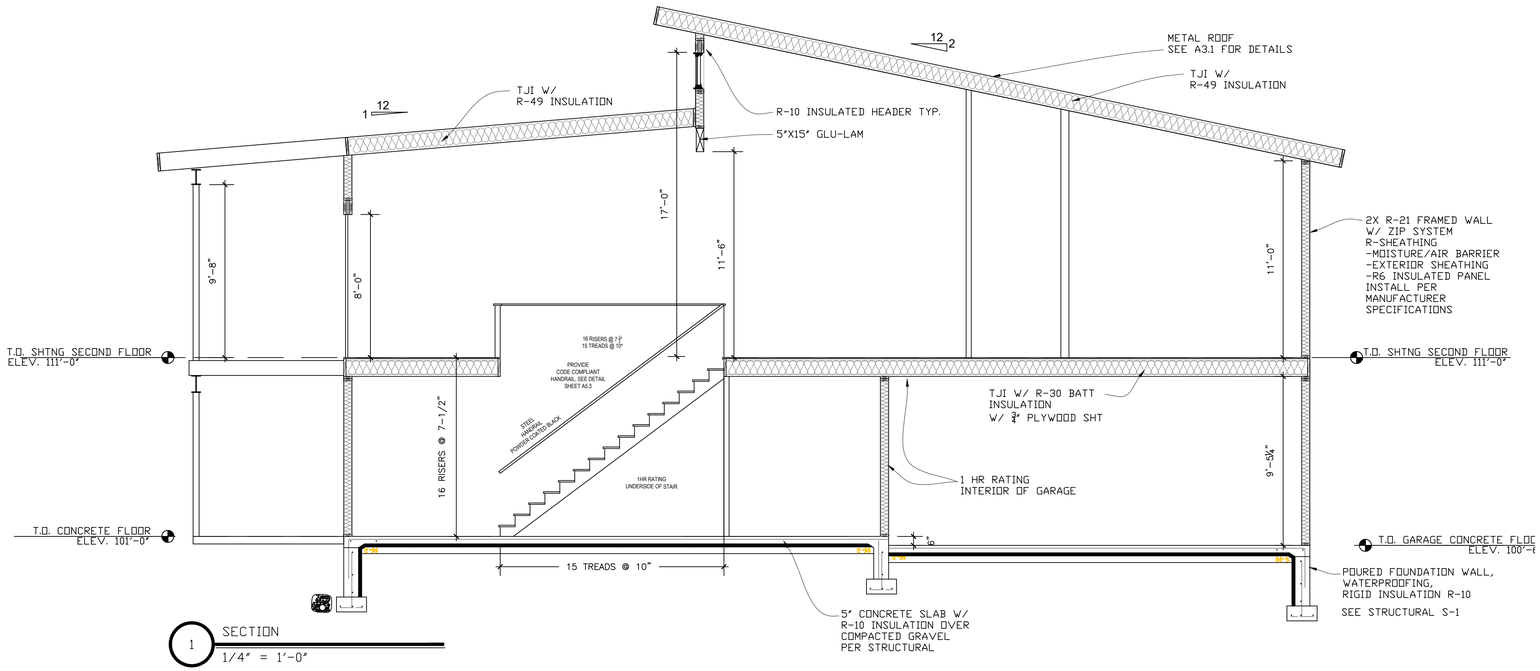
A4.1



3 DECK SECTION
1/2" = 1'-0"



2 SECTION
1/4" = 1'-0"



1 SECTION
1/4" = 1'-0"

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January 12, 2023	
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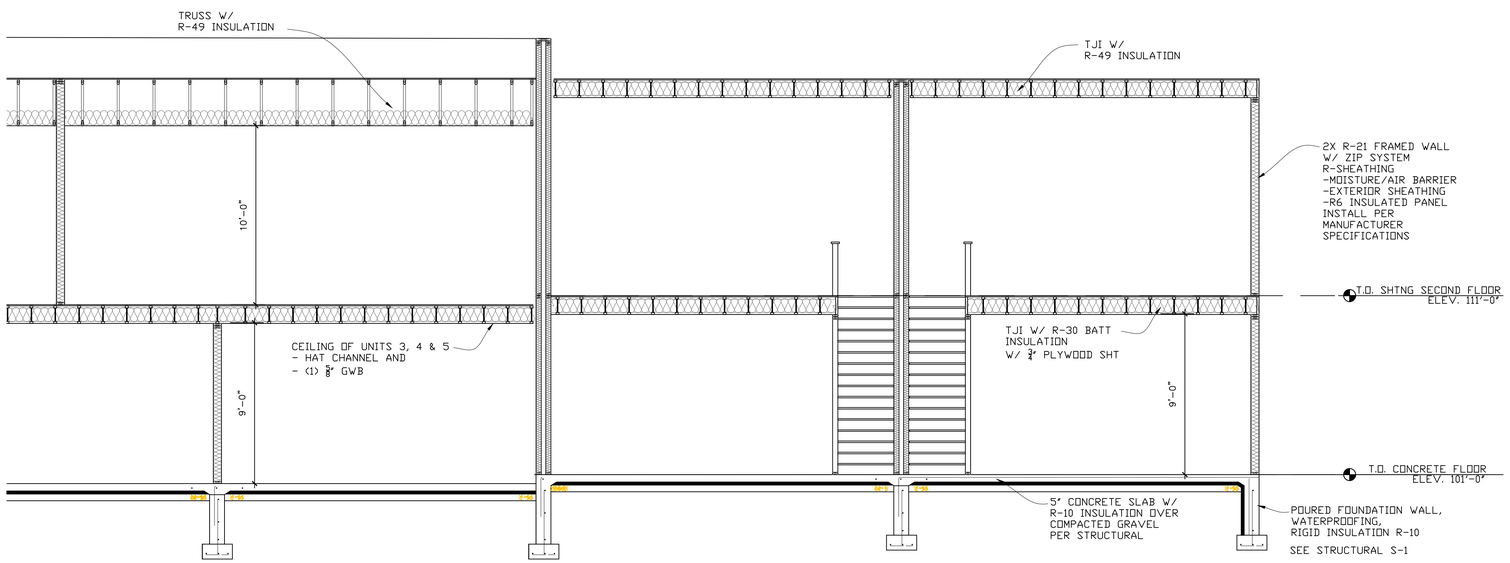
June 19, 2023	
September 12, 2023	

Current Phase:
Permit Set-revised

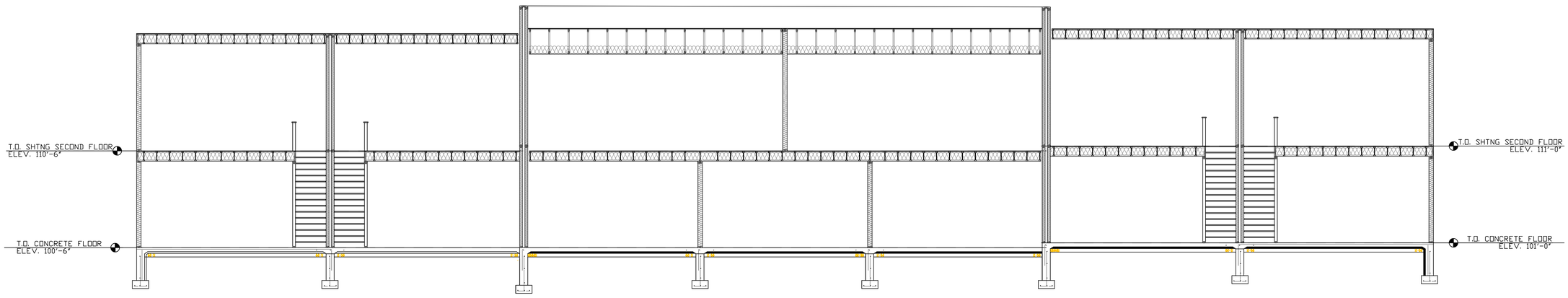
March 11, 2024

SECTIONS

A 5.1



2 SECTION
1/4" = 1'-0"



1 BUILDING SECTION
3/16" = 1'-0"

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COTTONWOOD CONDOMINIUMS
214 S 200 E
MOAB, UTAH

STATE OF UTAH
SUNDRA HINES
No. 8866253
LICENSED ARCHITECT

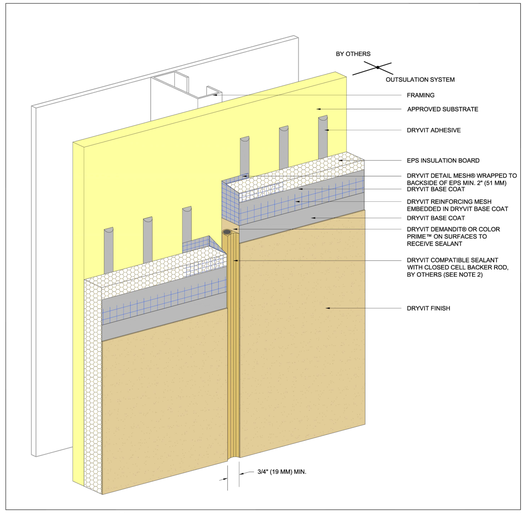
Date
Phase

Current Phase:
Permit Set

August 19, 2022

SECTIONS
A 5.2

OS 0.0.27



Outsulation® System

Vertical Expansion Joint - EIFS[2]

NOTE:
1. DRYVIT RECOMMENDS THAT GROUND FLOOR APPLICATIONS AND ALL FACADES EXPOSED TO ABNORMAL STRESS, HIGH TRAFFIC, OR DELIBERATE IMPACT HAVE THE BASE COAT REINFORCED WITH PANZER® MESH PRIOR TO STANDARD™ OR STANDARD PLUS™ MESH. LOCATION OF HIGH IMPACT ZONES SHOULD BE INDICATED ON CONTRACT DRAWINGS.

2. EIFS EXPANSION JOINTS ARE REQUIRED IN CONTINUOUS ELEVATIONS AT INTERVALS NOT EXCEEDING 75 FT (23 M).

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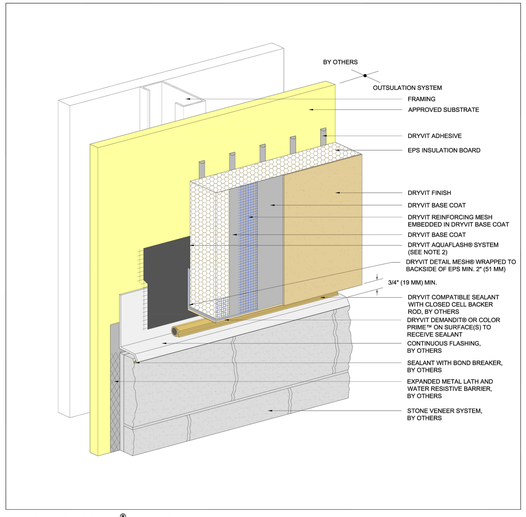
OS 0.0.24



Outsulation® System

Horizontal Termination at Stone Veneer

NOTE:
1. DRYVIT RECOMMENDS THAT GROUND FLOOR APPLICATIONS AND ALL FACADES EXPOSED TO ABNORMAL STRESS, HIGH TRAFFIC, OR DELIBERATE IMPACT HAVE THE BASE COAT REINFORCED WITH PANZER® MESH PRIOR TO STANDARD™ OR STANDARD PLUS™ MESH. LOCATION OF HIGH IMPACT ZONES SHOULD BE INDICATED ON CONTRACT DRAWINGS.

2. DRYVIT FLASHING TAPE SURFACE CONDITIONER™ AND DRYVIT FLASHING TAPE™ MAY BE USED IN LIEU OF DRYVIT AQUAFLASH SYSTEM.

3. FOR INSTALLATION OF DRYVIT AIR/WATER-RESISTIVE BARRIER COATING BENEATH CLADDINGS OTHER THAN DRYVIT EIFS, REFER TO DRYVIT PUBLICATION DS840.

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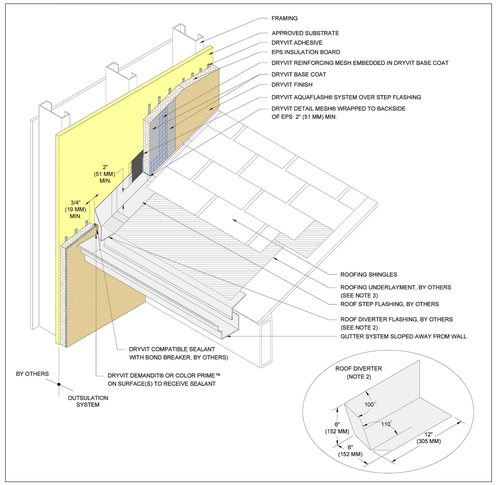
OS 0.0.17



Outsulation® System

Termination at Sloped Roof

NOTE:
1. EXTEND DIVERTER FLASHING (KICKOUT) A MINIMUM OF 1" (25 MM) BEYOND FACE OF THE SYSTEM.

2. ROOF DIVERTER TO BE MADE FROM CORROSION RESISTANT MATERIAL MIN. 24 GAGE WITH WATER TIGHT SEAMS.

3. EXTEND ROOFING UNDERLAYMENT 5" (127 MM) UP VERTICAL WALL BEHIND METAL FLASHING.

4. METAL FLASHINGS ARE 10" (254 MM) X 2" (51 MM) LONGER THAN THE EXPOSED PORTION OF THE ROOFING SHINGLE AND ARE BENT IN HALF TO ALLOW FOR TWO 5" (127 MM) LEGS. ALTHOUGH NOT SHOWN, METAL FLASHINGS ARE STEP FLASHED (INTERWOVEN) WITH ROOFING SHINGLES.

5. FOR ADDITIONAL SLOPED ROOF DETAILS, REFER TO DRYVIT PUBLICATION DS106.

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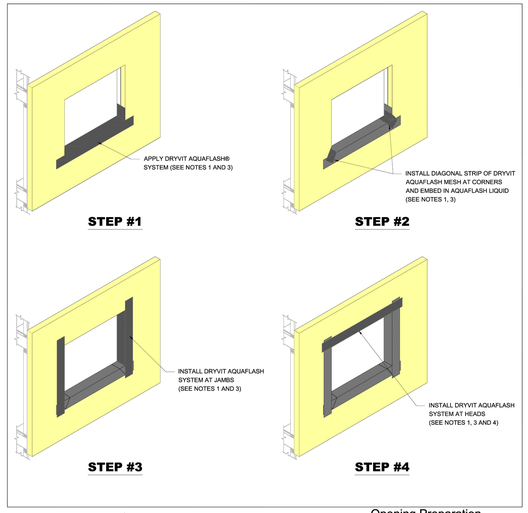
OS 0.0.02



Outsulation® System

Opening Preparation - AquaFlash® System[5] Option

NOTE:
1. DRYVIT AQUAFLASH SHALL EXTEND TO INTERIOR FACE OF OPENING.

2. REFER TO HEAD, SILL AND JAMB DETAILS FOR FLASHING INTEGRATION.

3. DRYVIT FLASHING TAPE SURFACE CONDITIONER™ AND DRYVIT FLASHING TAPE™ MAY BE USED IN LIEU OF DRYVIT AQUAFLASH SYSTEM.

4. INSTALL WINDOW UNIT AND ASSOCIATED FLASHINGS PER MANUFACTURER'S RECOMMENDATIONS, CODE REQUIREMENTS AND PROJECT DOCUMENTS.

5. AQUAFLASH SYSTEM CONSISTS OF AQUAFLASH MESH AND AQUAFLASH LIQUID.

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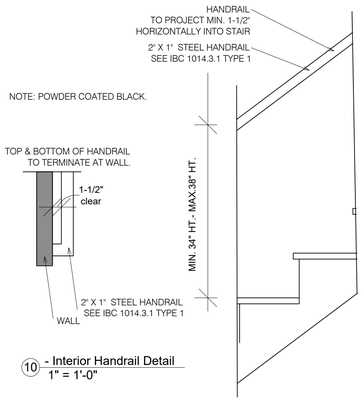
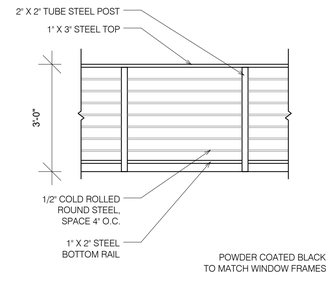
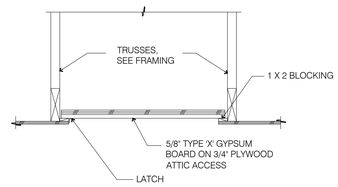


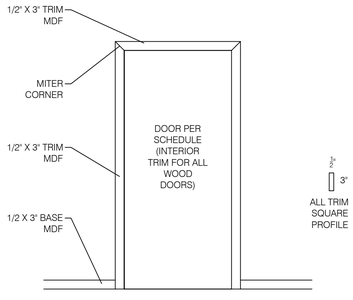
10 - Interior Handrail Detail
1" = 1'-0"



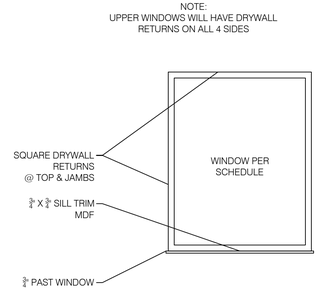
10 - Railing Detail
1" = 1'-0"



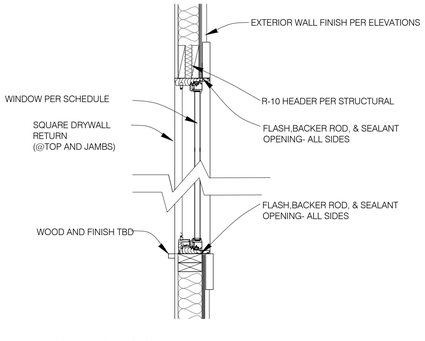
9 - Attic Access
1" = 1'-0"



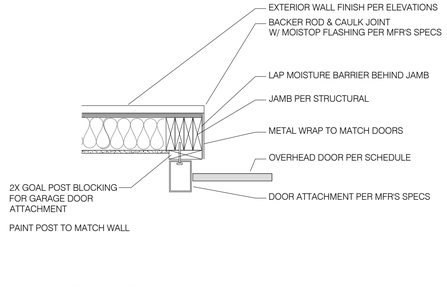
7 Interior Door Casing
1/2" = 1'-0"



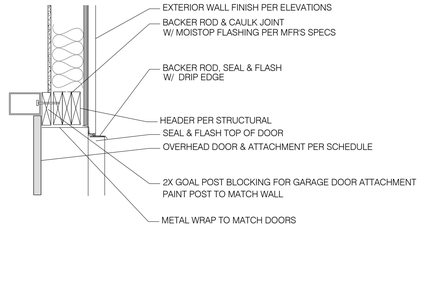
6 Interior Window Trim
1/2" = 1'-0"



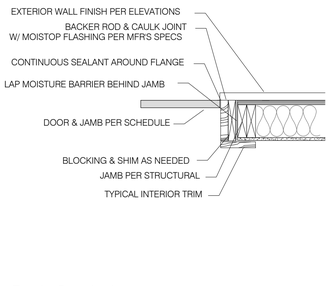
5 - Window Head & Sill
1" = 1'-0"



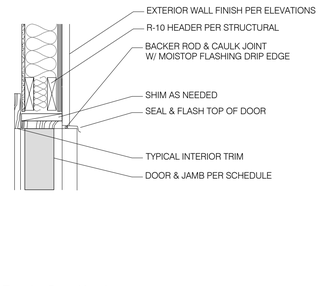
4 - Overhead Door Jamb
1" = 1'-0"



3 - Overhead Door Header
1" = 1'-0"



2 - Exterior Door Jamb
1" = 1'-0"



1 - Exterior Door Header
1" = 1'-0"

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COTTONWOOD CONDOMINIUMS

214 S 200 E
MOAB, UTAH

STATE OF UTAH
SUNDRA HINES
No. 8866253
LICENSED ARCHITECT

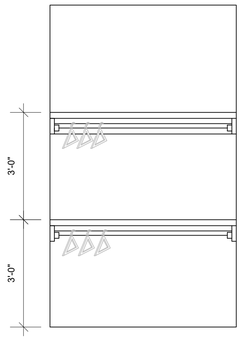
Phase	Date
Permit Set	August 19, 2022
Permit Set-revised	November 01, 2022
	December 13, 2022

Current Phase:
Permit Set-revised

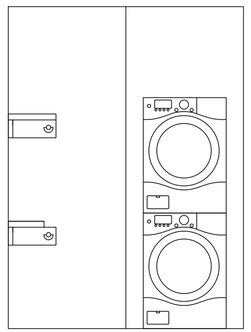
January 08, 2023

SECTIONS & DETAILS

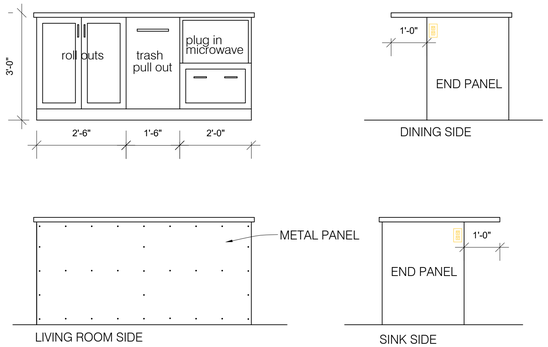
A 5.3



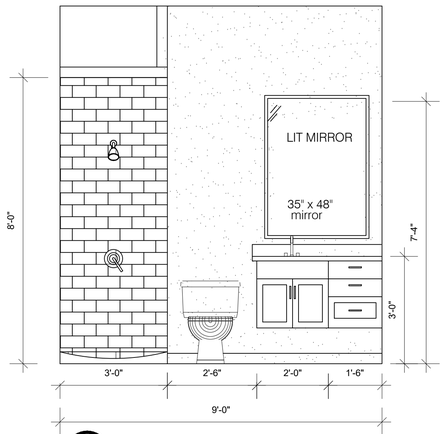
10 WALK IN CLOSETS UNITS 3/5
1/2" = 1'-0"



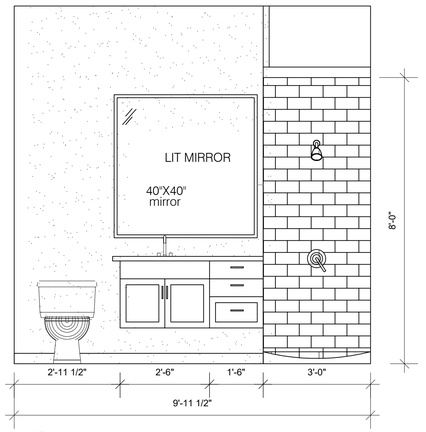
9 WALK IN CLOSETS UNITS 3/5
1/2" = 1'-0"



5 ISLAND UNITS 8/9
1/2" = 1'-0"



4 GUEST BATHROOM UNITS 8/9
1/2" = 1'-0"



3 ENSUITE BATHROOM UNITS 8/9
1/2" = 1'-0"

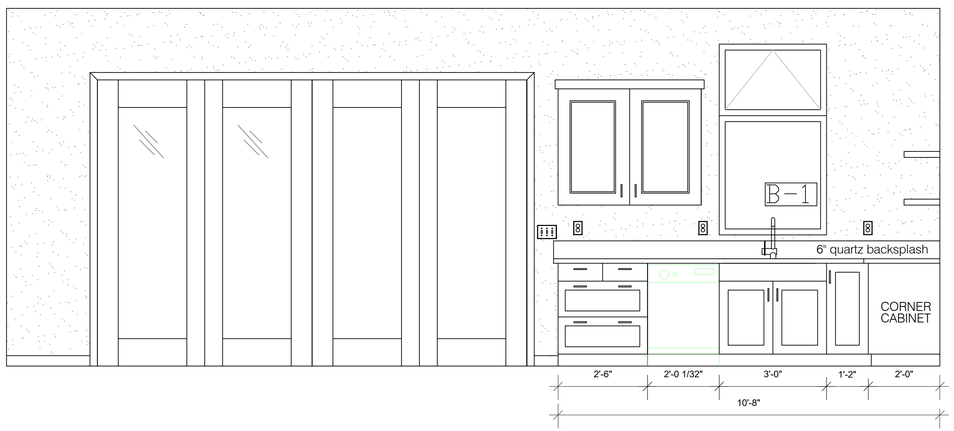
10 WALK IN CLOSETS UNITS 3/5
1/2" = 1'-0"

9 WALK IN CLOSETS UNITS 3/5
1/2" = 1'-0"

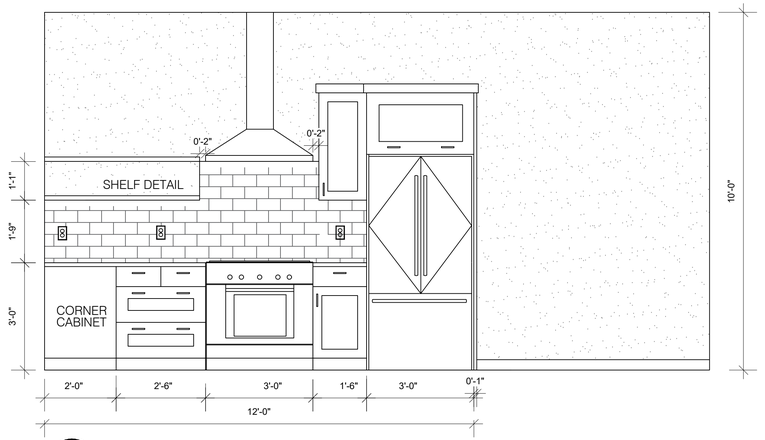
5 ISLAND UNITS 8/9
1/2" = 1'-0"

4 GUEST BATHROOM UNITS 8/9
1/2" = 1'-0"

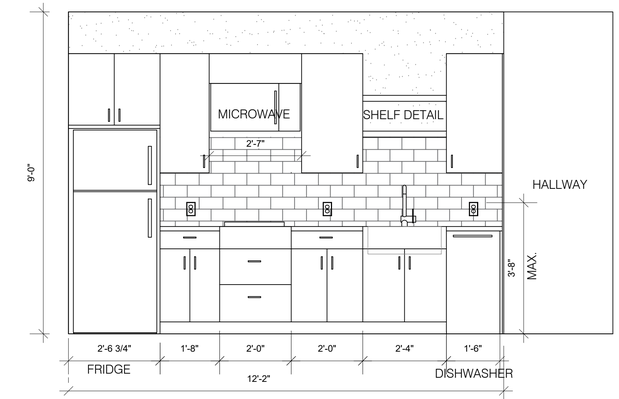
3 ENSUITE BATHROOM UNITS 8/9
1/2" = 1'-0"



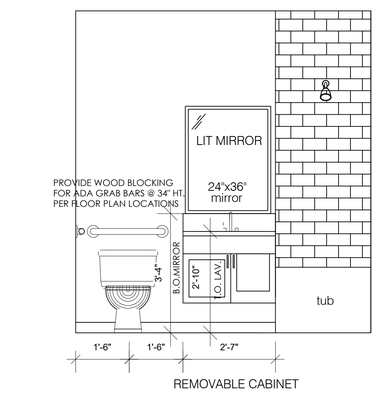
2 SINK WALL UNITS 8/9
1/2" = 1'-0"



1 REFRIGERATOR WALL UNITS 8/9
1/2" = 1'-0"



6 KITCHEN UNITS 3/4/5
1/2" = 1'-0"



7 BATHROOM UNITS 3,4 & 5 (some mirrored)
1/2" = 1'-0"

NOTE: REFER TO GOOGLE DOC FOR FIXTURES & FINISHES.

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COTTONWOOD CONDOMINIUMS

214 S 200 E
MOAB, UTAH

STATE OF UTAH
SUNDRA HINES
No. 8866253
LICENSED ARCHITECT

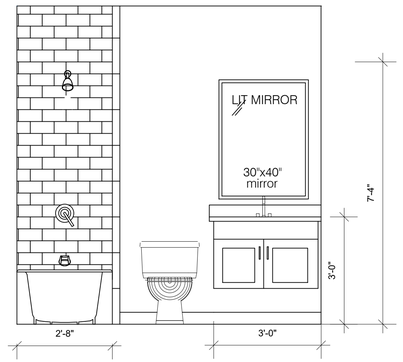
Date
Phase
Permit Set
August 19, 2022
November 01, 2022

Current Phase:
Permit Set-revised

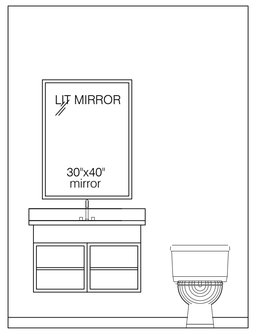
December 13, 2022

INT ELEVS

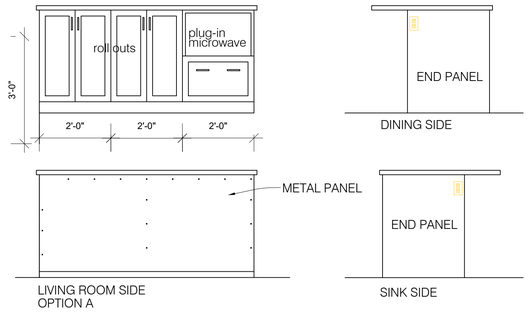
A 6.1



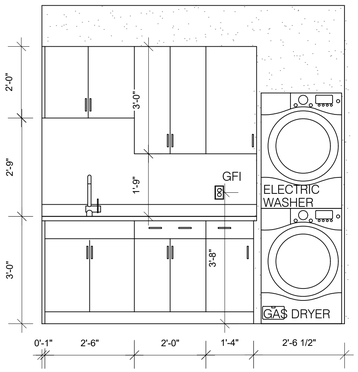
2 GUEST BATHROOM UNITS 1/2/6/7
1/2" = 1'-0"



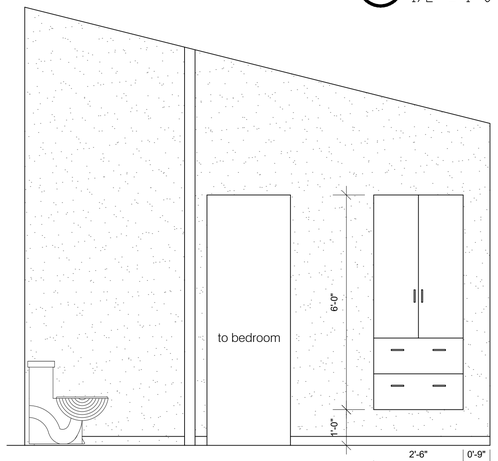
3 POWDER RM UNITS 1/2/6/7
1/2" = 1'-0"



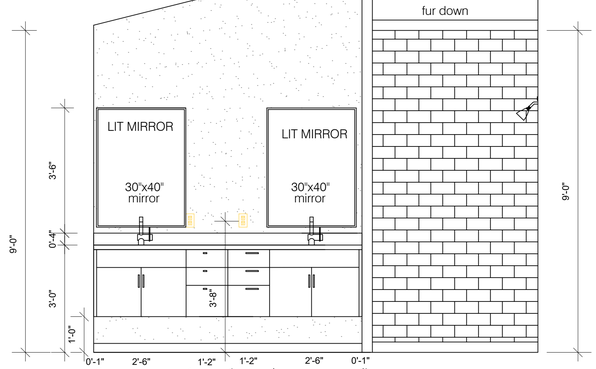
3 ISLAND UNITS 1/2/6/7
1/2" = 1'-0"



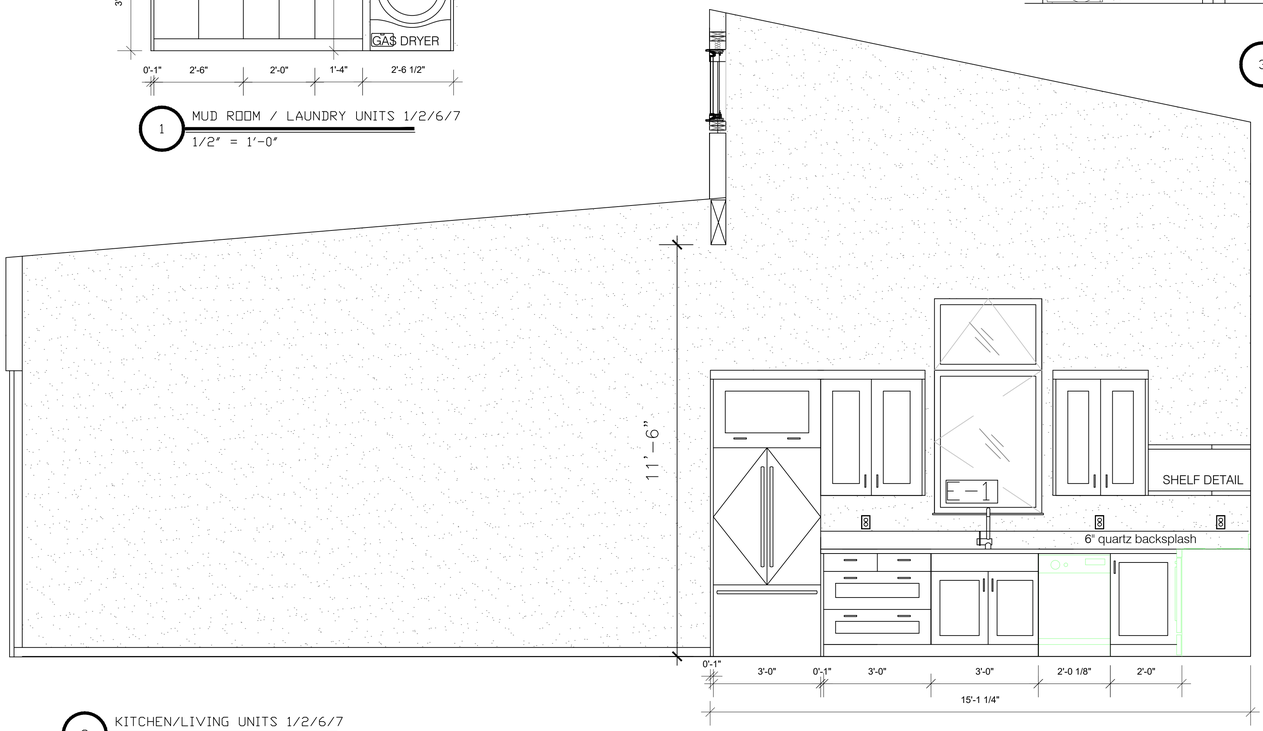
1 MUD ROOM / LAUNDRY UNITS 1/2/6/7
1/2" = 1'-0"



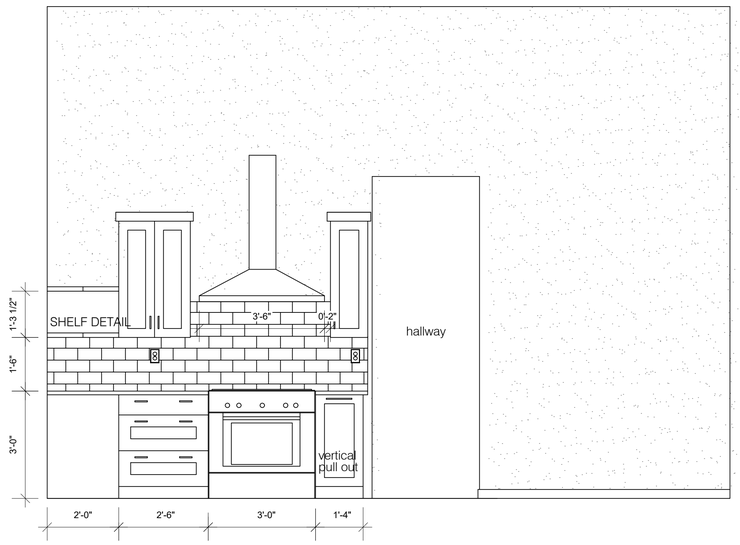
3 MASTER BATH LINEN/TOILET UNITS 1/2/6/7
1/2" = 1'-0"



3 MASTER BATH VANITY/SHOWER UNITS 1/2/6/7
1/2" = 1'-0"



3 KITCHEN/LIVING UNITS 1/2/6/7
1/2" = 1'-0"



3 KITCHEN/DINING UNITS 1/2/6/7
1/2" = 1'-0"

NOTE: REFER TO GOOGLE DOC FOR FIXTURES & FINISHES.

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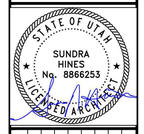


Date
Phase

Current Phase:
Permit Set

August 19, 2022

INT ELEVS
A 6.2

ELECTRICAL SYMBOLS

- IN FLOOR CONVENIENCE OUTLET
- CONVENIENCE OUTLET
- GFI GROUND FAULT INTERUPT OUTLET
- WP OUTLET w/ LEER POINT
- SPECIALTY OUTLET
- SWITCH
- 3 TWO-WAY SWITCH
- EXHAUST FAN
- SD SMOKE DETECTOR
- CO CARBON MONOXIDE DETECTOR
- TRACK
- WALL SCONCE
- 6" RECESSED CAN LIGHT
- PENDANT LIGHT
- UNDER CABINET, CLOSET & LIT MIRRORS
- CAT-5
- FLOURESCENT
- HB HOSE BIB
- CEILING FAN
- SURFACE MOUNT
- 4" DIRECTIONAL CAN LIGHT
- PB PRESSURE BUTTON FOR GARBAGE DISPOSAL

ELECTRICAL NOTES

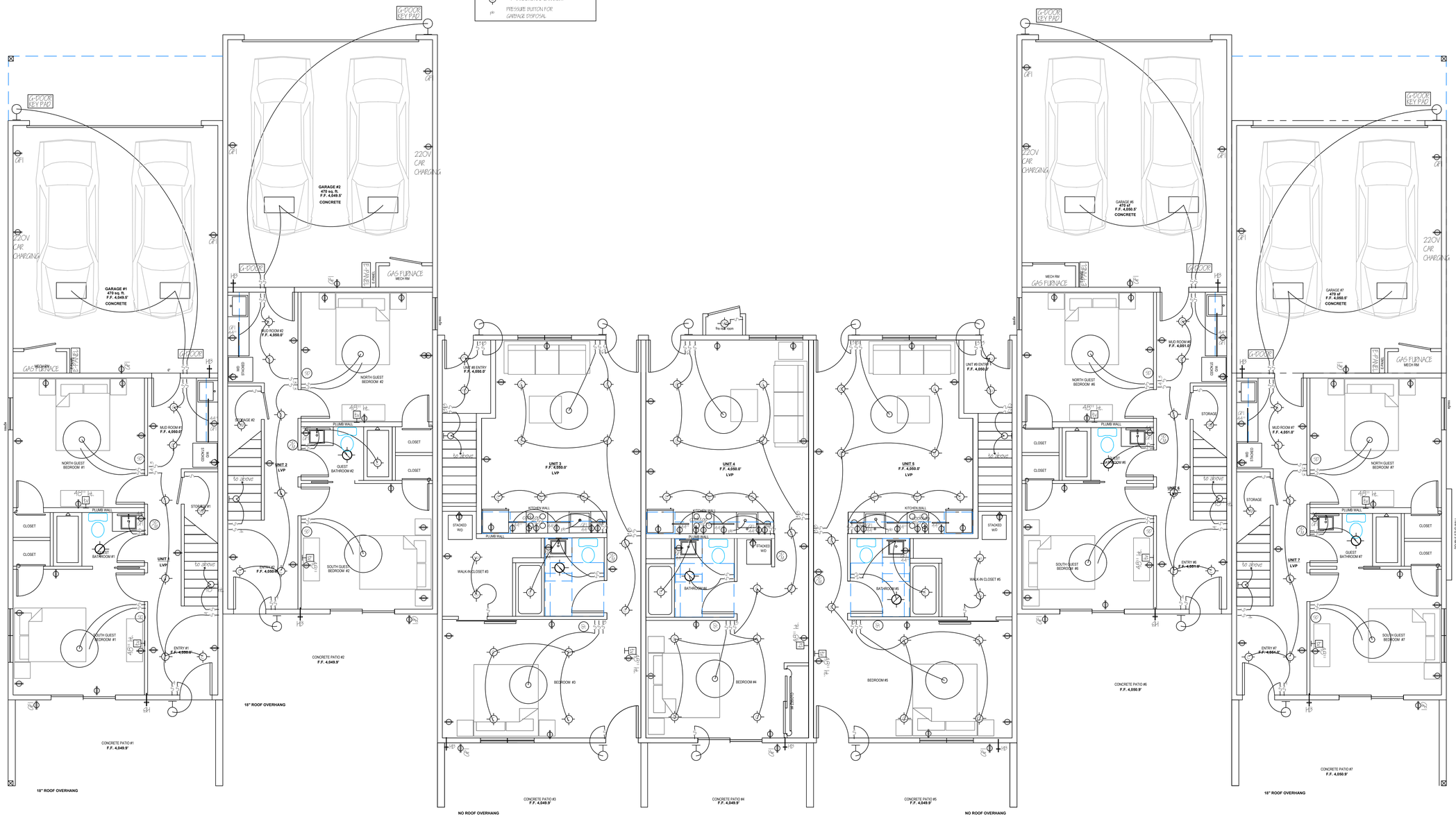
1. All work to conform with latest adopted N.E.C. and local codes.
2. Supply dimmers for Pendants & Sconces, not exterior lights.
3. Exterior lights to be dark sky compliant.
4. All sub-contractors must coordinate w/ each other for exact location of equipment & conduit.
5. Switches to be the quiet toggle type.
6. Whether or not shown or indicated on Plans, The National Electric Code requires electrical wall outlets to be spaced a maximum of 12'-0" o.c. along walls at any usable area and in any wall measuring 2'-0" or more wide.
7. Incidental items not indicated on drawings, nor mentioned in specifications that can be legitimately and reasonably inferior to the work described or be necessary in good practice to provide a complete system, shall be furnished and installed as though itemized here in every detail.
8. Size outlet boxes in conformity with code for number gauge of conductors therein, except where noted to be larger.
9. Verify exact location of outlets with owner prior to installation. Owner reserves the right to relocate any outlet in any direction up to ten feet w/ out additional fees.
10. Bath exhaust fans to be ducted outside.
11. Include wiring for smart home connection to wireless devices.
12. CARBON DIOXIDE DETECTORS PER STATE CODE.

MECHANICAL NOTES

The Contractor and Sub-Contractor to design and build the mechanical system per local, and state codes. Mechanical Rooms for the Town Home units are located within the garage of each unit. These units will use a high efficiency gas powered multi-zoned furnace system for heat and air-conditioning. Condensers will be located outside of the end town homes. The Town homes will have high-efficiency gas water heaters placed in the mechanical room. The flats and studios will use a electrically powered multi-head mini-split system. These condenser units will be placed on top of the roof. The flats & studios will use on-demand water heaters located in-above washer and dryer area.

PLUMBING NOTES

1. All work to conform with latest adopted local codes.
2. Coordinate all plumbing work with other trades.
3. Sanitary sewer piping to be installed to run at 1/4" per ft. slope.
4. Domestic cold water piping shall be insulated with 1/2" fiberglass pipe insulation. Hot water pipe shall be insulated with 1" fiberglass pipe insulation.
5. Special precautions must be taken to insure that all penetrations through flor slabs are closely coordinated with the wall locations (as very tight tolerances exist.)
6. Elevation of all floor drains shall be held 1/2" below finish floor.
7. Where pipe lines enter a wall, ceiling,or floor, the opening around the line shall be tightly sealed.
8. Sewer clean-outs shall be installed @ 100 ft. max. intervals.
9. Contractor to coordinate water pressure requirements for:
   1- house appliances & fixtures
   2- irrigation sub-contractor



NOTE: REFER TO GOOGLE DOC FOR FIXTURES & FINISHES.

HINES DESIGNS, LLC
PHONE : (970) 626.2300
188 MARIE STREET RIDGWAY, CO 81432

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Written dimensions take precedence over scaled dimensions. Any discrepencies regarding dimensions are to be brought to the designer before commencing work.

COTTONWOOD CONDOMINIUMS

214 S 200 E
MOAB, UTAH

STATE OF UTAH
SUNDRA HINES
No. 8866253
LICENSED ARCHITECT

SET DATES	
August 19, 2022	December 04, 2023
November 01, 2022	January 30, 2024
December 13, 2022	February 29, 2024
January 08, 2023	
January 12, 2023	
June 14, 2023	
June 19, 2023	
September 12, 2023	

Current Phase:
Permit Set-revised

March 11, 2024

E1.1

ELECTRICAL SYMBOLS

- IN FLOOR CONVENIENCE OUTLET
- CONVENIENCE OUTLET
- GFI GROUND FAULT INTERRUPT OUTLET
- USB USB PORT OUTLET
- SPECIALTY OUTLET
- SWITCH
- 3 THREE-WAY SWITCH
- EF EXHAUST FAN
- SD SMOKE DETECTOR
- CO CARBON MONOXIDE DETECTOR
- TRACK
- WALL SCONCE
- 6" RECESSED CAN LIGHT
- PENDANT LIGHT
- UNDER CABINET, CLOSET & LIT MIRRORS
- CAT-5
- FLOURESCENT
- HB HOSE BIB
- CEILING FAN
- SURFACE MOUNT
- 4" DIRECTIONAL CAN LIGHT
- PB PRESSURE BUTTON FOR GARBAGE DISPOSAL

ELECTRICAL NOTES

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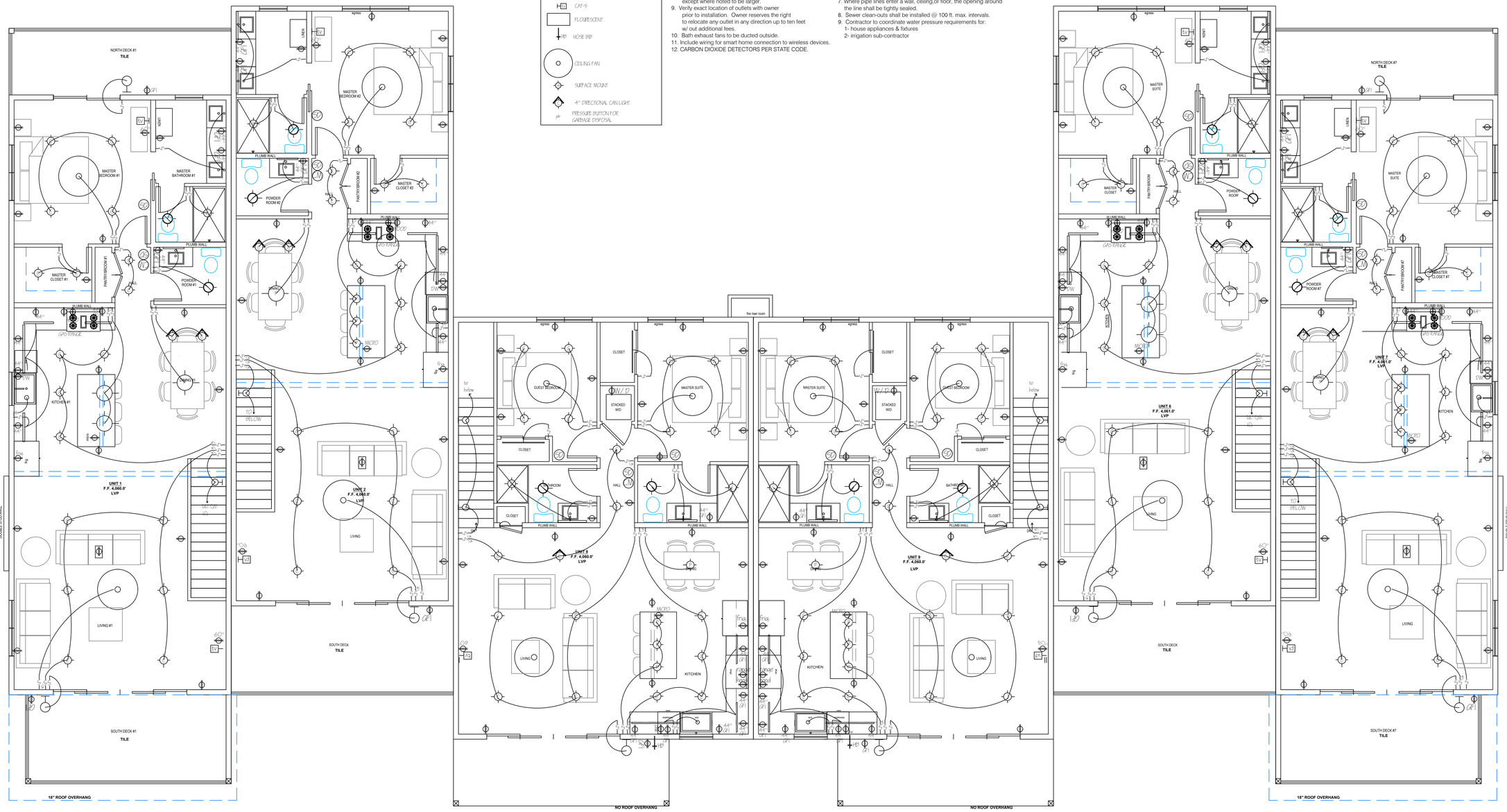

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COTTONWOOD CONDOMINIUMS

214 S 200 E
MOAB, UTAH

STATE OF UTAH
SUNDRA HINES
No. 8866253
LICENSED ARCHITECT

SET DATES	
August 19, 2022	December 04, 2023
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September 12, 2023	

Current Phase:
Permit Set-revised

March 11, 2024

E1.2

COTTONWOOD CONDOMINIUMS

INFRASTRUCTURE IMPROVEMENTS

FOR CONSTRUCTION

11/1/23

(REVISED 2/27/24)

VICINITY MAP

BENCHMARK:

1. CONTACT RED DESERT LAND SURVEYING, 435-259-8171, TO ESTABLISH BENCHMARK AND CONSTRUCTION CONTROL.

GENERAL NOTES:

1. EXISTING CONDITIONS SHOWN IN THESE PLANS IS FROM SURVEY DATA PROVIDED BY RED DESERT LAND SURVEYING.
2. ALL MATERIALS AND CONSTRUCTION SHALL BE COMPLETED PER CITY OFMOAB STANDARDS AND REQUIREMENTS, MOST CURRENT VERSION.
3. THE CONTRACTOR SHALL HAVE ONE APPROVED AND SIGNED (CITY AND ENGINEER) COPY OF THE PLANS ON THE JOB SITE AT ALL TIMES. CONTRACTOR SHALL ALSO HAVE THE JOB SPECIFICATIONS, AND CONSTRUCTION STANDARDS ON SITE.
4. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL HAVE A COPY OF ALL APPLICABLE PERMITS ON SITE.
5. AT LEAST TWO (2) FULL WORKING PRIOR TO CONSTRUCTION ACTIVITIES OF ANY KIND THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENT OF COLORADO AT 1-800-922-1987 OR 811 TO OBTAIN AN INQUIRE IDENTIFICATION NUMBER AND TO REQUEST THE UTILITY OWNERS TO MARK THE LOCATION OF ALL UNDERGROUND UTILITIES WHICH MAY BE IMPACTED BY CONSTRUCTION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES, INCLUDING UTILITIES NOT SHOWN ON THE CONSTRUCTION DRAWINGS. PRIOR TO ADJUSTING ANY UTILITIES THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE UTILITY OWNER.
7. IF THERE ARE EXISTING UTILITIES IN CONFLICT WITH THE PROPOSED IMPROVEMENTS THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE OWNER, ENGINEER, AND UTILITY OWNER TO DETERMINE A SOLUTION FOR THE CONFLICT. THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND STRUCTURES FOUND AT THE SITE UNLESS OTHERWISE INDICATED IN THESE PLANS.
8. ALL TRENCHING CONSTRUCTION SHALL MEET OSHA STANDARDS AND REQUIREMENTS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES. CONTRACTOR SHALL OBTAIN ALL REQUIRED LOCAL AND STATE CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT PERMITS.

GRADING AND EROSION CONTROL NOTES:

1. A GRADING PERMIT IS REQUIRED FOR OVER 100 CY OF FILL MATERIAL. CONTRACTOR SHALL OBTAIN PERMIT IF REQUIRED.
2. ALL FILL MUST BE COMPACTED TO 90% MODFIFIED PROCTOR AT PLUS OR MINUS 2% OF THE OPTIMUM MOISTURE CONTENT OR AS REQUIRED IN THE PROJECT GEOTECHNICAL ENGINEERING SOIL REPORT.
3. UNSUITABLE MATERIAL SHALL BE REMOVED AS REQUIRED BY THE GEOTECHNICAL ENGINEER.
4. EARTHWORK SHALL NOT BE COMPLETED WHEN THE GROUND IS FROZEN.
5. TOPSOIL SHALL BE STOCKPILED FOR USE ON FINAL LANDSCAPING. STOCKPILES SHALL BE PROTECTED FROM EROSION.
6. AT ALL TIMES THE CONSTRUCTION SHALL INCORPORATE TECHNIQUES TO LIMIT WIND-CAUSED EROSION INCLUDING BUT NOT LIMITED TO WATERING.
7. CONTRACTOR SHALL KEEP STREET CLEAN OF DEBRIS AT ALL TIMES. CONTRACTOR SHALL CLEAN STREET AND ADJACENT PROPERTIES AS REQUIRED.
8. CONTRACTOR SHALL ESTABLISH A CONSTRUCTION ENTRANCE AND STORAGE/STAGING AREA.

WATER UTILITY NOTES:

1. ALL WATER UTILITY WORK, MATERIALS, AND CONSTRUCTION SHALL MEET CITY OF MOAB STANDARDS AND REQUIREMENTS, MOST CURRENT VERSION.
2. CONTRACTOR SHALL NOTIFY CITY OF MOAB PUBLIC WORKS OR ENGINEERING DEPARTMENT 48 HOURS PRIOR TO ANY WATER MAIN OR SERVICE LINE CONSTRUCTION.
3. ALL WATER MAIN VALVES, HYDRANTS, AND METER LIDS SHALL BE ADJUSTED TO FINISHED GRADE.
4. ALL WORK SHALL BE INSPECTED BY CITY OF MOAB PUBLIC WORKS OR ENGINEERING STAFF PRIOR TO BACKFILL.

SEWER UTILITY NOTES:

1. ALL SEWER UTILITY WORK, MATERIALS, AND CONSTRUCTION SHALL MEET CITY OF MOAB STANDARDS AND REQUIREMENTS, MOST CURRENT VERSION.
2. CONTRACTOR SHALL NOTIFY CITY OF MOAB PUBLIC WORKS OR ENGINEERING DEPARTMENT 48 HOURS PRIOR TO ANY SEWER MAIN OR SERVICE LINE CONSTRUCTION.
3. ALL SEWER MAIN MANHOLES, CLEANOUTS, ETC... SHALL BE ADJUSTED TO FINISHED GRADE.
4. ALL WORK SHALL BE INSPECTED BY CITY OF MOAB PUBLIC WORKS STAFF PRIOR TO BACKFILL.

FRANCHISE UTILITY NOTES:

1. FRANCHISE (GAS, ELECTRIC, TELECOM, FIBER, ETC...) DESIGN IS BY THE UTILITY PROVIDER.
2. CONTRACTOR SHALL BE COMPLETE ALL WORK PER FRANCHISE UTILITY PROVIDER REQUIREMENTS.

SHEET INDEX

#	TITLE
1.	C000 – COVER SHEET
2.	C100 – SITE PLAN
3.	C200 – UTILITY PLAN
4.	C300 – GRADING AND DRAINAGE PLAN
5.	C400 – DETAILS
6.	C401 – DETAILS
7.	C402 – DETAILS

CITY OF MOAB ENGINEERING APPROVAL

PRINTED NAME _____

SIGNATURE _____ DATE _____

Blue Stakes of UTAH 811 — Bluestakes.org

Revisions:

#	DATE	DESCRIPTION
1	2/27/24	SITE PLAN REVISION PER CITY PLANNING ENGINEERING COMMENTS

COTTONWOOD CONDOMINIUMS
COVER SHEET AND NOTES
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C000 R1

Sheet 1 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

PROFESSIONAL ENGINEER — 2/27/24 — No. 12990137 — ANDREW RAPIEJKO — STATE OF UTAH

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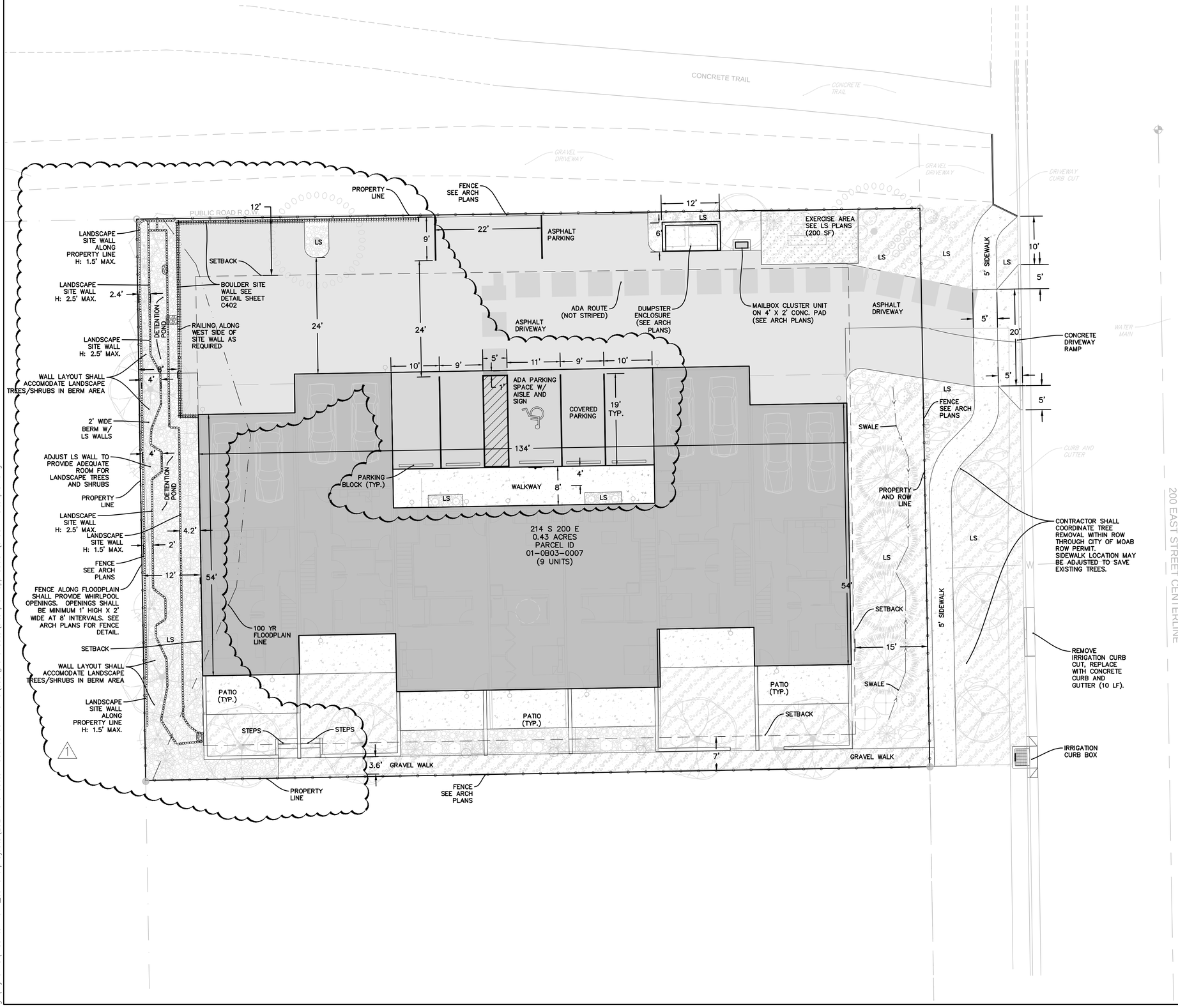
SITE PLAN NOTES:

1. SEE ARCHITECTURAL SITE PLAN FOR ADDITIONAL DETAIL OF SITE IMPROVEMENTS INCLUDING FENCING.
2. SEE LANDSCAPE PLANS FOR LANDSCAPE IMPROVEMENTS.
3. SEE LIGHTING PLANS FOR LIGHTING IMPROVEMENTS.
4. ALL IMPROVEMENTS WITHIN RIGHT OF WAY SHALL BE COMPLETED PER CITY OF MOAB STANDARDS AND SPECIFICATIONS.
5. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO COMPLETING WORK.
6. ADA ROUTE SHOWN FOR REFERENCE ONLY. ADA ROUTE IS NOT TO BE STRIPED.



GRAPHIC SCALE

0 5 10 FEET 20

0 ¼ ½ ¾ 1 INCHES 2

Revisions:		
#	DATE	DESCRIPTION
1	2/27/24	SITE PLAN REVISION PER CITY PLANNING ENGINEERING COMMENTS

COTTONWOOD CONDOMINIUMS
SITE PLAN
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING

712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.

C100 R1

Sheet 2 of 7

Project: 2021-015

Date: 1/11/23

Drawn By: ABR

Checked By:

PROFESSIONAL ENGINEER
2/27/24
No. 12990137
ANDREW RAPIEJKO
STATE OF UTAH

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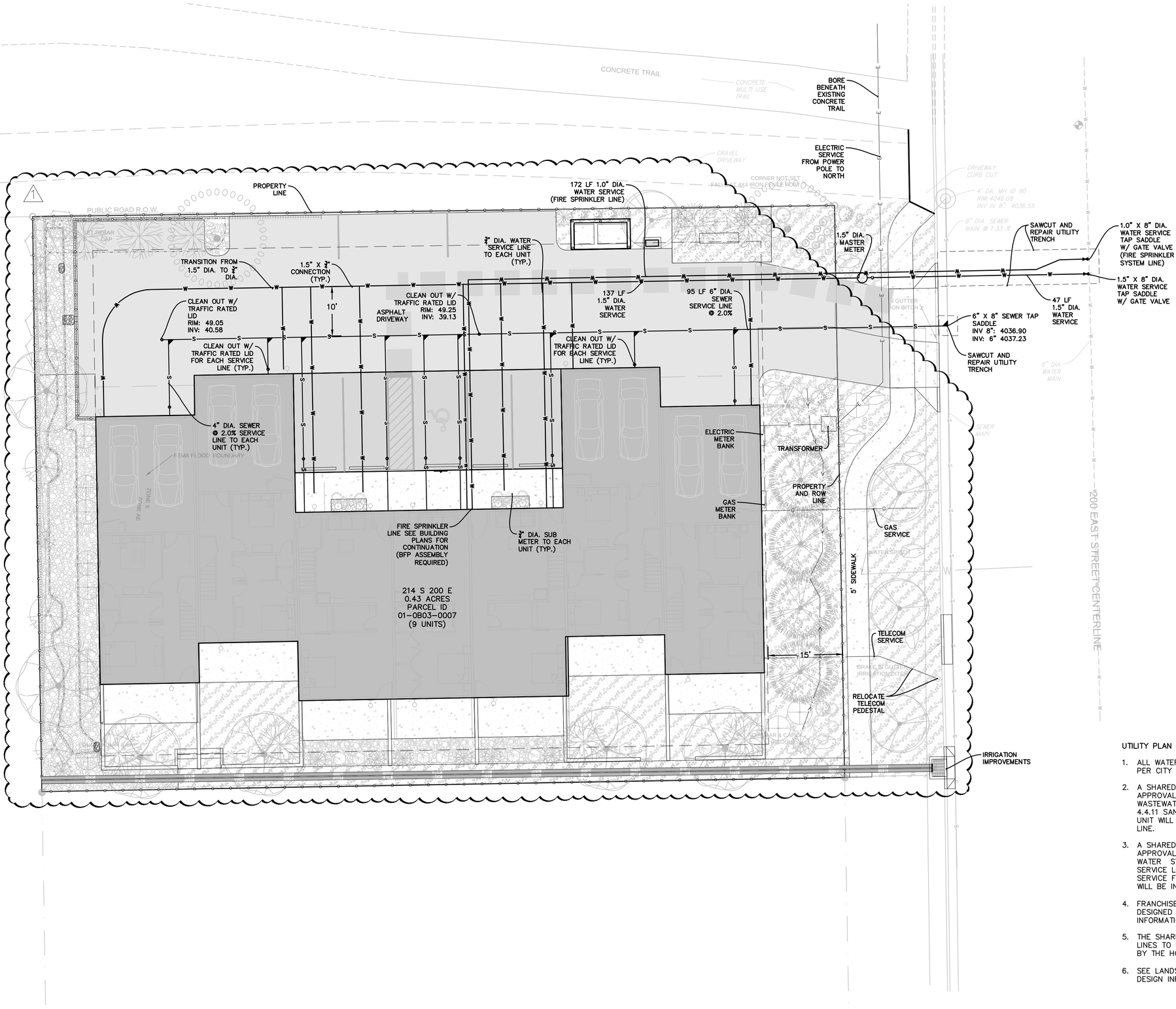

GRAPHIC SCALE

0 5 10 FEET 20

0 ¼ ½ ¾ 1 INCHES 2

Revisions:

#	DATE	DESCRIPTION
1	2/27/24	SITE PLAN REVISION PER CITY PLANNING ENGINEERING COMMENTS

COTTONWOOD CONDOUMINIUMS
UTILITY PLAN
CITY OF MOAB, UTAH

UTILITY PLAN NOTES:

1. ALL WATER AND SEWER MAIN WORK SHALL BE COMPLETED PER CITY OF MOAB STANDARDS AND SPECIFICATIONS.
2. A SHARED SEWER SERVICE LINE IS REQUESTED FOR APPROVAL BY CITY ENGINEER AS ALLOWED BY CITY OF MOAB WASTEWATER COLLECTION SYSTEM DESIGN CRITERIA SECTION 4.4.11 SANITARY SEWER SERVICE LINES. EACH INDIVIDUAL UNIT WILL HAVE A SINGLE SERVICE FROM THE SHARED SEWER LINE.
3. A SHARED WATER SERVICE LINE IS REQUESTED FOR APPROVAL BY CITY ENGINEER AS ALLOWED BY CITY OF MOAB WATER SYSTEM DESIGN CRITERIA SECTION 4.4.15 WATER SERVICE LINES. EACH INDIVIDUAL UNIT WILL HAVE A SINGLE SERVICE FROM THE SHARED SEWER LINE. A MASTER METER WILL BE INSTALLED. EACH UNIT WILL HAVE A SUB-METER.
4. FRANCHISE UTILITIES (ELECTRIC, TELECOM, GAS) SHALL BE DESIGNED BY UTILITY OWNER. GENERAL LAYOUT SHOWN FOR INFORMATION ONLY.
5. THE SHARED WATER AND SEWER SERVICE LINES AND SERVICE LINES TO EACH BUILDING, SHALL BE OWNED AND MAINTAINED BY THE HOA.
6. SEE LANDSCAPE/IRRIGATION PLAN FOR SPRINKLER SYSTEM DESIGN INFORMATION

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C200 R1

Sheet 3 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

PROFESSIONAL ENGINEER
2/27/24
No. 12990137
ANDREW RAPIEJKO
STATE OF UTAH

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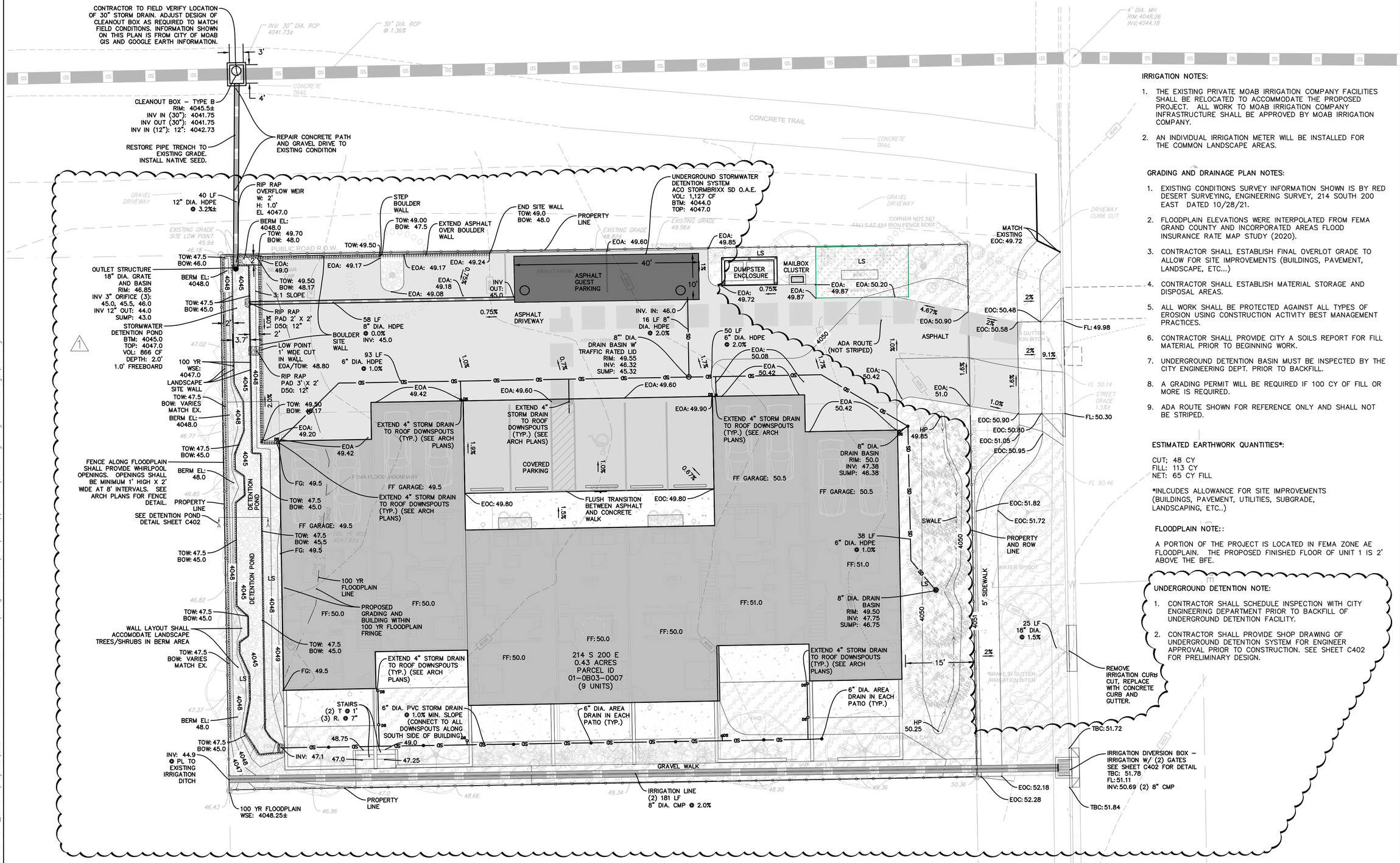

IRRIGATION NOTES:

1. THE EXISTING PRIVATE MOAB IRRIGATION COMPANY FACILITIES SHALL BE RELOCATED TO ACCOMMODATE THE PROPOSED PROJECT. ALL WORK TO MOAB IRRIGATION COMPANY INFRASTRUCTURE SHALL BE APPROVED BY MOAB IRRIGATION COMPANY.
2. AN INDIVIDUAL IRRIGATION METER WILL BE INSTALLED FOR THE COMMON LANDSCAPE AREAS.

GRADING AND DRAINAGE PLAN NOTES:

1. EXISTING CONDITIONS SURVEY INFORMATION SHOWN IS BY RED DESERT SURVEYING, ENGINEERING SURVEY, 214 SOUTH 200 EAST DATED 10/28/21.
2. FLOODPLAIN ELEVATIONS WERE INTERPOLATED FROM FEMA GRAND COUNTY AND INCORPORATED AREAS FLOOD INSURANCE RATE MAP STUDY (2020).
3. CONTRACTOR SHALL ESTABLISH FINAL OVERLOT GRADE TO ALLOW FOR SITE IMPROVEMENTS (BUILDINGS, PAVEMENT, LANDSCAPE, ETC...)
4. CONTRACTOR SHALL ESTABLISH MATERIAL STORAGE AND DISPOSAL AREAS.
5. ALL WORK SHALL BE PROTECTED AGAINST ALL TYPES OF EROSION USING CONSTRUCTION ACTIVITY BEST MANAGEMENT PRACTICES.
6. CONTRACTOR SHALL PROVIDE CITY A SOILS REPORT FOR FILL MATERIAL PRIOR TO BEGINNING WORK.
7. UNDERGROUND DETENTION BASIN MUST BE INSPECTED BY THE CITY ENGINEERING DEPT. PRIOR TO BACKFILL.
8. A GRADING PERMIT WILL BE REQUIRED IF 100 CY OF FILL OR MORE IS REQUIRED.
9. ADA ROUTE SHOWN FOR REFERENCE ONLY AND SHALL NOT BE STRIPED.

ESTIMATED EARTHWORK QUANTITIES*:

CUT: 48 CY
FILL: 113 CY
NET: 65 CY FILL

*INLCUDES ALLOWANCE FOR SITE IMPROVEMENTS (BUILDINGS, PAVEMENT, UTILITIES, SUBGRADE, LANDSCAPING, ETC..)

FLOODPLAIN NOTE::

A PORTION OF THE PROJECT IS LOCATED IN FEMA ZONE AE FLOODPLAIN. THE PROPOSED FINISHED FLOOR OF UNIT 1 IS 2' ABOVE THE BFE.

UNDERGROUND DETENTION NOTE:

1. CONTRACTOR SHALL SCHEDULE INSPECTION WITH CITY ENGINEERING DEPARTMENT PRIOR TO BACKFILL OF UNDERGROUND DETENTION FACILITY.
2. CONTRACTOR SHALL PROVIDE SHOP DRAWING OF UNDERGROUND DETENTION SYSTEM FOR ENGINEER APPROVAL PRIOR TO CONSTRUCTION. SEE SHEET C402 FOR PRELIMINARY DESIGN.

Revisions:

#	DATE	DESCRIPTION
1	2/27/24	SITE PLAN REVISION PER CITY PLANNING ENGINEERING COMMENTS

COTTONWOOD CONDOMINIUMS
OVERLOT GRADING PLAN
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C300 R1

Sheet 4 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

PROFESSIONAL ENGINEER 12/27/24 No. 12990137 ANDREW RAPIEJKO STATE OF UTAH

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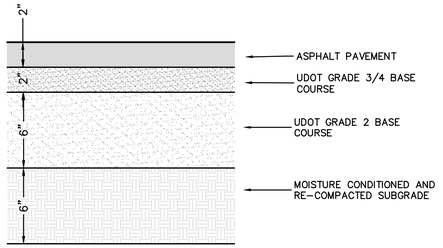
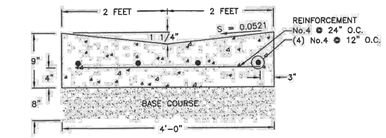


PARKING AND ACCESS
TYPICAL PAVEMENT SECTION

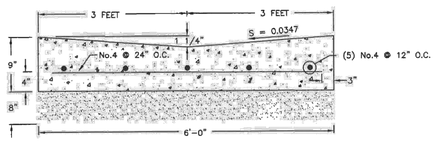
UTAH APWA DETAILS:

1. THE CONTRACTOR SHALL HAVE A COPY OF THE MOST CURRENT UTAH APWA MANUAL OF STANDARD PLANS AND SPECIFICATIONS ON SITE AT ALL TIMES. APPLICABLE DETAILS ARE SHOWN IN THIS PLAN FOR REFERENCE. UTAH APWA DETAILS SHALL BE APPLIED TO THE PROJECT PER CITY OF MOAB CONSTRUCTION STANDARDS AND REQUIREMENTS.



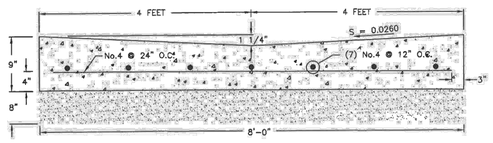
4'-0" WATERWAY

CONCRETE AREA = 2.583 SQ. FT.



6'-0" WATERWAY

CONCRETE AREA = 3.875 SQ. FT.



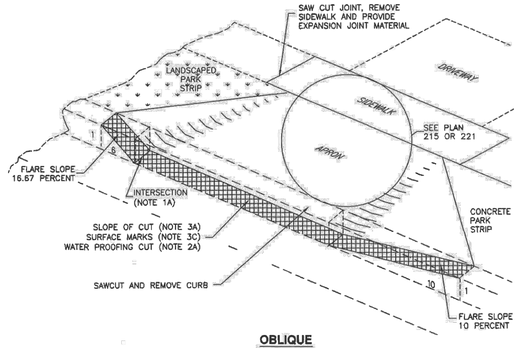
8'-0" WATERWAY

CONCRETE AREA = 5.166 SQ. FT.

Plan 211 July 2011

Waterway

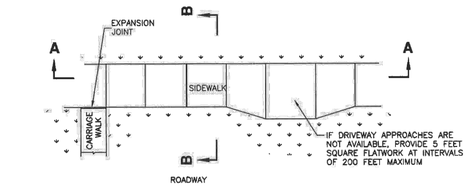
NARRATIVE: THIS PLAN IS USED IF AN EXISTING CURB MUST BE CUT TO INSTALL A DRIVEWAY APPROACH. THE SLOPE OF THE CURB FLARE DEPENDS UPON WHETHER THE PARK STRIP IS LANDSCAPED OR IF THE PARK STRIP IS CONCRETE.



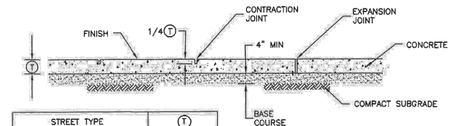
OBLIQUE

Plan 222 February 2011

Saw-cut driveway approach



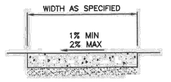
PLAN



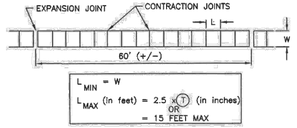
STREET TYPE	T
RESIDENTIAL (WITH PARK STRIP)	4"
RESIDENTIAL (NO PARK STRIP)	6"
OTHER	
REPLACING EXISTING SIDEWALK	MATCH EXISTING (4" MIN.)

SEE DRIVEWAY APPROACH PLANS FOR SIDEWALK THICKNESS AT DRIVEWAYS

SECTION A-A



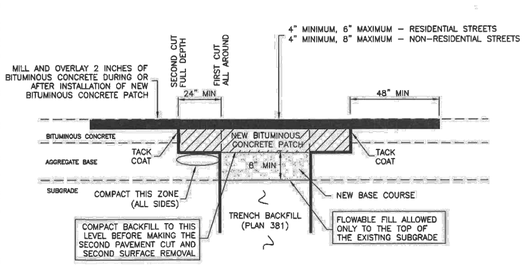
SECTION B-B



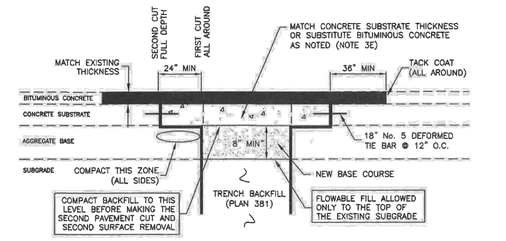
SIDEWALK JOINT DETAIL

Plan 231 March 2009

Sidewalk



BITUMINOUS CONCRETE RESTORATION

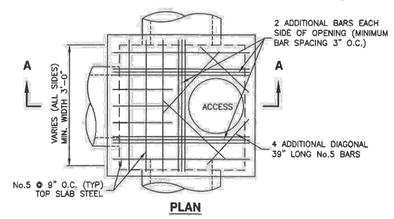


COMPOSITE RESTORATION

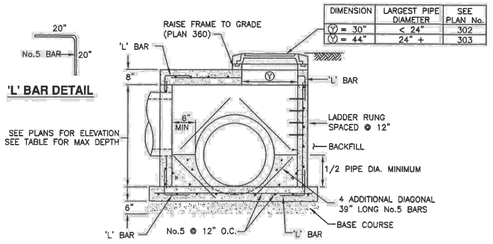
Plan 255 November 2015

Bituminous pavement T-patch

TYPE B



PLAN



DIMENSION	LARGEST PIPE DIAMETER	SEE PLAN No.
Ⓥ = 30"	< 24"	302
Ⓥ = 44"	24" +	303

'L' BAR DETAIL

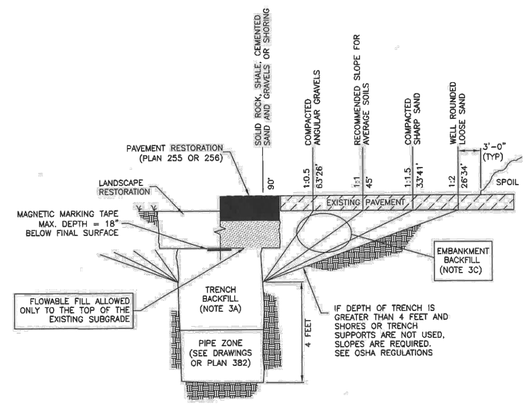
SECTION A-A

WALL THICKNESS AND WALL STEEL				
LOW WATER TABLE				
MAX. BOX WIDTH	6 FEET	8 FEET	8 FEET	9 FEET
MAX. BOX DEPTH	5 FEET	8 FEET	12 FEET	12 FEET
WALL THICKNESS	8 INCHES	8 INCHES	12 INCHES	12 INCHES
WALL CURTAIN STEEL	#5 @ 12"	#5 @ 6"	#5 @ 6"	#7 @ 9"
MODIFICATIONS FOR HIGH WATER TABLE				
WALL THICKNESS	8 INCHES	10 INCHES	16 INCHES	12 INCHES
WALL CURTAIN STEEL	#5 @ 9"	#5 @ 6"	#5 @ 6"	#6 @ 6"

Plan 331.2 April 2011

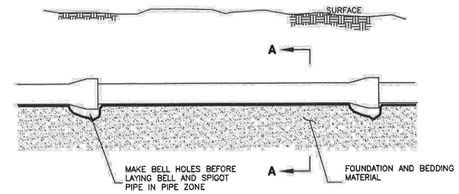
Cleanout box

NARRATIVE: THIS PLAN SHOWS VARIOUS SLOPES RECOMMENDED FOR VARIOUS TYPES OF SLOPE STABILITY PROBLEMS. THE VERTICAL TEXT INDICATES VARIOUS MATERIALS THAT MAY BE ENCOUNTERED. THE SERVICES OF A PROFESSIONAL SOILS ENGINEER SHOULD BE USED TO VERIFY SLOPE STABILITY.

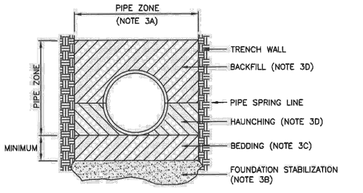


Plan 381 July 2016

Trench backfill



ELEVATION VIEW



SECTION A-A

INSTALLATION

CONCRETE PIPE: FOLLOW ASTM C 1479
"STANDARD PRACTICE FOR INSTALLATION OF PRECAST CONCRETE SEWER, STORM DRAIN, AND CULVERT PIPE USING STANDARD INSTALLATIONS.

PLASTIC PIPE: FOLLOW ASTM D 2321
"STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS"

CORRUGATED METAL PIPE: FOLLOW ASTM A 798
"STANDARD PRACTICE FOR INSTALLING FACOTRY-MADE CORRUGATED STEEL PIPE FOR SEWERS AND OTHER APPLICATIONS.

VITRIFIED CLAY PIPE: FOLLOW ASTM C 12.
"STANDARD RECOMMENDED PRACTICE FOR INSTALLING VITRIFIED CLAY PIPE LINES.

Plan 382 January 2011

Pipe zone backfill

Revisions:

#	DATE	DESCRIPTION
1	2/27/24	SITE PLAN REVISION PER CITY PLANNING ENGINEERING COMMENTS

COTTONWOOD CONDOMINIUMS
SITE DETAILS
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C400 R1

Sheet 5 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

PROFESSIONAL ENGINEER
2/27/24
No. 12990137
ANDREW RAPIEJKO
STATE OF UTAH

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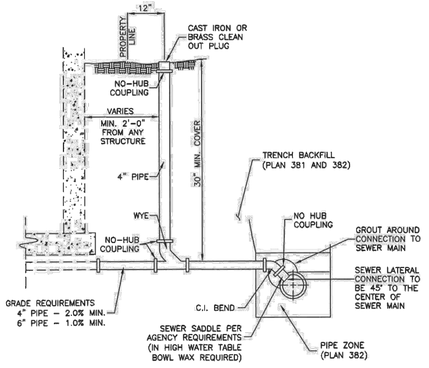
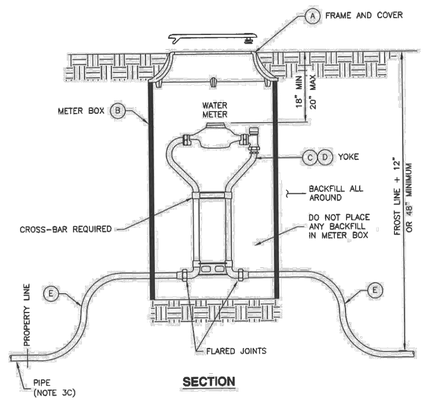


Sewer lateral connection

Plan **431** January 2011



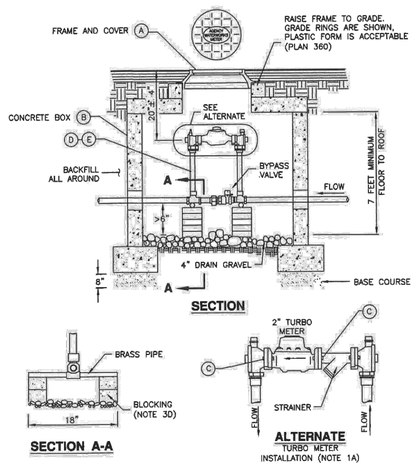
SECTION

LEGEND			
No.	*	ITEM	DESCRIPTION
A		FRAME AND COVER	CAST IRON COVER
B		METER BOX (18" TO 21" DIAMETER) (30" TO 36" DEEP)	CORRUGATED PE, PVC, CMP OR MATERIAL ACCEPTABLE TO AGENCY
C		3/4" METER YOKE	OPTIONAL BACKFLOW PROTECTION PER AGENCY REQUIREMENTS
D		1" METER YOKE	OPTIONAL BACKFLOW PROTECTION PER AGENCY REQUIREMENTS
E		COPPER PIPE	TYPE K (SOFT)

* FURNISHED BY UTILITY AGENCY

3/4" and 1" meter

Plan **521** August 2001

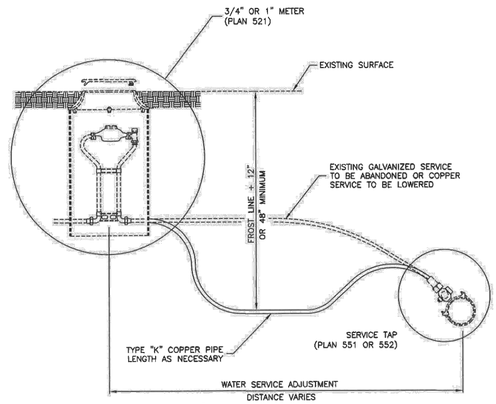


LEGEND			
No.	*	ITEM	DESCRIPTION
A		27" FRAME AND COVER	PLAN 502
B		CONCRETE BOX	PLAN 505
C		STAINLESS STEEL METER BOLTS	5/8" x 2 3/4" BRASS
D		1 1/2" CUSTOM SETTER WITH BYPASS	
E		2" CUSTOM SETTER WITH BYPASS	

* FURNISHED BY UTILITY AGENCY

1 1/2" and 2" meter

Plan **522** August 2001



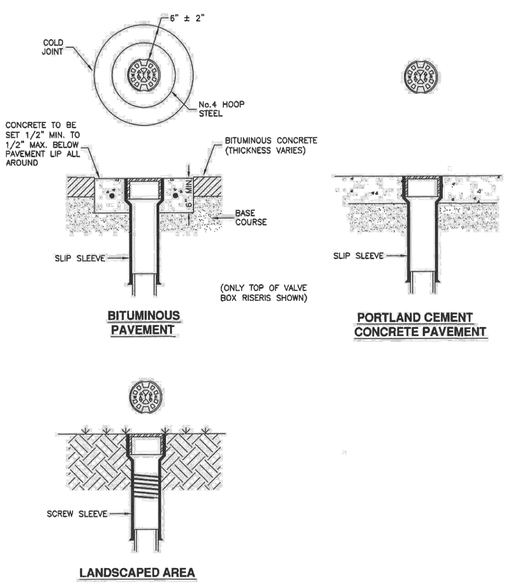
Water service line

Plan **541** August 2001

1 1/2" and 2" Service taps

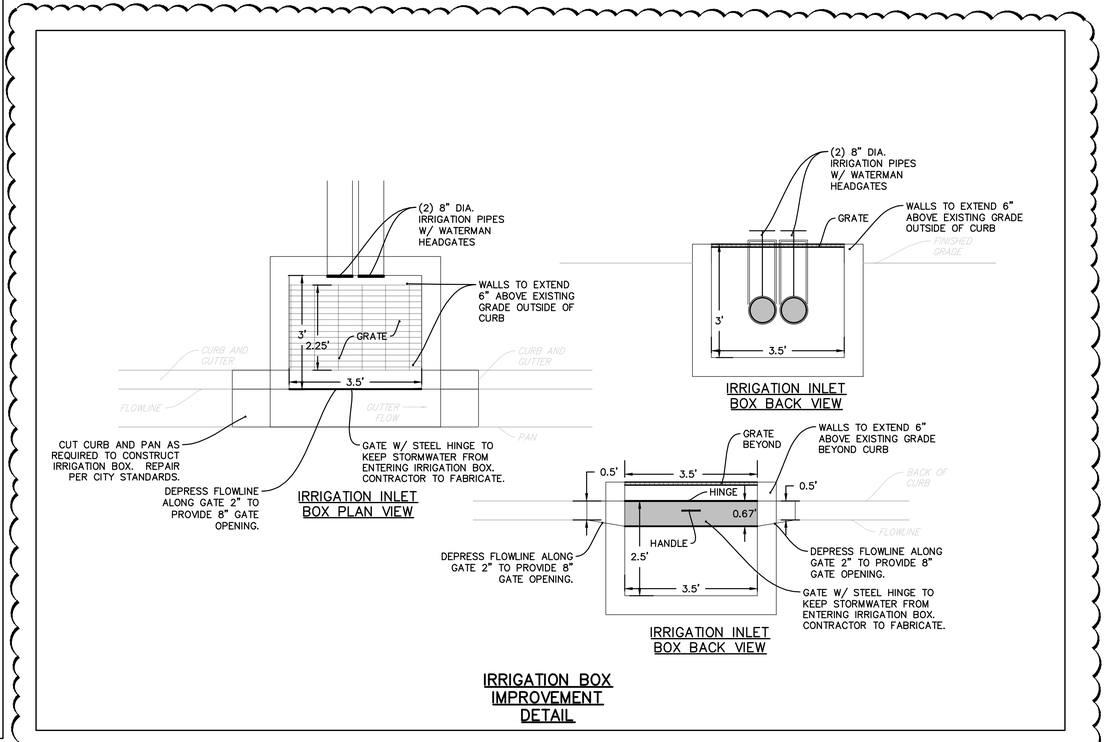
1. **GENERAL**
   A. Before backfilling around taps, secure inspection of installation by ENGINEER.
2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Tape: Teflon tape is required on all taps.
3. **EXECUTION**
   A. Tapping: Place taps a minimum of 36-inches apart. Use a tapping tool that is sized corresponding to the size of the service line to be installed. No taps within 36-inches of end of pipe.
   B. PVC or AC Pipe: A service saddle clamp is required on all PVC and AC pipe taps unless specified otherwise.
   C. Backfill: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   D. Blocks: Clay brick or concrete block required under valve box to assure a 1" or greater space between the box and the corporation stop and pipe assembly.

552



Cover collar for water valve box

Plan **574** August 2001



Revisions:

#	DATE	DESCRIPTION
1	2/27/24	IRRIGATION BOX DESIGN REVISION

COTTONWOOD CONDOMINIUMS
SITE DETAILS
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO. C401 R1

Sheet 6 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

PROFESSIONAL ENGINEER 2/27/24 No. 12990137 ANDREW RAPIEJKO STATE OF UTAH

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ACO StormBrixx®

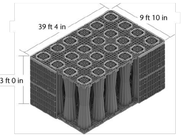
Online Project Configuration

Project Details
Description : COTTONWOOD CONDOS V3
Date : 02-22-2024
City : MOAB
State : UTAH
Zip Code : 84532
Country : USA

Customer Details
Contact : Andrew Rapiejko
Email : mountaincivildurango@gmail.com

Tank Configuration

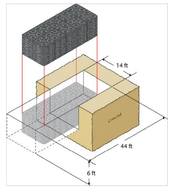
Tank Function	Infiltration
Product	Standard Duty (SD)
Number of Layers	1.0
Total Net Volume (ft³)	1,127.1 ft³
Total Gross Volume (ft³)	1,162.0 ft³
Length of Tank (ft/in)	39 ft 4 in
Width of Tank (ft/in)	9 ft 10 in
Depth of Tank (ft/in)	3 ft 0 in



Cavity & Excavation Details

Length of Cavity (ft/in)	43 ft 4 in
Width of Cavity (ft/in)	13 ft 10 in
Depth of Cavity (ft/in)	5 ft 6 in
Volume of Material to be Excavated (ft³)	3,301.1 ft³
*Membrane Quantity (ft²)	1,230.7 ft²
Cover Dimension (ft/in)	2 ft 0 in
**Backfill Material (ft³)	2,139.2 ft³

* Calculation includes a 15% overlap
** Pavement not accounted for



* Diagram shows cavity size rounded to nearest foot

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Tel : (888) 490-9552
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Project Configuration Inlets, Outlets, and Access

Inlets

	Qty
Inlets	**1**
Remote Access Unit	0
Side Panels	0
Horizontal Pipe Connector	1

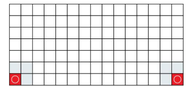
Outlets

	Qty
Outlets	**1**
Remote Access Unit	0
Side Panels	0
Horizontal Pipe Connector	1

Access

	Qty
Access Points	**2**
Remote Access Unit	2
Remote Access Plate	0

Grid Note
The grids below do not represent accurate dimensions or proportions they just give a general guide to both inlet / outlet and access placement on your StormBrixx scheme.



Inlet/Outlet Grid Key
Inlet/Outlet Pipe
Inlet/Outlet using Remote Access Unit

Access Grid Key
Remote Access Unit with maintenance access
Remote Access Plate with maintenance access

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Tel : (888) 490-9552
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Bill of Materials

Pt No.		Description	Qty	Price Each ($)	Extended Price ($)	Weight Each (lbs)	Extended Weight (lbs)
314090		SD Half-Module	100	78.00	7,800.00	21.60	2,160.0
314091		SD Side Panel	50	27.50	1,375.00	7.20	360.0
140213		Stormbrixx Universal top cover	100	9.50	950.00	1.79	179.0
314093		SD Layer Connectors	50	1.00	50.00	0.03	1.5
138141		SD Remote Access Unit	4	260.00	1,040.00	40.00	160.0
314038		Extension Shaft	6	81.00	486.00	4.84	29.0
314053		Remote Access Vented Cover - Ductile Iron	2	275.00	550.00	83.60	167.2
93146		Horizontal Pipe Connector 6" SCH 40	1	121.00	121.00	3.29	3.3
93147		Horizontal Pipe Connector 8" SCH 40	1	174.00	174.00	4.31	4.3
Totals				**Price**	**12,546.00**	**Weight**	**3,064.3**

Notes:
1) These prices are the manufacturer's suggested retail price (MSRP). Please contact your local dealer or ACO Customer Service for more information.

2) You should have received an email with your output results from: no-reply@acosbconfigurator.com If you do not receive the confirmation within a few minutes, please check your spam folder.

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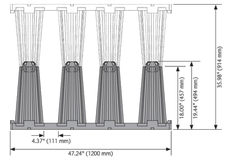
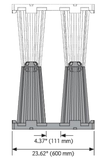
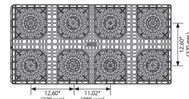
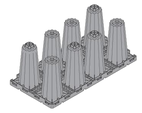
SD Half-Module
part no. 314090

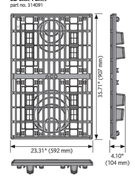






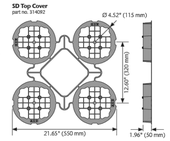


SD Side Panel
part no. 314091

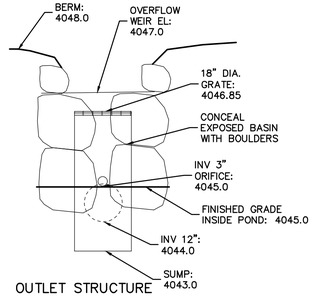


SD Half Layer Side Panel
part no. 314098

SD Top Cover
part no. 314092



ACO Specification Information



OUTLET STRUCTURE DETAIL

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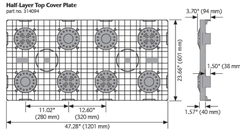
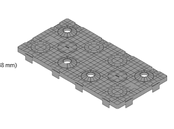
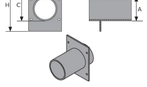
Half Layer Top Cover Plate
part no. 314094





Horizontal Pipe Connector
part no.: see chart

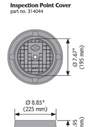


Part No.	A	B in (mm)	C in (mm)	H in (mm)	W in (mm)	L in (mm)
93139	SDR 35 - 4"	2.00 (51)	6.25 (158)	8.25 (209)	6.70 (170)	8.00 (203)
93145	SCH 40 - 4"	2.00 (51)	7.47 (189)	8.29 (210)	6.70 (170)	8.00 (203)
93140	SDR 35 - 6"	2.00 (51)	8.95 (227)	9.93 (252)	10.22 (259)	8.00 (203)
93146	SCH 40 - 6"	2.00 (51)	9.11 (231)	9.93 (252)	10.22 (259)	8.00 (203)
93141	SDR 35 - 8"	2.00 (51)	10.46 (266)	11.39 (289)	11.64 (295)	8.00 (203)
93147	SCH 40 - 8"	2.00 (51)	10.57 (268)	11.39 (289)	11.64 (295)	8.00 (203)
93142	SDR 35 - 12"	2.00 (51)	13.48 (342)	14.30 (363)	16.66 (423)	8.00 (203)
93144	SCH 35 - 15"	2.00 (51)	17.28 (439)	19.25 (489)	19.25 (489)	8.00 (203)

Remote Access Cover (Vented)
part no.: 314053

Remote Access Cover (Non Vented)
part no.: 314041

Inspection Point Cover
part no.: 314044



ACO Specification Information

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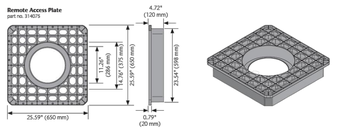
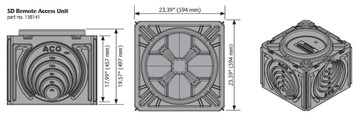
Remote Access Plate
part no. 314075

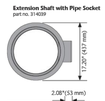


SD Remote Access Unit
part no. 138141

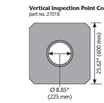


Extension Shaft
part no. 314038

Extension Shaft with Pipe Socket
part no. 314039



Vertical Inspection Point Connector
part no. 27018



ACO Specification Information

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825 W. Beechcraft Street
Casa Grande, AZ 85122
Tel : (888) 490-9552
info@acousa.com

ACO StormBrixx SD Parts Table

Part No.	Length in (mm)	Width in (mm)	Depth in (mm)	Weight lbs (kg)
SD Half-Module	314090	47.24 (1200)	23.62 (600)	19.45 (494)	21.60 (9.80)
SD Side Panel	314091	35.71 (907)	23.31 (592)	1.57 (40)	7.20 (3.30)
SD Half-Layer Side Panel	314098	17.85 (454)	23.31 (592)	1.57 (40)	3.40 (1.54)
SD Top Cover	314092	21.65 (550)	21.65 (550)	1.96 (50)	1.60 (0.70)
Half-Layer Top Cover Plate	314094	47.25 (1200)	23.63 (600)	3.70 (94)	7.70 (3.50)
SD Remote Access Unit	138141	23.39 (594)	23.39 (594)	19.57 (497)	40.00 (18.12)
SD Layer Connector	314093	2.11 (54)	1.75 (44)	1.05 (27)	0.03 (0.02)
Remote Access Plate	314075	25.59 (650)	25.59 (650)	4.72 (120)	10.78 (4.90)
Remote Access Cover - Ductile Iron (Load Class D400)	314043	-	Ø 20.79 (528)	4.34 (110)	86.46 (39.30)
Remote Access Vented Cover - Ductile Iron (Load Class D400)	314053	-	Ø 20.79 (528)	4.34 (110)	83.60 (38.00)
Inspection Point Cover - Ductile Iron (Load Class D400)	314044	-	Ø 8.85 (225)	2.95 (75)	34.54 (15.70)
Extension Shaft	314038	-	Ø 17.21 (437)	13.78 (350)	4.84 (2.60)
Extension Shaft with Pipe Socket	314039	-	Ø 17.21 (437)	13.78 (350)	6.16 (2.80)
Vertical Inspection Point Connector	27018	-	Ø 8.85* (225)	7.87 (200)	5.52 (2.50)
Horizontal Pipe Connectors					
SDR 35 - 4"	93139		4.00" (102)		1.9 (0.87)
SCH 40 - 4"	93145		4.00" (102)		1.9 (0.87)
SDR 35 - 6"	93140		6.00" (152)		3.2 (1.49)
SCH 40 - 6"	93146	8.00 (203)	6.00" (152)	-	3.20 (1.49)
SDR 35 - 8"	93141		8.00" (203)		5.52 (2.50)
SCH 40 - 8"	93147		8.00" (203)		5.52 (2.50)
SDR 35 - 12"	93142		12.00* (305)		5.52 (2.50)
SDR 35 - 15"	93144		15.00* (381)		5.52 (2.50)

*Internal width

Specifications

General
The StormBrixx stormwater Detention*/ Infiltration*/Retention* system shall be ACO StormBrixx SD as supplied by ACO, Inc.

ACO StormBrixx SD meets AASHTO H-20 and HS-20 loading conditions.

Materials
The half-module shall be manufactured from polypropylene and have minimum properties as follows:
Tensile impact strength:
152 ft-lb/in² (319 kJ/m²)
Tensile strength, ultimate:
3,400 psi (23,994 kpa)
Water absorption: 0.01%
Frost proof, salt proof and fuels and oils resistant.

The stormwater tank shall provide an average 97% open area*, holding up to 22.53 ft³ (0.63 m³) per module (2 half-modules assembled) and offer full access to all areas and levels for maintenance.

Geomembranes/Geotextiles
The StormBrixx stormwater system shall be wrapped in appropriate permeable geotextile or impermeable geomembrane* (supplied by others) as indicated by project design engineer.

Accessories
The StormBrixx stormwater system shall be used in conjunction with remote access unit or plate**/extension shaft**/inspection point connector**.

Installation
The StormBrixx stormwater system shall be installed in strict accordance with the manufacturer's installation instructions and recommendations.

*Choose one
**Choose none, one or more
*Configuration and use of side/top panels will marginally impact these figures

ACO, Inc.

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Northeast Sales Office
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While every effort has been taken in compiling the information in this document, All recommendations and suggestions on the use of ACO products are made without guarantee since the conditions of use are beyond the control of the company. It is the customer's responsibility to ensure that each product is fit for its intended purpose and that the actual conditions of use are suitable. ACO, Inc. reserves the right to change products and specifications without notice.

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ACO Specification Information

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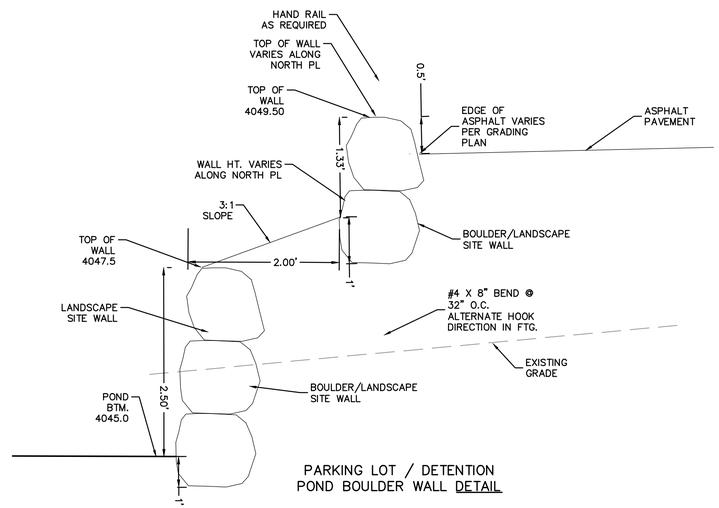
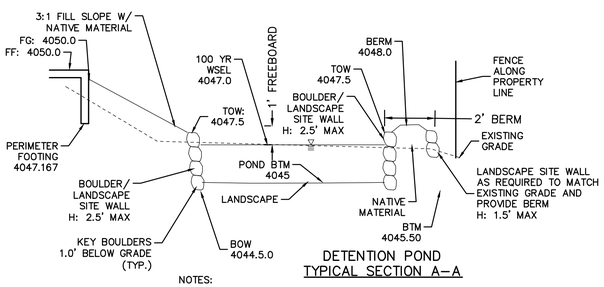


PARKING LOT / DETENTION POND BOULDER WALL DETAIL



DETENTION POND TYPICAL SECTION A–A

NOTES:
1. DETENTION POND BOTTOM, BERM, AND SLOPES SHALL BE ESTABLISHED PER LANDSCAPE PLAN.

1

Revisions:

#	DATE	DESCRIPTION
1	2/27/24	SITE PLAN REVISION PER CITY PLANNING ENGINEERING COMMENTS

COTTONWOOD CONDOMINIUMS
STORM DRAIN DETAILS
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C402 R1

Sheet 7 of 7
Project: 2021-015
Date: 11/1/23
Drawn By: ABR
Checked By:

PROFESSIONAL ENGINEER
2/27/24
No. 12990137
ANDREW
RAPIEJKO
STATE OF UTAH

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712 Eagle Pass
Durango, CO 81301

To: City of Moab
Planning and Engineering Dept.
From: Mountain Civil Consulting, LLC
Date: 8/17/22 (Revised 2/27/24)
RE: Cottonwood Condominiums
City of Moab Project # 2022-0024
Final Drainage Report

I hereby certify that this (Preliminary or Final) Drainage Report for the design of Cottonwood Condominiums was prepared by me (or under my direct supervision) in accordance with the provisions of the Amended Design Criteria for Drainage Studies for the owners thereof. I understand that the City of Moab does not and will not assume liability for drainage facilities designed by others.

Registered Professional Engineer
Andrew Rapiejko, PE
State of Utah No. 12990317

INTRODUCTION

This letter is being provided to demonstrate that the proposed grading and drainage improvements for the Cottonwood Condominiums (Project) meet the City of Moab Infrastructure Design Standards and Storm Drainage Design Criteria (Criteria).

GENERAL LOCATION AND DECRIPTION

Location: 214 S 200, City of Moab 84532

Parcel ID: 01-0B03-0007, 18,776 sf (0.43 acres)

Zoning: R3

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The Project site is bound by City ROW to the north (which includes a driveway and multi-use path), residential development to the west, residential development to the south, and City ROW (200 E) to the east. The west edge of the Project is located within a FEMA mapped floodplain Zone AE while the remainder of the site is in Zone X. See Appendix F for FEMA Floodplain Map. Improvements within the Floodplain will be permitted separately through the City of Moab Floodplain Permit process.

There is no existing storm drain infrastructure within the project site.

There are two curb cuts along 200 E which are used as irrigation turnouts for Moab Irrigation Company water. The irrigation water is taken from these turnouts and is used by landowners to the west of the project.

The Project includes the construction of nine townhome units and supporting infrastructure improvements. The Project includes a total of 0.43 acres. This entire project area will be disturbed during construction, in addition to offsite ROW improvements along 200 E.

DRAINAGE DESIGN CRITERIA

The requirements within the Criteria have been used to analyze the Project hydrology and design the grading and drainage infrastructure improvements. To our knowledge, there are no previous drainage studies or reports applicable to the proposed Project site.

City of Moab Criteria was used for rainfall Depth and Intensity. The SCS-TR55 method has been used to analyze Project hydrology. The 2-, 10-, and 100-year Design Strom recurrence Intervals have been analyzed. Grading and drainage improvements have been planned to meet the requirement of conveying all runoff to an underground detention pond and at grade detention pond which runoff will then be released through a controlled outlet structure which will attenuate and discharge runoff.

The City of Moab has required the detention pond design not allow for exfiltration. It is important to realize that exfiltration will certainly occur in the gravelly sand soils, regardless of this requirement.

DRAINAGE BASINS AND SUB-BASINS

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See Appendices A-C for an illustration of the following information.

Existing Conditions

The native soil types are classified as Shepard Sand, which is Hydrologic Soil Group A. See Appendix E for NRCS Soil Report. The project Geotech report confirmed native soils as sandy gravel to a depth of 19'. These soils are highly infiltrative.

The topography slopes from the W to the E at a slope varying between 3% and 6%. The existing site is moderately vegetated with native trees, grasses, and bushes.

The west edge of the Project site is located in FEMA Zone AE (100-year floodplain) and the remainder of the site is in Zone X (i.e. not in the 100-year Floodplain). Generally, the existing site is a single drainage basin and discharges to the west side of the Project site. There are private irrigation facilities on the site which historically provide Moab Irrigation Company water to the Project site and neighbors to the east.

The site topography generally slopes from the E edge of the site to the W edge of the site. There are no major drainage ways within the site or concentrated points of discharge at the edges of the site. There is an existing 30" dia. RCP located north of the project site, within the Cit of Moab ROW for the multiuse pedestrian path.

Developed Conditions

The proposed grading and drainage plan will follow historic drainage patterns. Runoff from the Project site will be routed through the site using a storm drain collection system, roof drains, curb and gutter, a culvert, and swales where it will be discharged to the stormwater detention pond facilities. Both underground and at grade stormwater detention is proposed. The parking areas, access drives, and north, south, the south 1/3rd of the building, and west landscape areas are tributary to the at grade detention pond while the north 2/3 of the building and east landscape area are tributary to the underground detention facility. This layout of the stormwater system will reduce the amount of sediment and trash introduced to the underground facility. The outfall from the detention pond will be connected to the existing City of Moab 30" dia. storm sewer north of the project site within the multiuse trail area. The connection to the City of Moab storm sewer system will require the construction of a junction box.

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Runoff from the adjacent ROW corridors to the east will be directed away from the Project site into the adjacent ROW. Topography within the site will be modified to accommodate the proposed site improvements yet follow historic runoff patterns.

Upon final buildout the site will include the new building, asphalt parking areas, sidewalks, and landscaping in place of the historic native landscape lot.

Proposed basins are described below:

Basin P1 (CN = 93, Area = 0.12 acres)– This area includes the north portion of the project site and includes access, parking, and adjacent landscape areas. This basin discharges to the detention pond at the NW corner of the site.

Basin P2 (CN = 86, Area = 0.15 acres) – This area includes the north 2/3 of the building and east landscape area. This basin discharges to the underground detention pond.

Basin P3 (CN = 70, Area = 0.32 acres) – This area includes the landscaped areas south and west (detention pond area) of the building and the southern 1/3rd of the building. This basin discharges to the perimeter swale and culvert are tributary to the detention pond.

Reference Exhibit B – Grading and Drainage Plan and Exhibit C – DR01 - Drainage Map for an illustration developed drainage conditions.

DRAINAGE FACILITY DESIGN

All stormwater system improvements within the project site and up to the point of connection with the City of Moab storm drain system shall be privately owned and maintained. Runoff from Project site areas will be routed through the site and discharged to the detention pond facilities. Conveyance elements within the site have been designed to handle minor and major storm events.

Hydrologic calculation information can be found in Appendix D – Hydrologic Calculations. It is worth noting that the hydrologic analysis was completed using Autodesk Storm and Sanitary Analysis software, and that the detention ponds were modeled as single facility as they are hydraulically connected.

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Hydraulic calculation information can be found in Appendix E – Hydraulic Calculations.

Detention and Water Quality

The project will increase runoff from the project site. Per Criteria, stormwater detention is required. The detention facility has been designed applying City standards and criteria.

The required pond volume was determined using NRCS TR-55 methodology, and the proposed detention volume provides 20% more volume as required by the City of Moab. See calculation below.

NRCS TR 55 Detention Volume Runoff Calculation			
Chapter 6 Storage Volume for Detention Basins			
Estimating Vs (Storage Volume Required)			
Am=	0.43	acres	
	0.000672	mi^2	
qo =	0.086	cfs	(.2 cfs/acre, CoM standard)
qi	2.15	cfs	SSA Analysis, 100 yr discharge developed
qo/qi	0.04		
Vs/Vr	0.75		Figure 6-1 NRCS TR 55 (off chart due to Moab discharge requirement of .2 cfs/acre)
Q	1.34	in	(weighted from SSA Analysis, 100 yr runoff)
Vr =	0.048	acre feet	(Eq. 6-1)
	2098	cf	Volume of runoff
Vs=	1574	cf	Storage Volume Required (eq. 6-2)
Vp=	**1993**		**Volume Provided**
	27%		**% increase**

As previously discussed, two stormwater detention facilities are proposed. This layout allows for the underground detention system to only collect runoff from 2/3rds of the building and a portion of the one landscape zone, while the at grade detention facility will collect runoff from the site parking areas which will include more sediment and trash that will be easy to remove.

The at grade detention pond will provide 866 cf of storage. The outlet structure consists of an 18" dia grate and 3" dia. orifice at the bottom of the pond. A 2' wide overflow weir is proposed in the event of overflow. Because the 3-inch diameter orifice has limited ability to attenuate runoff, the release rate in the 100-yr event is 0.32 cfs which is larger than the City requirement of 0.2 cfs/acre which for the 0.43 acre site = .086 cfs. The outlet pipe for the detention pond is 12" Dia. and will be connected to the City Storm sewer system.

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The underground detention pond will provide 1,127 cf of storage and will be hydraulically connected to the above ground detention pond. The ACO Stormbrixx system is proposed but other systems may be used so long as they meet storage requirements. The underground system will include maintenance access.

The detention facility water storage elevations are located below the proposed structure foundation, eliminating the concern of ponding water infiltrating into the building foundation zone.
The detention pond bottom elevation is 4045, the overflow weir is at 4047 providing a two foot depth. The detention pond berm is at an elevation of 4048. The detention pond, according to the hydraulic model, will reach an elevation of 4046.68 during the 100 year event, or 1.68' deep.

Undetained calculated discharge rates from the project site area to the detention pond area as follows:
2-yr = 0.49 cfs
10-yr = 0.80 cfs
100-yr = 2.04 cfs

Calculated discharge rates from the detention pond facilities Project are calculated as follows:
2-yr = 0.12 cfs
10-yr = 0.16 cfs
100-yr = 0.30 cfs

Note that the 100 yr discharge is .70 cfs/acre which larger than the Criteria allowable rate of 0.2 cfs/acre due to City of Moab Engineering requirement of min. orifice size of 3". If smaller orifice sizes were allowed reduced runoff volumes could be achieved.

SUMMARY

The proposed grading and drainage improvements have been developed to meet Moab Criteria and provide a functional and low maintenance drainage system. The proposed drainage system was developed applying best management practices. While the Project will increase runoff rates, the

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stormwater detention facility will mitigate impact of increased runoff to downstream properties. The grading plan has been developed to eliminate potential flooding of any structures.

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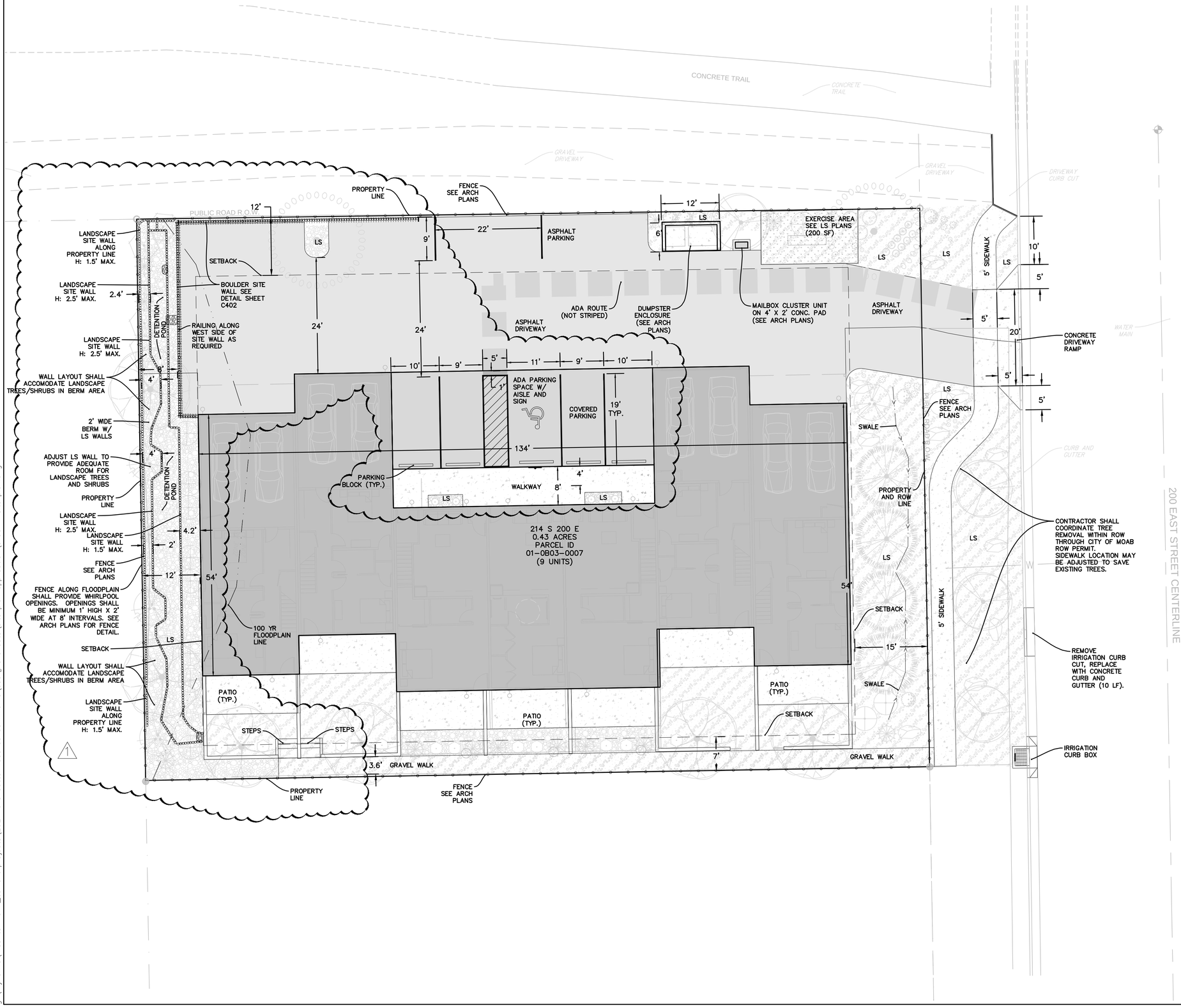
APPENDICES

A. C100-SITE PLAN
B. C300-GRADING AND DRAINAGE PLAN
C. DR01 – DRAINAGE MAP
D. HYDROLOGIC / HYDRAULIC CALCULATIONS – AUTODESK STORM AND SANITARY SEWER ANALYSIS - SCS TR55 METHOD (2YR, 10 YR, 100 YR)
E. ADDITIONAL HYDRAULIC CALCULATIONS
F. NRCS SOIL REPORT
G. FEMA FLOODPLAIN MAP – FIRMETTE
H. ACO STORMBRIXX UNDERGROUND DETENTION POND INFORMATION



SITE PLAN NOTES:

1. SEE ARCHITECTURAL SITE PLAN FOR ADDITIONAL DETAIL OF SITE IMPROVEMENTS INCLUDING FENCING.
2. SEE LANDSCAPE PLANS FOR LANDSCAPE IMPROVEMENTS.
3. SEE LIGHTING PLANS FOR LIGHTING IMPROVEMENTS.
4. ALL IMPROVEMENTS WITHIN RIGHT OF WAY SHALL BE COMPLETED PER CITY OF MOAB STANDARDS AND SPECIFICATIONS.
5. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO COMPLETING WORK.
6. ADA ROUTE SHOWN FOR REFERENCE ONLY. ADA ROUTE IS NOT TO BE STRIPED.

GRAPHIC SCALE

0 5 10 FEET 20

0 ¼ ½ ¾ 1 INCHES 2

Revisions:

#	DATE	DESCRIPTION
1	2/27/24	SITE PLAN REVISION PER CITY PLANNING ENGINEERING COMMENTS

COTTONWOOD CONDOMINIUMS
SITE PLAN
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C100 R1

Sheet 2 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

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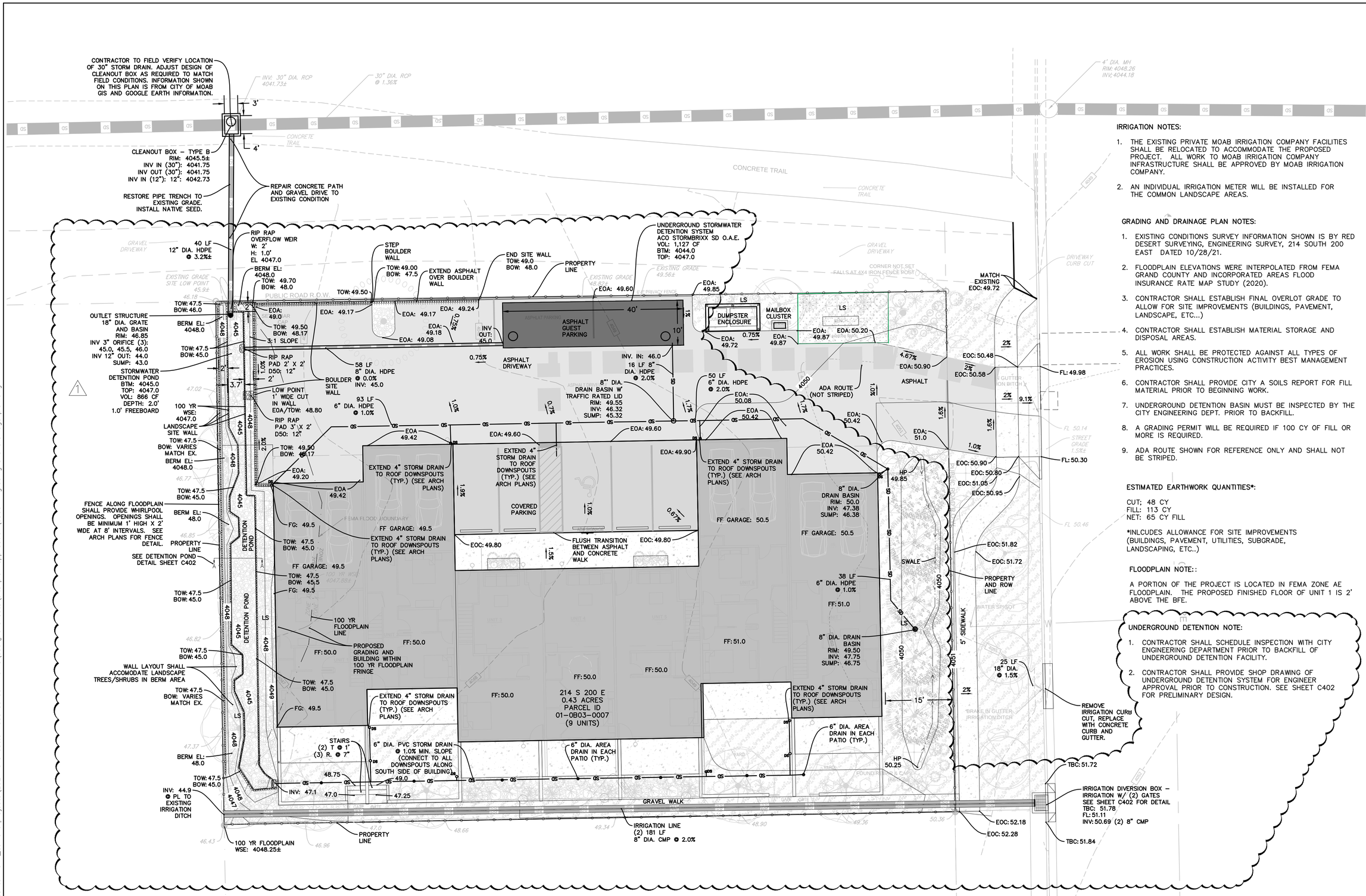

IRRIGATION NOTES:

1. THE EXISTING PRIVATE MOAB IRRIGATION COMPANY FACILITIES SHALL BE RELOCATED TO ACCOMMODATE THE PROPOSED PROJECT. ALL WORK TO MOAB IRRIGATION COMPANY INFRASTRUCTURE SHALL BE APPROVED BY MOAB IRRIGATION COMPANY.
2. AN INDIVIDUAL IRRIGATION METER WILL BE INSTALLED FOR THE COMMON LANDSCAPE AREAS.

GRADING AND DRAINAGE PLAN NOTES:

1. EXISTING CONDITIONS SURVEY INFORMATION SHOWN IS BY RED DESERT SURVEYING, ENGINEERING SURVEY, 214 SOUTH 200 EAST DATED 10/28/21.
2. FLOODPLAIN ELEVATIONS WERE INTERPOLATED FROM FEMA GRAND COUNTY AND INCORPORATED AREAS FLOOD INSURANCE RATE MAP STUDY (2020).
3. CONTRACTOR SHALL ESTABLISH FINAL OVERLOT GRADE TO ALLOW FOR SITE IMPROVEMENTS (BUILDINGS, PAVEMENT, LANDSCAPE, ETC...)
4. CONTRACTOR SHALL ESTABLISH MATERIAL STORAGE AND DISPOSAL AREAS.
5. ALL WORK SHALL BE PROTECTED AGAINST ALL TYPES OF EROSION USING CONSTRUCTION ACTIVITY BEST MANAGEMENT PRACTICES.
6. CONTRACTOR SHALL PROVIDE CITY A SOILS REPORT FOR FILL MATERIAL PRIOR TO BEGINNING WORK.
7. UNDERGROUND DETENTION BASIN MUST BE INSPECTED BY THE CITY ENGINEERING DEPT. PRIOR TO BACKFILL.
8. A GRADING PERMIT WILL BE REQUIRED IF 100 CY OF FILL OR MORE IS REQUIRED.
9. ADA ROUTE SHOWN FOR REFERENCE ONLY AND SHALL NOT BE STRIPED.

ESTIMATED EARTHWORK QUANTITIES*:

CUT: 48 CY
FILL: 113 CY
NET: 65 CY FILL

*INLCUDES ALLOWANCE FOR SITE IMPROVEMENTS (BUILDINGS, PAVEMENT, UTILITIES, SUBGRADE, LANDSCAPING, ETC..)

FLOODPLAIN NOTE::

A PORTION OF THE PROJECT IS LOCATED IN FEMA ZONE AE FLOODPLAIN. THE PROPOSED FINISHED FLOOR OF UNIT 1 IS 2' ABOVE THE BFE.

UNDERGROUND DETENTION NOTE:

1. CONTRACTOR SHALL SCHEDULE INSPECTION WITH CITY ENGINEERING DEPARTMENT PRIOR TO BACKFILL OF UNDERGROUND DETENTION FACILITY.
2. CONTRACTOR SHALL PROVIDE SHOP DRAWING OF UNDERGROUND DETENTION SYSTEM FOR ENGINEER APPROVAL PRIOR TO CONSTRUCTION. SEE SHEET C402 FOR PRELIMINARY DESIGN.

GRAPHIC SCALE
0 5 10 FEET 20
0 ¼ ½ ¾ 1 INCHES 2

Revisions: #	DATE	DESCRIPTION
1	2/27/24	SITE PLAN REVISION PER CITY PLANNING ENGINEERING COMMENTS

COTTONWOOD CONDOMINIUMS
OVERLOT GRADING PLAN
CITY OF MOAB, UTAH

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PLAN NO.
C300 R1

Sheet 4 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

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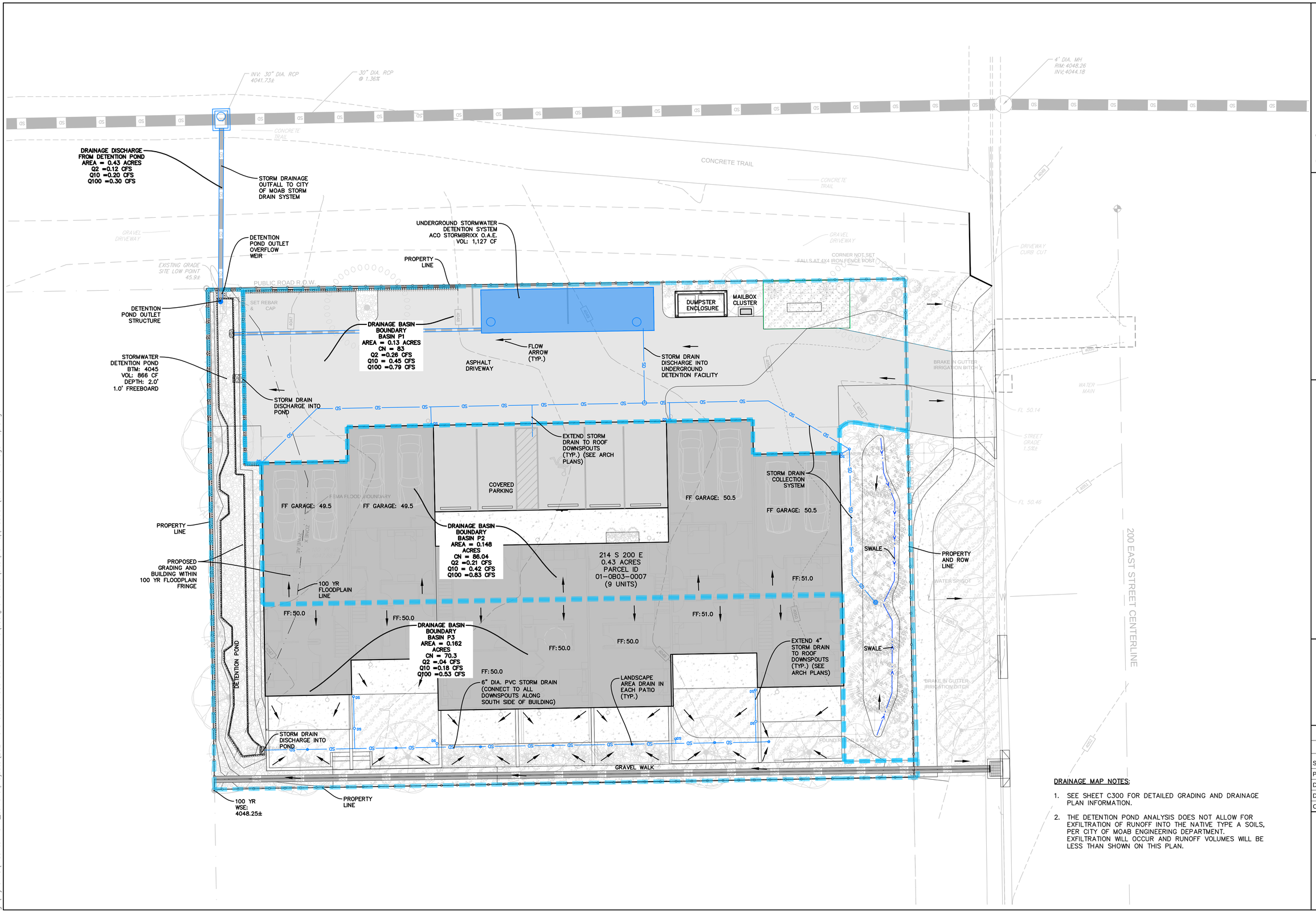

DRAINAGE MAP NOTES:

1. SEE SHEET C300 FOR DETAILED GRADING AND DRAINAGE PLAN INFORMATION.
2. THE DETENTION POND ANALYSIS DOES NOT ALLOW FOR EXFILTRATION OF RUNOFF INTO THE NATIVE TYPE A SOILS, PER CITY OF MOAB ENGINEERING DEPARTMENT. EXFILTRATION WILL OCCUR AND RUNOFF VOLUMES WILL BE LESS THAN SHOWN ON THIS PLAN.

GRAPHIC SCALE
0 5 10 FEET 20
0 ¼ ½ ¾ 1 INCHES 2

Revisions:

#	DATE	DESCRIPTION

COTTONWOOD CONDOMINIUMS
DRAINAGE MAP
CITY OF MOAB, UTAH

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PLAN NO.
DR01

Sheet of
Project: 2021-015
Date: 2/27/24
Drawn By: ABR
Checked By:

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Project Description

File Name	Cottonwood Condos - proposed V2 no exfiltration.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Kinematic Wave
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	YES

Analysis Options

Start Analysis On	00:00:00	0:00:00
End Analysis On	00:00:00	0:00:00
Start Reporting On	00:00:00	0:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	30	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	3
Nodes	4
Junctions	3
Outfalls	0
Flow Diversions	0
Inlets	0
Storage Nodes	1
Links	4
Channels	0
Pipes	1
Pumps	0
Orifices	2
Weirs	1
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1	GRANDCOUNTY	Time Series	2YR	Cumulative	inches				0.00	

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	P-1	0.12	484.00	93.08	1.17	0.59	0.07	0.26	0 00:05:00
2	P-2	0.15	484.00	86.04	1.17	0.29	0.04	0.21	0 00:05:00
3	P-3	0.16	484.00	70.32	1.17	0.02	0.00	0.04	0 00:05:00

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft^2)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	3-Jun	Junction	4044.00	4046.00	4045.00	0.00	0.00	0.10	4044.08	0.00	1.92	0 00:00	0.00	0.00
2	5-Jun	Junction	4046.00	4047.00	4045.00	0.00	0.00	0.00	4046.00	0.00	3.00	0 00:00	0.00	0.00
3	Out-01	Junction	4042.73	4046.00	4045.00	0.00	0.00	0.10	4046.00	0.00	0.00	0 00:00	0.00	0.00
4	POND1	Storage Node	4045.00	4048.00	4045.00		0.00	0.49	4045.28				0.00	0.00

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)	(ft)		(min)	
1	Link-04	Pipe	3-Jun	Out-01	40.00	4044.00	4042.73	3.1700	12.000	0.0100	0.10	8.25	0.01	3.52	0.08	0.08	0.00	Calculated
2	Orifice-01	Orifice	POND1	3-Jun		4045.00	4044.00		18.000		0.00							
3	Orifice-02	Orifice	POND1	3-Jun		4045.00	4044.00		3.000		0.10							
4	Weir-01	Weir	POND1	5-Jun		4045.00	4046.00				0.00							

Subbasin Hydrology

Subbasin : P-1

Input Data

Area (ac)	0.12
Peak Rate Factor	484
Weighted Curve Number	93.08
Rain Gage ID	GRANDCOUNTY

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.11	A	98
> 75% grass cover, Good	0.01	A	39
Composite Area & Weighted CN	0.12		93.08

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

Where :

Tc = Time of Concentration (hr)
n = Manning's roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 * (Sf^0.5) (unpaved surface)
V = 20.3282 * (Sf^0.5) (paved surface)
V = 15.0 * (Sf^0.5) (grassed waterway surface)
V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
V = 7.0 * (Sf^0.5) (short grass pasture surface)
V = 5.0 * (Sf^0.5) (woodland surface)
V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation :

V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
R = Aq / Wp
Tc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft^2)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's roughness

Sheet Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.0015	0	0
Flow Length (ft) :	50	0	0
Slope (%) :	1	0	0
2 yr, 24 hr Rainfall (in) :	1.07	0	0
Velocity (ft/sec) :	2.58	0	0
Computed Flow Time (min) :	0.32	0	0

Shallow Concentrated Flow Computations	Flowpath A	Flowpath B	Flowpath C
Flow Length (ft) :	50	0	0
Slope (%) :	0.03	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	0.35	0	0
Computed Flow Time (min) :	2.38	0	0

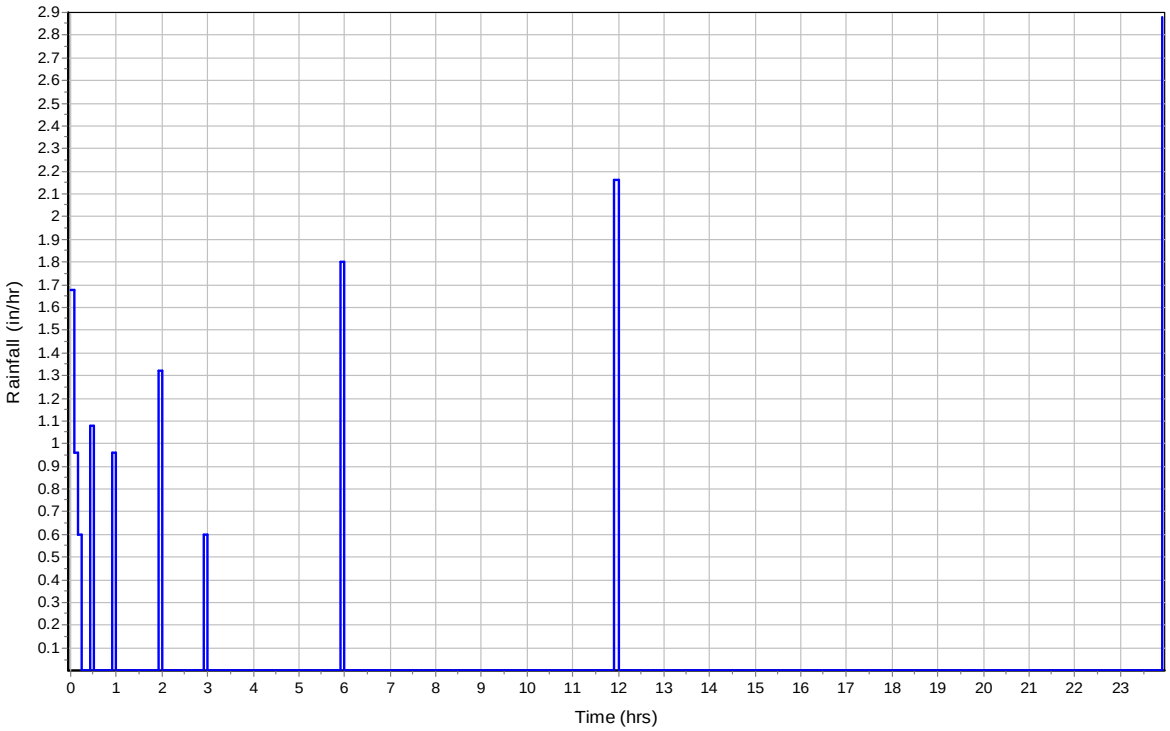
Total TOC (min) 2.70

Subbasin Runoff Results

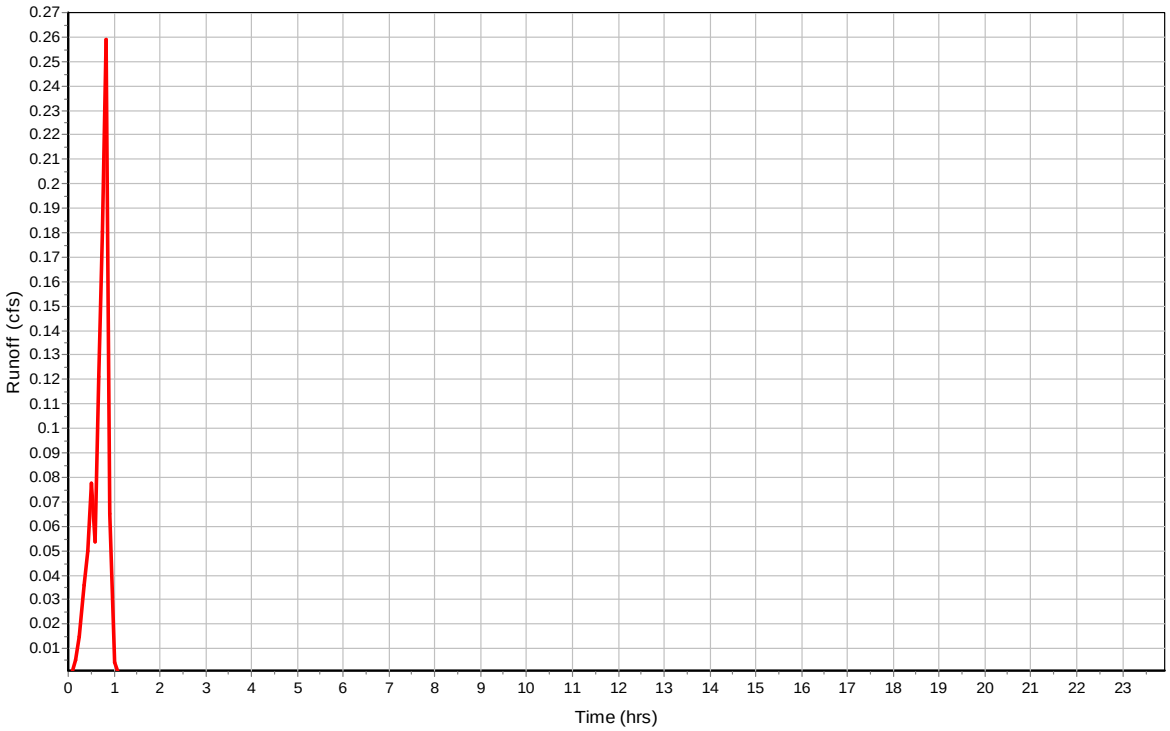
Total Rainfall (in)	1.17
Total Runoff (in)	0.59
Peak Runoff (cfs)	0.26
Weighted Curve Number	93.08
Time of Concentration (days hh:mm:ss)	0 00:02:42

Subbasin : P-1

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : P-2

Input Data

Area (ac)	0.15
Peak Rate Factor	484
Weighted Curve Number	86.04
Rain Gage ID	GRANDCOUNTY

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.12	A	98
> 75% grass cover, Good	0.03	A	39
Composite Area & Weighted CN	0.15		86.04

Time of Concentration

Sheet Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.05	0	0
Flow Length (ft) :	20	0	0
Slope (%) :	25	0	0
2 yr, 24 hr Rainfall (in) :	1.07	0	0
Velocity (ft/sec) :	0.47	0	0
Computed Flow Time (min) :	0.71	0	0

Channel Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.01	0	0
Flow Length (ft) :	100	0	0
Channel Slope (%) :	1	0	0
Cross Section Area (ft^2) :	0.196	0	0
Wetted Perimeter (ft) :	3.71	0	0
Velocity (ft/sec) :	2.1	0	0
Computed Flow Time (min) :	0.79	0	0

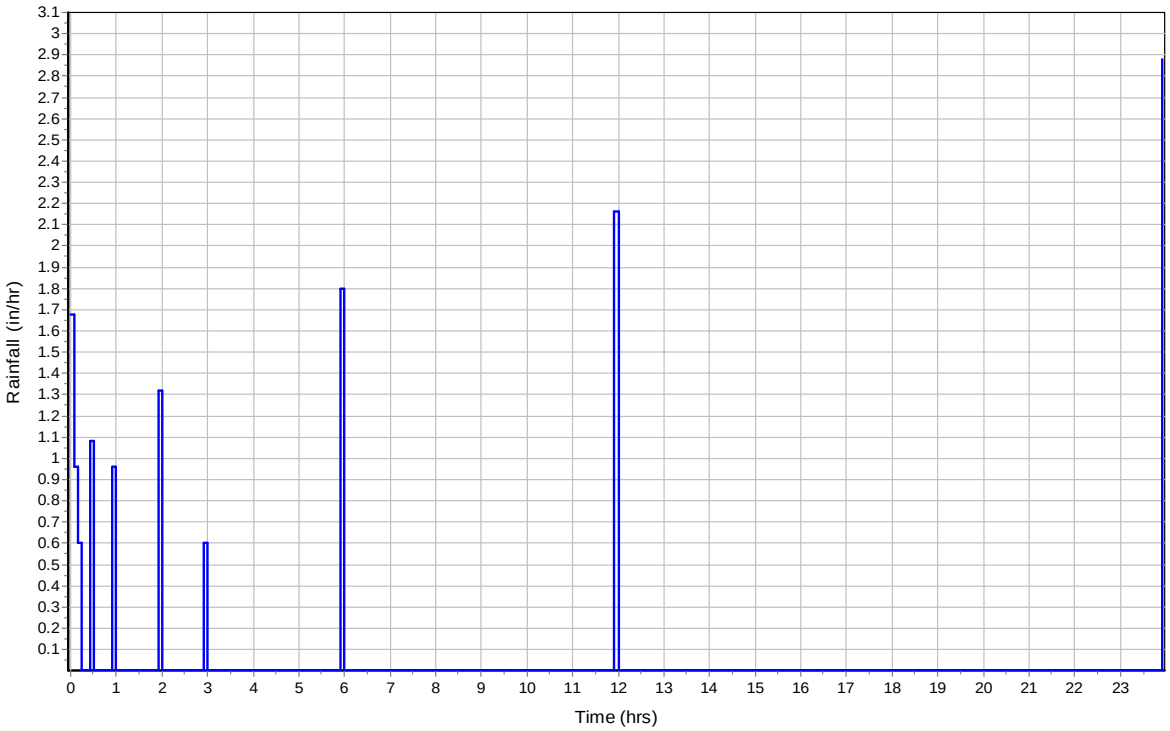
Total TOC (min) 1.50

Subbasin Runoff Results

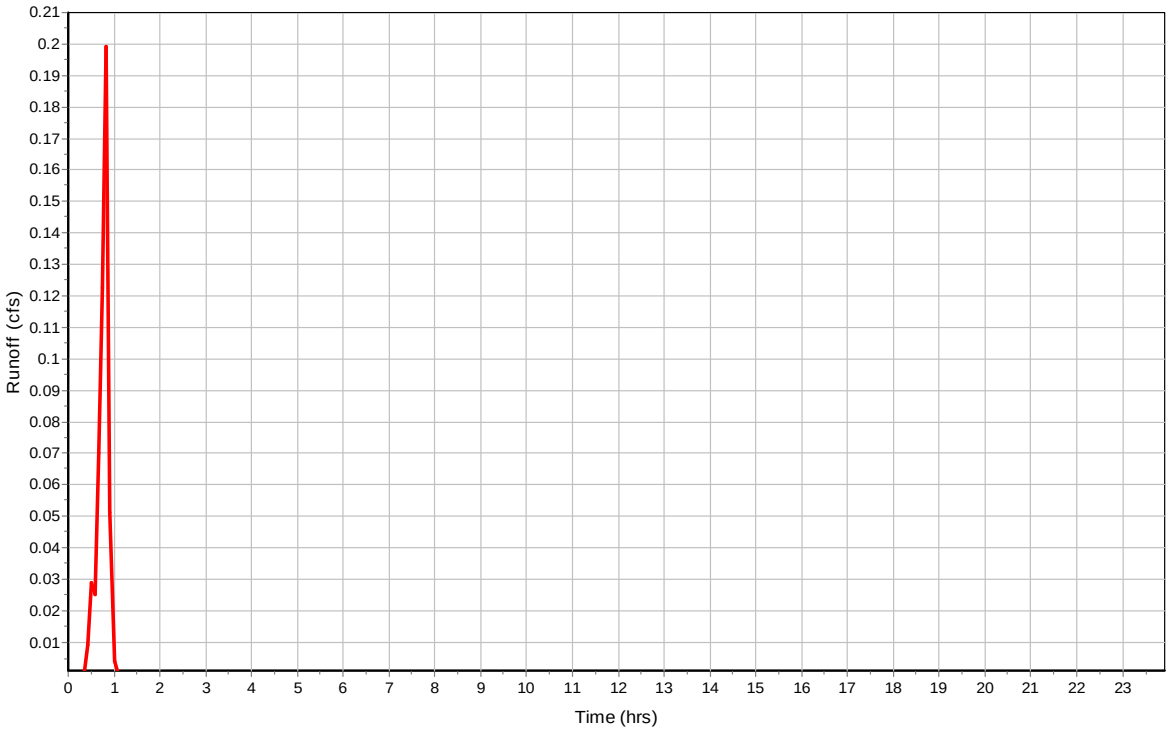
Total Rainfall (in)	1.17
Total Runoff (in)	0.29
Peak Runoff (cfs)	0.21
Weighted Curve Number	86.04
Time of Concentration (days hh:mm:ss)	0 00:01:30

Subbasin : P-2

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : P-3

Input Data

Area (ac)	0.16
Peak Rate Factor	484
Weighted Curve Number	70.32
Rain Gage ID	GRANDCOUNTY

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
> 75% grass cover, Good	0.08	A	39
Paved parking & roofs	0.09	A	98
Composite Area & Weighted CN	0.17		70.32

Time of Concentration

Sheet Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.02	0	0
Flow Length (ft) :	10	0	0
Slope (%) :	3	0	0
2 yr, 24 hr Rainfall (in) :	1.07	0	0
Velocity (ft/sec) :	0.37	0	0
Computed Flow Time (min) :	0.46	0	0

Channel Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.025	0	0
Flow Length (ft) :	150	0	0
Channel Slope (%) :	1	0	0
Cross Section Area (ft^2) :	0.375	0	0
Wetted Perimeter (ft) :	1.8	0	0
Velocity (ft/sec) :	2.09	0	0
Computed Flow Time (min) :	1.19	0	0

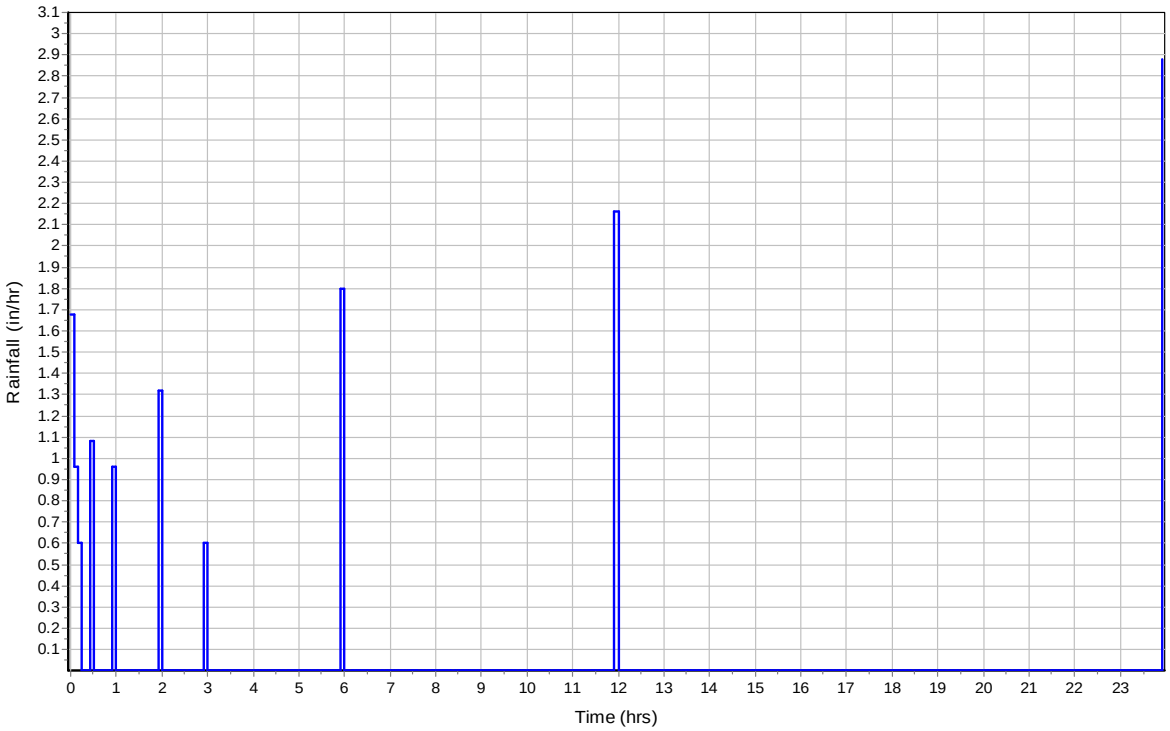
Total TOC (min) 1.65

Subbasin Runoff Results

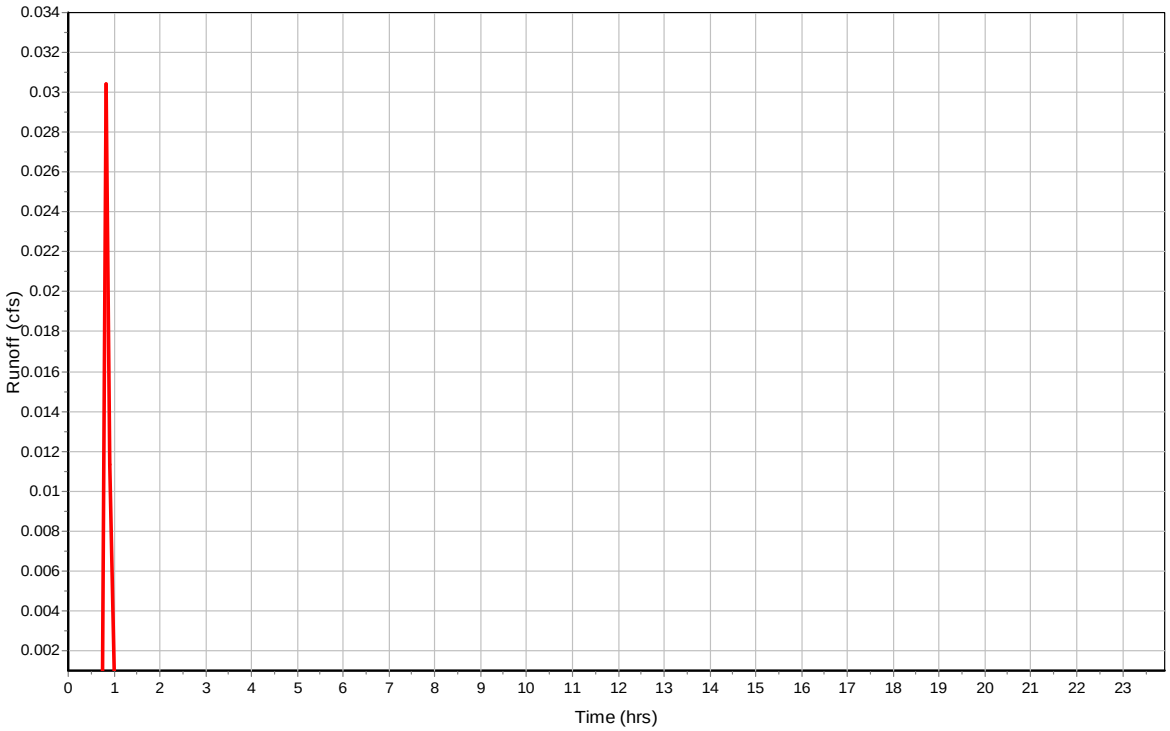
Total Rainfall (in)	1.17
Total Runoff (in)	0.02
Peak Runoff (cfs)	0.04
Weighted Curve Number	70.32
Time of Concentration (days hh:mm:ss)	0 00:01:39

Subbasin : P-3

Rainfall Intensity Graph



Runoff Hydrograph



Junction Input

SN	Element ID	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Ground/Rim (Max) Offset (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Surcharge Elevation (ft)	Surcharge Depth (ft)	Ponded Area (ft^2)	Minimum Pipe Cover (in)
1	3-Jun	4044.00	4046.00	2.00	4045.00	1.00	0.00	-4046.00	0.00	0.00
2	5-Jun	4046.00	4047.00	1.00	4045.00	-1.00	0.00	-4047.00	0.00	0.00
3	Out-01	4042.73	4046.00	3.27	4045.00	2.27	0.00	-4046.00	0.00	0.00

Junction Results

SN	Element ID	Peak Inflow (cfs)	Peak Lateral Inflow (cfs)	Max HGL Elevation Attained (ft)	Max HGL Depth Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Average HGL Elevation Attained (ft)	Average HGL Depth Attained (ft)	Time of Max HGL Occurrence (days hh:mm)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	3-Jun	0.10	0.00	4044.08	0.08	0.00	1.92	4044.01	0.01	0 01:01	0 00:00	0.00	0.00
2	5-Jun	0.00	0.00	4046.00	0.00	0.00	3.00	4046.00	0.00	0 00:00	0 00:00	0.00	0.00
3	Out-01	0.10	0.00	4046.00	3.27	0.00	0.00	4045.15	2.42	0 00:21	0 00:00	0.00	0.00

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	Link-04	40.00	4044.00	0.00	4042.73	0.00	1.27	3.1700	CIRCULAR	12.000	12.000	0.0100	0.5000	0.5000	0.0000	0.00	No	1

Pipe Results

SN	Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
		(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1	Link-04	0.10	0 01:02	8.25	0.01	3.52	0.19	0.08	0.08	0.00		Calculated

Storage Nodes

Storage Node : POND1

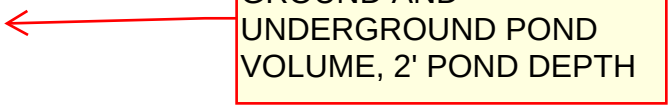
Input Data

Invert Elevation (ft)	4045.00
Max (Rim) Elevation (ft)	4048.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	4045.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

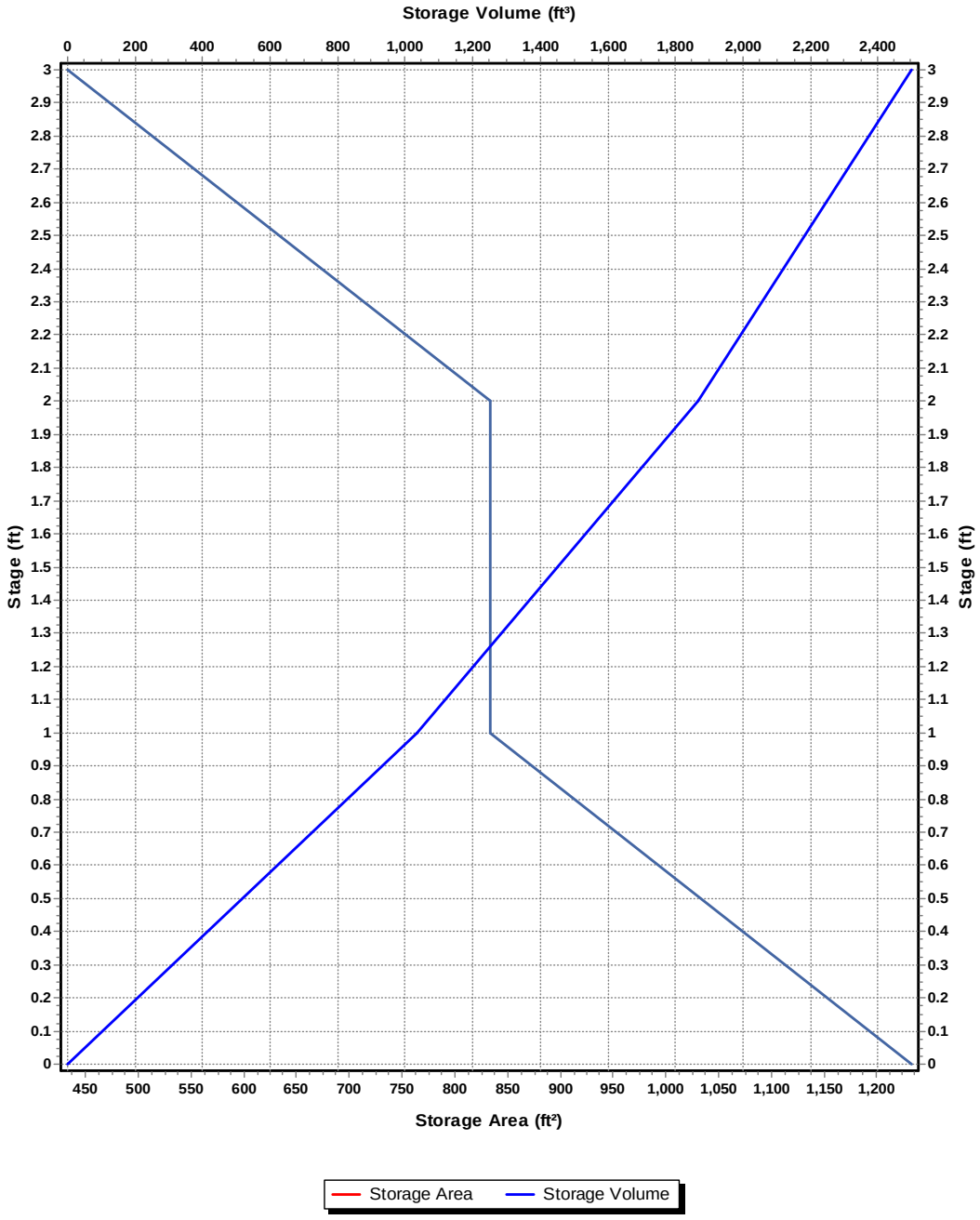
Storage Area Volume Curves

Storage Curve : POND1

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	1233	0
1	833	1033
2	833	1866
3	433	2499



Storage Area Volume Curves



Storage Node : POND1 (continued)

Outflow Weirs

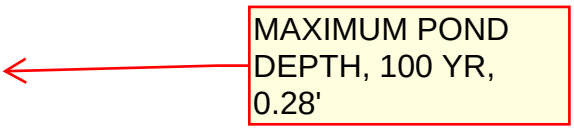
SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-01	Rectangular	No	4047.00	2.00	1.00	1.00	3.33

Outflow Orifices

SN	Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1	Orifice-01	Bottom	CIRCULAR	No	18.00			4046.85	0.61
2	Orifice-02	Side	CIRCULAR	No	3.00			4045.00	0.61

Output Summary Results

Peak Inflow (cfs)	0.49
Peak Lateral Inflow (cfs)	0.49
Peak Outflow (cfs)	0.1
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	4045.28
Max HGL Depth Attained (ft)	0.28
Average HGL Elevation Attained (ft)	4045.02
Average HGL Depth Attained (ft)	0.02
Time of Max HGL Occurrence (days hh:mm)	0 01:01
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0



Project Description

File Name	Cottonwood Condos - proposed V2 no exfiltration.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Kinematic Wave
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	YES

Analysis Options

Start Analysis On	00:00:00	0:00:00
End Analysis On	00:00:00	0:00:00
Start Reporting On	00:00:00	0:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	30	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	3
Nodes	4
Junctions	3
Outfalls	0
Flow Diversions	0
Inlets	0
Storage Nodes	1
Links	4
Channels	0
Pipes	1
Pumps	0
Orifices	2
Weirs	1
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1	GRANDCOUNTY	Time Series	10YR	Cumulative	inches				0.00	

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	P-1	0.12	484.00	93.08	1.74	1.08	0.13	0.45	0 00:05:00
2	P-2	0.15	484.00	86.04	1.74	0.66	0.10	0.42	0 00:05:00
3	P-3	0.16	484.00	70.32	1.74	0.16	0.03	0.18	0 00:05:00

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft^2)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	3-Jun	Junction	4044.00	4046.00	4045.00	0.00	0.00	0.16	4044.10	0.00	1.90	0 00:00	0.00	0.00
2	5-Jun	Junction	4046.00	4047.00	4045.00	0.00	0.00	0.00	4046.00	0.00	3.00	0 00:00	0.00	0.00
3	Out-01	Junction	4042.73	4046.00	4045.00	0.00	0.00	0.16	4046.00	0.00	0.00	0 00:00	0.00	0.00
4	POND1	Storage Node	4045.00	4048.00	4045.00		0.00	1.01	4045.59				0.00	0.00

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)	(ft)		(min)	
1	Link-04	Pipe	3-Jun	Out-01	40.00	4044.00	4042.73	3.1700	12.000	0.0100	0.16	8.25	0.02	4.10	0.10	0.10	0.00	Calculated
2	Orifice-01	Orifice	POND1	3-Jun		4045.00	4044.00		18.000		0.00							
3	Orifice-02	Orifice	POND1	3-Jun		4045.00	4044.00		3.000		0.16							
4	Weir-01	Weir	POND1	5-Jun		4045.00	4046.00				0.00							

Subbasin Hydrology

Subbasin : P-1

Input Data

Area (ac)	0.12
Peak Rate Factor	484
Weighted Curve Number	93.08
Rain Gage ID	GRANDCOUNTY

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.11	A	98
> 75% grass cover, Good	0.01	A	39
Composite Area & Weighted CN	0.12		93.08

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

Where :

Tc = Time of Concentration (hr)
n = Manning's roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 * (Sf^0.5) (unpaved surface)
V = 20.3282 * (Sf^0.5) (paved surface)
V = 15.0 * (Sf^0.5) (grassed waterway surface)
V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
V = 7.0 * (Sf^0.5) (short grass pasture surface)
V = 5.0 * (Sf^0.5) (woodland surface)
V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation :

V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
R = Aq / Wp
Tc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft^2)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's roughness

Sheet Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.0015	0	0
Flow Length (ft) :	50	0	0
Slope (%) :	1	0	0
2 yr, 24 hr Rainfall (in) :	1.07	0	0
Velocity (ft/sec) :	2.58	0	0
Computed Flow Time (min) :	0.32	0	0

Shallow Concentrated Flow Computations	Flowpath A	Flowpath B	Flowpath C
Flow Length (ft) :	50	0	0
Slope (%) :	0.03	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	0.35	0	0
Computed Flow Time (min) :	2.38	0	0

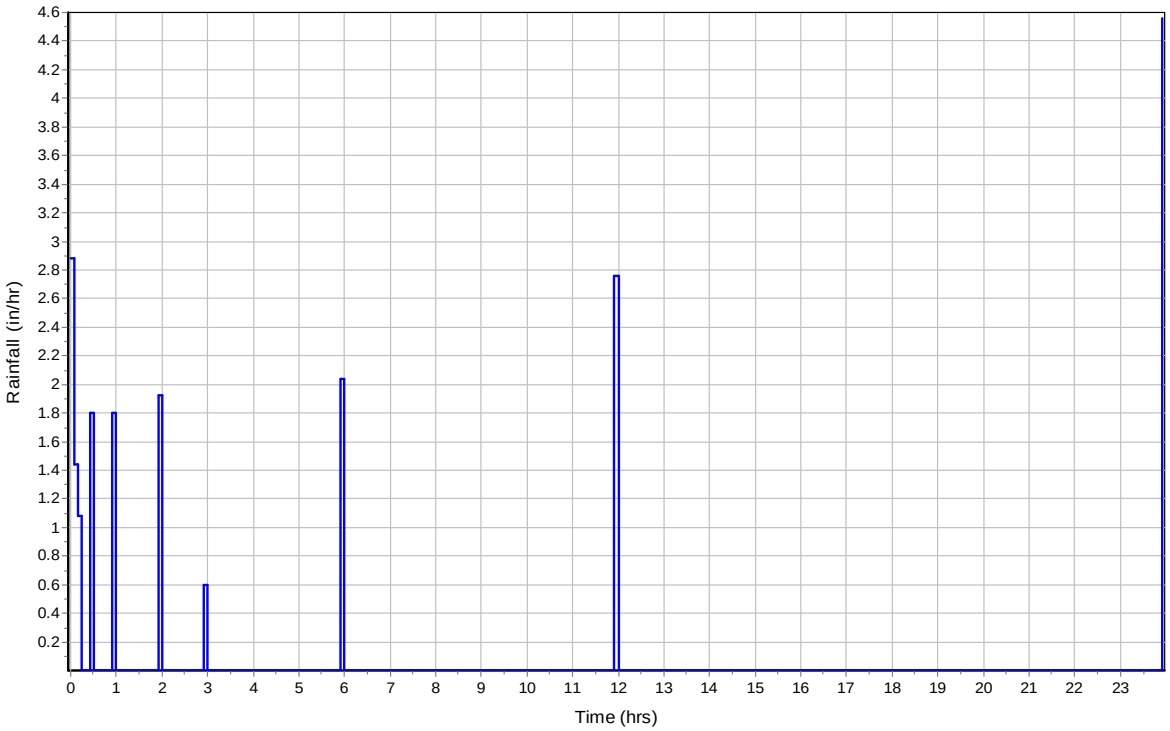
Total TOC (min) 2.70

Subbasin Runoff Results

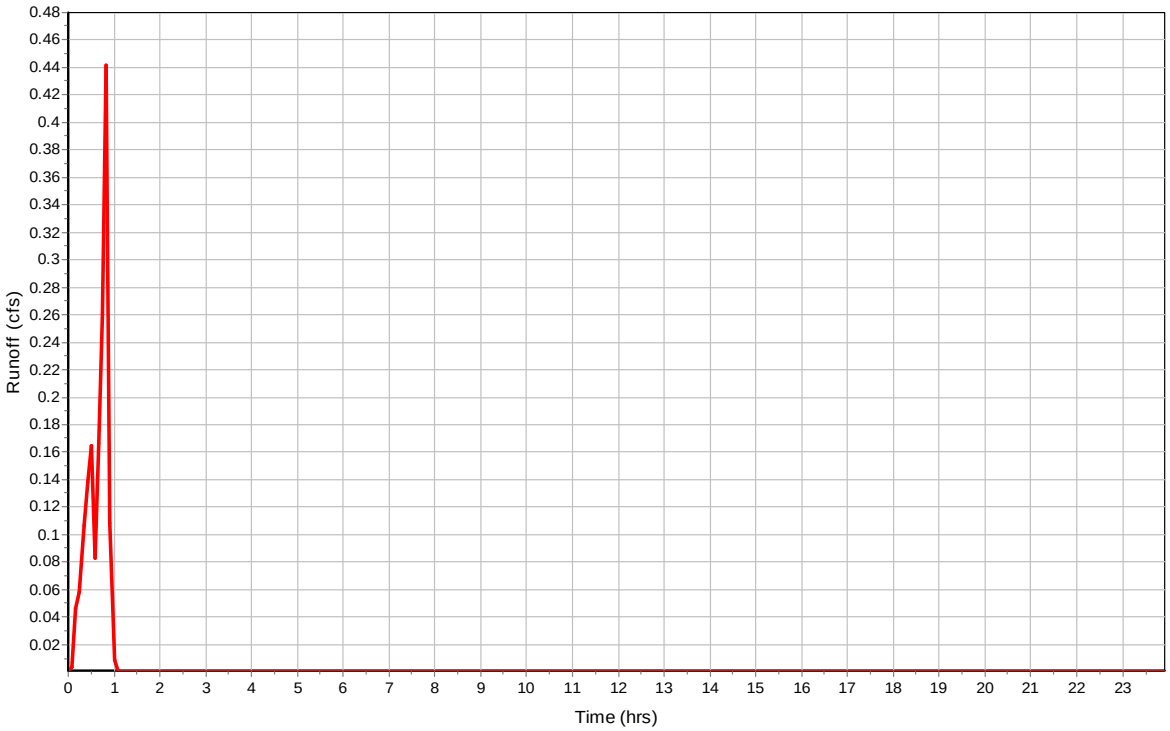
Total Rainfall (in)	1.74
Total Runoff (in)	1.08
Peak Runoff (cfs)	0.45
Weighted Curve Number	93.08
Time of Concentration (days hh:mm:ss)	0 00:02:42

Subbasin : P-1

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : P-2

Input Data

Area (ac)	0.15
Peak Rate Factor	484
Weighted Curve Number	86.04
Rain Gage ID	GRANDCOUNTY

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.12	A	98
> 75% grass cover, Good	0.03	A	39
Composite Area & Weighted CN	0.15		86.04

Time of Concentration

Sheet Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.05	0	0
Flow Length (ft) :	20	0	0
Slope (%) :	25	0	0
2 yr, 24 hr Rainfall (in) :	1.07	0	0
Velocity (ft/sec) :	0.47	0	0
Computed Flow Time (min) :	0.71	0	0

Channel Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.01	0	0
Flow Length (ft) :	100	0	0
Channel Slope (%) :	1	0	0
Cross Section Area (ft^2) :	0.196	0	0
Wetted Perimeter (ft) :	3.71	0	0
Velocity (ft/sec) :	2.1	0	0
Computed Flow Time (min) :	0.79	0	0

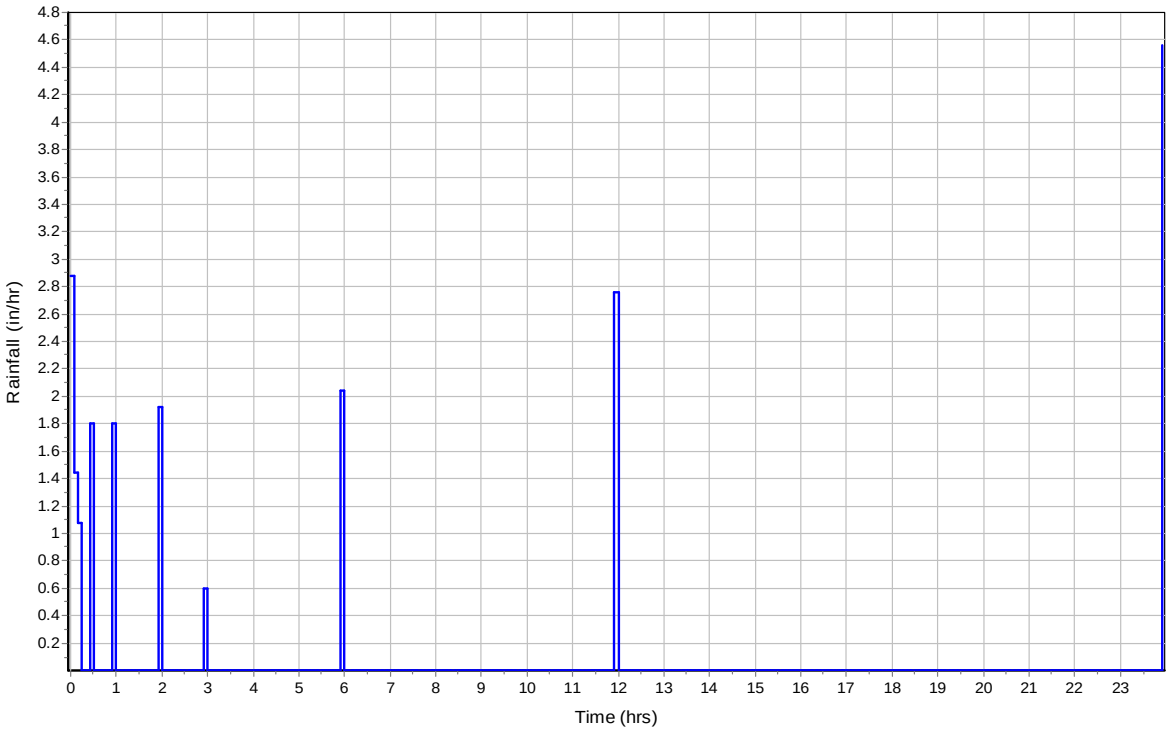
Total TOC (min) 1.50

Subbasin Runoff Results

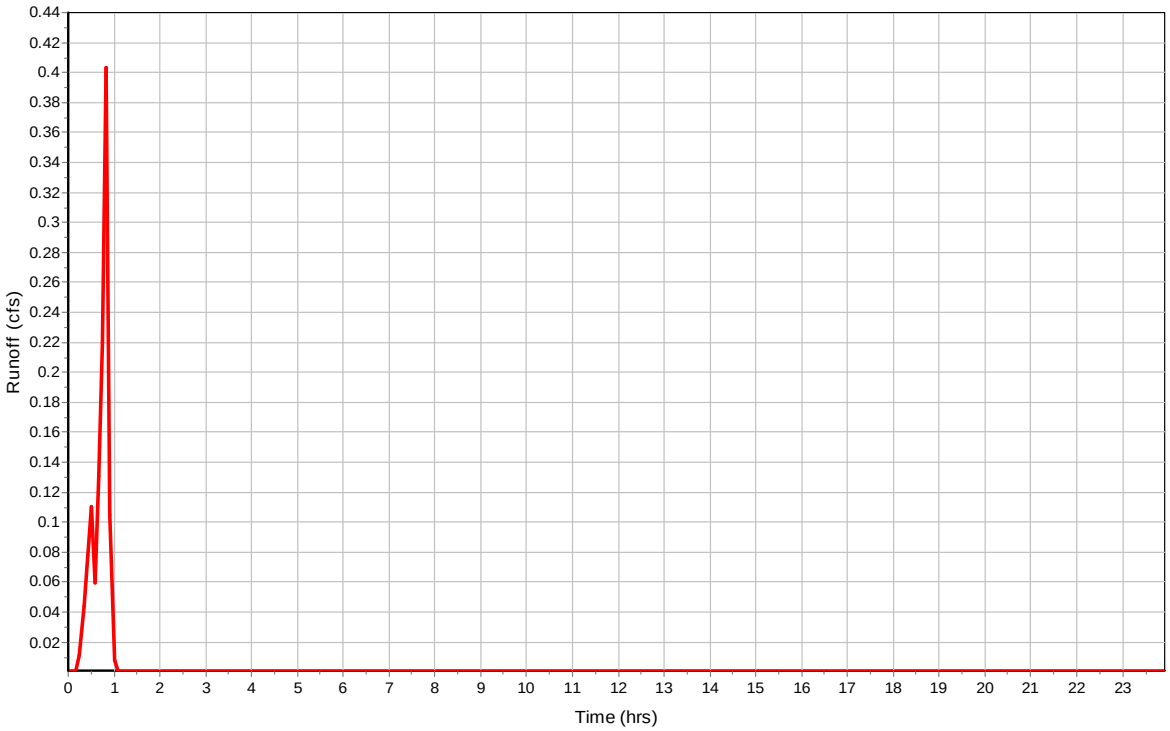
Total Rainfall (in)	1.74
Total Runoff (in)	0.66
Peak Runoff (cfs)	0.42
Weighted Curve Number	86.04
Time of Concentration (days hh:mm:ss)	0 00:01:30

Subbasin : P-2

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : P-3

Input Data

Area (ac)	0.16
Peak Rate Factor	484
Weighted Curve Number	70.32
Rain Gage ID	GRANDCOUNTY

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
> 75% grass cover, Good	0.08	A	39
Paved parking & roofs	0.09	A	98
Composite Area & Weighted CN	0.17		70.32

Time of Concentration

Sheet Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.02	0	0
Flow Length (ft) :	10	0	0
Slope (%) :	3	0	0
2 yr, 24 hr Rainfall (in) :	1.07	0	0
Velocity (ft/sec) :	0.37	0	0
Computed Flow Time (min) :	0.46	0	0

Channel Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.025	0	0
Flow Length (ft) :	150	0	0
Channel Slope (%) :	1	0	0
Cross Section Area (ft^2) :	0.375	0	0
Wetted Perimeter (ft) :	1.8	0	0
Velocity (ft/sec) :	2.09	0	0
Computed Flow Time (min) :	1.19	0	0

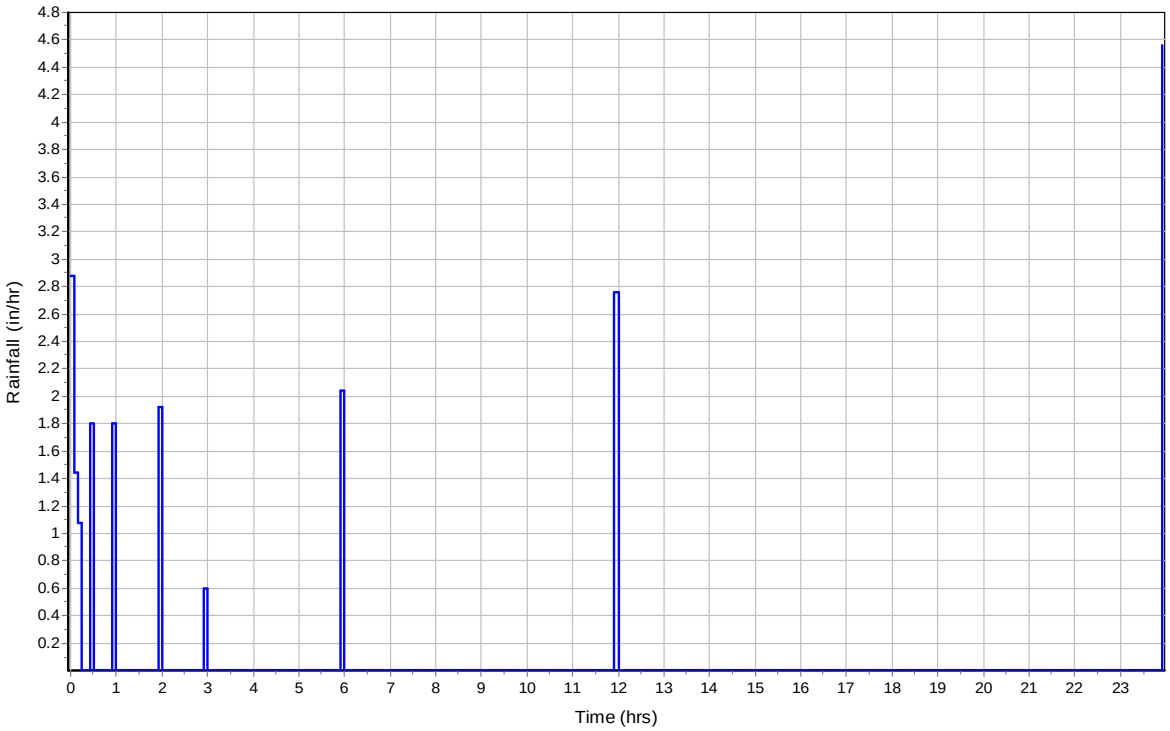
Total TOC (min) 1.65

Subbasin Runoff Results

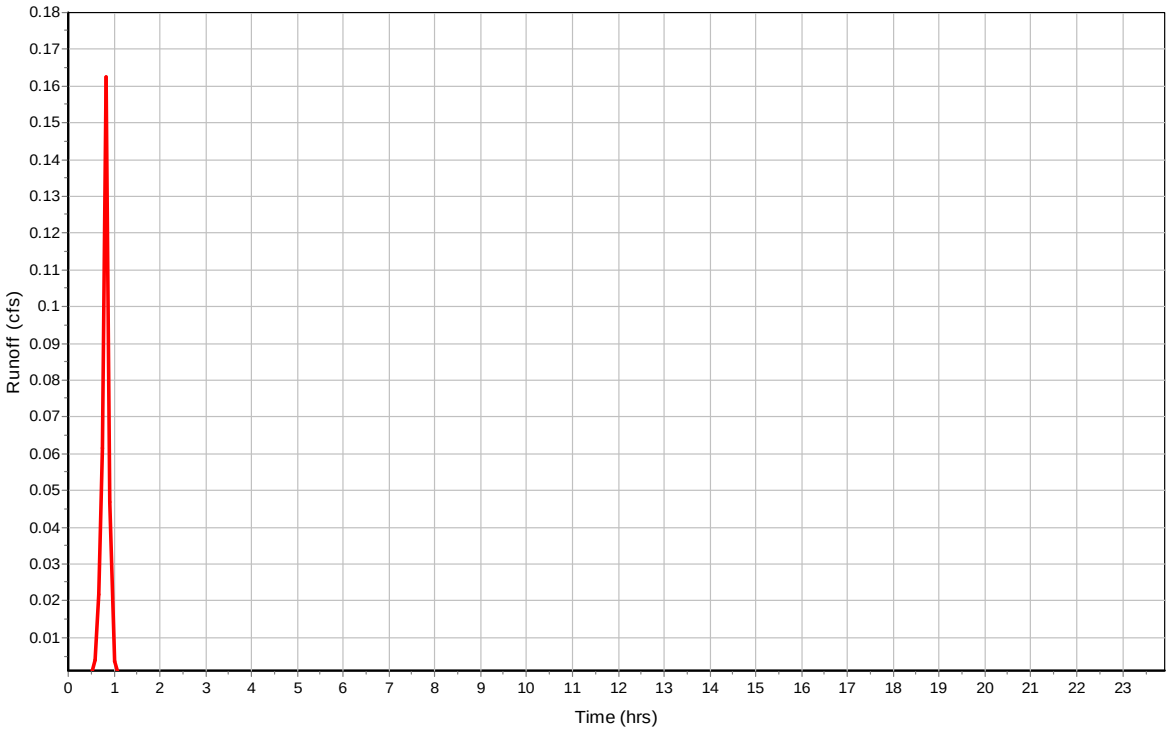
Total Rainfall (in)	1.74
Total Runoff (in)	0.16
Peak Runoff (cfs)	0.18
Weighted Curve Number	70.32
Time of Concentration (days hh:mm:ss)	0 00:01:39

Subbasin : P-3

Rainfall Intensity Graph



Runoff Hydrograph



Junction Input

SN	Element ID	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Ground/Rim (Max) Offset (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Surcharge Elevation (ft)	Surcharge Depth (ft)	Ponded Area (ft^2)	Minimum Pipe Cover (in)
1	3-Jun	4044.00	4046.00	2.00	4045.00	1.00	0.00	-4046.00	0.00	0.00
2	5-Jun	4046.00	4047.00	1.00	4045.00	-1.00	0.00	-4047.00	0.00	0.00
3	Out-01	4042.73	4046.00	3.27	4045.00	2.27	0.00	-4046.00	0.00	0.00

Junction Results

SN	Element ID	Peak Inflow (cfs)	Peak Lateral Inflow (cfs)	Max HGL Elevation Attained (ft)	Max HGL Depth Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Average HGL Elevation Attained (ft)	Average HGL Depth Attained (ft)	Time of Max HGL Occurrence (days hh:mm)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	3-Jun	0.16	0.00	4044.10	0.10	0.00	1.90	4044.01	0.01	0 01:02	0 00:00	0.00	0.00
2	5-Jun	0.00	0.00	4046.00	0.00	0.00	3.00	4046.00	0.00	0 00:00	0 00:00	0.00	0.00
3	Out-01	0.16	0.00	4046.00	3.27	0.00	0.00	4045.28	2.55	0 00:15	0 00:00	0.00	0.00

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	Link-04	40.00	4044.00	0.00	4042.73	0.00	1.27	3.1700	CIRCULAR	12.000	12.000	0.0100	0.5000	0.5000	0.0000	0.00	No	1

Pipe Results

SN	Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
		(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1	Link-04	0.16	0 01:02	8.25	0.02	4.10	0.16	0.10	0.10	0.00		Calculated

Storage Nodes

Storage Node : POND1

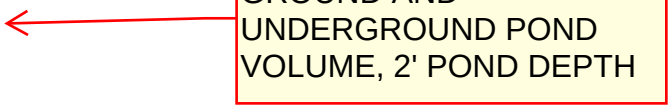
Input Data

Invert Elevation (ft)	4045.00
Max (Rim) Elevation (ft)	4048.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	4045.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

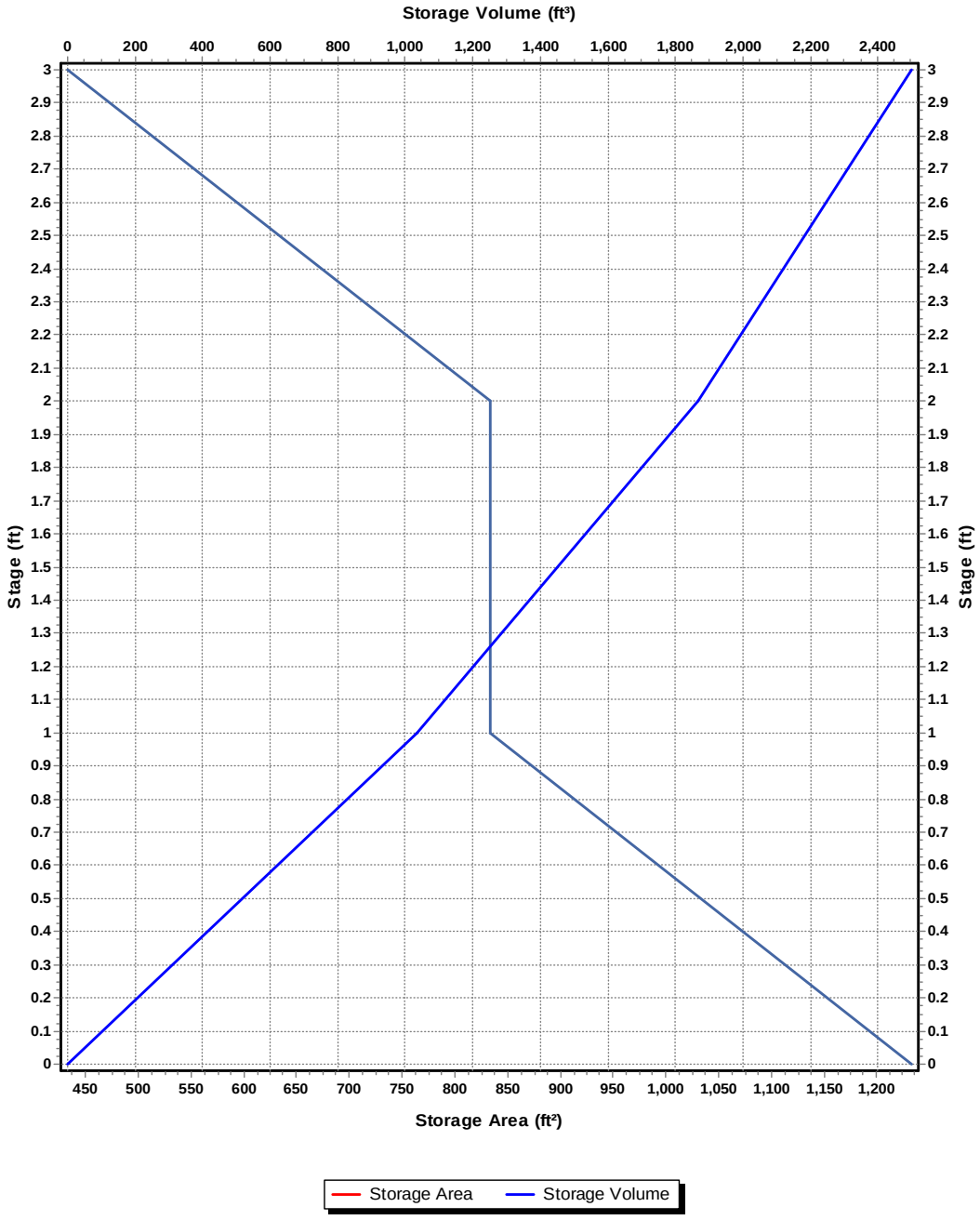
Storage Area Volume Curves

Storage Curve : POND1

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	1233	0
1	833	1033
2	833	1866
3	433	2499



Storage Area Volume Curves



Storage Node : POND1 (continued)

Outflow Weirs

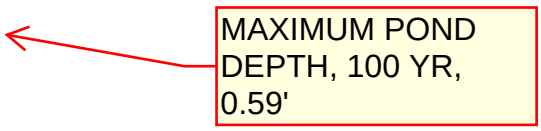
SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-01	Rectangular	No	4047.00	2.00	1.00	1.00	3.33

Outflow Orifices

SN	Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1	Orifice-01	Bottom	CIRCULAR	No	18.00			4046.85	0.61
2	Orifice-02	Side	CIRCULAR	No	3.00			4045.00	0.61

Output Summary Results

Peak Inflow (cfs)	1.01
Peak Lateral Inflow (cfs)	1.01
Peak Outflow (cfs)	0.16
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	4045.59
Max HGL Depth Attained (ft)	0.59
Average HGL Elevation Attained (ft)	4045.04
Average HGL Depth Attained (ft)	0.04
Time of Max HGL Occurrence (days hh:mm)	0 01:02
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0



Project Description

File Name	Cottonwood Condos - proposed V2 no exfiltration.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Kinematic Wave
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	YES

Analysis Options

Start Analysis On	00:00:00	0:00:00
End Analysis On	00:00:00	0:00:00
Start Reporting On	00:00:00	0:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	30	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	3
Nodes	4
Junctions	3
Outfalls	0
Flow Diversions	0
Inlets	0
Storage Nodes	1
Links	4
Channels	0
Pipes	1
Pumps	0
Orifices	2
Weirs	1
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1	GRANDCOUNTY	Time Series	100YR	Cumulative	inches				0.00	

Subbasin Summary

SN	Subbasin ID	Area (ac)	Peak Rate Factor	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	P-1	0.12	484.00	93.08	2.82	2.09	0.25	0.79	0 00:05:00
2	P-2	0.15	484.00	86.04	2.82	1.51	0.22	0.83	0 00:05:00
3	P-3	0.16	484.00	70.32	2.82	0.63	0.10	0.53	0 00:05:00

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Initial Water Elevation (ft)	Surcharge Elevation (ft)	Ponded Area (ft^2)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	3-Jun	Junction	4044.00	4046.00	4045.00	0.00	0.00	0.30	4044.13	0.00	1.87	0 00:00	0.00	0.00
2	5-Jun	Junction	4046.00	4047.00	4045.00	0.00	0.00	0.00	4046.00	0.00	3.00	0 00:00	0.00	0.00
3	Out-01	Junction	4042.73	4046.00	4045.00	0.00	0.00	0.30	4046.00	0.00	0.00	0 00:00	0.00	0.00
4	POND1	Storage Node	4045.00	4048.00	4045.00		0.00	2.04	4046.68				0.00	0.00

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)	(ft)		(min)	
1	Link-04	Pipe	3-Jun	Out-01	40.00	4044.00	4042.73	3.1700	12.000	0.0100	0.30	8.25	0.04	4.99	0.13	0.13	0.00	Calculated
2	Orifice-01	Orifice	POND1	3-Jun		4045.00	4044.00		18.000		0.00							
3	Orifice-02	Orifice	POND1	3-Jun		4045.00	4044.00		3.000		0.30							
4	Weir-01	Weir	POND1	5-Jun		4045.00	4046.00				0.00							

Subbasin Hydrology

Subbasin : P-1

Input Data

Area (ac)	0.12
Peak Rate Factor	484
Weighted Curve Number	93.08
Rain Gage ID	GRANDCOUNTY

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.11	A	98
> 75% grass cover, Good	0.01	A	39
Composite Area & Weighted CN	0.12		93.08

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

Where :

Tc = Time of Concentration (hr)
n = Manning's roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 * (Sf^0.5) (unpaved surface)
V = 20.3282 * (Sf^0.5) (paved surface)
V = 15.0 * (Sf^0.5) (grassed waterway surface)
V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
V = 7.0 * (Sf^0.5) (short grass pasture surface)
V = 5.0 * (Sf^0.5) (woodland surface)
V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
Tc = (Lf / V) / (3600 sec/hr)

Where:

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation :

V = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
R = Aq / Wp
Tc = (Lf / V) / (3600 sec/hr)

Where :

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft^2)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's roughness

Sheet Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.0015	0	0
Flow Length (ft) :	50	0	0
Slope (%) :	1	0	0
2 yr, 24 hr Rainfall (in) :	1.07	0	0
Velocity (ft/sec) :	2.58	0	0
Computed Flow Time (min) :	0.32	0	0

Shallow Concentrated Flow Computations	Flowpath A	Flowpath B	Flowpath C
Flow Length (ft) :	50	0	0
Slope (%) :	0.03	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	0.35	0	0
Computed Flow Time (min) :	2.38	0	0

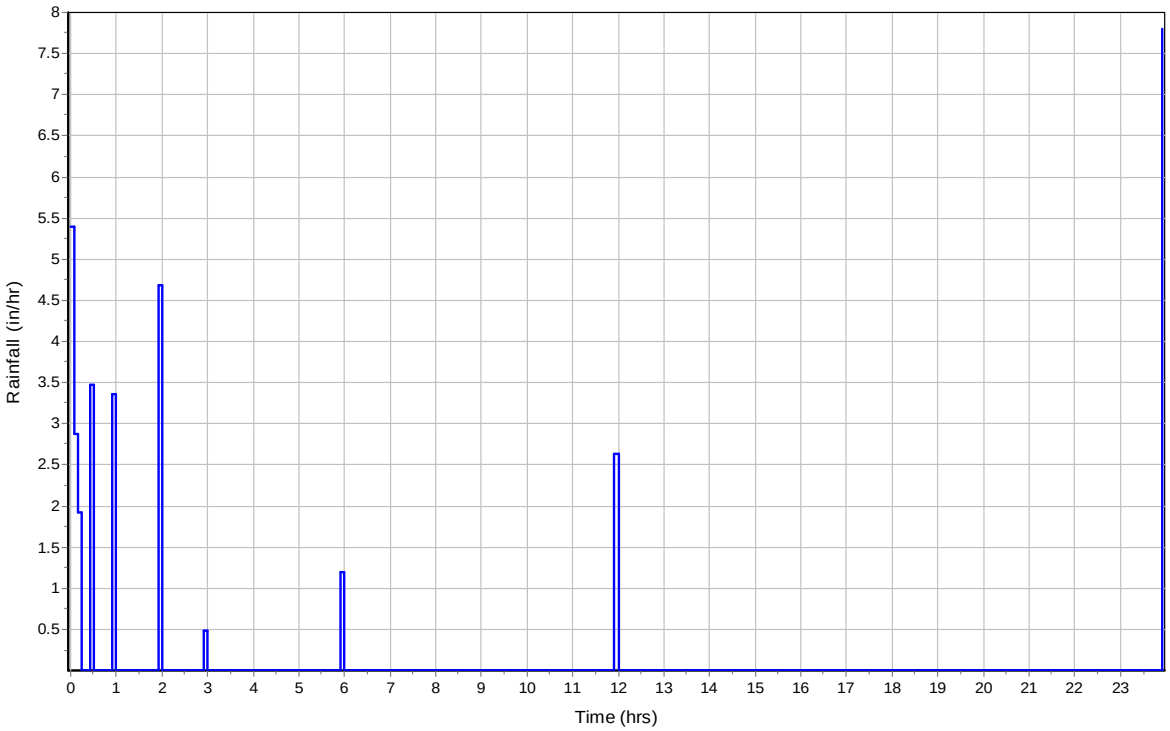
Total TOC (min) 2.70

Subbasin Runoff Results

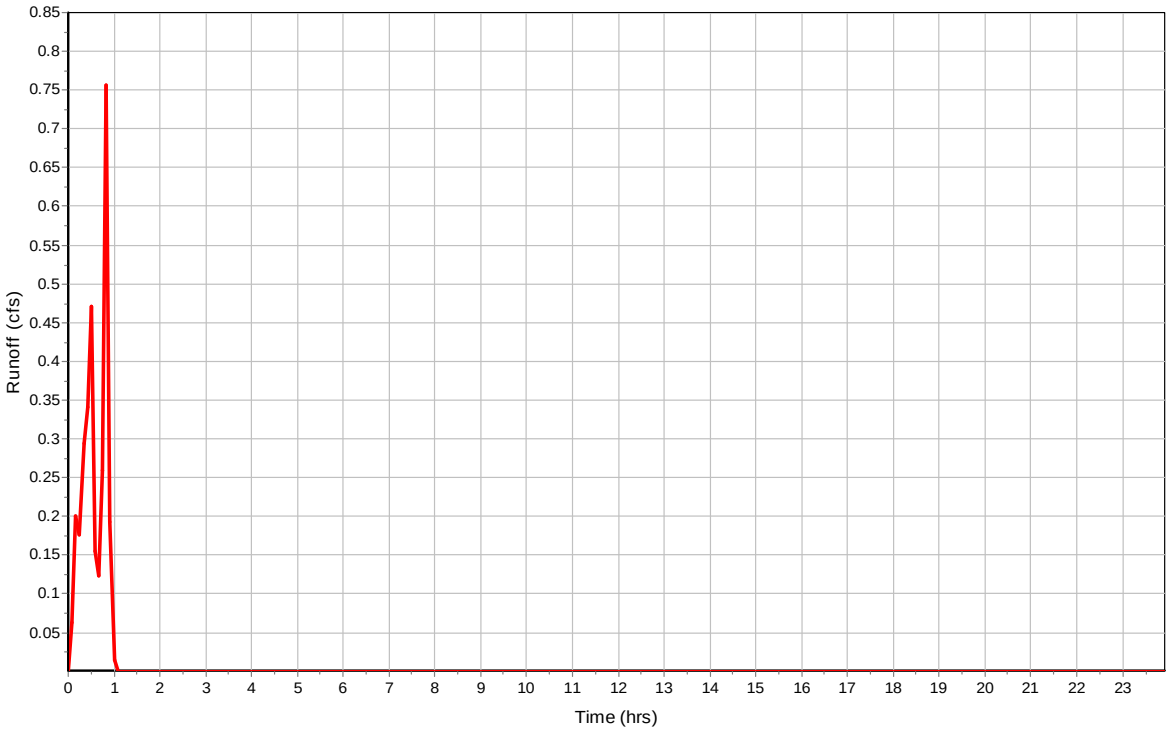
Total Rainfall (in)	2.82
Total Runoff (in)	2.09
Peak Runoff (cfs)	0.79
Weighted Curve Number	93.08
Time of Concentration (days hh:mm:ss)	0 00:02:42

Subbasin : P-1

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : P-2

Input Data

Area (ac)	0.15
Peak Rate Factor	484
Weighted Curve Number	86.04
Rain Gage ID	GRANDCOUNTY

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.12	A	98
> 75% grass cover, Good	0.03	A	39
Composite Area & Weighted CN	0.15		86.04

Time of Concentration

Sheet Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.05	0	0
Flow Length (ft) :	20	0	0
Slope (%) :	25	0	0
2 yr, 24 hr Rainfall (in) :	1.07	0	0
Velocity (ft/sec) :	0.47	0	0
Computed Flow Time (min) :	0.71	0	0

Channel Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.01	0	0
Flow Length (ft) :	100	0	0
Channel Slope (%) :	1	0	0
Cross Section Area (ft^2) :	0.196	0	0
Wetted Perimeter (ft) :	3.71	0	0
Velocity (ft/sec) :	2.1	0	0
Computed Flow Time (min) :	0.79	0	0

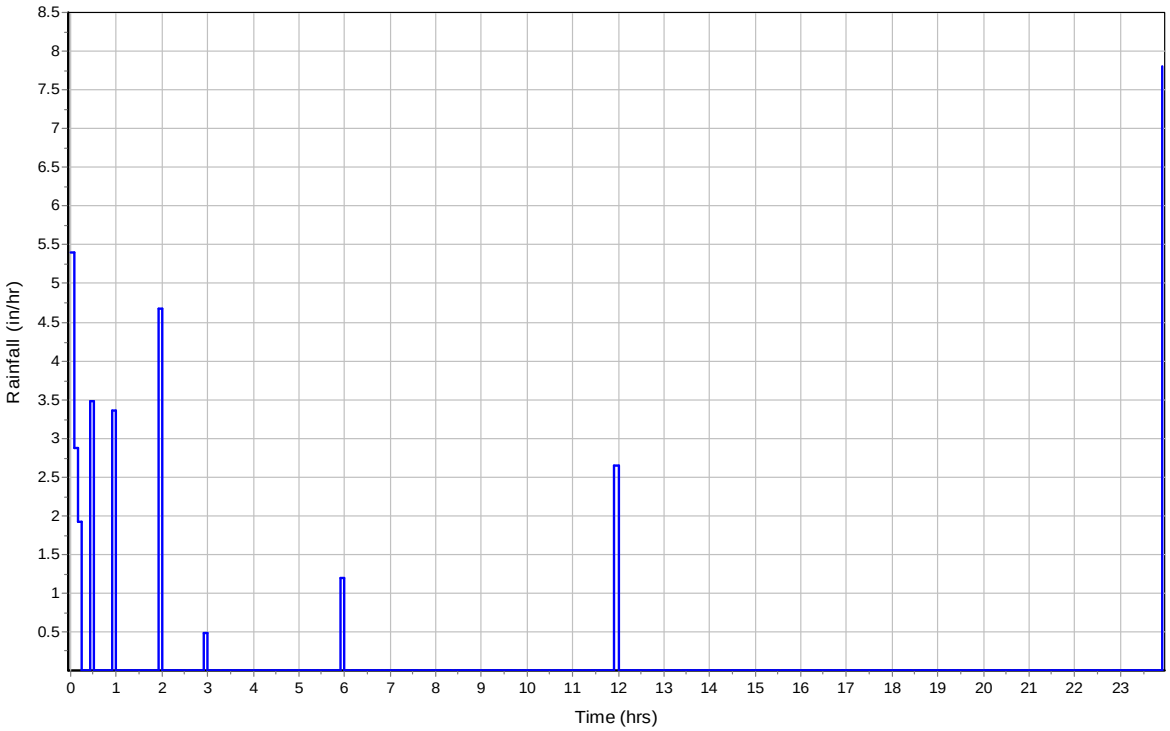
Total TOC (min) 1.50

Subbasin Runoff Results

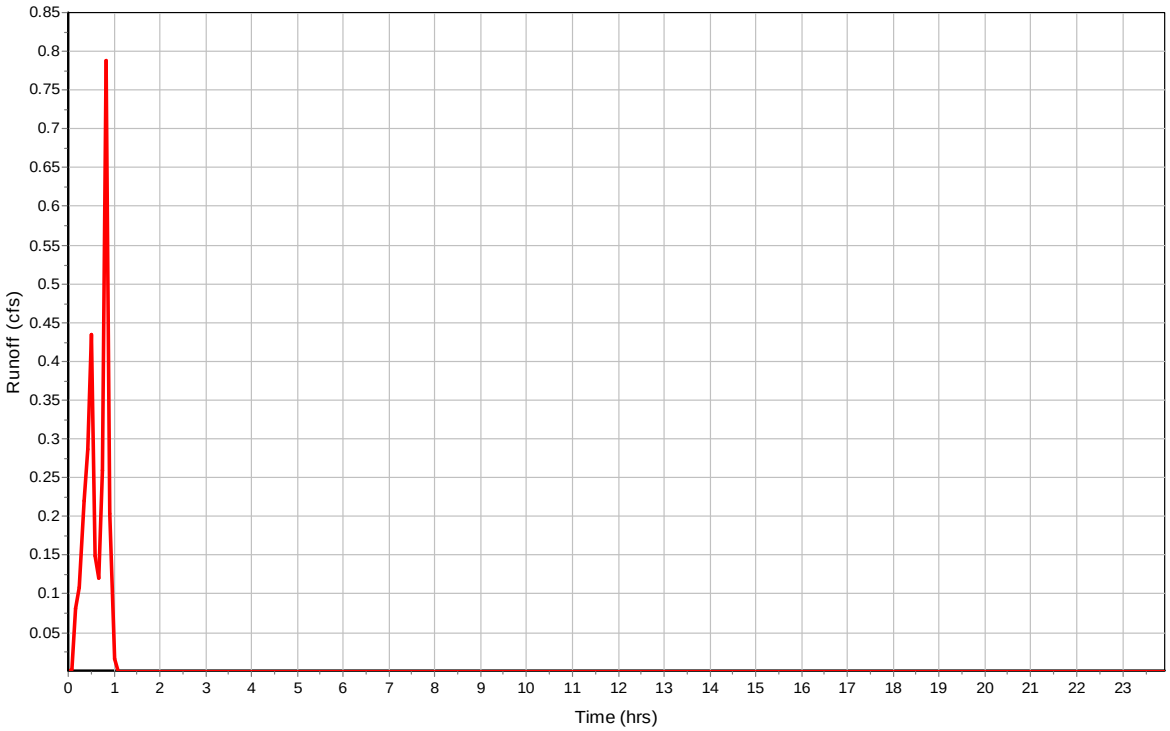
Total Rainfall (in)	2.82
Total Runoff (in)	1.51
Peak Runoff (cfs)	0.83
Weighted Curve Number	86.04
Time of Concentration (days hh:mm:ss)	0 00:01:30

Subbasin : P-2

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : P-3

Input Data

Area (ac)	0.16
Peak Rate Factor	484
Weighted Curve Number	70.32
Rain Gage ID	GRANDCOUNTY

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
> 75% grass cover, Good	0.08	A	39
Paved parking & roofs	0.09	A	98
Composite Area & Weighted CN	0.17		70.32

Time of Concentration

Sheet Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.02	0	0
Flow Length (ft) :	10	0	0
Slope (%) :	3	0	0
2 yr, 24 hr Rainfall (in) :	1.07	0	0
Velocity (ft/sec) :	0.37	0	0
Computed Flow Time (min) :	0.46	0	0

Channel Flow Computations	Flowpath A	Flowpath B	Flowpath C
Manning's Roughness :	0.025	0	0
Flow Length (ft) :	150	0	0
Channel Slope (%) :	1	0	0
Cross Section Area (ft^2) :	0.375	0	0
Wetted Perimeter (ft) :	1.8	0	0
Velocity (ft/sec) :	2.09	0	0
Computed Flow Time (min) :	1.19	0	0

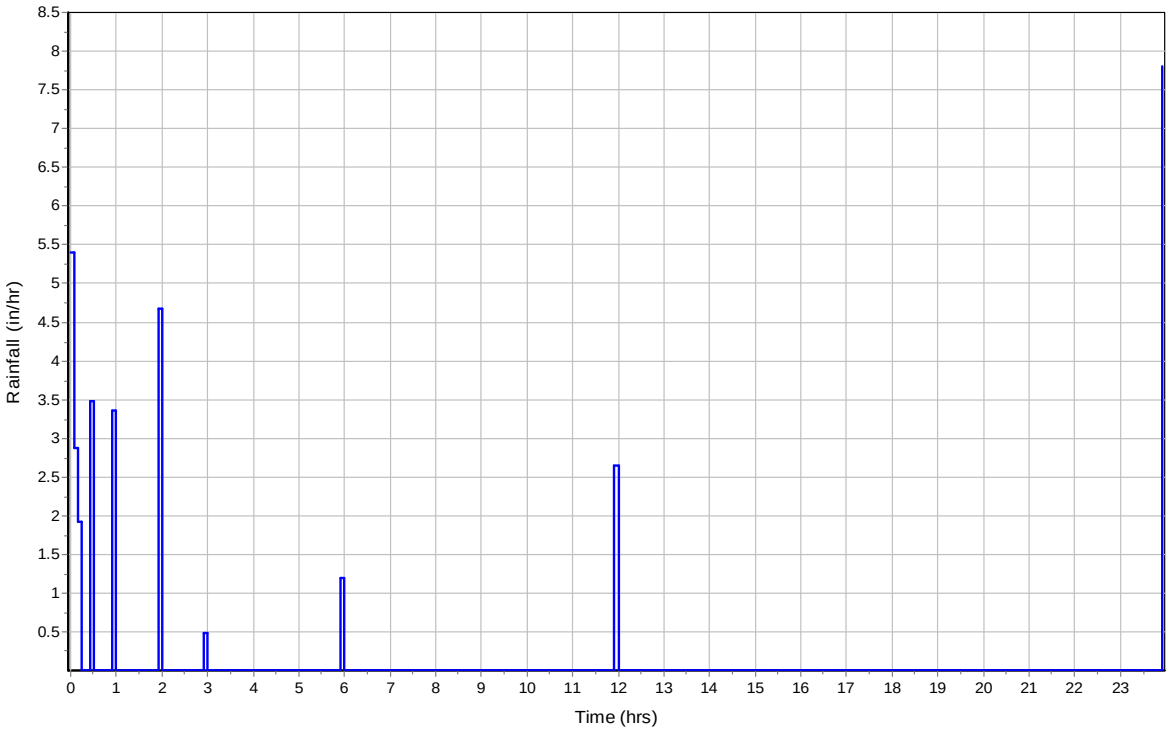
Total TOC (min) 1.65

Subbasin Runoff Results

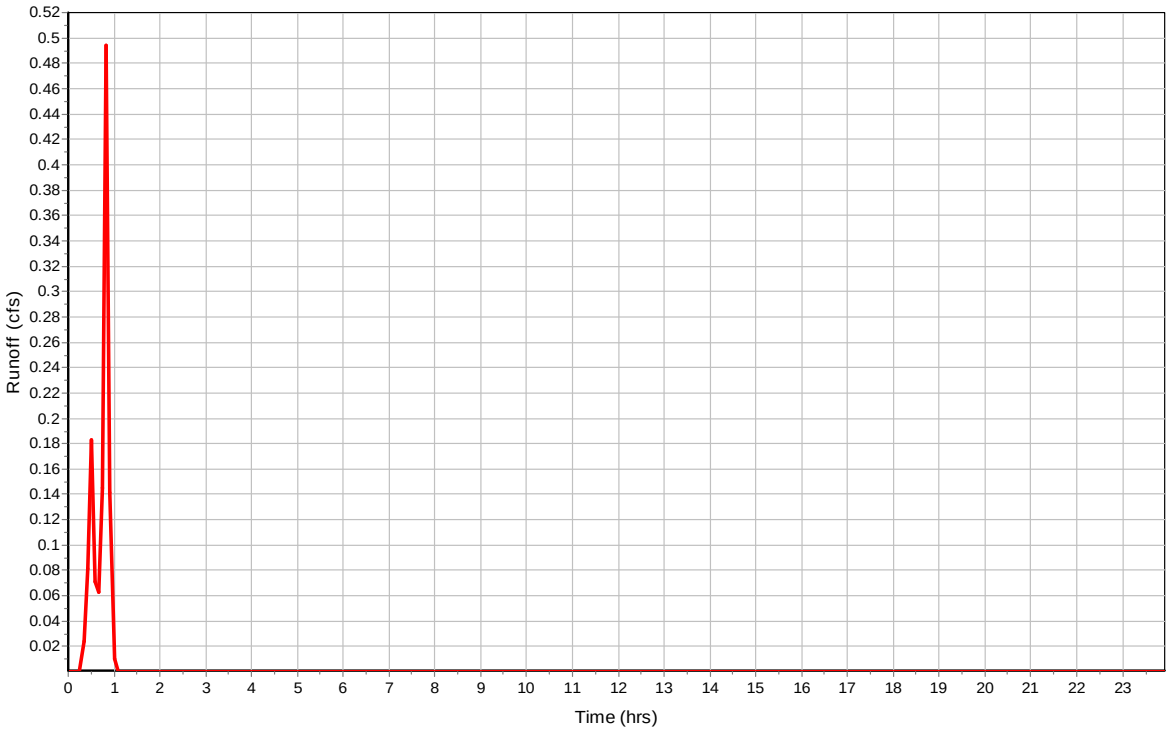
Total Rainfall (in)	2.82
Total Runoff (in)	0.63
Peak Runoff (cfs)	0.53
Weighted Curve Number	70.32
Time of Concentration (days hh:mm:ss)	0 00:01:39

Subbasin : P-3

Rainfall Intensity Graph



Runoff Hydrograph



Junction Input

SN	Element ID	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Ground/Rim (Max) Offset (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Surcharge Elevation (ft)	Surcharge Depth (ft)	Ponded Area (ft^2)	Minimum Pipe Cover (in)
1	3-Jun	4044.00	4046.00	2.00	4045.00	1.00	0.00	-4046.00	0.00	0.00
2	5-Jun	4046.00	4047.00	1.00	4045.00	-1.00	0.00	-4047.00	0.00	0.00
3	Out-01	4042.73	4046.00	3.27	4045.00	2.27	0.00	-4046.00	0.00	0.00

Junction Results

SN	Element ID	Peak Inflow (cfs)	Peak Lateral Inflow (cfs)	Max HGL Elevation Attained (ft)	Max HGL Depth Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Average HGL Elevation Attained (ft)	Average HGL Depth Attained (ft)	Time of Max HGL Occurrence (days hh:mm)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	3-Jun	0.30	0.00	4044.13	0.13	0.00	1.87	4044.02	0.02	0 01:02	0 00:00	0.00	0.00
2	5-Jun	0.00	0.00	4046.00	0.00	0.00	3.00	4046.00	0.00	0 00:00	0 00:00	0.00	0.00
3	Out-01	0.30	0.00	4046.00	3.27	0.00	0.00	4045.44	2.71	0 00:09	0 00:00	0.00	0.00

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1	Link-04	40.00	4044.00	0.00	4042.73	0.00	1.27	3.1700	CIRCULAR	12.000	12.000	0.0100	0.5000	0.5000	0.0000	0.00	No	1

Pipe Results

SN	Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
		(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1	Link-04	0.30	0 01:02	8.25	0.04	4.99	0.13	0.13	0.13	0.00		Calculated

Storage Nodes

Storage Node : POND1

CO

Input Data

Invert Elevation (ft)	4045.00
Max (Rim) Elevation (ft)	4048.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	4045.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

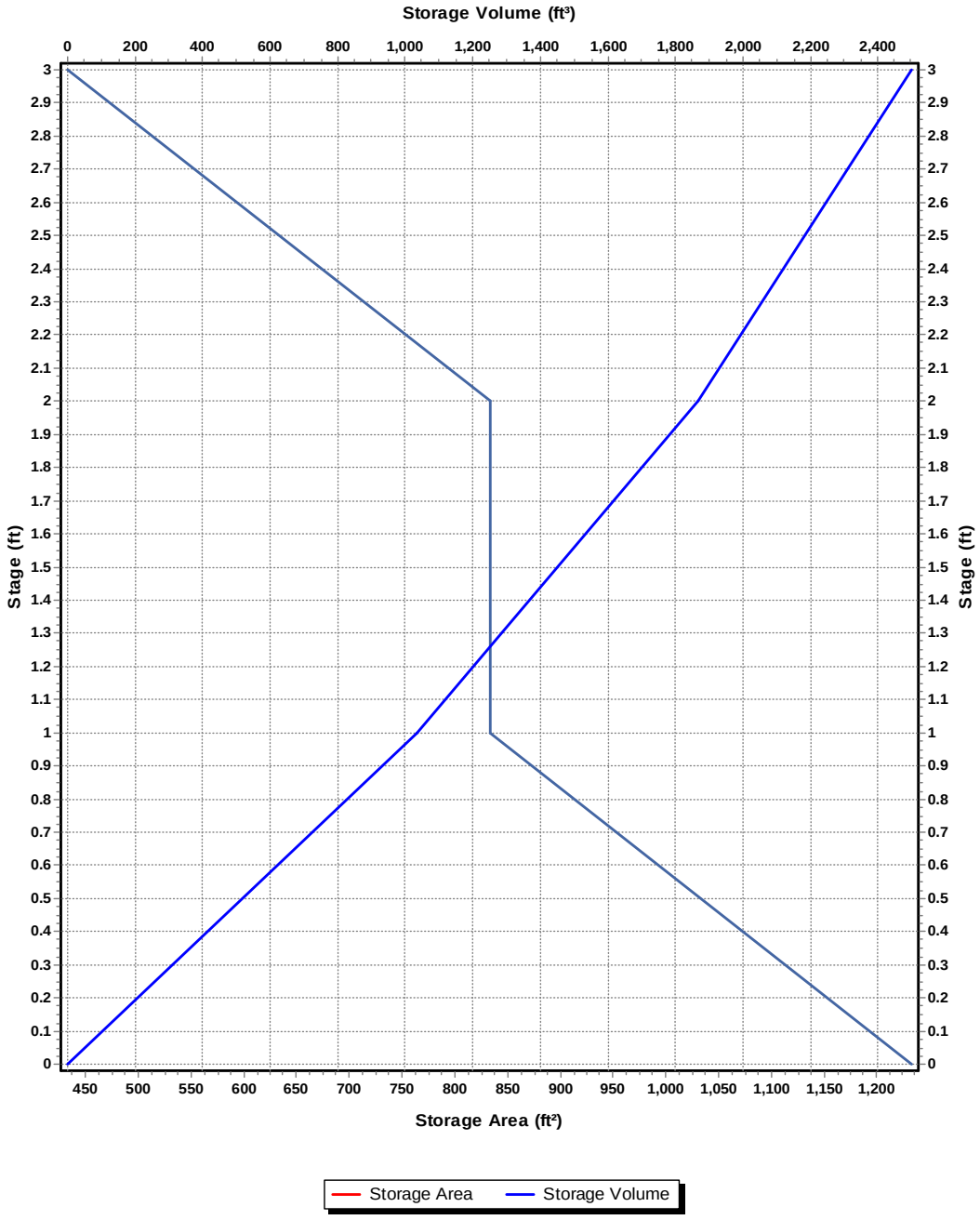
Storage Area Volume Curves

Storage Curve : POND1

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	1233	0
1	833	1033
2	833	1866
3	433	2499

COMBINED ABOVE GROUND AND UNDERGROUND POND VOLUME, 2' POND DEPTH

Storage Area Volume Curves



Storage Node : POND1 (continued)

Outflow Weirs

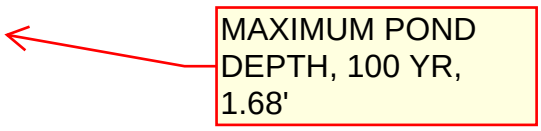
SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-01	Rectangular	No	4047.00	2.00	1.00	1.00	3.33

Outflow Orifices

SN	Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1	Orifice-01	Bottom	CIRCULAR	No	18.00			4046.85	0.61
2	Orifice-02	Side	CIRCULAR	No	3.00			4045.00	0.61

Output Summary Results

Peak Inflow (cfs)	2.04
Peak Lateral Inflow (cfs)	2.04
Peak Outflow (cfs)	0.3
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	4046.68
Max HGL Depth Attained (ft)	1.68
Average HGL Elevation Attained (ft)	4045.11
Average HGL Depth Attained (ft)	0.11
Time of Max HGL Occurrence (days hh:mm)	0 01:02
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0



Weir Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Friday, Feb 2 2024

OVERFLOW WEIR - COTTONWOOD CONDOS

Rectangular Weir

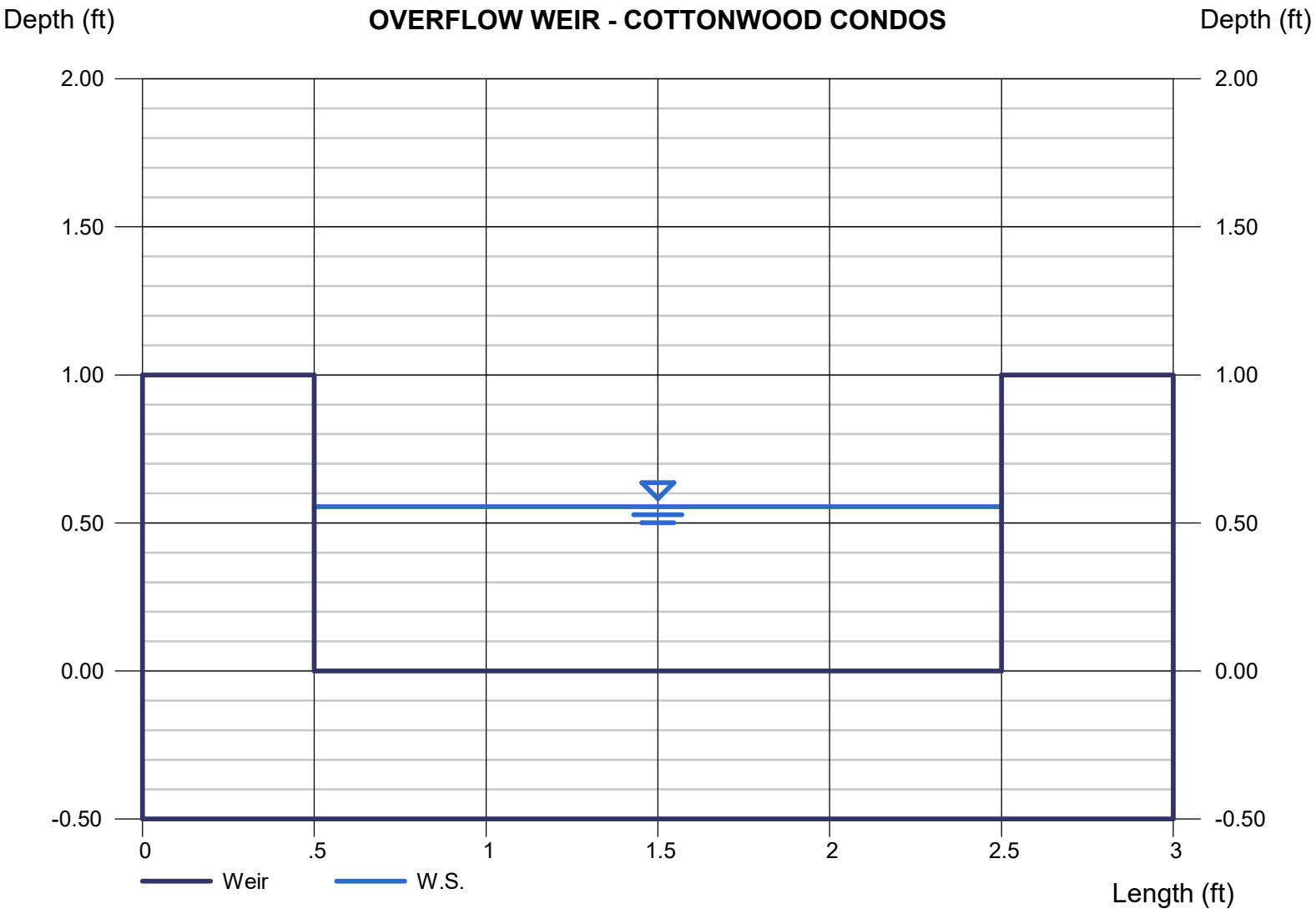
Crest	= Broad
Bottom Length (ft)	= 2.00
Total Depth (ft)	= 1.00

Calculations

Weir Coeff. Cw	= 2.60
Compute by:	Known Q
Known Q (cfs)	= 2.15

Highlighted

Depth (ft)	= 0.55
Q (cfs)	= 2.150
Area (sqft)	= 1.11
Velocity (ft/s)	= 1.94
Top Width (ft)	= 2.00



Depth	Q	Area	Veloc	Wp
(ft)	(cfs)	(sqft)	(ft/s)	(ft)
0.10	0.065	0.028	2.29	0.46
0.20	0.246	0.073	3.35	0.68
0.30	0.491	0.123	3.98	0.89
0.40	0.713	0.168	4.23	1.11
0.50	0.729	0.196	3.71	1.57

Yc	TopWidth	Energy
(ft)	(ft)	(ft)
0.13	0.40	0.18
0.25	0.49	0.37
0.36	0.49	0.55
0.43	0.40	0.68
0.43	0.00	0.71

Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Friday, Feb 2 2024

roof drain collection pipe - 100 yr

Circular

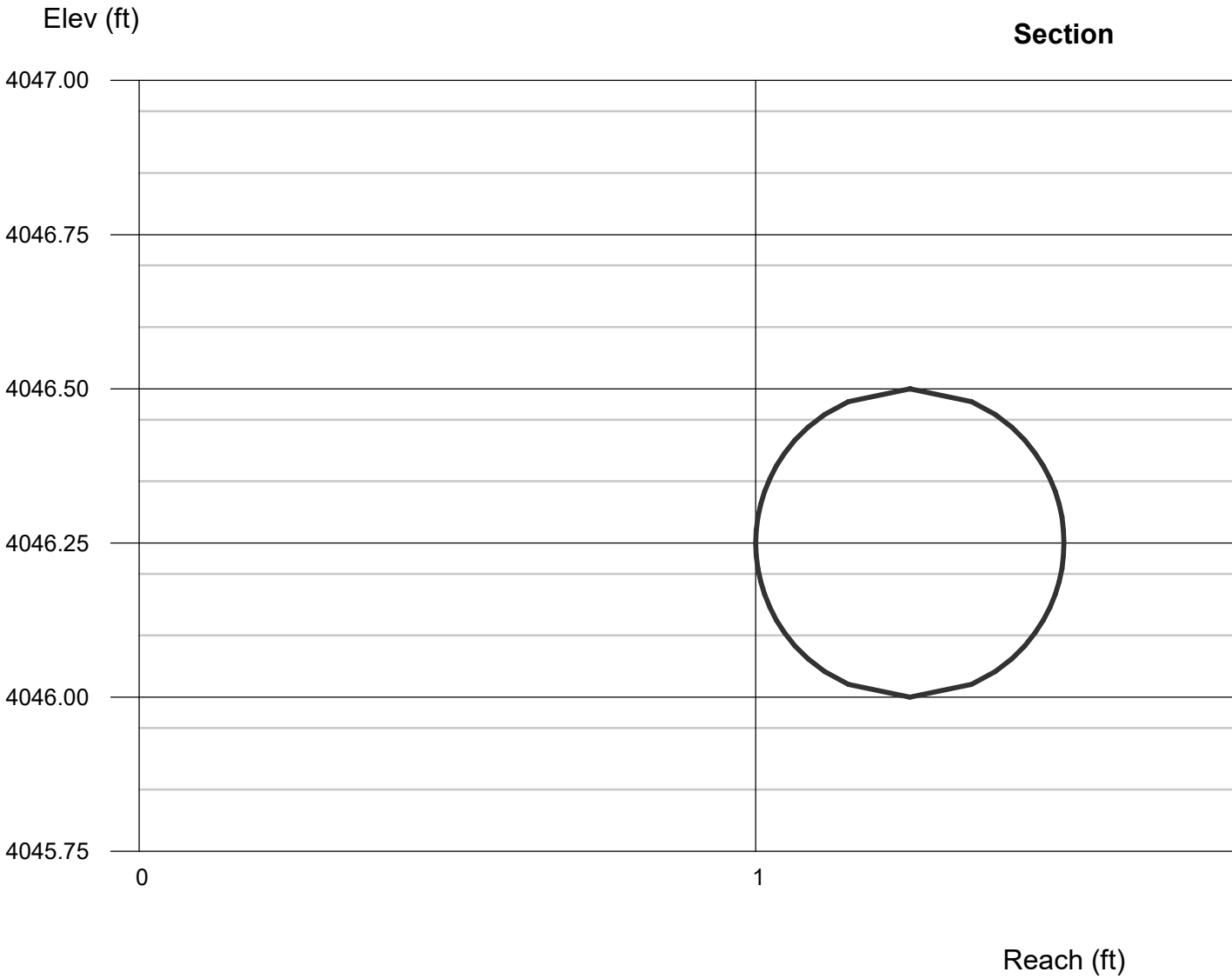
Diameter (ft)	= 0.50
Invert Elev (ft)	= 4046.00
Slope (%)	= 1.00
N-Value	= 0.010

Calculations

Compute by:	Q vs Depth
No. Increments	= 5

Highlighted

Depth (ft)	= 0.50
Q (cfs)	= 0.729
Area (sqft)	= 0.20
Velocity (ft/s)	= 3.71
Wetted Perim (ft)	= 1.57
Crit Depth, Yc (ft)	= 0.43
Top Width (ft)	= 0.00
EGL (ft)	= 0.71



United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Canyonlands Area, Utah - Parts of Grand and San Juan Counties

Snook Townhomes

April 22, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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80—Sheppard fine sand, 2 to 8 percent slopes..... 11

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:529 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 5 10 20 30

Feet
0 25 50 100 150

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Canyonlands Area, Utah - Parts of Grand and San Juan Counties
Survey Area Data: Version 16, Sep 7, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Jun 2, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
80	Sheppard fine sand, 2 to 8 percent slopes	1.2	100.0%
Totals for Area of Interest		**1.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Canyonlands Area, Utah - Parts of Grand and San Juan Counties

80—Sheppard fine sand, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1vn8
Elevation: 4,600 to 5,000 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 150 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Sheppard and similar soils: 70 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sheppard

Setting

Landform: Sand sheets on cuestas, sand sheets on structural benches
Down-slope shape: Linear, convex
Across-slope shape: Convex, linear
Parent material: Eolian deposits derived from sandstone

Typical profile

A - 0 to 3 inches: fine sand
C - 3 to 60 inches: loamy fine sand

Properties and qualities

Slope: 2 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R035XY115UT - Desert Sand (Sand Sagebrush)
Hydric soil rating: No

Minor Components

Arches

Percent of map unit: 10 percent

Trail

Percent of map unit: 10 percent

Nakai

Percent of map unit: 10 percent

ACO StormBrixx®

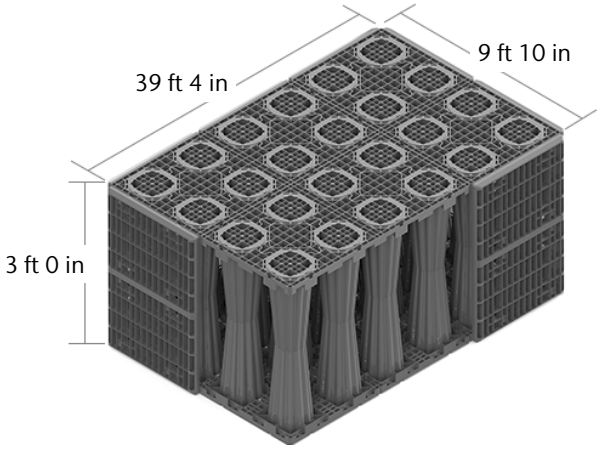
Online Project Configuration

Project Details
Description : COTTONWOOD CONDOS V3
Date : 02-22-2024
City : MOAB
State : UTAH
Zip Code : 84532
Country : USA

Customer Details
Contact : Andrew Rapiejko
Email : mountaincivildurango@gmail.com

Tank Configuration

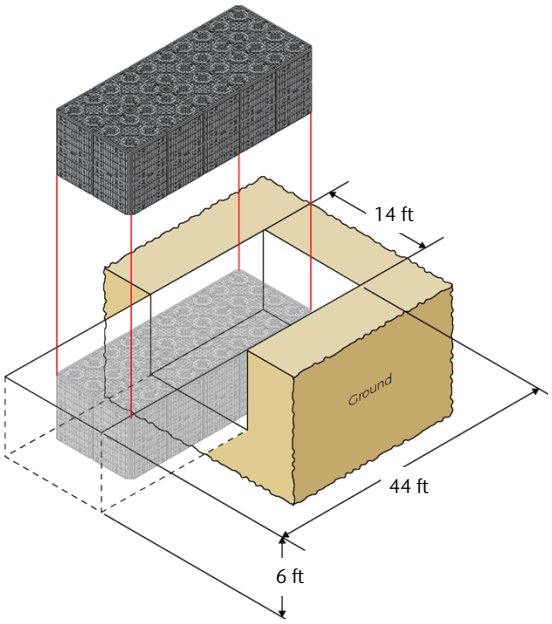
Tank Function	Infiltration
Product	Standard Duty (SD)
Number of Layers	1.0
Total Net Volume (ft^3)	1,127.1 ft^3
Total Gross Volume (ft^3)	1,162.0 ft^3
Length of Tank (ft/in)	39 ft 4 in
Width of Tank (ft/in)	9 ft 10 in
Depth of Tank (ft/in)	3 ft 0 in



Cavity & Excavation Details

Length of Cavity (ft/in)	43 ft 4 in
Width of Cavity (ft/in)	13 ft 10 in
Depth of Cavity (ft/in)	5 ft 6 in
Volume of Material to be Excavated (ft^3)	3,301.1 ft^3
*Membrane Quantity (ft^2)	1,230.7 ft^2
Cover Dimension (ft/in)	2 ft 0 in
**Backfill Material (ft^3)	2,139.2 ft^3

* Calculation includes a 15% overlap
** Pavement not accounted for



* Diagram shows cavity size rounded to nearest foot

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825 W. Beechcraft Street
Casa Grande, AZ 85122
Tel : (888) 490-9552
info@acousa.com

Project Configuration Inlets, Outlets, and Access

Inlets

		Qty
	Inlets	**1**
	Remote Access Unit	0
	Side Panels	0
	Horizontal Pipe Connector	1

Outlets

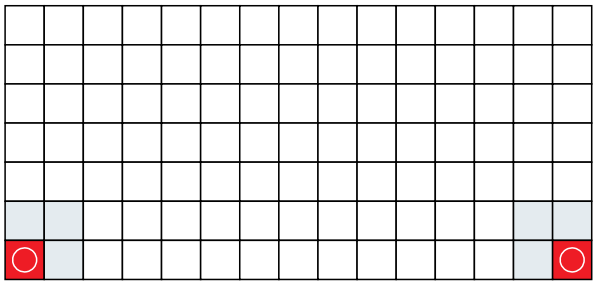
		Qty
	Outlets	**1**
	Remote Access Unit	0
	Side Panels	0
	Horizontal Pipe Connector	1

Access

		Qty
	Access Points	**2**
	Remote Access Unit	2
	Remote Access Plate	0

Grid Note

The grids below do not represent accurate dimensions or proportions they just give a general guide to both inlet / outlet and access placement on your StormBrixx scheme.



Inlet/Outlet Grid Key

Inlet/Outlet Pipe

Inlet/Outlet using Remote Access Unit

Access Grid Key

Remote Access Unit with maintenance access

Remote Access Plate with maintenance access

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Casa Grande, AZ 85122

Tel : (888) 490-9552
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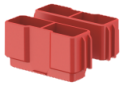
Bill of Materials

Pt No.		Description	Qty	Price Each ($)	Extended Price ($)	Weight Each (lbs)	Extended Weight (lbs)
314090		SD Half-Module	100	78.00	7,800.00	21.60	2,160.0
314091		SD Side Panel	50	27.50	1,375.00	7.20	360.0
140213		Stormbrixx Universal top cover	100	9.50	950.00	1.79	179.0
314093		SD Layer Connectors	50	1.00	50.00	0.03	1.5
138141		SD Remote Access Unit	4	260.00	1,040.00	40.00	160.0
314038		Extension Shaft	6	81.00	486.00	4.84	29.0
314053		Remote Access Vented Cover - Ductile Iron	2	275.00	550.00	83.60	167.2
93146		Horizontal Pipe Connector 6" SCH 40	1	121.00	121.00	3.29	3.3
93147		Horizontal Pipe Connector 8" SCH 40	1	174.00	174.00	4.31	4.3
Totals				**Price**	**12,546.00**	**Weight**	**3,064.3**

Notes:
1) These prices are the manufacturer's suggested retail price (MSRP). Please contact your local dealer or ACO Customer Service for more information.

2) You should have received an email with your output results from: no-reply@acosbconfigurator.com If you do not receive the confirmation within a few minutes, please check your spam folder.

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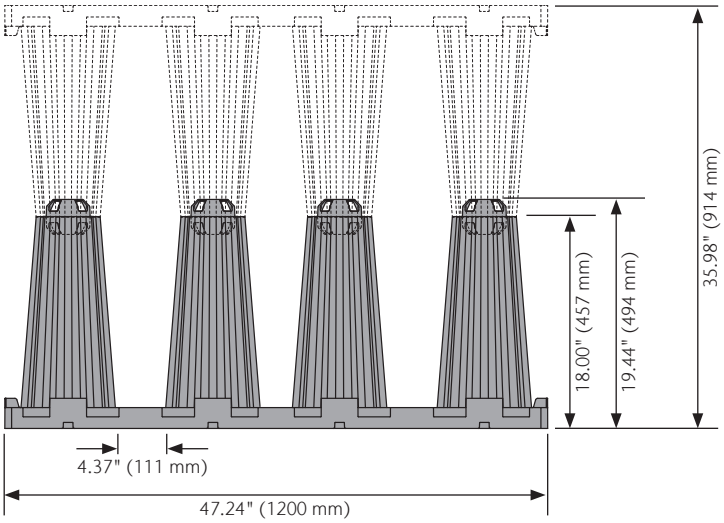
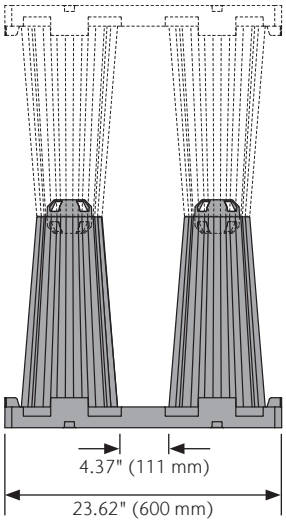
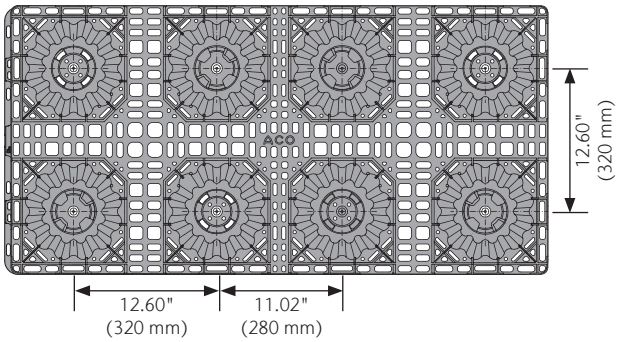
Stormwater Detention/Infiltration/Retention System

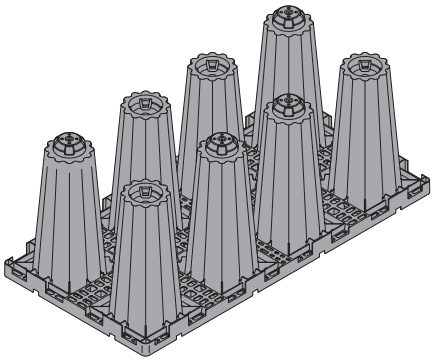
ACO Specification Information

SD Half-Module
part no. 314090

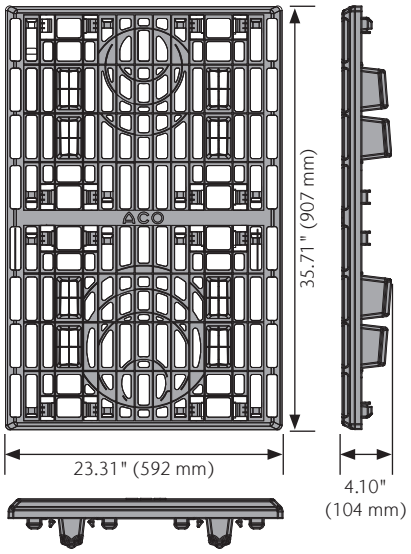




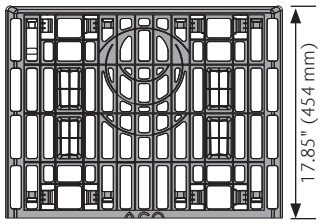




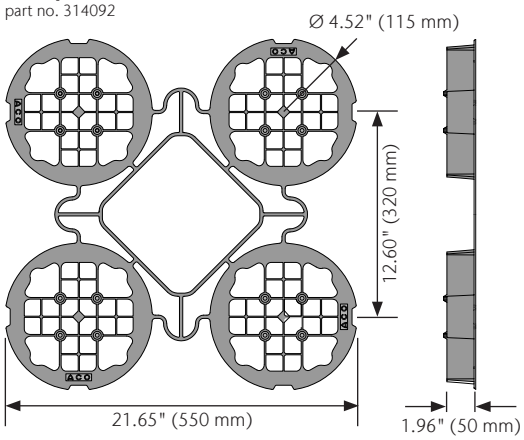
SD Side Panel
part no. 314091



SD Half-Layer Side Panel
part no. 314098



SD Top Cover
part no. 314092



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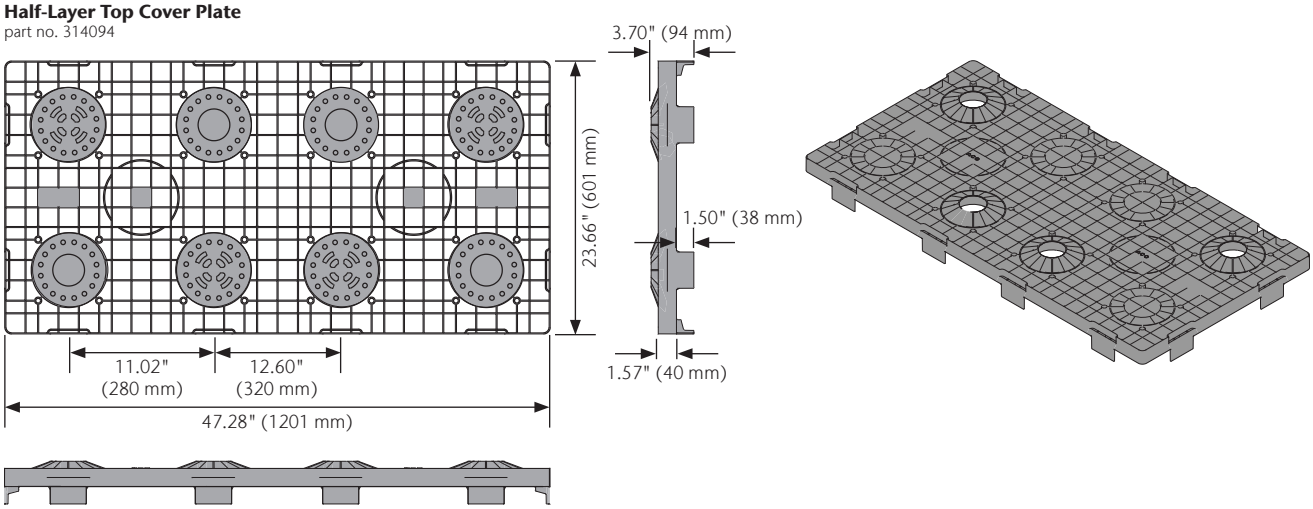
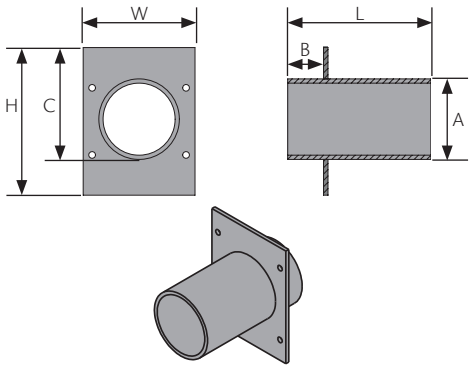
Stormwater Detention/Infiltration/Retention System

Half-Layer Top Cover Plate
part no. 314094

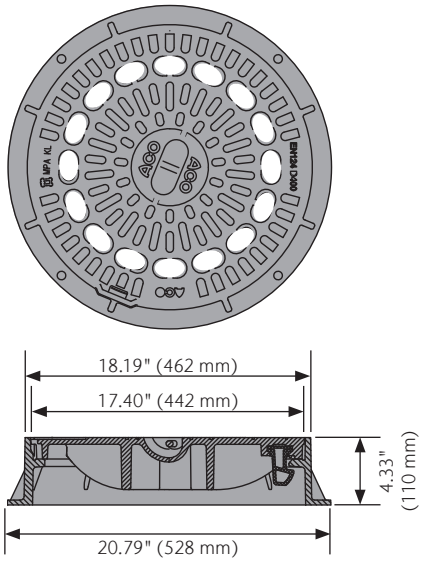


Horizontal Pipe Connector
part no.: see chart

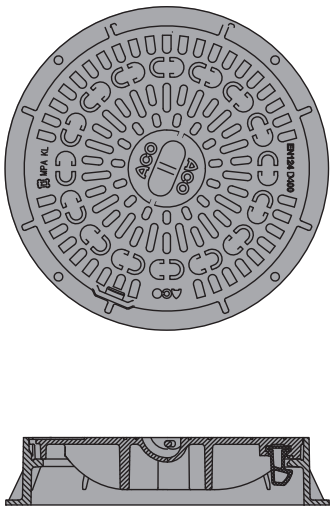


Part No.	A in (mm)	B in (mm)	C in (mm)	H in (mm)	W in (mm)	L in (mm)
93139	SDR 35 - 4"	2.00 (51)	6.25 (158)	8.25 (209)	6.70 (170)	8.00 (203)
93145	SCH 40 - 4"	2.00 (51)	7.47 (189)	8.29 (210)	6.70 (170)	8.00 (203)
93140	SDR 35 - 6"	2.00 (51)	8.95 (227)	9.93 (252)	10.22 (259)	8.00 (203)
93146	SCH 40 - 6"	2.00 (51)	9.11 (231)	9.93 (252)	10.22 (259)	8.00 (203)
93141	SDR 35 - 8"	2.00 (51)	10.46 (265)	11.39 (289)	11.64 (295)	8.00 (203)
93147	SCH 40 - 8"	2.00 (51)	10.57 (268)	11.39 (289)	11.64 (295)	8.00 (203)
93142	SDR 35 - 12"	2.00 (51)	13.48 (342)	14.30 (363)	16.66 (423)	8.00 (203)
93144	SCH 35 - 15"	2.00 (51)	17.28 (439)	19.25 (489)	19.25 (489)	8.00 (203)

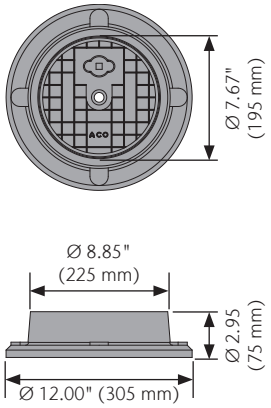
Remote Access Cover (Vented)
part no. 314053



Remote Access Cover (Non-Vented)
part no. 314043



Inspection Point Cover
part no. 314044



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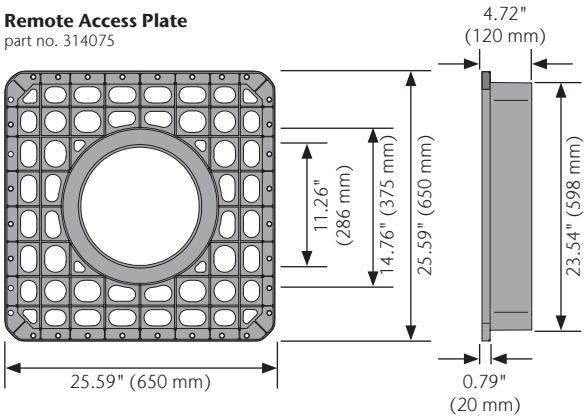
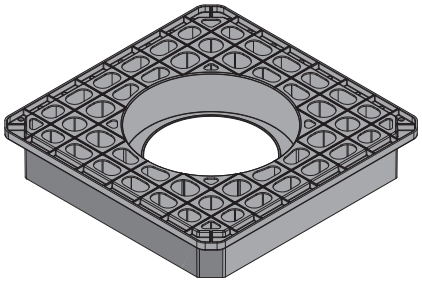
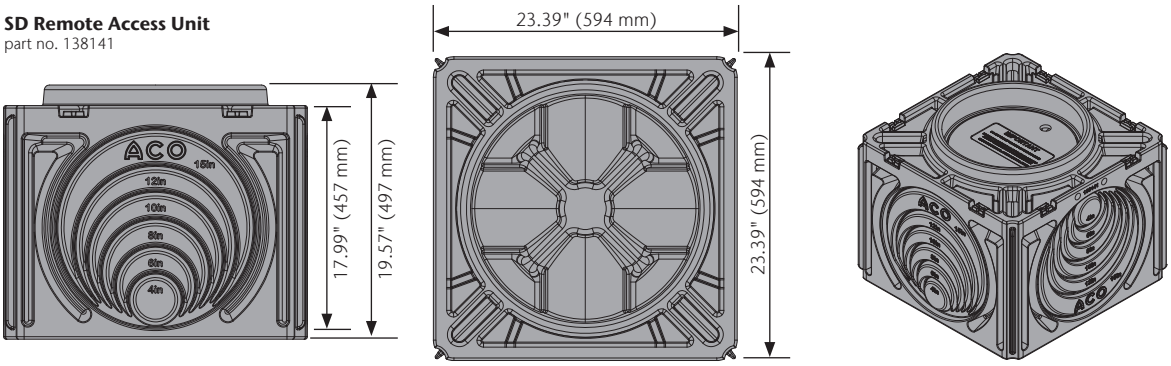
Stormwater Detention/Infiltration/Retention System

Remote Access Plate
part no. 314075

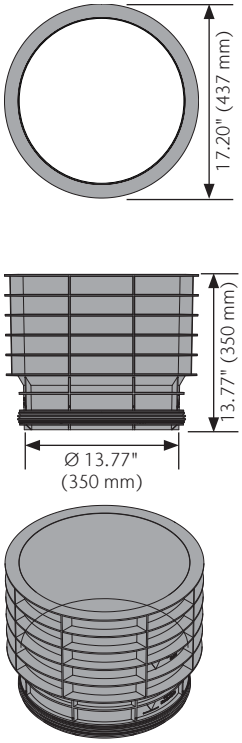




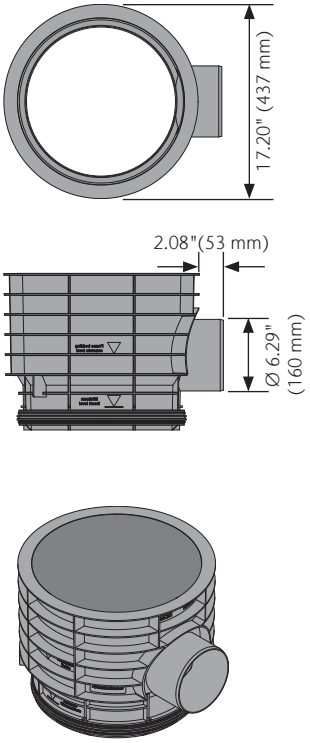
SD Remote Access Unit
part no. 138141



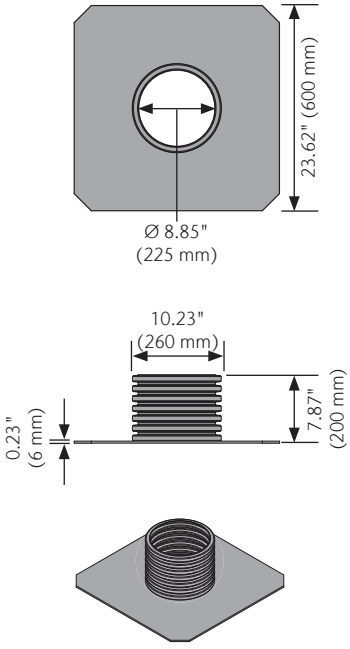
Extension Shaft
part no. 314038



Extension Shaft with Pipe Socket
part no. 314039



Vertical Inspection Point Connector
part no. 27018



ACO Specification Information

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ACO StormBrixx® SD

January 2021

Stormwater Detention/Infiltration/Retention System

ACO StormBrixx SD Parts Table	Part No.	Length in (mm)	Width in (mm)	Depth in (mm)	Weight lbs (kg)
SD Half-Module	314090	47.24 (1200)	23.62 (600)	19.45 (494)	21.60 (9.80)
SD Side Panel	314091	35.71 (907)	23.31 (592)	1.57 (40)	7.20 (3.30)
SD Half-Layer Side Panel	314098	17.85 (454)	23.31 (592)	1.57 (40)	3.40 (1.54)
SD Top Cover	314092	21.65 (550)	21.65 (550)	1.96 (50)	1.60 (0.70)
Half-Layer Top Cover Plate	314094	47.25 (1200)	23.63 (600)	3.70 (94)	7.70 (3.50)
SD Remote Access Unit	138141	23.39 (594)	23.39 (594)	19.57 (497)	40.00 (18.12)
SD Layer Connector	314093	2.11 (54)	1.75 (44)	1.05 (27)	0.03 (0.02)
Remote Access Plate	314075	25.59 (650)	25.59 (650)	4.72 (120)	10.78 (4.90)
Remote Access Cover - Ductile Iron (Load Class D400)	314043	-	Ø 20.79 (528)	4.34 (110)	86.46 (39.30)
Remote Access Vented Cover - Ductile Iron (Load Class D400)	314053	-	Ø 20.79 (528)	4.34 (110)	83.60 (38.00)
Inspection Point Cover - Ductile Iron (Load Class D400)	314044	-	Ø 8.85 (225)	2.95 (75)	34.54 (15.70)
Extension Shaft	314038	-	Ø 17.21 (437)	13.78 (350)	4.84 (2.60)
Extension Shaft with Pipe Socket	314039	-	Ø 17.21 (437)	13.78 (350)	6.16 (2.80)
Vertical Inspection Point Connector	27018	-	Ø 8.85* (225)	7.87 (200)	5.52 (2.50)
Horizontal Pipe Connectors					
SDR 35 - 4"	93139		4.00* (102)		1.9 (0.87)
SCH 40 - 4"	93145		4.00* (102)		1.9 (0.87)
SDR 35 - 6"	93140		6.00* (152)		3.2 (1.49)
SCH 40 - 6"	93146	8.00 (203)	6.00* (152)	-	3.20 (1.49)
SDR 35 - 8"	93141		8.00* (203)		5.52 (2.50)
SCH 40 - 8"	93147		8.00* (203)		5.52 (2.50)
SDR 35 - 12"	93142		12.00* (305)		5.52 (2.50)
SDR 35 - 15"	93144		15.00* (381)		5.52 (2.50)

*Internal width

Specifications

General
The StormBrixx stormwater Detention*/ Infiltration*/Retention* system shall be ACO Stormbrixx SD as supplied by ACO, Inc.

ACO StormBrixx SD meets AASHTO H-20 and HS-20 loading conditions.

Materials
The half-module shall be manufactured from polypropylene and have minimum properties as follows:
Tensile impact strength:
152 ft-lb/in^2 (319 kj/m^2)
Tensile strength, ultimate:
3,480 psi (23,994 kpa)
Water absorption: 0.01%
Frost proof, salt proof and fuels and oils resistant

The stormwater tank shall provide an average 97% open area[1], holding up to 22.53[1] ft^3 (0.63 m^3) per module (2 half-modules assembled) and offer full access to all areas and levels for maintenance.

Geomembranes/Geotextiles
The StormBrixx stormwater system shall be wrapped in appropriate permeable geotextile or impermeable geomembrane* (supplied by others) as indicated by project design engineer.

Accessories
The StormBrixx stormwater system shall be used in conjunction with remote access unit or plate**/extension shaft**/inspection point connector**.

Installation
The StormBrixx stormwater system shall be installed in strict accordance with the manufacturer's installation instructions and recommendations.

*Choose one
**Choose none, one or more
[1]Configuration and use of side/top panels will marginally impact these figures

ACO Specification Information

ACO, Inc.

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Toll-Free: (800) 543-4764
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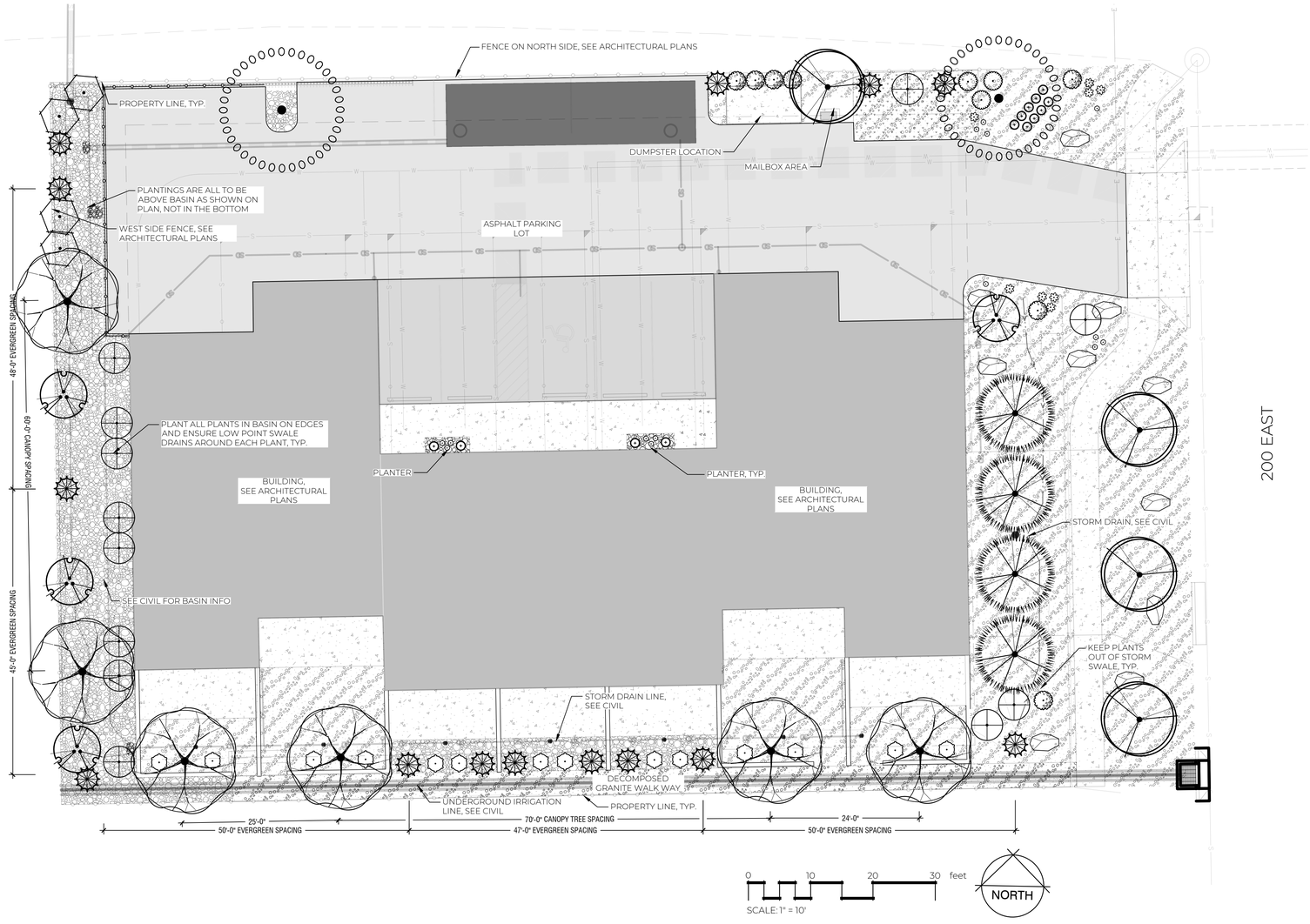
All reasonable care has been taken in compiling the information in this document. All recommendations and suggestions on the use of ACO products are made without guarantee since the conditions of use are beyond the control of the company. It is the customer's responsibility to ensure that each product is fit for its intended purpose and that the actual conditions of use are suitable. ACO, Inc. reserves the right to change products and specifications without notice.

ACO. creating the future of drainage



PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
TREES				
	CHI LIN	Chilopsis linearis / Desert Willow	1.5" Cal.	2
	JUN SK2	Juniperus scopulorum 'Skyrocket' / Skyrocket Juniper	6` Ht.	14
	KOE PAN	Koelreuteria paniculata / Golden Rain Tree	1.5" Cal.	6
	MOR STR	Morus alba / Fruitless Mulberry	1.5" Cal.	4
	PIN BRI	Pinus aristata / Bristlecone Pine	6` Ht.	4
	ROB PUR	Ptelea trifoliata / Common Hoptree	1.5" Cal.	4

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
SHRUBS				
	EPH VIR	Ephedra viridis / Mormon Tea	1 gal.	7
	ERI AIH	Ericameria nauseosa nauseosa / Dwarf Rabbitbrush	1 gal.	8
	GUT SAR	Gutierrezia sarothrae / Snakeweed	1 gal.	14
	MAH FRE	Mahonia fremontii / Desert Mahonia	1 gal.	4
	PRU PUM	Prunus pumila / Sand Cherry	5 gal.	12
	ART SCH	Salvia officinalis / Garden Sage	1 gal.	13
	SYM ALB	Symphoricarpos albus / Common White Snowberry	1 gal.	3
	ZIN GRA	Zinnia grandiflora / Rocky Mountain Zinnia	1 gal.	14
INERT MATERIAL				
	BOU DE2	BOULDER SURFACE SELECT / DECORTIVE BOULDERS	2` -3`	10

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
GROUND COVERS				
	CR2	Crushed Clean Angular Rock 3"-4" / Owner to approve color	N/A	1,589 sf
	CR	Crushed Granite / Decomposed Granite	N/A	4,469 sf

PLANTING NOTES

1. CONTRACTOR TO VERIFY ALL CONDITIONS PERTAINING TO THIS PLAN AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE LANDSCAPE ARCHITECT.
2. THE CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES LINES PRIOR TO PLANTING AND SHALL REPORT ANY CONFLICTS TO THE LANDSCAPE ARCHITECT.
3. CONTRACTOR SHALL REPAIR ALL DAMAGES CAUSED BY OPERATIONS (WHICH OCCUR ON OR OFF SITE) TO THE OWNER'S REPRESENTATIVE SATISFACTION.
4. ALL QUANTITIES SHOWN ARE APPROXIMATE AND ARE FURNISHED SOLELY FOR THE CONTRACTOR'S CONVENIENCE. THEY DO NOT NECESSARILY CORRESPOND TO BID SCHEDULE ITEMS. IN THE CASE OF ANY DISCREPANCIES, PLANS SHALL OVER-RIDE THE LANDSCAPE AND BID SCHEDULE QUANTITIES. CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON THE PLANS AND BASE THEIR BID ACCORDINGLY.
5. DO NOT MAKE UNAPPROVED SUBSTITUTIONS. IF SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY FROM AT LEAST FIVE SOURCES TO OWNER'S REPRESENTATIVE, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL FOR FINAL APPROVAL. PLANTS MUST MATCH THE CITY' PRE APPROVED LIST.
6. LAYOUT INDIVIDUAL TREE AND PLANT LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS, STAKE LOCATIONS, AND OUTLINE AREAS AND SECURE OWNERS REPRESENTATIVE ACCEPTANCE BEFORE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS MAY BE DIRECTED.
7. REPAIR ALL LANDSCAPING WHERE NEW CONSTRUCTION MEETS EXISTING.
8. PERFORM PERCOLATION TEST ON ALL TREE PLANTING HOLES AND PLANTING BEDS PRIOR TO PLANTING. INFORM OWNER OF CONDITIONS OF POOR DRAINAGE.
9. LANDSCAPE CONTRACTOR SHALL COORDINATE AND ADJUST PLANT PLACEMENT WITH SPRINKLERS.
10. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ALL PLANT MATERIALS IN A HEALTHY STATE DURING CONSTRUCTION. ANY DAMAGE TO PLANT MATERIAL DUE TO NEGLECT BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
11. IT IS THE CONTRACTORS RESPONSIBILITY TO FOLLOW ALL CITY CODE.
12. SEE SHEET L500 AND L501 FOR LANDSCAPE & IRRIGATION DETAILS/SPECIFICATIONS.
13. MAX SPACING BETWEEN SHRUBS IN BUFFER ZONES IS 15 FEET PER CODE.
14. TOTAL LANDSCAPED AREA = 6,138 SQ FT

Blue Stakes of UTAH 811 — BlueStakes.org

PRIME LANDSCAPE ARCHITECTURE

COTTONWOOD CONDOMINIUMS

214 SOUTH 200 EAST
MOAB, UTAH 84532

STATE OF UTAH — AUSTIN KIRK HISLOP — 9887409-5501 — LANDSCAPE ARCHITECT — 02 27 24

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT: 30008
CHECKED BY: HISLOP
ISSUED: 02-27-2024

SHEET NAME:
PLANTING PLAN

SHEET NUMBER:
L100

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TREES

Desert Willow

Chilopsis linearis
low water use

Skyrocket Juniper

Juniperus scopulorum 'Skyrocket'
low water use

Golden Raintree

Koelreuteria paniculata
low water use

Fruitless Mulberry

Morus alba
low water use

Bristlecone Pine

Pinus artistata
very low water use

Common Hoptree

Ptelea trifoliata
low/medium water use
full sun

SHRUBS

Mormon Tea

Ephedrea viridis
very low water use

Dwarf Rabbitbush

Ericameria nauseosa ssp. nauseosa var. nauseosa
very low water use

Snakeweed

Gutierrezia sarothrae
low water use

Desert Mahonia

Mahonia fremotii
low water use

Sand Cherry

Prunus pumila
low water use

Garden Sage

Salvia officinalis
low water use

Common White Snowberry

Symphoticarpos albus
low water use

Prairie Zinnia

Zinnia grandiflora
low water use

PRIME
LANDSCAPE ARCHITECTURE

COTTONWOOD CONDOMINIUMS

214 SOUTH 200 EAST
MOAB, UTAH 84532

STATE OF UTAH
AUSTIN KIRK HISLOP
NO. 8067809-5301
LICENSED LANDSCAPE ARCHITECT
02-27-2024

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT: 30008
CHECKED BY: HISLOP
ISSUED: 02-27-2024

SHEET NAME:
PLANT CONCEPT IMAGES

SHEET NUMBER:
L102

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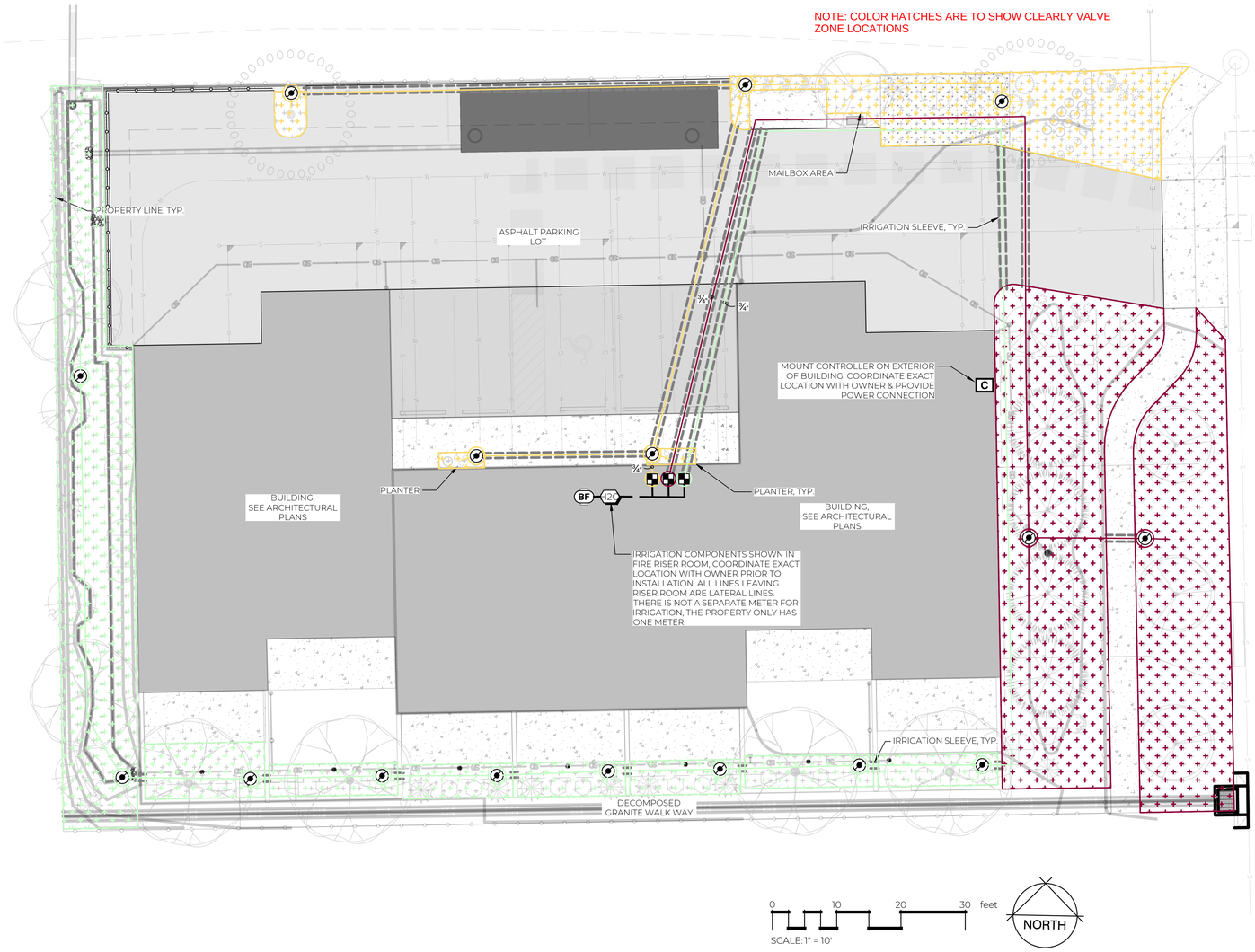
PRINT THIS SHEET IN COLOR

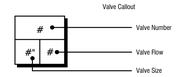


PLANT SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird LFV-075 3/4" 3/4in. Low Flow DV Valve	3
	Pipe Transition Point in Drip Box Pipe transition point from PVC lateral to drip tubing with riser in 6in. drip box.	16
	Area to Receive Drip Emitters Rain Bird XBCV-PC Single Outlet, Pressure Compensating Drip Emitters. Flow rates of 0.5 GPH=blue, 1.0 GPH=black, and 2.0 GPH=red. Comes with a self-piercing barb inlet x barb outlet. With check valve.	5,099 s.f.
	Emitter Notes: 05PC emitters (2 assigned to each 1 gal. plant)	126
	05PC emitters (3 assigned to each 1.5" Cal. plant)	48
	05PC emitters (2 assigned to each 5 gal. plant)	18
	05PC emitters (3 assigned to each 6` Ht. plant)	54

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
BF	Zurn 375 3/4" Reduced Pressure Principle Assembly. Sizes 3/4in.	1
C	Rain Bird ESP4ME3 4 Station, Hybrid Modular Outdoor Controller. For Residential or Light Commercial Use. LNK WiFi Module and Flow Sensor Ready.	1
12X	Maximum H2O 3/4" Commercial thread mount 316 stainless steel - mount downstream of backflow	1
	Irrigation Lateral Line: PVC Schedule 40 3/4"	834.6 l.f.
	Irrigation Mainline: PVC Schedule 40	24.1 l.f.
	Pipe Sleeve: PVC Class 200 SDR 21	311.0 l.f.

Valve Callout



WATER BUDGET CALCULATIONS

HYDROZONE	ETO	PLANT WATER USE CATEGORY	PLANT FACTOR	EP (in./season)	IRRIGATION METHOD	IRRIGATION EFFICIENCY	HYDROZONE AREA (sq ft)	IRRIGATION WATER NEED (gal/season)
ZONE 1	49.8	L	0.2	1.7	DRIP	0.9	2,000	13,000
ZONE 2	49.8	L	0.2	1.7	DRIP	0.9	1,935	12,577
ZONE 3	49.8	L	0.2	1.7	DRIP	0.9	1,164	7,566
						TOTALS	5,099	33,143

IRRIGATION WATER NEEDS= 6.50 GAL/SF/SEASON

IRRIGATION NOTES

1. CONTRACTOR TO VERIFY ALL CONDITIONS PERTAINING TO THIS PLAN AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE LANDSCAPE ARCHITECT.
2. CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY REQUIRED FEES TO ANY GOVERNMENTAL AGENCY HAVING JURISDICTION OVER THE WORK. INSPECTIONS REQUIRED BY LOCAL ORDINANCES DURING CONSTRUCTION SHALL BE ARRANGED AND CONDUCTED BY THE CONTRACTOR.
3. BEFORE ANY TRENCHING, EXCAVATION OR DIGGING BELOW THE SURFACE FOR ANY REASON IS BEGUN, THE CONTRACTOR SHALL HAVE THE AREA "BLUE STAKED" IN ORDER TO DETERMINE AS CLOSE AS POSSIBLE THE LOCATIONS OF ALL UNDERGROUND UTILITIES. SHOULD UTILITIES NOT SHOWN ON THE PLANS BE FOUND DURING EXCAVATIONS THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
4. REPORTED AVAILABLE STATIC PRESSURE IS 50 PSI. CONTRACTOR SHALL VERIFY THE AVAILABLE STATIC PRESSURE AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE.
5. IRRIGATION DESIGN IS DIAGRAMMATIC. PIPING, IRRIGATION VALVES AND OTHER IRRIGATION EQUIPMENT ARE OFTEN SHOWN FOR CLARITY IN AREAS ADJACENT TO LOCATIONS WHERE THEY WILL BE INSTALLED. IRRIGATION LINES AND EQUIPMENT MAY BE SHOWN ON PAVEMENT, INSIDE BUILDINGS OR ACROSS PROPERTY LINES. THE CONTRACTOR SHALL PLACE ALL IRRIGATION LINES, VALVES, ETC. IN PLANTING AREAS AND ON THE PROPERTY WHEN POSSIBLE.
6. THE CONTRACTOR SHALL CONDUCT WORK IN SUCH A MANNER TO PROTECT ALL SITE CONDITIONS AND UTILITIES TO REMAIN FROM DAMAGE. WHEN OCCURS, THE CONTRACTOR SHALL REPAIR THE DAMAGE AT THE CONTRACTOR'S EXPENSE.
7. SLEEVE CONTROL WIRES IN A 1" INCH CONDUIT NEXT TO, OR UNDER, IRRIGATION MAINLINE AS SHOWN IN DETAILS. CONTROL WIRES NOT SLEEVED SHALL FOLLOW MAINLINE AND BE BUNDLED EVERY 10 FEET.
8. INSTALL FLUSH VALVE AT ALL ENDS OF DRIPLINE PER MANUFACTURERS SPECIFICATIONS.
9. LANDSCAPE CONTRACTOR TO COORDINATE PLANT PLACEMENT WITH SPRINKLERS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING PROPER COVERAGE OF ALL IRRIGATED AREAS.
11. INSTALL NEW VALVE BOXES AT ALL MANIFOLDS AND QUICK COUPLER LOCATIONS. VALVE BOXES SHALL BE TAN COLORED.
12. IRRIGATION CONTRACTOR SHALL FOLLOW ALL REQUIRED CITY CODE.
13. SEE SHEET L500 & L501 FOR LANDSCAPE & IRRIGATION DETAILS.

Blue Stakes of UTAH 811 Bluestakes.org

PRIME LANDSCAPE ARCHITECTURE

COTTONWOOD CONDOMINIUMS

214 SOUTH 200 EAST
MOAB, UTAH 84532

STATE OF UTAH — DUSTIN KIRK HISLOP — LICENSED LANDSCAPE ARCHITECT — NO. 8087409-5301

REVISIONS

NO.	DATE	DESCRIPTION
1	3.11.24	IRRIGATION P.O.C.

PROJECT: 30008
CHECKED BY: HISLOP
ISSUED: 02-27-2024

SHEET NAME:
IRRIGATION PLAN

SHEET NUMBER:
L200

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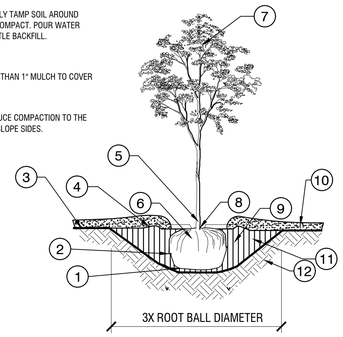
1. BOTTOM OF ROOT BALL TO REST ON EXISTING OR RECOMPACTED SOIL.
2. REMOVE CONTAINERS, WIRE, BASKETS, ETC. PRIOR TO PLANTING. COMPLETELY REMOVE TWINE AND BURLAP FROM B&B STOCK
3. FINISHED GRADE
4. ROUND TOP SOIL BERM 4" HIGH X 8" WIDE SURROUNDING PERIPHERY OF ROOT BALL.
5. TRUNK CALIPER SHALL MEET ANSI Z60 CURRENT EDITION FOR ROOT BALL SIZE. TREE SHALL BE 2" MIN. CALIPER, MEASURED 20" ABOVE GROUND LEVEL
6. ROOT BALL, MODIFIED AS REQUIRED
7. CENTRAL LEADER
8. TOP OF ROOT BALL SHALL BE AT GRADE. ROOT COLLAR SHALL NOT BE 2" ABOVE FINISHED GRADE. ANY TREE PLANTED TOO DEEP WILL NOT BE ACCEPTED.
9. PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND ROOT BALL. NO NOT OVER COMPACT. POUR WATER AROUND ROOTBALL TO SETTLE BACKFILL.
10. 4" MULCH LAYER. NO MORE THAN 1" MULCH TO COVER ROOT BALL.
11. DIG AND TURN SOIL TO REDUCE COMPACTION TO THE AREA AND DEPTH SHOWN. SLOPE SIDES.
12. EXISTING SOIL

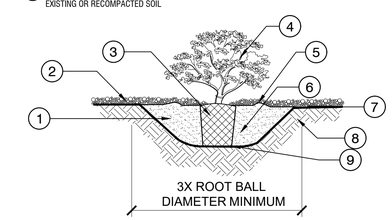


NOTES:
1. THE SPACING & SPECIES OF TREES SHALL CONFORM TO THE REQUIREMENTS OF THE PLANNING COMMISSION. ANY SUBSTITUTIONS MUST BE APPROVED BY LEHI CITY.
2. TREES SHOULD BE SELECTED BASED ON THE AREA'S SOIL AND CLIMATE.
3. TREES SHALL BE KEPT:
   - 3.1. OUTSIDE OF THE INTERSECTION SIGHT OF TRIANGLES AS DEFINED WITHIN SECTION 12 OF THE DEVELOPMENT CODE.
   - 3.2. NOT LESS THAT 20' FROM LAMP STANDARDS AND POWER POLES.
   - 3.3. NOT LESS THAN 10' FROM FIRE HYDRANTS.
   - 3.4. NOT LESS THAN 5' FROM SERVICE WALKS & DRIVEWAYS.
   - 3.5. NOT LESS THAN 5' FROM WATER METERS.
4. THE DEVELOPER SHALL PAY THE INSTALLATION COST OF PARKWAY TREES. PARKWAY TREES SHALL BE INSTALLED ON ALL STREETS IN CONFORMANCE TO THE STANDARD DETAILS, AS REQUIRED BY PLANNING AND ZONING.
5. TREES TO BE INSPECTED BY LEHI CITY AT DELIVERY AND/OR PRIOR TO PLANTING TO ENSURE QUALITY AND SIZE.
6. TREES TO BE INSPECTED DURTING PLANTING BY LEHI CITY TO ENSURE PROPER INSTALLATION.
7. TREES MAY BE ACCEPTED AFTER 30 DAYS MAINTENANCE TIME FROM INSPECTION, PROVIDED IT IS WEED FREE & OF NORMAL, ACCEPTABLE GROWTH FOR THE TIME OF YEAR.
8. PLANT TREE TO ITS NORMAL DEPTH & PUDDLE WITH A RUNNING STREAM OF WATER FROM A HOSE. PREPARE PLANTING HOLE & STAKE TREE AS REQUIRED B Y CITY REPRESENTATIVE.

1 TREE PLANTING

NTS P-CO-COT-06

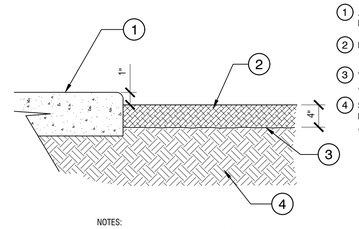
1. DIG & TURN SOIL TO REDUCE COMPACTION TO THE AREA & DEPTH SHOWN. SLOPE SIDES.
2. 4" LAYER OF MULCH. NO MORE THAN 1" MULCH TO COVER ROOT BALL.
3. ROOTBALL
4. SHRUB
5. ROUND-TOPPED SOIL BERM 4" HIGH X 8" WIDE SURROUNDING THE PERIPHERY OF THE ROOT BALL
6. PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND THE ROOT BALL TO BRACE SHRUB. DO NOT OVER COMPACT. POUR WATER AROUND THE ROOTBALL TO SETTLE BACKFILL.
7. FINISHED GRADE
8. EXISTING SOIL
9. BOTTOM OF ROOTBALL TO REST ON EXISTING OR RECOMPACTED SOIL



NOTES:
1. ALL SHRUBS SHALL BE A MINIMUM 5 GALLON SIZE UNLESS WRITTEN APPROVAL IS OBTAINED & VARIETY, SIZE, & SPACING IS STATED.
2. ALL CONTAINERS, WIRE BASKETS, ETC. SHALL BE REMOVED FROM SHRUBS PRIOR TO PLANTING. ALL B&B STOCK SHALL HAVE THE BAILING TWINE AND BURLAP REMOVED.
3. ANY SHRUBS PLANTED TOO DEEP WILL NOT BE ACCEPTED. ROOT BALL SHALL BE LEVEL WITH FINISHED GRADE. ROOT COLLAR SHALL BE 2" ABOVE FINISHED GRADE.
4. SHRUBS SHOULD BE SELECTED BASED ON THE AREA'S SOIL & CLIMATE.
5. SHRUBS MAY BE ACCEPTED AFTER 30 DAYS MAINTENANCE TIME FROM INSPECTION, PROVIDED IT IS WEED FREE & OF NORMAL, ACCEPTABLE GROWTH FOR THE TIME OF YEAR.
6. PLANT SHRUB TO ITS NORMAL DEPTH & PUDDLE WITH A RUNNING STREAM OF WATER FROM A HOSE.

2 SHRUB

NTS P-CO-COT-12



1. ADJACENT HARDSCAPE (SEE PLAN FOR MATERIAL)
2. ROCK MULCH PER LANDSCAPE SCHEDULE
3. WEED BARRIER FABRIC WHEN SPECIFIED AS ROCK MULCH
4. SUBGRADE - REMOVE HIGH AND LOW POINTS TO PROVIDE CONSISTENT APPLICATION OF MULCH

NOTES:
SEE PLAN FOR MULCH MATERIAL, COLOR & TYPE
SUBMIT 1 GAL. SAMPLES TO OWNER FOR APPROVAL

3 MULCH

1" = 1" P-CO-COT-05

PLANTING SPECIFICATIONS

SUMMARY - SECTION INCLUDES:
- A. SOIL PREPARATION
- B. PLANTS
- C. LANDSCAPE SURFACING

REFERENCES:
- A. ANSI/AHIA Z60.1 - AMERICAN NATIONAL STANDARD FOR NURSERY STOCK; 2014.

QUALITY ASSURANCE:
- A. ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISH BY THE AMERICAN STANDARDS FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN.
- B. PLANT MATERIAL SHALL BE INSPECTED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION . PLANT MATERIALS SHALL BE HEALTHY AND OF GOOD FORM. ANY DAMAGED, MALFORMED, DISEASED OR ROOT BOUND PLANTS SHALL BE REJECTED AND REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
- C. LAYOUT INDIVIDUAL TREE AND PLANT LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS, STAKE LOCATIONS, AND OUTLINE AREAS AND SECURE ARCHITECT'S ACCEPTANCE BEFORE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS MAY BE DIRECTED.

FIELD CONDITIONS:
- A. LOCATE UTILITIES, CABLES, CONDUITS, PIPING AND OTHER OBSTACLES PRIOR TO BEGINNING EXCAVATION. REMOVE ROCKS AND OTHER SIMILAR UNDERGROUND OBSTRUCTIONS TO DEPTHS NECESSARY TO PERMIT PROPER INSTALLATION OF TOPSOIL AND LANDSCAPE MATERIALS.

WARRANTY:
- A. CONTRACTOR TO PROVIDE A ONE-YEAR GUARANTEE THAT SHALL BEGIN ON THE DATE OF SUBSTANTIAL COMPLETION FOR TREES AND SHRUBS. ALL PLANTS SHALL GROW AND BE HEALTHY FOR THE GUARANTEE PERIOD AND TREES SHALL LIVE AND GROW IN ACCEPTABLE UPRIGHT POSITION. ANY OUTSIDE FACTORS, SUCH AS VANDALISM OR LACK OF MAINTENANCE BY THE OWNER, SHALL NOT BE CONSIDERED IN THE GUARANTEE.

SOIL PREPARATION:
- A. GRADING WORK SHALL BE DONE IN A MANNER WHICH DOES NOT CAUSE EXCESSIVE COMPACTION OR CLODS, WHICH WILL NOT BREAK EASILY. ROUGH GRADE SUB-GRADE MATERIAL SO THAT A FINAL GRADE CAN BE ACHIEVED WITH PLACEMENT OF TOPSOIL. COMPACT AREAS UNDER PAVEMENT AND STRUCTURES TO 95 PERCENT. IN PLANTING AREAS COMPACT TO BETWEEN 85 AND 90 PERCENT.
- B. ALL PLANTING AREAS SHALL HAVE A TOPSOIL DEPTH OF 8 INCHES AROUND PLANTS IN PLANTER BEDS. TOPSOIL SHALL BE FERTILE FRIABLE, NATURAL LOAM AND SHALL BE CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL BE FREE OF STONES, LUMPS, CLODS OF HARD EARTH, PLANTS OR OTHER ROOTS, STICKS AND OTHER EXTRANEOUS MATTER. THE SOIL SHALL CONTAIN NEITHER NOXIOUS WEEDS NOR THEIR SEEDS. IT SHALL NOT BE USED FOR PLANTING OPERATIONS WHILE IN A FROZEN OR MUDDY CONDITION.
- C. CONDUCT A TOPSOIL ANALYSIS TO VERIFY IMPORTED AND EXISTING TOPSOIL WILL MEET THE FOLLOWING CRITERIA:
  - CHEMICAL CHARACTERISTICS:
  - 1) ACIDITY / ALKALINITY RANGE: PH 5.5 TO 8.0.
  - 2) SOLUBLE SALTS: LESS THAN 3.0 MMHOS/CM.
  - 3) SODIUM ABSORPTION RATIO (SAR): LESS THAN 6.0.
  - 4) ORGANIC MATTER: GREATER THAN ONE PERCENT.
  - PHYSICAL CHARACTERISTICS:
  - 1) GRADATION AS DEFINED BY USDA TRIANGLE OF PHYSICAL CHARACTERISTICS AS MEASURED BY HYDROMETER.
    - a) SAND: 15 TO 60 PERCENT.
    - b) SILT: 10 TO 60 PERCENT.
    - c) CLAY: 5 TO 30 PERCENT.
  - 2) CLEAN AND FREE FROM TOXIC MINERALS AND CHEMICALS, NOXIOUS WEEDS, ROCKS LARGER THAN 1-1/2 INCH IN ANY DIMENSION, AND OTHER OBJECTIONABLE MATERIALS.
  - 3) SOIL SHALL NOT CONTAIN MORE THAN 2 PERCENT BY VOLUME OF ROCKS MEASURING OVER 3/32 INCH IN LARGEST SIZE.
- D. AMEND SOIL AS PER SOIL TEST RECOMMENDATIONS PRIOR TO PLANTING, TILL IN AMENDMENTS TO A 6 INCH DEPTH.
- E. WHEN PLACING TOPSOIL, SCARIFY THE SURFACE OF THE SUB-GRADE TO A 2 INCH DEPTH TO PROVIDE A TRANSITION ZONE BETWEEN SUB-GRADE AND TOPSOIL. PLACE TOPSOIL ON SUB-GRADE AND FINE GRADE TO MEET FINAL FINISH GRADE AND TOPSOIL DEPTHS AS INDICATED ON PLANS AND IN THESE NOTES.
- F. FINISHED GRADES SHALL BE SMOOTH AND UNIFORM WITH GRADUAL TRANSITIONS BETWEEN PLANES. LANDSCAPE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 2 PERCENT DRAINAGE AWAY FROM ALL BUILDINGS, STRUCTURES, AND WALLS. FINAL GRADE SHALL BE SET AND ADJUSTED TO ELIMINATE PUDDLING OR STANDING WATER.
- G. LANDSCAPE CONTRACTOR SHALL APPLY A CONTACT HERBICIDE PER MANUFACTURER'S SPECIFICATIONS TO ALL PLANTING AREAS WHERE WEEDS OR UNDESIRABLE VEGETATION ARE PRESENT. WEEDS SHALL BE ALLOWED TO COMPLETELY DIE BACK, INCLUDING THE ROOTS, BEFORE PROCEEDING WITH WORK. DEAD WEEDS SHALL BE REMOVED FROM THE SITE.

PLANTS:
- A. PRIOR TO PLANTING, THE IRRIGATION SYSTEM SHALL BE FULLY OPERATIONAL, AND ALL PLANTING AREAS SHALL BE THOROUGHLY MOISTENED.
- B. LAYOUT INDIVIDUAL PLANT LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS, STAKE LOCATIONS, AND OUTLINE AREAS AND SECURE ARCHITECT'S ACCEPTANCE BEFORE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS MAY BE DIRECTED.
- C. FOR PLANTING INFORMATION, SEE PLANTING DETAILS. DO NOT USE ANY PLANTING STOCK IF THE ROOT BALL IS CRACKED OR BROKEN BEFORE OR DURING PLANTING. BACKFILL PLANTING HOLES WITH ONE-PART NATIVE AND ONE-PART TOPSOIL. FILL THE HOLE TO 2/3 CAPACITY THEN THOROUGHLY WATER THE PLANT. COMPLETE BACKFILLING THE HOLE. FORM A WATERING BASIN AROUND THE PLANT AND THOROUGHLY WATER AGAIN. APPLY VITAMIN B-1 ROOT STIMULATOR TO THE TREE AND SHRUB PLANTING. MONITOR ALL PLANTS TO ENSURE THAT NO SETTLING OCCURS.

LANDSCAPE SURFACING:
- A. TOP DRESS ALL TREES AND SHRUBS WITH 3 INCH DEPTH MULCH. SEE DRAWINGS FOR MULCH TYPE.

MAINTENANCE:
- C. PROTECT LANDSCAPING FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS, OPERATION BY OTHER CONTRACTORS AND TRADES, AND TRESPASSERS. TREAT, REPAIR OR REPLACE DAMAGED LANDSCAPE WORK AS DIRECTED BY OWNER'S REPRESENTATIVE AT CONTRACTOR'S EXPENSE. REMOVE RUBBISH, TRASH, AND DEBRIS RESULTING FROM OPERATION AT THE END OF EACH WORK DAY AND LEGALLY DISPOSE OF IT OFF THE OWNER'S PROPERTY. WASH PAVED SURFACES CLEAN.
- D. AT COMPLETION OF ALL WORK OUTLINED IN THESE PLANS, THE LANDSCAPE CONTRACTOR SHALL CONTACT OWNER AND ARRANGE FOR A WALK THROUGH TO VERIFY THAT ALL ASPECTS OF WORK HAVE BEEN PROPERLY INSTALLED. A MAINTENANCE PERIOD WILL BEGIN ON THE DATE OF SUBSTANTIAL COMPLETION.
- E. MAINTENANCE PERIOD SHALL BE IN EFFECT UNTIL THE OWNER'S REPRESENTATIVE ACCEPTS THE PLANTS, WHICH WILL BE A MINIMUM OF 60 DAYS FOR TREES, SHRUBS, AND PLANTS.
- E. A FINAL INSPECTION OF THE PLANTING AND LANDSCAPE IMPROVEMENTS WILL BE MADE AT THE END OF MAINTENANCE PERIOD.

PRIME LANDSCAPE ARCHITECTURE

COTTONWOOD CONDOMINIUMS
214 SOUTH 200 EAST
MOAB, UTAH 84532

STATE OF UTAH — KEITH KIRK HISLOP — NO. 6087409-5301 — LICENSED LANDSCAPE ARCHITECT — 2/27/24

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT: 30008
CHECKED BY: HISLOP
ISSUED: 02-27-2024

SHEET NAME:
PLANT DETAILS

SHEET NUMBER:
L500

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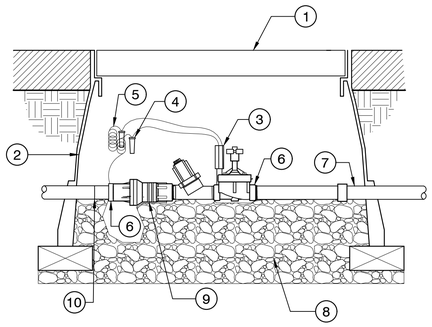
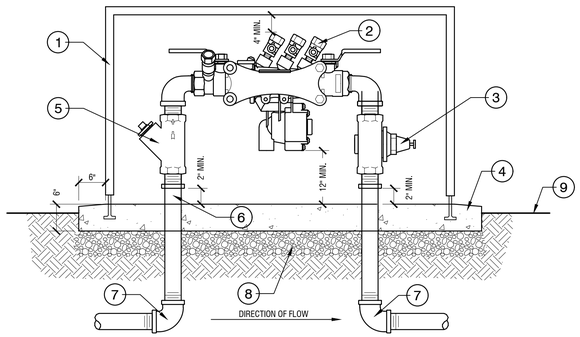


1. JUMBO VALVE BOX
2. WRAP BOX IN DEWITT PRO 5 W/4 BRICKS UNDERNEATH
3. DRIP ZONE KIT MODEL PER PLAN TIP FILTER 45 DEGREES
4. PAIGE WIRE CONNECTORS (2)
5. 14 AWG PE WIRE. PLACED INSIDE OF MIN 1-1/2" CONDUIT, 4" ABOVE BOX FLOOR
6. ACTION MANIFOLD FITTINGS
7. MAIN LINE PIPE, SCH. 80 FITTINGS
8. 3/4" MINUS WASHED GRAVEL
9. REGULATOR: 25 OR 40 PSI
10. LATERAL LINE PIPE, SCH. 40 FITTINGS

NOTE:
ALL "DRIP" SPRINKLER SYSTEMS SHALL BE EQUIPPED WITH A LOW FLOW VALVE AND PRESSURE REDUCING FILTER AS APPROVED BY THE LEHI CITY PARKS DEPARTMENT.

1 DRIP CONTROL ZONE

NTS P-CO-COT-46

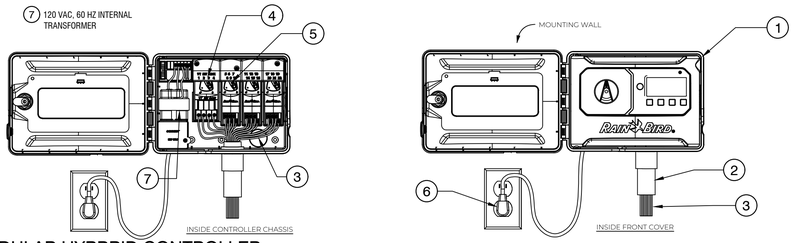


1. BACKFLOW ENCLOSURE
2. REDUCED PRESSURE BACKFLOW PREVENTER
3. PRESSURE REGULATOR
4. SLOPE TO DRAIN. 0.5% MIN (TYP.)
5. WYE STRAINER
6. GALVANIZED NIPPLE
7. GALVANIZED ELBOW
8. 6" GRANULAR FILL
9. FINISH GRADE

2 ZURN 375XL BACKFLOW PREVENTER W/ PRESSURE REGULATOR

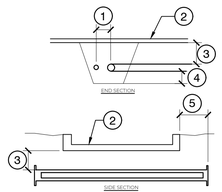
3/4" = 1'-0" P-CO-COT-11

1. CONTROLLER
2. 1" PVC SCH 40 CONDUIT AND FITTINGS
3. WIRES TO REMOTE CONTROL VALVES
4. STANDARD MODULE FOR STATION CONTROLLERS
5. OPTIONAL MODULES FOR UP TO 22-STATION CONTROLLER USE AS NEED PER PLAN
6. STANDARD 120 V PLUG
7. 120 VAC, 60 HZ INTERNAL TRANSFORMER



3 ESP-ME3 MODULAR HYRBRID CONTROLLER

3/4" = 1'-0" P-CO-COT-10

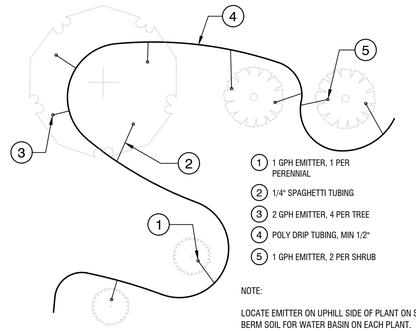


1. 4" MIN. CLEARANCE
2. FINISH GRADE
3. 18" MIN, 24" MAX. PIPE COVER
4. 2" MIN, PIPE BEDDING
5. 6" MIN, 18" MAX.

NOTES:
1. SLEEVES TO BE 2X PIPE SIZE WITHIN. JOINTS TO BE WATERTIGHT. MECHANICALLY TAMP TO 95% PROCTOR
2. ALL PIPE SLEEVING SHALL BE SCH. 40 PVC. PIPING UNDER ROAD TO THE WATER METER BOX MUST BE POLYETHYLENE.
3. CUTTING/BREAKING EXISTING CONCRETE IS NOT PERMITTED UNLESS NO OTHER ALTERNATIVE IS POSSIBLE. PIPING UNDER PAVING SHALL BE INSTALLED BY JACKING, BORING, OR HYDRAULIC DRIVING.
4. DESIGNER/CONTRACTOR SHALL MINIMIZE THE AMOUNT OF SLEEVING REQUIRED UNDER PAVING.
5. ALL WIRE SLEEVING SHALL BE GRAY S/40 ELECTRICAL CONDUIT. NO EXCEPTIONS.

4 SLEEVING

NTS P-CO-COT-43



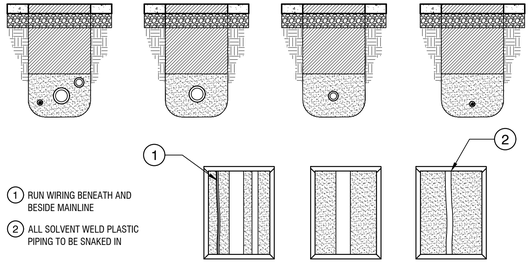
1. 1 GPH EMITTER, 1 PER PERENNIAL
2. 1/4" SPAGHETTI TUBING
3. 2 GPH EMITTER, 4 PER TREE
4. POLY DRIP TUBING, MIN 1/2"
5. 1 GPH EMITTER, 2 PER SHRUB

NOTE:

LOCATE EMITTER ON UPHILL SIDE OF PLANT ON SLOPES. BERM SOIL FOR WATER BASIN ON EACH PLANT.

5 DRIP TUBING & EMITTERS

NTS P-CO-COT-01

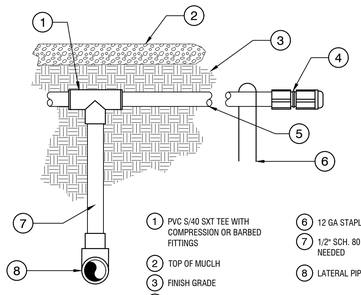


1. RUN WIRING BENEATH AND BESIDE MAINLINE
2. ALL SOLVENT WELD PLASTIC PIPING TO BE SNAKED IN

NOTES:
1. SLEEVES SHALL BE TWICE THE DIAMETER OF THE PIPE WITHIN.
2. PIPE AND WIRE SHALL BE PLACED IN SEPARATE SLEEVES.
3. TRENCHES SHALL BE EXCAVATED 2" BELOW NORMAL TO ALLOW FOR PROPER BEDDING. SELECTED FILL SHALL BE USED IF SOIL CONDITIONS ARE ROCKY.
4. MAIN LINE SHALL HAVE 18-24" COVER, LATERAL LINE SHALL HAVE 8-12" MIN. COVER. 4" OF SCREENED FILL SHALL COVER THE PIPE. THE TOP 6" OF COVER SHALL CONTAIN NO ROCKS/AGGREGATES LARGER THAN 2".
5. TRENCH FILL SHALL BE THOROUGHLY COMPACTED AND LEVELED WITH ADJACENT SOIL.
6. PLASTIC PIPE SHALL BE EXTRUDED FROM PVC 1120-1220 COMPOUD AND LABELED AS SUCH. ALL PVC PIPE SHALL BE SCH. 40. ALL MAINLINE FITTINGS SHALL BE SCH. 80.
7. ALL WIRING SHALL BE ENCLOSED IN CONDUIT: CONTROL WIRE, 2-WIRE, POWER WIRE.

6 PIPE/WIRE IN TRENCH

NTS P-CO-COT-44



1. PVC S/40 SXT TEE WITH COMPRESSION OR BARBED FITTINGS
2. TOP OF MUCLH
3. FINISH GRADE
4. COMPRESSION OR BARBED
5. PE DRIP TUBE
6. 12 GA STAPLE
7. 1/2" SCH. 80 NIPPLE LENGTH AS NEEDED
8. LATERAL PIPE AND FITTINGS

7 PVC TO POLY CONNECTION

NTS P-CO-COT-53

IRRIGATION SPECIFICATIONS

SUMMARY - SECTION INCLUDES:
- A. DRIP
- B. SPRAY
- C. AUXILIARY EQUIPMENT

SYSTEM PERFORMANCE:
- A. WORKMANSHIP AND MATERIALS SHALL CONFORM TO ALL CODES AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION. INSTALL ALL MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- B. NO PART OF THIS SYSTEM SHALL BE INSTALLED IN ANY LOCATION OR MANNER WHICH MAY ENDANGER THE HEALTH, SAFETY, OR WELFARE OF THE PUBLIC. OPEN EXCAVATIONS SHALL BE BARRICADED OR COVERED. PROVIDE AND MAINTAIN ALL LIGHTS, WARNING SIGNS, BARRICADES, ETC. AS MAY BE REQUIRED OR NECESSARY TO PROTECT THE PUBLIC.

FIELD CONDITIONS:
- A. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO BE ACQUAINTED WITH ALL GRADES, LOCATION OF WALKS, STRUCTURES, AND UTILITIES. THE CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY WORK.
- B. ALL UNDERGROUND UTILITIES ARE NOT SHOWN ON THESE PLANS. INSTALLER SHALL LOCATE ALL UNDERGROUND UTILITIES AT LEAST 48 HOURS BEFORE DIGGING. THE INSTALLER SHALL CALL "BLUE STAKES", PROPERTY OWNER, AND CONSULT WITH ANY OTHER PERSONS OR AGENCIES HAVING INFORMATION ON LOCATIONS OF UNDERGROUND UTILITIES.
- C. NOTIFY PROJECT REPRESENTATIVE OF ANY DISCREPANCY FOUND BETWEEN THE CONSTRUCTION DOCUMENTS AND THE EXISTING SITE AND/OR MATERIALS TO BE INSTALLED. DO NOT INSTALL THE IRRIGATION SYSTEM AS SHOWN WHEN ANY UNKNOWN CONDITION SUCH AS OBSTRUCTIONS, DIFFERENCES IN GRADE AND AREA DIMENSIONS EXIST IN THE FIELD WHICH WERE NOT CONSIDERED IN THE IRRIGATION DESIGN. IN THE EVENT THAT NOTIFICATION IS NOT GIVEN BY THE CONTRACTOR TO OWNER'S REPRESENTATIVE, THEN THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS OR CHANGE ORDERS.
- D. INSTALLER SHALL CHECK THE STATIC WATER PRESSURE AT THE POINT OF CONNECTION PRIOR TO START OF INSTALLATION. IF PRESSURE IS 5 PSI HIGHER OR LOWER AS SPECIFIED, THE INSTALLER SHALL NOTIFY THE PROJECT REPRESENTATIVE.
- E. INSTALLER SHALL SET UP IRRIGATION CONTROLLER PER MANUFACTURER RECOMMENDATIONS AND SET UP WIRELESS APP FOR OWNER AND PROVIDE TRAINING.
- F. PROVIDE VISUAL INSPECTIONS AND PHOTOS OF FOLLOWING INSTALLATIONS: SLEEVES, THRUST BLOCKS, MAIN LINE/WIRE, LATERAL LINES, TRENCH BACKFILLING, HEAD/ELBOW CONNECTION, VALVE MANIFOLDS, VALVE BOXES, WIRE CONNECTIONS, DRIP EMITTERS AT PLANTS.

WARRANTY:
- A. CONTRACTOR TO PROVIDE A ONE-YEAR GUARANTEE THAT SHALL BEGIN ON THE DATE OF SUBSTANTIAL COMPLETION. GUARANTEE SHALL ALSO COVER REPAIR FOR DAMAGE TO ANY PART OF THE PREMISES RESULTING FROM LEAKS OR OTHER DEFECTS IN MATERIAL, EQUIPMENT OR WORKMANSHIP, TO THE SATISFACTION OF THE OWNER. REPAIRS, IF REQUIRED, SHALL BE DONE PROMPTLY AND AT NO COST TO THE OWNER.

DRIP:
- A. INSTALL ALL DRIP IRRIGATION ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- B. INSTALL POINT SOURCE DRIP IRRIGATION ACCORDING TO PLANS, DETAILS.
- C. ALL DRIP NOZZLES SHALL HAVE AN INTERNAL CHECK VALVE TO PREVENT WATER LOSS.

SPRAY:
- A. INSTALL ALL SPRAY IRRIGATION ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- B. INSTALL SPRAY IRRIGATION ACCORDING TO PLANS, DETAILS.

AUXILIARY EQUIPMENT:
- A. INSTALL ALL SPRAY IRRIGATION ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

MAINTENANCE:
- A. THE CONTRACTOR SHALL KEEP THE PREMISES CLEAN AND FREE OF EXCESS EQUIPMENT, MATERIALS AND RUBBISH INCIDENTAL TO WORK OF THIS SECTION.
- B. FINAL INSPECTION AT THE END OF WORK SHALL BE MADE WITH THE OWNER'S REPRESENTATIVE AND IRRIGATION CONTRACTOR. A COVERAGE TEST WILL BE DONE, AND THE SYSTEM INSTALLATION INSPECTED AND A PUNCH LIST MADE OF FINAL ITEMS NEEDING COMPLETION. A LETTER OF ACCEPTANCE SHALL BE GIVEN BY THE OWNER TO THE CONTRACTOR AT THE COMPLETION OF THE PUNCH LIST AND THE DELIVERY OF AS-BUILT IRRIGATION PLANS.
- C. MAINTENANCE PERIOD SHALL BE IN EFFECT UNTIL THE OWNER'S REPRESENTATIVE ACCEPTS THE IRRIGATION SYSTEM WHICH WILL BE A MINIMUM OF 60 DAYS.

PRIME LANDSCAPE ARCHITECTURE

COTTONWOOD CONDOMINIUMS
214 SOUTH 200 EAST
MOAB, UTAH 84532

STATE OF UTAH — JUSTIN KIRK HISLOP — NO. 6067409-5301 — REGISTERED LANDSCAPE ARCHITECT — 02/27/24

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT: 30008
CHECKED BY: HISLOP
ISSUED: 02-27-2024

SHEET NAME: IRRIGATION DETAILS

SHEET NUMBER: L501

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THE CITY OF MOAB

EST. 1902

Landscaping Matrix for Cottonwood Condos Revised

Moab Municipal Code Analysis for Landscaping Standards 17.10

Section	Code Provision	Compliance	Rationale
17.10.020	A. *Required Landscaping.* 1. In addition to the specific sections of the Moab Municipal Code requiring landscaping, screening, or buffering, the requirements and regulations specified in this title shall apply to all provisions and processes requiring landscaping, including: a. Permitted residential uses, including single-household dwellings, two-household dwellings, and multi-household dwellings between three and six units, shall require at least seventy percent of the area contained within a required front or side yard adjacent to a street in any residential or residential-agricultural zone shall be landscaped.	NA	The project has more than six units and this section does not apply to this project.
17.10.040	**A. *Landscape Material.*** 1. *Plant Material.* a. A minimum of twenty-five percent of the landscaped area coverage must be living plant materials, measured by the spread of plants at maturity. Tree canopies can be included as up to fifteen of the required twenty-five percent.	Complies	Live vegetation required: 1585 Live vegetation provided: 1842
	b. *Right-of Way and Private Street Trees.* i. A minimum of one tree for every forty linear feet of street frontage is required in the right-of-way or adjacent to the private street except as outlined in this section. ii. Required trees shall be a minimum of one-and-one-half inch diameter measured six inches above the soil surface or bare root. Bare root trees may be 2-1, 2-2, P-1 and P-2 stock types. iii. Trees planted in park strips shall be from among those identified as appropriate for the location on the approved plant list. iv. All trees planted in the right-of-way with medium or higher water requirements must be irrigated. Trees in the right-of-way with low water requirements can be hand watered until maturity. v. Standard planting areas for trees shall be no less than eight feet in width. vi. There shall be no gap between trees greater than one hundred and twenty feet, trunk-to-trunk. vii. Trees may not be planted in a way that interferes with public safety, including the visibility of pedestrians, oncoming traffic, traffic control devices, or regulatory signs. (A) Planting within ten feet of another tree, building, fence, streetlight, water infrastructure, wastewater infrastructure, storm water infrastructure, wet utility easement, alley, driveway, or fire hydrant is not permitted. (B) Planting within twenty feet of stop signs is not permitted. (C) Planting within twenty-five feet of streetlights is not permitted. (D) Planting in the corner triangle formed by the first thirty feet along the right-of-way in each direction from the corner is not permitted. viii. A tree planted, either new or existing, within the front yard of a private property may be counted toward the minimum tree requirement according to the following: (A) For streets with attached sidewalks, a tree planted within sixteen feet from the back of the street curb. (B) For streets with detached sidewalks, a tree planted within twelve feet from the back of the sidewalk. ix. In cases where neither the right-of-way nor private property can meet the standards of this section, the permittee shall sign an agreement to plant or compensate the city for the planting of each affected required tree. x. Private street trees shall be included in improvements agreements and maintenance agreements.	Complies	Three trees required and provided along 200 East. The public right-of-way to the north along the trail pathway is required to have four street trees. The landscaping plan submitted shows there are three canopy trees that meet the street tree requirement and four juniper trees in the corner side yard area on the north side of property. After careful consideration and discussion with the Planning and Sustainability Directors, it was determined that the amount of trees proposed along the north property line is sufficient and meets the intention of the street tree requirement due to it not being in a park strip area. All proposed trees intended to meet the street tree requirement are low to very low water requirement species.
	2. *Artificial Plants proposed?*	NA	
	3. *Approved Plant List.* a. All proposed vegetation on the Moab City approved Plant list. b. Spring bulbs that do not require additional irrigation are exempt from the approved plant list requirement. c. Plants may be added to the approved plant list by meeting the criteria and following the process in Appendix C. d. Pursuant to the Utah Noxious Weed Act, Section 7, no plants shall be planted from the Grand County Noxious Weeds List	Complies	All species listed in landscape plan are on the approved plant list.
	4. *Cool Season Turf Limits.* b. Cool season turf shall not be used in more than ten percent of total landscaped area or two hundred square feet of turf, whichever is greater. In any landscaping plan including a water budget, turf may exceed cool season turf limits if additional turf fits within the budget. Turf still must meet the other requirements in this section. c. Areas with slopes greater than twenty-five percent shall be landscaped with deep-rooted water-conserving plants for erosion control and soil stabilization. No turf grasses or overhead irrigation is allowed on slopes greater than twenty-five percent. d. Park strips and other landscaped areas less than eight feet wide shall be landscaped with water-conserving plants that do not include cool season turf.	NA	None proposed

Section	Code Provision	Compliance	Rationale
	5. *Mulch.* a. Shall be applied at a minimum depth of two inches to three inches and as appropriate to each species. Nonporous material shall not be placed under the mulch. b. Shall be applied to the soil surface, not against the plant stem, or high against the base of trunks to minimize disease. c. Because mulching can limit the successful propagation of some native plants, native plants, when appropriate, are exempt from these mulching requirements. d. To provide habitat for beneficial insects and other wildlife, up to five percent of the landscape area may be left without mulch.	Complies	Gravel and small rocks are proposed to cover all required landscape areas.
	6. *Water Features.* a. Recirculating water systems shall be used for water features. b. Water features with a cumulative water free fall greater than four feet shall install a wind shut-off sensor. c. Pool and spa covers are highly recommended. d. For purposes of the water budget calculation, the surface area of a water feature shall be included as a high water use hydrozone with a seventy-five percent irrigation efficiency.	NA	There are no water features proposed.
	7. *Hydrozoning.* a. The City of Moab approved plant list is categorized by nonirrigated/very low, low, medium, and high-water use plants. Each hydrozone shall have plant materials with similar water use (for example, low with low; very low with very low). b. Plants of a very low hydrozone are not to be planted in a moderate to high hydrozone. c. Temporarily irrigated areas of the landscape during the establishment period shall be included in the low water use hydrozone for the water budget calculation.	Complies	See hydro zone plan with notes
17.10.050	B. *Standard Buffering.* 1. Standard buffering shall be installed and maintained where specifically or otherwise required within the Moab Municipal Code (MMC). Standard buffering shall consist of, at minimum: a. One canopy tree per one hundred linear feet. b. One ornamental/evergreen trees per fifty linear feet. c. One shrub per twenty-five linear feet. d. Maximum spacing between plants shall not exceed twenty-five feet at maturity. e. Screening shall be installed and maintained at six feet minimum. f. A buffer shall be installed and maintained at eight feet in width minimum.	Complies	Required trees South boundary: Canopy trees required: 2 (4 proposed) Ornamental trees required: 4 (6 proposed) West Boundary: Canopy trees required: 2 (2 proposed) Ornamental trees required: 2 (7 proposed) Required shrubs South Boundary: 7 Provided: 14 West Boundary: Required: 5 Provided: 10 There is a proposed wall and pathway in the 8' buffer requirement. The Planning Commission determined the wall and pathway are acceptable if the pathway is made of gravel at a prior
17.10.060	**A. *Landscaping Plan Required.*** 1. Where landscaping is required in this title, in addition to the specific sections of the Moab Municipal Code requiring landscaping, screening, or buffering, a landscaping plan, providing sufficient materials for review and approval, shall be submitted in accordance with the appropriate review procedures as outlined in this chapter. B. General standards are numbered as follows for landscaping plans: 1. Plant material; 2. Artificial plants; 3. Plant list; 4. Cool season turf limits; 5. Mulch; 6. Water features; 7. Hydrozoning; 8. Irrigation system criteria; 9. Water budget. C. The scale of development, redevelopment, or improvement shall determine the level of required landscaping general standards in subsection (B) of this section as follows: 3. *Level I Landscaping Plan.* a. Development, redevelopment, or improvements requiring Level I site plan approval. b. General standards 5 – 9 shall also apply. D. *Landscape and Irrigation Documentation Requirements.* 3. Level I and Level II landscape documentation package shall be prepared by a licensed landscape architect. Working drawings or a landscape documentation package shall include, but are not be limited to, the following elements: a. Project data sheet, which shall contain the following: i. Project name; ii. Project address, parcel and/or lot number(s); iii. Checklist or index of all documents in the landscape document package; iv. Applicant or applicant agent's name, address, phone number, and email address; v. Landscape architect's name, address, phone number, and email address; and vi. Landscape contractor's name, address, phone number and email address, if available at this time.	Complies	All listed materials have been submitted in the landscape plan.

Section	Code Provision	Compliance	Rationale
	B. ***Irrigation System Criteria.*** 1. This subsection applies to landscaped areas that are required to have permanent irrigation. For landscape areas that do not require permanent irrigation, these are recommendations for irrigation systems. For commercial and large-scale developments: a. Smart irrigation controllers (i.e., weather-based controllers and soil moisture-based controllers) and spray sprinkler bodies labeled by the U.S. Environmental Protection Agency's WaterSense Program or with published reports posted on the Smart Water Application Technologies website are required. b. Dedicated landscape water meters/sub-meters shall be installed for all nonresidential irrigated landscapes of five thousand square feet or more. c. The irrigation system shall be designed to prevent runoff, low head drainage, overspray, or other similar conditions where irrigation water flows onto nontargeted areas, such as adjacent property, nonirrigated areas, hardscapes, roadways, or structures. d. Minimum pop-up height for sprinklers in turfgrass areas shall be six inches. e. Check valves or anti-drain valves are required on all sprinkler heads. f. The irrigation system shall be designed to ensure that the operating pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance. g. Sprinklers within a zone shall have matched precipitation rates, unless otherwise directed by the manufacturer's recommendations. Sprinkler spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations. Spacing must achieve head-to-head coverage. h. A pressure regulating valve shall be installed and maintained by the consumer if the static service pressure exceeds eighty pounds per square inch (psi). The pressure-regulating valve shall be located between the meter and the first point of water use, or first point of division in the pipe, and shall be set at the manufacturer's recommended pressure for the sprinklers. i. Overhead irrigation shall not be permitted within twenty-four inches of any nonpervious surface. Allowable irrigation within the setback from nonpervious surfaces may include drip, drip line, or other low flow nonspray technology. The setback area may be planted or unplanted. The surfacing of the setback may be mulch, gravel, or other porous material. j. Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and turfgrass to facilitate the appropriate irrigation of trees. The mature size and extent of the root zone shall be considered when designing irrigation for the tree. k. Narrow or irregularly shaped areas less than eight feet in dimension in any direction shall not utilize overhead sprinkler irrigation. l. Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply. m. Backflow prevention devices shall be required to protect the potable water supply from contamination by the irrigation system and comply with local plumbing codes.	Complies	An irrigation plan has been submitted with he application that meets code requirements.
	C. ***Landscape Water Budget.*** 1. All irrigated landscaped areas must be included in the water budget calculation. See Appendix A for details regarding the maximum applied water budget calculation. 2. The total irrigation water needed for all hydrozones cannot exceed a maximum applied water budget of fifteen gallons/season/sq. ft. (twenty-four in./season) of irrigated landscape area unless special features are included or the landscaped areas only use plants designated as low listed on the approved plant list. 3. Special features include: a. Ecological restoration projects; b. Bioretention areas; c. Nonirrigated pervious areas; d. Storm water conveyance infrastructure (vegetated swales); e. Graywater applied to the landscape according to relevant regulations (% based on % living plant material primarily watered with graywater); f. Native plants selected from approved plant list; g. Secondary water irrigation. 4. If any combination of the special feature areas totals to at least five percent of the total irrigated hydrozone area, then the maximum applied water budget increases by one gallon/season/sq. ft. 5. If any combination of the special feature areas totals to at least ten percent of the total irrigated hydrozone area, then the maximum applied water budget increases by two gallon/season/sq. ft. 6. Active rainwater catchment systems, including rain barrels or cisterns, are also incentivized in the calculation through a reduced overall irrigation water need.	Complies	

Section	R-3 Code Provisions	Compliance	Rationale
17.48.020	**A**7. Multi-household dwellings. a. Developments consisting of three or more multi-household units shall be subject to the following requirements. In the event that the requirements of this chapter conflict with the requirements of the same or similar terms presented elsewhere in the Moab Municipal Code, or in a model code that has been adopted by the City (e.g., International Building Code), the definition contained in this chapter shall prevail: i. Thirty-three percent of the units in a multi-household development shall be designated as active employment units, as defined by Chapter 17.06, Definitions, and regulated per Chapter 17.64, Active Employment Households. The provisions of this use parameter requirement shall be reviewed on a recurring interval of two years from date of adoption, for assessment of continued need and inclusion in the underlying zone. ii. Buildings or structures shall not exceed three stories with a maximum building height of thirty-five feet. iii. One parking space shall be required for each dwelling unit containing a studio or one-bedroom dwelling, and one and one-half parking spaces shall be required for each dwelling unit containing a two-or-more-bedroom dwelling. b. Developments consisting of seven or more multi-household units shall be subject to the following additional requirements: i. *Access.* Vehicular access shall be provided to the property in such a way that it does not impede traffic patterns on adjacent streets. ii. *Parking.* Off-street parking shall be designed in such a way as to allow vehicles to pull forward into the on-street traffic flow. iii. *Garages or Carports.* If provided, garages and carports shall not be located in the front yard and shall be set back from the front wall of the principal structure at least fifteen feet or be accessed from the rear or side of the property. iv. *Landscaping.* All off-street parking shall be landscaped and buffered from adjacent uses. A minimum of fifteen percent of the interior of the parking area shall be landscaped to provide shade and break up the expanse of asphalt. v. *Buffering.* All adjacent properties shall be buffered in accordance with the provisions located in Section 17.10., Buffer and Screening Requirements. vi. Apartments and court apartments shall designate an open space/recreation area that is a minimum of two hundred square feet in size to be developed into recreation, play or landscaped areas. The requirement can be met with the construction of a recreation room (“rec room”) or club house of a similarly sized area that can be used for residents and their guests for recreation/social activities and/or relaxation. vii. The allowed number of multi-household units shall be determined by Section 17.48.030.	Complies	a. The application was submitted prior to the active employment household ordinance and is exempt from this requirement. The maximum height of the proposed building is 28.6 feet and is two stories. Required parking: 14 spaces provided: 16 Landscaping required for parking area: This requirement is not applicable to this project due to the project being a town home style development. All proposed parking allows vehicles to leave parking area pulling forward. Garages are attached and meet corner side yard requirements. 200 sq ft open space area is provided.
17.48.030	A. *Front Setback.* The minimum front setback for main buildings shall be fifteen feet. No accessory building shall be constructed on a lot prior to the main building. B. *Side Setback.* The minimum side setback for any dwelling or any other main building shall be seven feet; provided, that the minimum distance between dwellings located on the same or adjoining lots shall be more than ten feet. On corner lots, the side yard that faces on a street shall be not less than twelve feet. C. *Rear Setback.* The minimum rear setback for any main building shall be twelve feet. D. The minimum side setback for accessory buildings on interior and corner lots is listed in Section 17.09.560, Accessory use or structure. (Ord. 19-13 §§ 12, 13, 2019; Ord. 13-01 (part), 2013: Ord. 10-14 (part), 2010; prior code § 27-17-5)	Complies	The minimum side yard requirement is 7'. The Buffer yard requirement is 8' South property line (side yard): 11'5" at nearest point. Front Yard: 15' Corner Side Yard: 33' Rear yard: 12'1" All setbacks requirements are met.

CITY OF MOAB PLANNING RESOLUTION NO. 02-2023
REMANDED

A RESOLUTION CONDTIONALLY APPROVING A LEVEL II SITE PLAN FOR THE COTTONWOOD CONDOMINIUMS 2022, INCLUDING AMENDMENTS AS PROVIDED BY THE APPLICANT, ON PROPERTY LOCATED AT 214 S 200 E, MOAB UT 84532.

WHEREAS, the following describes the intent and purpose of this resolution:

a. Sundra Hines, as the Applicant on behalf of the Owner of record, Garry Snook of GSS Properties LLC, for property located at 214 S 200 E, Moab, Utah 84532, has applied for a Level II Site Plan Approval; and

b. The Applicant has furnished a site plan and description of the property located at 214 S 200 E Moab Utah, 84532; Parcel 01-0B03-0007 (18,730.80 sf) (0.43 acres); and

c. The City adopted Site Plan Review regulations in order to promote the health, safety and the general public welfare of the residents of the City by establishing standards for development in zones including the R-3 Multi-Household Residential Zone; and

d. The Moab Planning Commission reviewed the application for Level II Site Plan for the residential multi-household apartment development in a regularly scheduled meeting held on August 11, 2022. Following receipt of an Appeal Application, the Applicants elected to cure procedural notice defects, cited in the original approval process, by resubmitting for Planning Commission Site Plan Approval as Planning Resolution No. 02-2023, on March 9, 2023; and

e. Following the conclusion of the appeal process and determination, aspects of the application approval were remanded to the Planning Commission to make a final determination under the clarification provided by the appeal determination; and

f. The Moab Planning Commission reviewed the remanded matters of the determination, through Remanded Planning Resolution No. 02-2023, on July 14, 2023; and

g. Sufficient evidence provided by the applicant proved that standards of development can meet or exceed the requirements and regulations outlined in the MMC Chapter 17.67 Site Plan Approval; and

h. Following the consideration of the technical aspects of the pertinent code sections, the Moab Planning Commission, pursuant to Remanded Planning Resolution #02-2023, hereby finds, that all applicable provisions of the Moab Municipal Code have or can be met.

NOW, THEREFORE, BE IT RESOLVED BY THE MOAB PLANNING COMMISSION, the application for the Cottonwood Condominiums 2022 Site Plan is hereby CONDITIONALLY APPROVED, with the following condition:

1. All comments shall be addressed to the satisfaction of the Moab City Planning Director prior to Building Permit Application: Certificate of Occupancy. Comments include:
    a. The project will need a Condominium Plat Approval.
    b. The Applicant will resubmit a complete Lighting Plan that addresses the following:
        i. Lighting design and location not provided for Unit No. 8 & 9. Note that the "Second Floor Plan" illustrated on Sheet A2.2 was not included in the June 2022 resubmittal. Please confirm that the second-floor plan (Units 8 & 9) remain part of the design.
        ii. The proposed lighting is calculated at 20,250 lumens. This is beyond the

allowable lumen count for a development of this size. However, it has been determined that several fixtures are considered exempt (safety-related). With the removal of thirteen (13) Type B sconces at approximately 580 lumens per fixture this reduces the project's overall lumen count by 7,540 lumens. This reduces the project's overall lumen count to approximately 10,620 lumens. This amount remains over the allowable lumen count. This also does not include the lumen count for lighting associated with the second floor.

iii. The sign lighting (labeled as Light A Ground Mounted) proposed shows the lighting aimed upwards towards the sign, which is in conflict with Section 17.09.063(A), which prohibits any lighting directed upwards. The Applicant must revise the sign lighting so it is aimed downward or backlit to meet the requirements.

PASSED AND APPROVED in an open meeting of the Planning Commission by a majority vote of the Governing Body of Moab Planning Commission on July 14, 2023.

SIGNED: _____

Kya Marienfeld, Chair

Cottonwood Condominiums 2022

Address: 214 South 200 East, Moab, Utah 84532
Parcel: 01-0B03-0007
Size: 0.43 acres
Zoning: R-3 Multi-Household Residential Zone

Legend
214 S 2nd E St

E 200 S
E 200 S
E 200 S
E 200 S

214 S 2nd E St

S 2nd E St
S 2nd E St

Google Earth

N

100 ft

Hines Designs
ARCHITECTURE • PLANNING • INTERIOR DESIGN

The Crossings **4-27-22**
GSS Properties, LLC

Project Narrative =

The site is located within Block 3 of the Moab Townsite within the Northeast Quarter of Section 1. It is located at the corner of 200 East Street and 200 South Street Right of Way. The site is zoned R-3 and will adhere to the size and use requirements of the Municipal Code. The building will have 9 residential units: Four 1,689 sq.ft. 3br/2.5 ba, Two 1,026 2br/2ba, and Three 622 sq.ft. 1br/1ba. The property has 13 parking spaces for residence and 3 guest parking spaces for a total of 16 parking spaces. The residence will share one driveway access to a single curb cut to 200 East Street. The building will be completed in one phase of construction that will take around 12 months.

188 Marie Street Ridgway, Colorado 81432 970.6262300 sundra@hines-designs.com

BENCHMARK:

1. CONTACT RED DESERT LAND SURVEYING, 435-259-8171, TO ESTABLISH BENCHMARK AND CONSTRUCTION CONTROL.

GENERAL NOTES:

1. EXISTING CONDITIONS SHOWN IN THESE PLANS IS FROM SURVEY DATA PROVIDED BY RED DESERT LAND SURVEYING.
2. ALL MATERIALS AND CONSTRUCTION SHALL BE COMPLETED PER CITY OFMOAB STANDARDS AND REQUIREMENTS, MOST CURRENT VERSION.
3. THE CONTRACTOR SHALL HAVE ONE APPROVED AND SIGNED (CITY AND ENGINEER) COPY OF THE PLANS ON THE JOB SITE AT ALL TIMES. CONTRACTOR SHALL ALSO HAVE THE JOB SPECIFICATIONS, AND CONSTRUCTION STANDARDS ON SITE.
4. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL HAVE A COPY OF ALL APPLICABLE PERMITS ON SITE.
5. AT LEAST TWO (2) FULL WORKING PRIOR TO CONSTRUCTION ACTIVITIES OF ANY KIND THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENT OF COLORADO AT 1-800-922-1987 OR 811 TO OBTAIN AN INQUIRE IDENTIFICATION NUMBER AND TO REQUEST THE UTILITY OWNERS TO MARK THE LOCATION OF ALL UNDERGROUND UTILITIES WHICH MAY BE IMPACTED BY CONSTRUCTION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES, INCLUDING UTILITIES NOT SHOWN ON THE CONSTRUCTION DRAWINGS. PRIOR TO ADJUSTING ANY UTILITIES THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE UTILITY OWNER.
7. IF THERE ARE EXISTING UTILITIES IN CONFLICT WITH THE PROPOSED IMPROVEMENTS THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE OWNER, ENGINEER, AND UTILITY OWNER TO DETERMINE A SOLUTION FOR THE CONFLICT. THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND STRUCTURES FOUND AT THE SITE UNLESS OTHERWISE INDICATED IN THESE PLANS.
8. ALL TRENCHING CONSTRUCTION SHALL MEET OSHA STANDARDS AND REQUIREMENTS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES. CONTRACTOR SHALL OBTAIN ALL REQUIRED LOCAL AND STATE CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT PERMITS.

GRADING AND EROSION CONTROL NOTES:

1. A GRADING PERMIT IS REQUIRED FOR OVER 100 CY OF FILL MATERIAL. CONTRACTOR SHALL OBTAIN PERMIT IF REQUIRED.
2. ALL FILL MUST BE COMPACTED TO 90% MODFIFIED PROCTOR AT PLUS OR MINUS 2% OF THE OPTIMUM MOISTURE CONTENT OR AS REQUIRED IN THE PROJECT GEOTECHNICAL ENGINEERING SOIL REPORT.
3. UNSUITABLE MATERIAL SHALL BE REMOVED AS REQUIRED BY THE GEOTECHNICAL ENGINEER.
4. EARTHWORK SHALL NOT BE COMPLETED WHEN THE GROUND IS FROZEN.
5. TOPSOIL SHALL BE STOCKPILED FOR USE ON FINAL LANDSCAPING. STOCKPILES SHALL BE PROTECTED FROM EROSION.
6. AT ALL TIMES THE CONSTRUCTION SHALL INCORPORATE TECHNIQUES TO LIMIT WIND-CAUSED EROSION INCLUDING BUT NOT LIMITED TO WATERING.
7. CONTRACTOR SHALL KEEP STREET CLEAN OF DEBRIS AT ALL TIMES. CONTRACTOR SHALL CLEAN STREET AND ADJACENT PROPERTIES AS REQUIRED.
8. CONTRACTOR SHALL ESTABLISH A CONSTRUCTION ENTRANCE AND STORAGE/STAGING AREA.

WATER UTILITY NOTES:

1. ALL WATER UTILITY WORK, MATERIALS, AND CONSTRUCTION SHALL MEET CITY OF MOAB STANDARDS AND REQUIREMENTS, MOST CURRENT VERSION.
2. CONTRACTOR SHALL NOTIFY CITY OF MOAB PUBLIC WORKS OR ENGINEERING DEPARTMENT 48 HOURS PRIOR TO ANY WATER MAIN OR SERVICE LINE CONSTRUCTION.
3. ALL WATER MAIN VALVES, HYDRANTS, AND METER LIDS SHALL BE ADJUSTED TO FINISHED GRADE.
4. ALL WORK SHALL BE INSPECTED BY CITY OF MOAB PUBLIC WORKS OR ENGINEERING STAFF PRIOR TO BACKFILL.

SEWER UTILITY NOTES:

1. ALL SEWER UTILITY WORK, MATERIALS, AND CONSTRUCTION SHALL MEET CITY OF MOAB STANDARDS AND REQUIREMENTS, MOST CURRENT VERSION.
2. CONTRACTOR SHALL NOTIFY CITY OF MOAB PUBLIC WORKS OR ENGINEERING DEPARTMENT 48 HOURS PRIOR TO ANY SEWER MAIN OR SERVICE LINE CONSTRUCTION.
3. ALL SEWER MAIN MANHOLES, CLEANOUTS, ETC... SHALL BE ADJUSTED TO FINISHED GRADE.
4. ALL WORK SHALL BE INSPECTED BY CITY OF MOAB PUBLIC WORKS STAFF PRIOR TO BACKFILL.

FRANCHISE UTILITY NOTES:

1. FRANCHISE (GAS, ELECTRIC, TELECOM, FIBER, ETC...) DESIGN IS BY THE UTILITY PROVIDER.
2. CONTRACTOR SHALL BE COMPLETE ALL WORK PER FRANCHISE UTILITY PROVIDER REQUIREMENTS.

THE CREEKSIDE

INFRASTRUCTURE IMPROVEMENTS

PERMIT SUBMITTAL

6/21/22

VICINITY MAP

SHEET INDEX

#	TITLE
1.	C000 – COVER SHEET
2.	C100 – SITE PLAN
3.	C200 – UTILITY PLAN
4.	C300 – GRADING AND DRAINAGE PLAN
5.	C400 – DETAILS
6.	C401 – DETAILS
7.	C402 – DETAILS

CITY OF MOAB ENGINEERING APPROVAL

PRINTED NAME _____

SIGNATURE _____ DATE _____

Blue Stakes of UTAH 811 bluestakes.org

Revisions:

#	DATE	DESCRIPTION

THE CREEKSIDE
COVER SHEET AND NOTES
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.

C000

Sheet 1 of 7
Project: 2021-015
Date: 6/22/22
Drawn By: ABR
Checked By:

FOR REVIEW ONLY NOT FOR CONSTRUCTION

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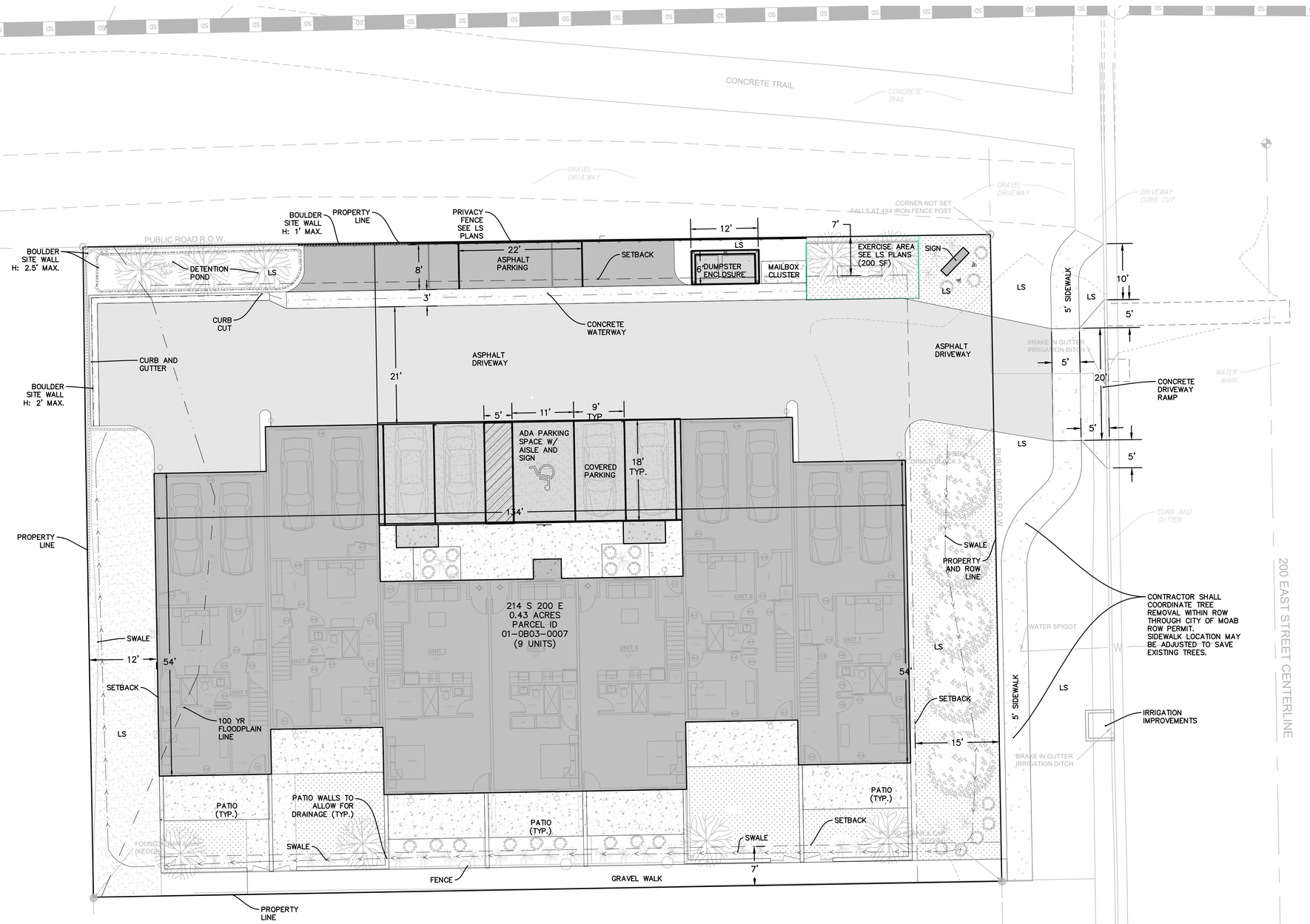

SITE PLAN NOTES:

1. SEE ARCHITECTURAL SITE PLAN FOR ADDITIONAL DETAIL OF SITE IMPROVEMENTS..
2. SEE LANDSCAPE PLANS FOR LANDSCAPE IMPROVEMENTS.
3. SEE LIGHTING PLANS FOR LIGHTING IMPROVEMENTS.
4. ALL IMPROVEMENTS WITHIN RIGHT OF WAY SHALL BE COMPLETED PER CITY OF MOAB STANDARDS AND SPECIFICATIONS.
5. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO COMPLETING WORK.
6. FINAL SITE PLAN SHALL BE PERMITTED THROUGH CITY OF MOAB SITE PLAN APPLICATION PROCESS.

GRAPHIC SCALE
0 5 10 FEET 20
0 ¼ ½ ¾ 1 INCHES 2

Revisions:

#	DATE	DESCRIPTION

THE CREEKSIDE
SITE PLAN
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C100

Sheet 2 of 7
Project: 2021-015
Date: 6/22/22
Drawn By: ABR
Checked By:

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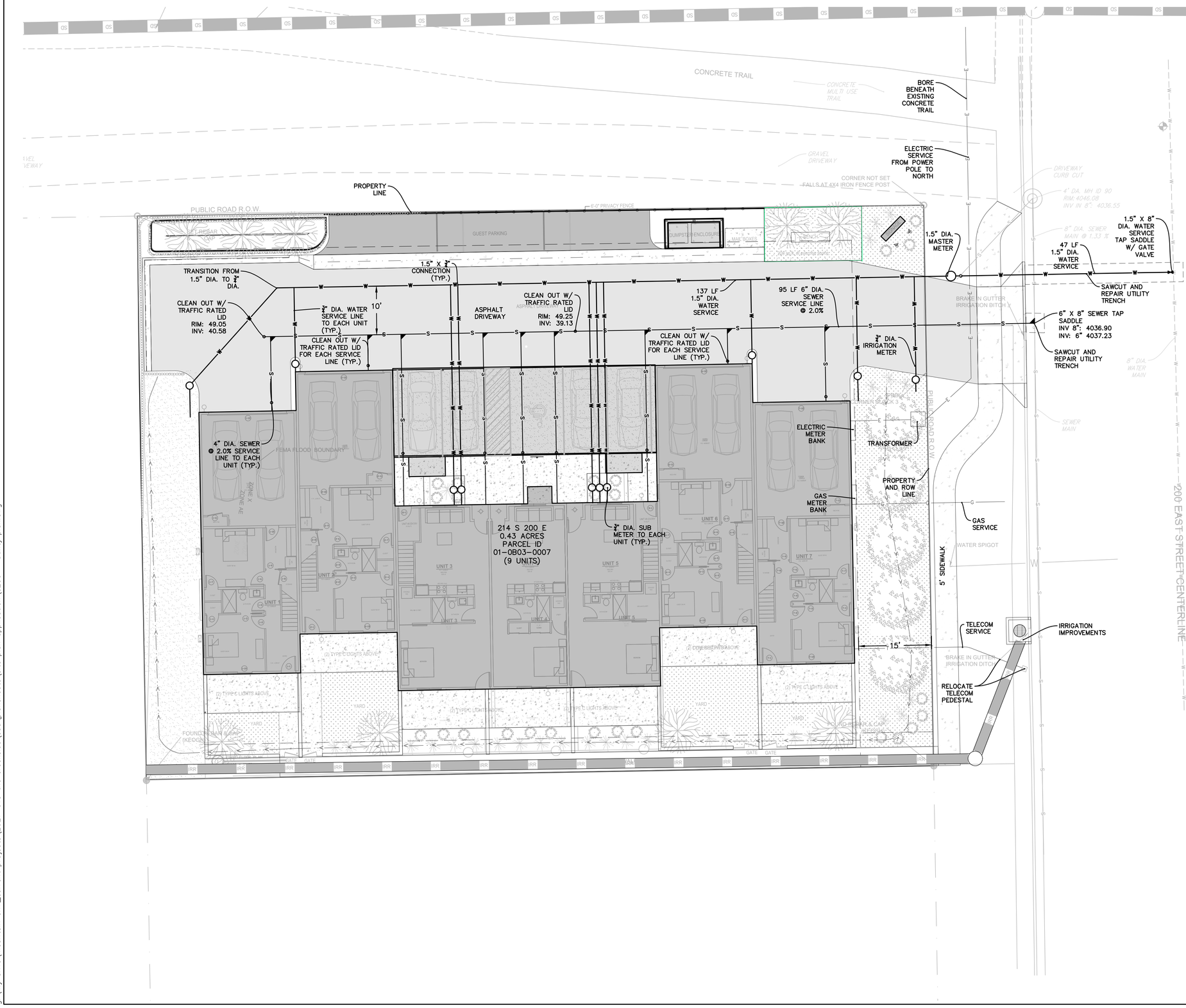

UTILITY PLAN NOTES:

1. ALL WATER AND SEWER MAIN WORK SHALL BE COMPLETED PER CITY OF MOAB STANDARDS AND SPECIFICATIONS.
2. A SHARED SEWER SERVICE LINE IS REQUESTED FOR APPROVAL BY CITY ENGINEER AS ALLOWED BY CITY OF MOAB WASTEWATER COLLECTION SYSTEM DESIGN CRITERIA SECTION 4.4.11 SANITARY SEWER SERVICE LINES. EACH INDIVIDUAL UNIT WILL HAVE A SINGLE SERVICE FROM THE SHARED SEWER LINE.
3. A SHARED WATER SERVICE LINE IS REQUESTED FOR APPROVAL BY CITY ENGINEER AS ALLOWED BY CITY OF MOAB WATER SYSTEM DESIGN CRITERIA SECTION 4.4.15 WATER SERVICE LINES. EACH INDIVIDUAL UNIT WILL HAVE A SINGLE SERVICE FROM THE SHARED SEWER LINE. A MASTER METER WILL BE INSTALLED. EACH UNIT WILL HAVE A SUB-METER.
4. FRANCHISE UTILITIES (ELECTRIC, TELECOM, GAS) SHALL BE DESIGNED BY UTILITY OWNER. GENERAL LAYOUT SHOWN FOR INFORMATION ONLY.

GRAPHIC SCALE
0 5 10 FEET 20
0 ¼ ½ ¾ 1 INCHES 2

Revisions:

#	DATE	DESCRIPTION

SNOOK TOWNHOMES
UTILITY PLAN
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C200

Sheet 3 of 7
Project: 2021-015
Date: 6/22/22
Drawn By: ABR
Checked By:

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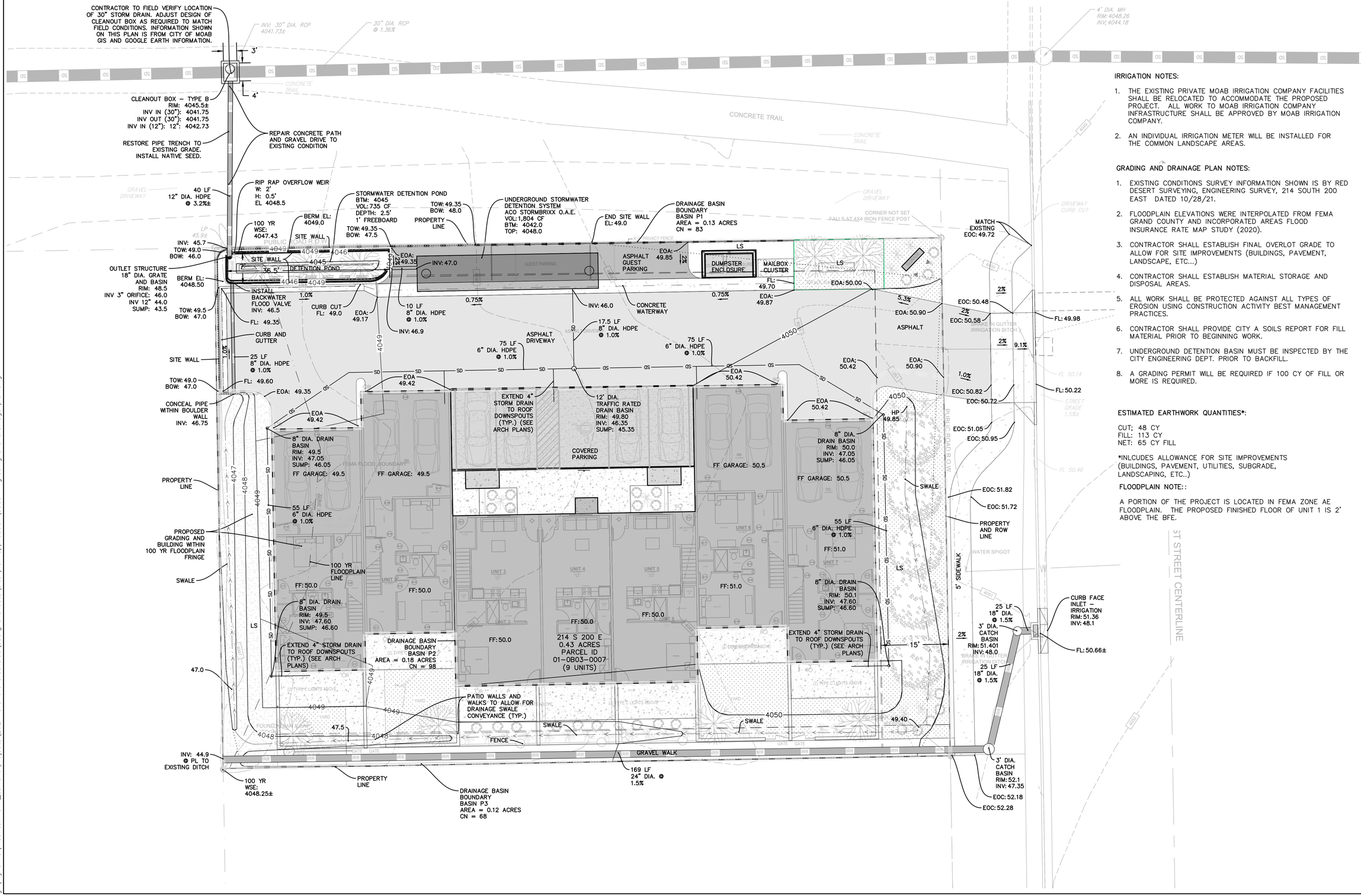

IRRIGATION NOTES:

1. THE EXISTING PRIVATE MOAB IRRIGATION COMPANY FACILITIES SHALL BE RELOCATED TO ACCOMMODATE THE PROPOSED PROJECT. ALL WORK TO MOAB IRRIGATION COMPANY INFRASTRUCTURE SHALL BE APPROVED BY MOAB IRRIGATION COMPANY.
2. AN INDIVIDUAL IRRIGATION METER WILL BE INSTALLED FOR THE COMMON LANDSCAPE AREAS.

GRADING AND DRAINAGE PLAN NOTES:

1. EXISTING CONDITIONS SURVEY INFORMATION SHOWN IS BY RED DESERT SURVEYING, ENGINEERING SURVEY, 214 SOUTH 200 EAST DATED 10/28/21.
2. FLOODPLAIN ELEVATIONS WERE INTERPOLATED FROM FEMA GRAND COUNTY AND INCORPORATED AREAS FLOOD INSURANCE RATE MAP STUDY (2020).
3. CONTRACTOR SHALL ESTABLISH FINAL OVERLOT GRADE TO ALLOW FOR SITE IMPROVEMENTS (BUILDINGS, PAVEMENT, LANDSCAPE, ETC...)
4. CONTRACTOR SHALL ESTABLISH MATERIAL STORAGE AND DISPOSAL AREAS.
5. ALL WORK SHALL BE PROTECTED AGAINST ALL TYPES OF EROSION USING CONSTRUCTION ACTIVITY BEST MANAGEMENT PRACTICES.
6. CONTRACTOR SHALL PROVIDE CITY A SOILS REPORT FOR FILL MATERIAL PRIOR TO BEGINNING WORK.
7. UNDERGROUND DETENTION BASIN MUST BE INSPECTED BY THE CITY ENGINEERING DEPT. PRIOR TO BACKFILL.
8. A GRADING PERMIT WILL BE REQUIRED IF 100 CY OF FILL OR MORE IS REQUIRED.

ESTIMATED EARTHWORK QUANTITIES*:

CUT; 48 CY
FILL: 113 CY
NET: 65 CY FILL

*INLCUDES ALLOWANCE FOR SITE IMPROVEMENTS (BUILDINGS, PAVEMENT, UTILITIES, SUBGRADE, LANDSCAPING, ETC..)

FLOODPLAIN NOTE::

A PORTION OF THE PROJECT IS LOCATED IN FEMA ZONE AE FLOODPLAIN. THE PROPOSED FINISHED FLOOR OF UNIT 1 IS 2' ABOVE THE BFE.

GRAPHIC SCALE
0 5 10 FEET 20
0 ¼ ½ ¾ 1 INCHES 2

Revisions: #	DATE	DESCRIPTION

THE CREEKSIDE
OVERLOT GRADING PLAN
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C300

Sheet 4 of 6
Project: 2021-015
Date: 6/21/22
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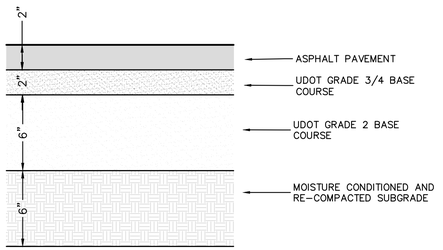
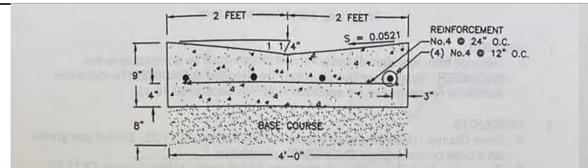


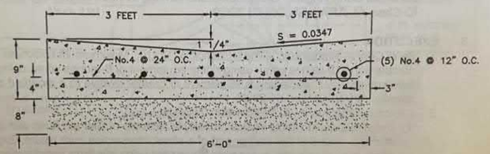
PARKING AND ACCESS
TYPICAL PAVEMENT SECTION

UTAH APWA DETAILS:

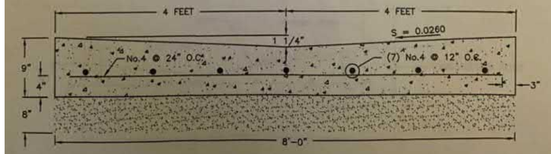
1. THE CONTRACTOR SHALL HAVE A COPY OF THE MOST CURRENT UTAH APWA MANUAL OF STANDARD PLANS AND SPECIFICATIONS ON SITE AT ALL TIMES. APPLICABLE DETAILS ARE SHOWN IN THIS PLAN FOR REFERENCE. UTAH APWA DETAILS SHALL BE APPLIED TO THE PROJECT PER CITY OF MOAB CONSTRUCTION STANDARDS AND REQUIREMENTS.



4'-0" WATERWAY
CONCRETE AREA = 2.583 SQ. FT.

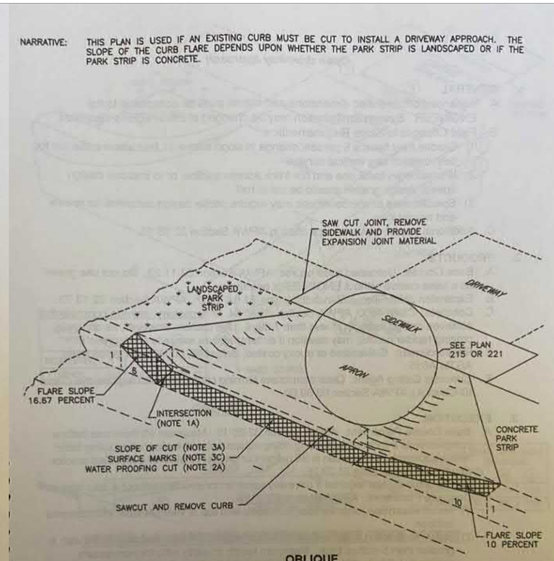


6'-0" WATERWAY
CONCRETE AREA = 3.875 SQ. FT.



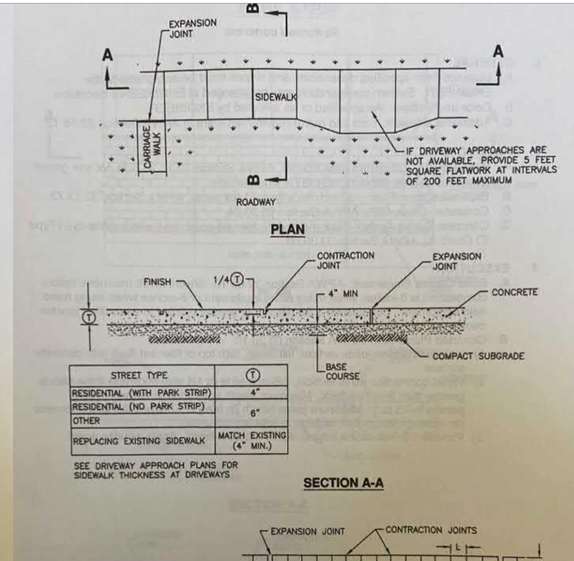
8'-0" WATERWAY
CONCRETE AREA = 5.166 SQ. FT.

Waterway
Plan 211
July 2011



OBLIQUE

Saw-cut driveway approach
Plan 222
February 2011



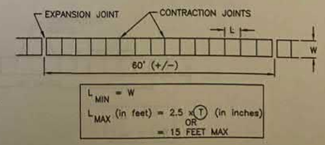
PLAN

STREET TYPE	T
RESIDENTIAL (WITH PARK STRIP)	4"
RESIDENTIAL (NO PARK STRIP)	6"
OTHER	
REPLACING EXISTING SIDEWALK	MATCH EXISTING (4" MIN.)

SEE DRIVEWAY APPROACH PLANS FOR SIDEWALK THICKNESS AT DRIVEWAYS

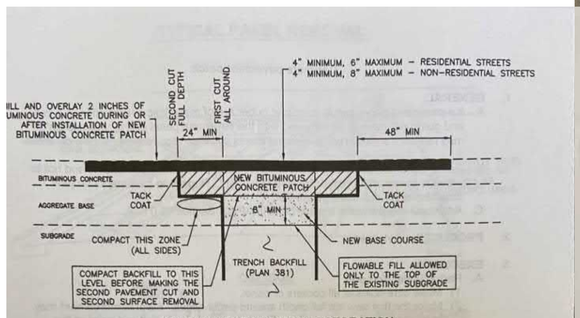
SECTION A-A

SECTION B-B

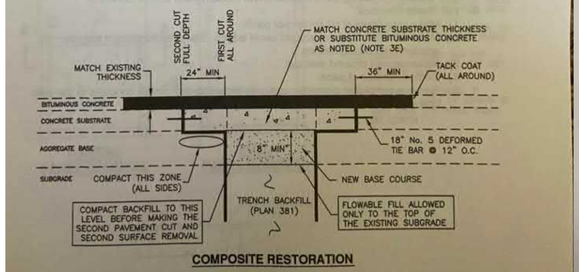


SIDEWALK JOINT DETAIL

Sidewalk
Plan 231
March 2009



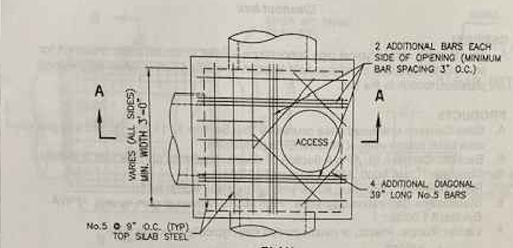
BITUMINOUS CONCRETE RESTORATION



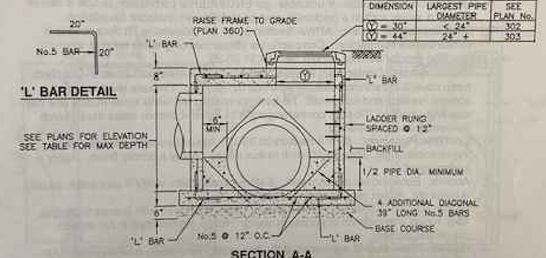
COMPOSITE RESTORATION

Bituminous pavement T-patch
Plan 255
November 2015

TYPE B



PLAN

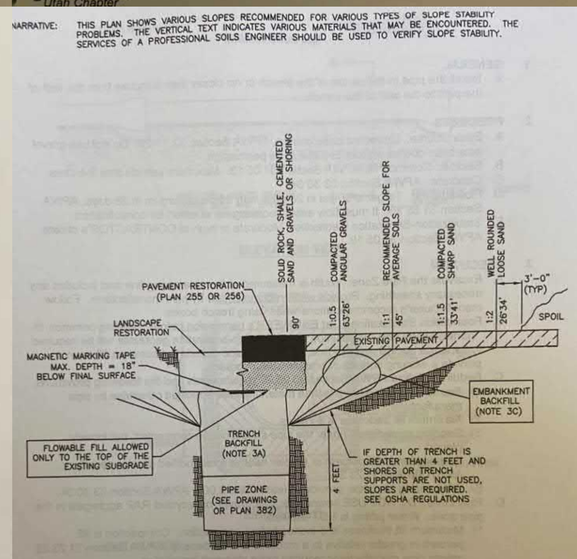


DIMENSION	LARGEST PIPE DIAMETER	SEE PLAN No.
(V) = 30"	< 24"	302
(V) = 44"	24" +	303

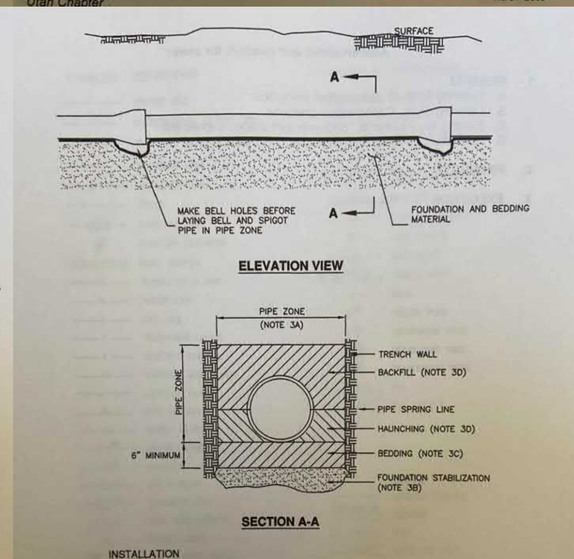
SECTION A-A

WALL THICKNESS AND WALL STEEL				
LOW WATER TABLE				
MAX. BOX WIDTH	6 FEET	8 FEET	8 FEET	9 FEET
MAX. BOX DEPTH	5 FEET	8 FEET	12 FEET	12 FEET
WALL THICKNESS	8 INCHES	8 INCHES	12 INCHES	12 INCHES
WALL CURTAIN STEEL	#5 @ 12"	#5 @ 6"	#5 @ 6"	#7 @ 6"
MODIFICATIONS FOR HIGH WATER TABLE				
WALL THICKNESS	8 INCHES	10 INCHES	16 INCHES	12 INCHES
WALL CURTAIN STEEL	#5 @ 9"	#5 @ 6"	#5 @ 6"	#6 @ 6"

Cleanout box
Plan 331.2
April 2011



Trench backfill
Plan 381
July 2016



ELEVATION VIEW

SECTION A-A

INSTALLATION

CONCRETE PIPE: FOLLOW ASTM C 1479
"STANDARD PRACTICE FOR INSTALLATION OF PRECAST CONCRETE SEWER, STORM DRAIN, AND CULVERT PIPE USING STANDARD INSTALLATIONS."

PLASTIC PIPE: FOLLOW ASTM D 2321
"STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS"

CORRUGATED METAL PIPE: FOLLOW ASTM A 798
"STANDARD PRACTICE FOR INSTALLING FACTORY-MADE CORRUGATED STEEL PIPE FOR SEWERS AND OTHER APPLICATIONS."

VITRIFIED CLAY PIPE: FOLLOW ASTM C 12.
"STANDARD RECOMMENDED PRACTICE FOR INSTALLING VITRIFIED CLAY PIPE LINES."

Pipe zone backfill
Plan 382
January 2011

Revisions:

#	DATE	DESCRIPTION

SNOOK TOWNHOMES
SITE DETAILS
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C400

Sheet 5 of 7
Project: 2021-015
Date: 6/22/22
Drawn By: ABR
Checked By:

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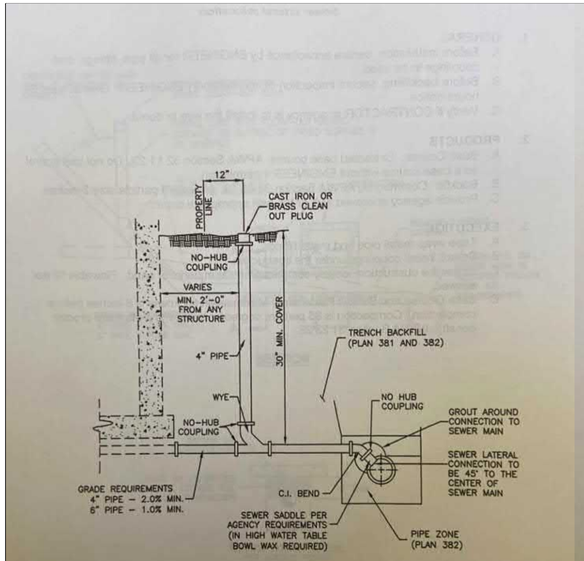
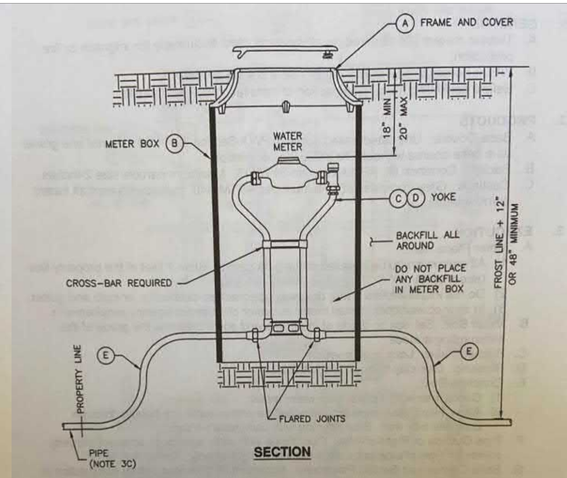


Sewer lateral connection

Plan 431 January 2011



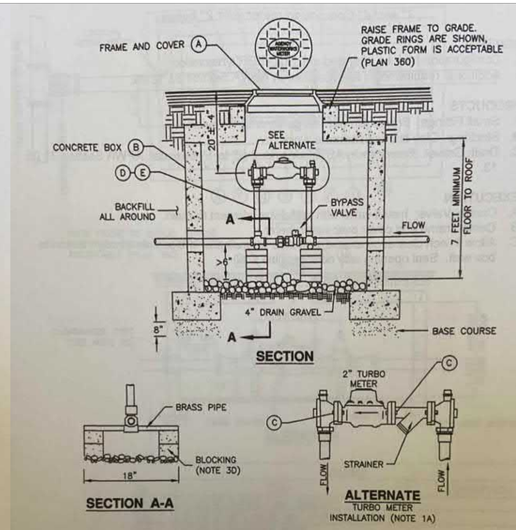
SECTION

LEGEND			
No.	*	ITEM	DESCRIPTION
A		FRAME AND COVER	CAST IRON COVER
B		METER BOX (18" TO 21" DIAMETER) (30" TO 36" DEEP)	CORRUGATED PE, PVC, CMP OR MATERIAL ACCEPTABLE TO AGENCY
C		3/4" METER YOKE	OPTIONAL BACKFLOW PROTECTION PER AGENCY REQUIREMENTS
D		1" METER YOKE	OPTIONAL BACKFLOW PROTECTION PER AGENCY REQUIREMENTS
E		COPPER PIPE	TYPE K (SOFT)

* FURNISHED BY UTILITY AGENCY

3/4" and 1" meter

Plan 521 August 2001

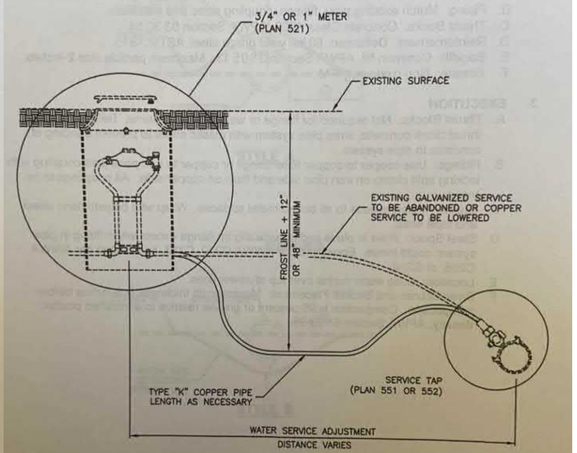


LEGEND			
No.	*	ITEM	DESCRIPTION
A		27" FRAME AND COVER	PLAN 502
B		CONCRETE BOX	PLAN 505
C		STAINLESS STEEL METER BOLTS	5/8" x 2 3/4" BRASS
D		1 1/2" CUSTOM SETTER WITH BYPASS	
E		2" CUSTOM SETTER WITH BYPASS	

* FURNISHED BY UTILITY AGENCY

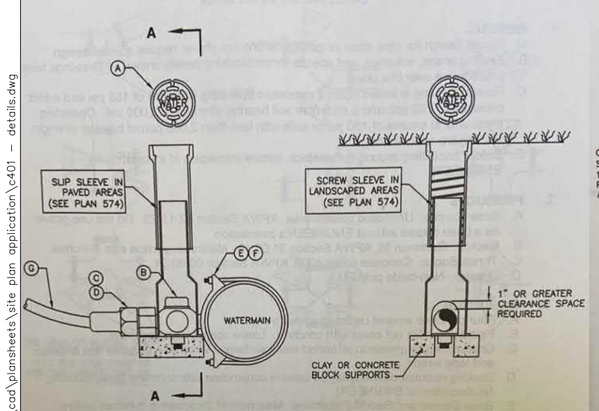
1 1/2" and 2" meter

Plan 522 August 2001



Water service line

Plan 541 August 2001

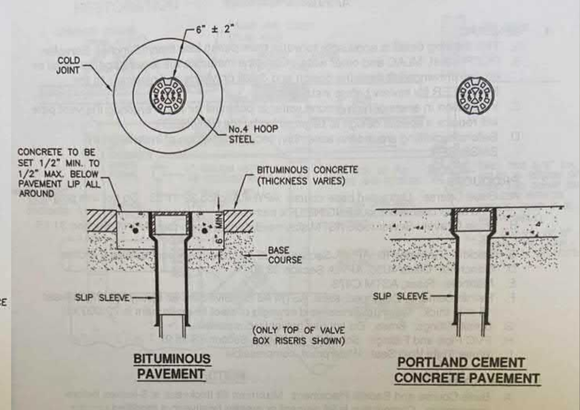


LEGEND			
No.	*	ITEM	DESCRIPTION
A		VALVE BOX WITH LID	2 PIECE CAST IRON
B		CORPORATION STOP	BRASS
C		COPPER ADAPTER	
D		FLARE OR PACK JOINT COPPER ADAPTER	
E		SERVICE SADDLE CLAMP	D.I., A.C., C.I.
F		SERVICE SADDLE CLAMP	P.V.C.
G		COPPER PIPE (SERVICE LINE)	TYPE K (SOFT)

* FURNISHED BY UTILITY AGENCY

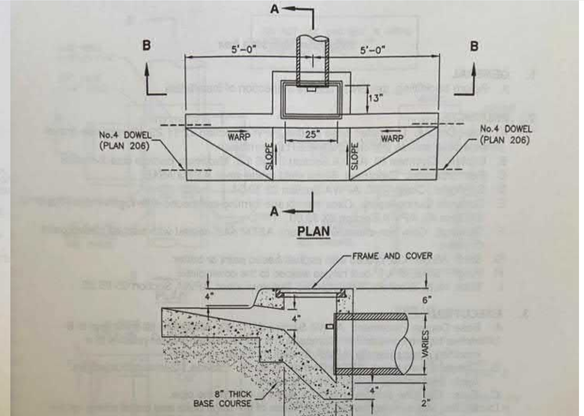
1 1/2" and 2" Service taps

Plan 552 August 2001



Cover collar for water valve box

Plan 574 August 2001



Curb face inlet - irrigation

Plan 611 August 2005

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Revisions:

#	DATE	DESCRIPTION

SNOOK TOWNHOMES
SITE DETAILS
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C401

Sheet 6 of 7
Project: 2021-015
Date: 4/27/22
Drawn By: ABR
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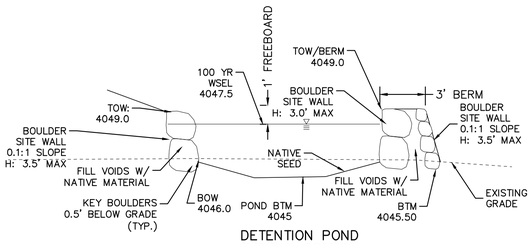
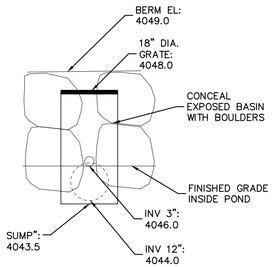


DETENTION POND
TYPICAL SECTION

NOTES:

1. DETENTION POND BOTTOM, BERM, AND SLOPES SHALL BE REVEGETATED WITH NATIVE SEED.



OUTLET STRUCTURE
DETAIL

ACO StormBrixx®

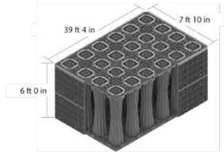
Online Project Configuration

Project Details
Description : Snook Townhomes
Date : 04-22-2022
City : MOAB
State : UTAH
Zip Code : 84532
Country : USA

Customer Details
Contact : Andrew Rapiejko
Email : mountaincivildurango@gmail.com

Tank Configuration

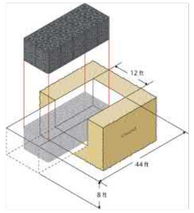
Tank Function	Infiltration
Product	Standard Duty (SD)
Number of Layers	2.0
Total Net Volume (ft^3)	1,803.4 ft^3
Total Gross Volume (ft^3)	1,859.2 ft^3
Length of Tank (ft/in)	39 ft 4 in
Width of Tank (ft/in)	7 ft 10 in
Depth of Tank (ft/in)	6 ft 0 in



Cavity & Excavation Details

Length of Cavity (ft/in)	43 ft 4 in
Width of Cavity (ft/in)	11 ft 10 in
Depth of Cavity (ft/in)	7 ft 6 in
Volume of Material to be Excavated (ft^3)	3,861.0 ft^3
*Membrane Quantity (ft^2)	1,364.7 ft^2
Cover Dimension (ft/in)	1 ft 0 in
**Backfill Material (ft^3)	2,001.8 ft^3

* Calculation includes a 15% overlap
** Pavement not accounted for



* Diagram shows cavity size rounded to nearest foot

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Casa Grande, AZ 85122
Tel : (888) 490-9552
info@acousa.com

Project Configuration Inlets, Outlets, and Access

Inlets

	Qty
Inlets	1
Remote Access Unit	0
Side Panels	1
Horizontal Pipe Connector	0

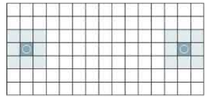
Outlets

	Qty
Outlets	1
Remote Access Unit	0
Side Panels	0
Horizontal Pipe Connector	1

Access

	Qty
Access Points	2
Remote Access Unit	0
Remote Access Plate	2

Grid Note
The grids below do not represent accurate dimensions or proportions they just give a general guide to both inlet / outlet and access placement on your StormBrixx scheme.



Inlet/Outlet Grid Key
Inlet/Outlet Pipe
Inlet/Outlet using Remote Access Unit

Access Grid Key
Remote Access Unit with maintenance access
Remote Access Plate with maintenance access

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Bill of Materials

Pt No.		Description	Qty	Price Each ($)	Extended Price ($)	Weight Each (lbs)	Extended Weight (lbs)
314090		SD Half-Module	160	79.50	12,720.00	21.60	3,456.0
314091		SD Side Panel	96	27.50	2,640.00	7.20	691.2
314092		SD Top Cover	80	10.50	840.00	1.60	128.0
314093		SD Layer Connectors	120	0.90	108.00	0.03	3.6
314075		Remote Access Plate	2	75.00	150.00	10.80	21.6
314038		Extension Shaft	3	83.00	249.00	4.80	14.4
314053		Remote Access Vented Cover - Ductile Iron	2	250.00	500.00	83.60	167.2
93146		Horizontal Pipe Connector 6" SCH 40	2	115.00	230.00	2.80	5.6
314039		Extension Shaft with Pipe Socket	1	92.00	92.00	6.20	6.2
Totals				**Price**	**17,529.00**	**Weight**	**4,493.8**

Notes:
1) These prices are the manufacturer's suggested retail price (MSRP). Please contact your local dealer or ACO Customer Service for more information.

2) You should have received an email with your output results from: no-reply@acosbcconfigurator.com If you do not receive the confirmation within a few minutes, please check your spam folder.

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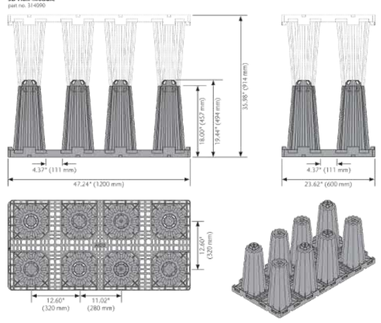
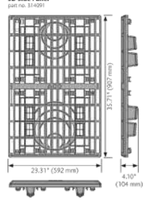
Stormwater Detention/Infiltration/Retention System

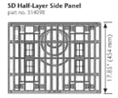
SD Half-Module
part no. 314090



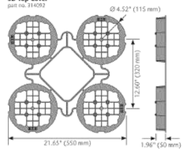
SD Side Panel
part no. 314091



SD Half-Layer Side Panel
part no. 314098



SD Top Cover
part no. 314092



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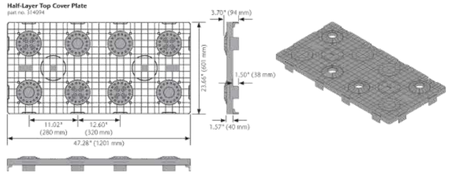
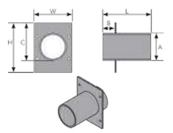
ACO StormBrixx® SD — January 2021
Stormwater Detention/Infiltration/Retention System

Half-Layer Top Cover Plate
part no. 314094

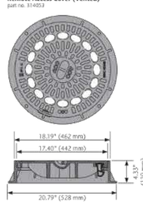


Horizontal Pipe Connector
part no.: see chart



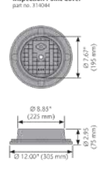
Part No.	A	B	C	H	W	L
	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)
93139	SDR 35 - 4"	2.00 (51)	6.25 (158)	8.25 (209)	6.70 (170)	8.00 (203)
93145	SCH 40 - 4"	2.00 (51)	7.47 (189)	8.29 (210)	6.70 (170)	8.00 (203)
93140	SDR 35 - 6"	2.00 (51)	8.95 (227)	9.93 (252)	10.22 (259)	8.00 (203)
93146	SCH 40 - 6"	2.00 (51)	9.11 (231)	9.93 (252)	10.22 (259)	8.00 (203)
93141	SDR 35 - 8"	2.00 (51)	10.46 (265)	11.39 (289)	11.64 (295)	8.00 (203)
93147	SCH 40 - 8"	2.00 (51)	10.57 (268)	11.39 (289)	11.64 (295)	8.00 (203)
93142	SDR 35 - 12"	2.00 (51)	13.48 (342)	14.30 (363)	16.66 (423)	8.00 (203)
93144	SCH 35 - 15"	2.00 (51)	17.28 (439)	19.25 (489)	19.25 (489)	8.00 (203)

Remote Access Cover (Vented)
part no. 314053



Remote Access Cover (Non-Vented)
part no. 314063

Inspection Point Cover
part no. 314044



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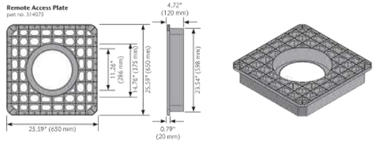
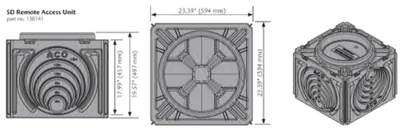
ACO StormBrixx® SD — January 2021
Stormwater Detention/Infiltration/Retention System

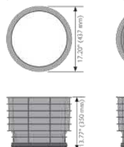
Remote Access Plate
part no. 314075



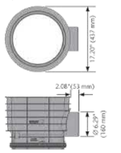
SD Remote Access Unit
part no. 138141



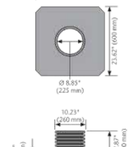
Extension Shaft
part no. 314038



Extension Shaft with Pipe Socket
part no. 314039



Vertical Inspection Point Connector
part no. 27018



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ACO StormBrixx® SD — January 2021
Stormwater Detention/Infiltration/Retention System

ACO StormBrixx SD Parts Table	Part No.	Length in (mm)	Width in (mm)	Depth in (mm)	Weight lbs (kg)
SD Half-Module	314090	47.24 (1200)	23.62 (600)	19.45 (494)	21.60 (9.80)
SD Side Panel	314091	35.71 (907)	23.31 (592)	1.57 (40)	7.20 (3.30)
SD Half-Layer Side Panel	314098	17.85 (454)	23.31 (592)	1.57 (40)	3.40 (1.54)
SD Top Cover	314092	21.65 (550)	21.65 (550)	1.96 (50)	1.60 (0.70)
Half-Layer Top Cover Plate	314094	47.25 (1200)	23.63 (600)	3.70 (94)	7.70 (3.50)
SD Remote Access Unit	138141	23.39 (594)	23.39 (594)	19.57 (497)	40.00 (18.12)
SD Layer Connector	314093	2.11 (54)	1.75 (44)	1.05 (27)	0.03 (0.02)
Remote Access Plate	314075	25.59 (650)	25.59 (650)	4.72 (120)	10.78 (4.90)
Remote Access Cover - Ductile Iron (Load Class D400)	314043	-	Ø 20.79 (528)	4.34 (110)	86.46 (39.30)
Remote Access Vented Cover - Ductile Iron (Load Class D400)	314053	-	Ø 20.79 (528)	4.34 (110)	83.60 (38.00)
Inspection Point Cover - Ductile Iron (Load Class D400)	314044	-	Ø 8.85 (225)	2.95 (75)	34.54 (15.70)
Extension Shaft	314038	-	Ø 17.21 (437)	13.78 (350)	4.84 (2.60)
Extension Shaft with Pipe Socket	314039	-	Ø 17.21 (437)	13.78 (350)	6.16 (2.80)
Vertical Inspection Point Connector	27018	-	Ø 8.85* (225)	7.87 (200)	5.52 (2.50)
Horizontal Pipe Connectors					
SDR 35 - 4"	93139		4.00" (102)		1.9 (0.87)
SCH 40 - 4"	93145		4.00" (102)		1.9 (0.87)
SDR 35 - 6"	93140		6.00" (152)		3.2 (1.49)
SCH 40 - 6"	93146	8.00 (203)	6.00" (152)	-	3.20 (1.49)
SDR 35 - 8"	93141		8.00" (203)		5.52 (2.50)
SCH 40 - 8"	93147		8.00" (203)		5.52 (2.50)
SDR 35 - 12"	93142		12.00" (305)		5.52 (2.50)
SDR 35 - 15"	93144		15.00" (381)		5.52 (2.50)

*Internal width

Specifications

General
The StormBrixx stormwater Detention*/ Infiltration*/Retention* system shall be ACO StormBrixx SD as supplied by ACO, Inc.

ACO StormBrixx SD meets AASHTO H-20 and HS-20 loading conditions.

Materials
The half-module shall be manufactured from polypropylene and have minimum properties as follows:
Tensile impact strength:
152 ft.lb/in² (319 kj/m²)
Tensile strength, ultimate:
3,480 psi (23,994 kpa)
Water absorption: 0.01%
Frost proof, salt proof and fuels and oils resistant

The stormwater tank shall provide an average 97% open area¹, holding up to 22.53 ft^3 (0.63 m^3) per module (2 full-modules assembled) and offer full access to all areas and levels for maintenance.

Geomembranes/Geotextiles
The StormBrixx stormwater system shall be wrapped in appropriate permeable geotextile or impermeable geomembrane* (supplied by others) as indicated by project design engineer.

Accessories
The StormBrixx stormwater system shall be used in conjunction with remote access unit or plate**/extension shaft**/inspection point connector**.

Installation
The StormBrixx stormwater system shall be installed in strict accordance with the manufacturer's installation instructions and recommendations.

*Choose one
**Choose none, one or more
¹Configuration and use of sidestop panels will marginally impact these figures

ACO, Inc.

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Northeast Sales Office
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Mentor, OH 44060
Tel: (440) 639-7230
Toll Free: (800) 543-4764
Fax: (440) 639-7235

Southeast Sales Office
4231 Pleasant Road
Fort Mill, SC 29708
Toll-Free: (800) 543-4764
Fax: (803) 802-1063

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ACO. creating the future of drainage

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ACO Specification Information

Revisions:

#	DATE	DESCRIPTION

SNOOK TOWNHOMES
STORM DRAIN DETAILS
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C401

Sheet 7 of 7
Project: 2021-015
Date: 6/22/22
Drawn By: ABR
Checked By:

FOR REVIEW ONLY NOT FOR CONSTRUCTION

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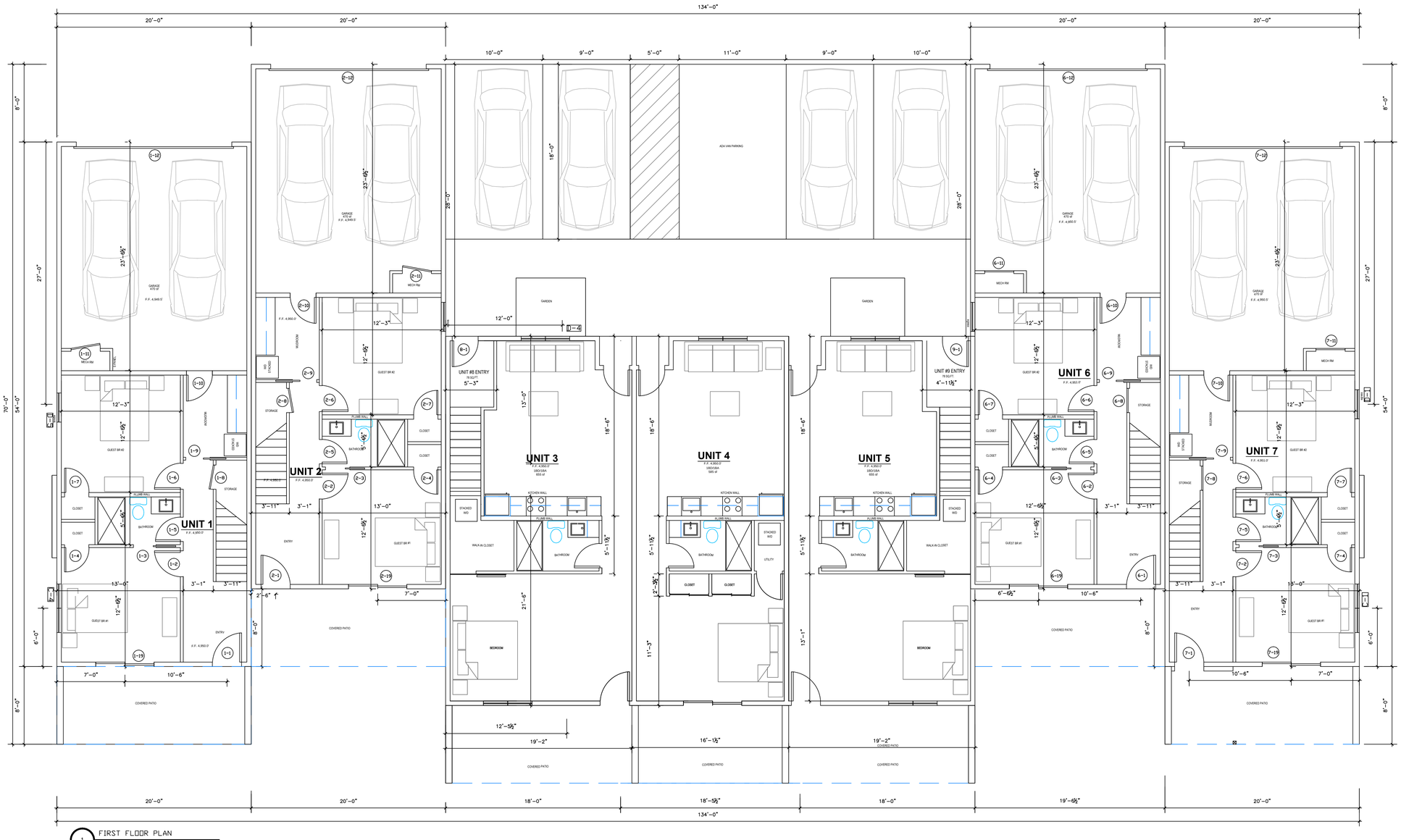

1 FIRST FLOOR PLAN
3/16" = 1'-0"

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188 MARIE STREET RIDGWAY, CO 81432

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CREEKSIDE

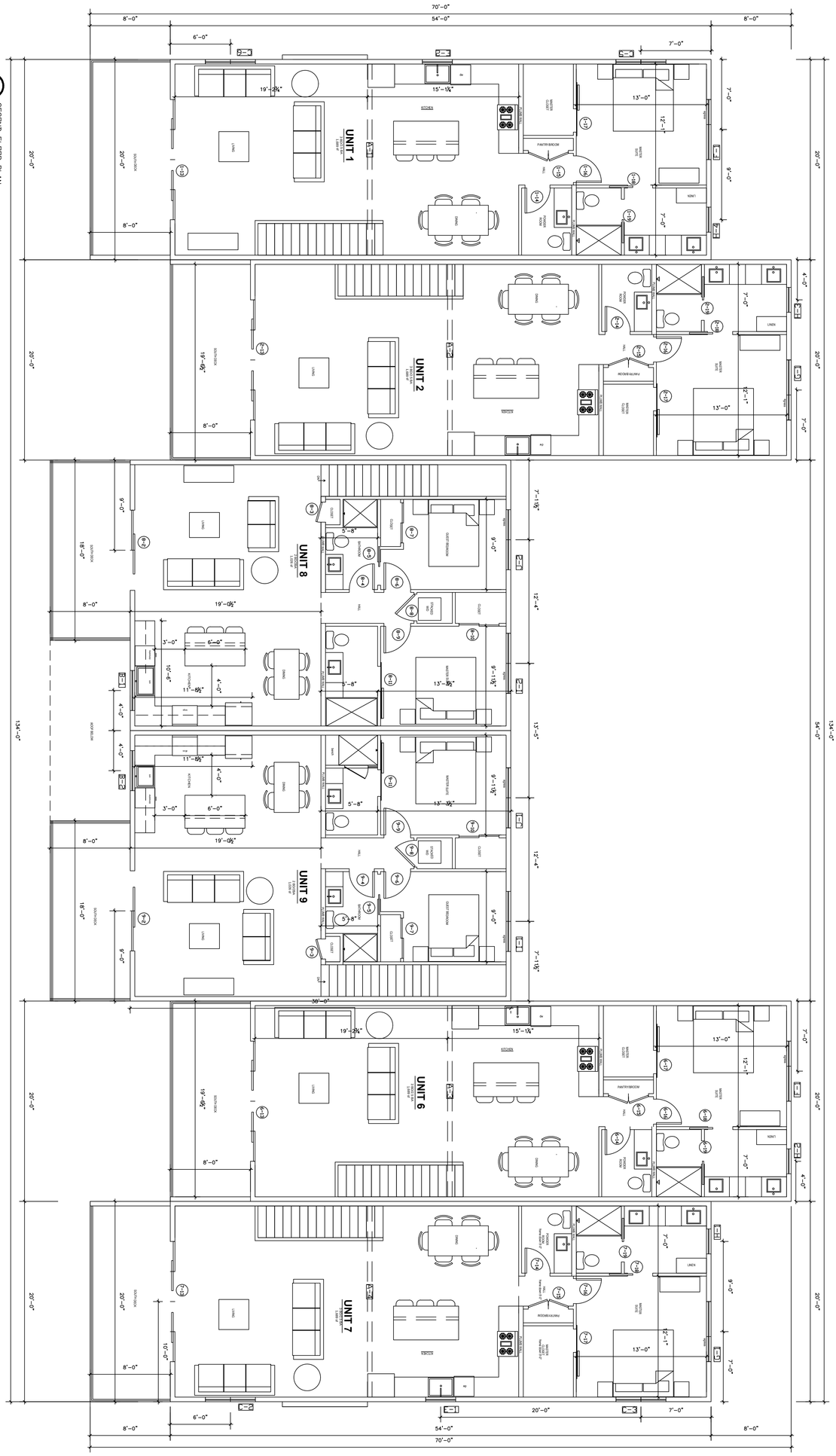
214 S 200 E
MOAB, UTAH

Phase
Date
December 17, 2021

Current Phase:
SITE APP L&L PLAN

JUNE 21, 2022

FLOOR PLAN
A 2.1

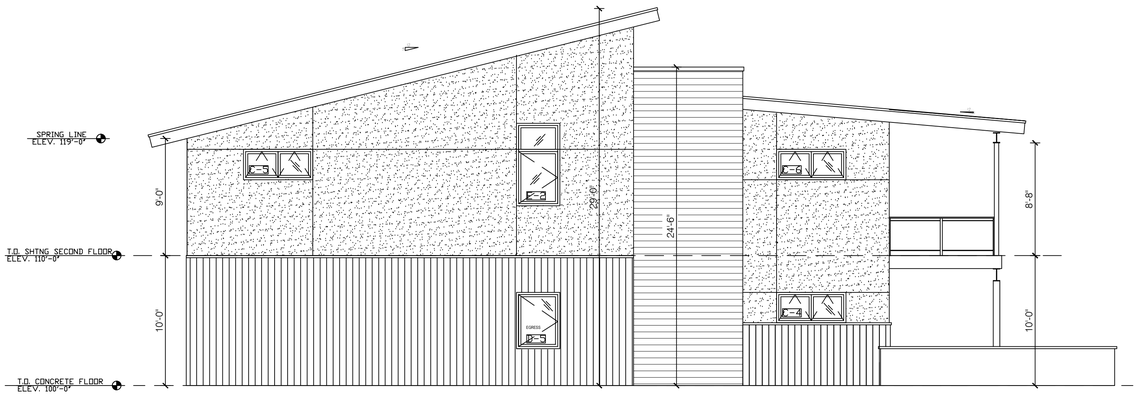


FLOOR PLAN A 2.2	Current Phase: DESIGN DEVELOPMENT January 19, 2021	Phase December 17, 2021	Date	SNOOK APARTMENTS 214 S 200 E MOAB, UTAH	All contents of these drawings are copyrighted. Reproduction of these drawings, and any portion thereof, without written permission, is prohibited. Any unauthorized reproduction, publication, or use is subject to civil and criminal penalties. Any unauthorized use of these drawings is at the user's sole risk and without liability to the designer.	HINES DESIGNS, LLC PHONE : (970) 626.2300 188 MARIE STREET RIDGWAY, CO 81432

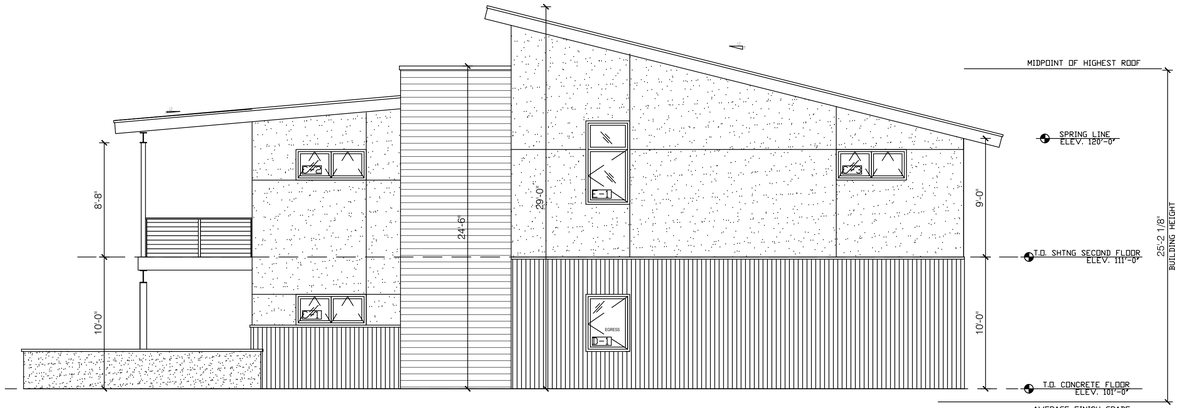
MATERIALS LEGEND

- METAL ROOFING
- STUCCO
- WOOD TONE LAP SIDING
- METAL SIDING

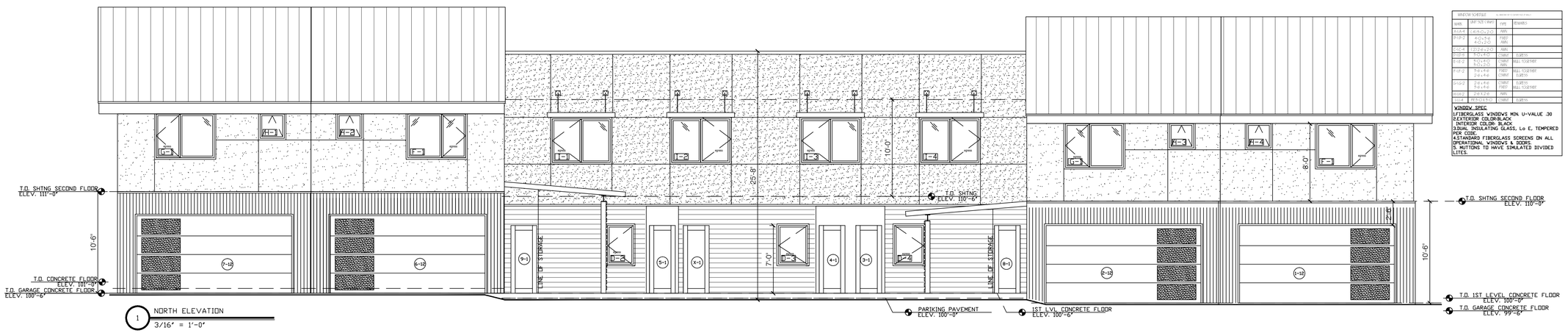
4 SOUTH ELEVATION
3/16" = 1'-0"



2 WEST ELEVATION
1/4" = 1'-0"



3 EAST ELEVATION
1/4" = 1'-0"



WINDOW SCHEDULE			
MARK	UNIT SIZE (WxH)	TYPE	REMARKS
A1-A4	4'-5"x5'-2"	AWN	
F1-F2	4'-0"x5'-6" 4'-0"x5'-6"	FIXED AWN	
A1-A4	1'-2"x1'-2"	AWN	
G1-G2	1'-6"x5'-0"	CSMNT	EGRESS
F1-F2	5'-0"x5'-0" 5'-0"x5'-0"	CSMNT AWN	WELL TOGETHER
F1-F2	3'-6"x4'-6" 3'-6"x4'-6"	FIXED CSMNT	WELL TOGETHER EGRESS
G1-G2	3'-6"x4'-6" 3'-6"x4'-6"	CSMNT FIXED	EGRESS WELL TOGETHER
S1-S2	1'-8"x1'-8"	AWN	
S1-A4	1'-8"x2'-0"	CSMNT	EGRESS

WINDOW SPEC
1.FIBERGLASS WINDOWS MIN U-VALUE .30
2.EXTERIOR COLOR:BLACK
INTERIOR COLOR: BLACK
3.DUAL INSULATING GLASS, Lo E, TEMPERED PER CODE
4.STANDARD FIBERGLASS SCREENS ON ALL OPERATIONAL WINDOWS & DOORS.
5. MUTTONS TO HAVE SIMULATED DIVIDED LITES.

1 NORTH ELEVATION
3/16" = 1'-0"

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SNOOK APARTMENTS

214 S 200 E
MOAB, UTAH

Date

Phase
December 17, 2021

Current Phase:
DESIGN DEVELOPMENT

January 19, 2021

ELEVATIONS

A4.1

LIGHTING CALC:
(2) A TYPE @ 1045 LUMENS EACH

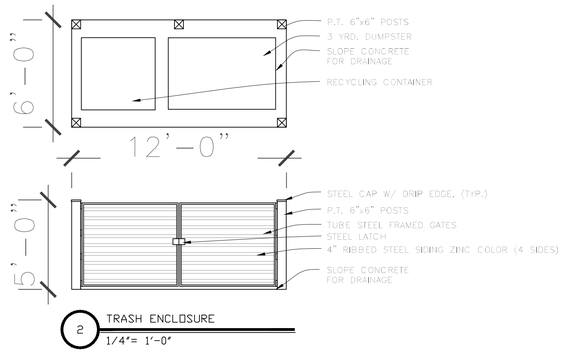
(13) B TYPE @ 50 WATTS

(15) C TYPE @ 700 LUMENS EACH

LIGHT C @ IN CEILING

LIGHT B @ 80" OFF FINISHED FLOOR

LIGHT A
GROUND MOUNTED



LANDSCAPE CALCULATION:

18,735 sq.ft. total lot size/
3,109 sq.ft. total landscaping =
16.6% landscaping

HARDSCAPE LEGEND

- CRUSHED GRANITE
- CONCRETE
- DECORATIVE ROCK

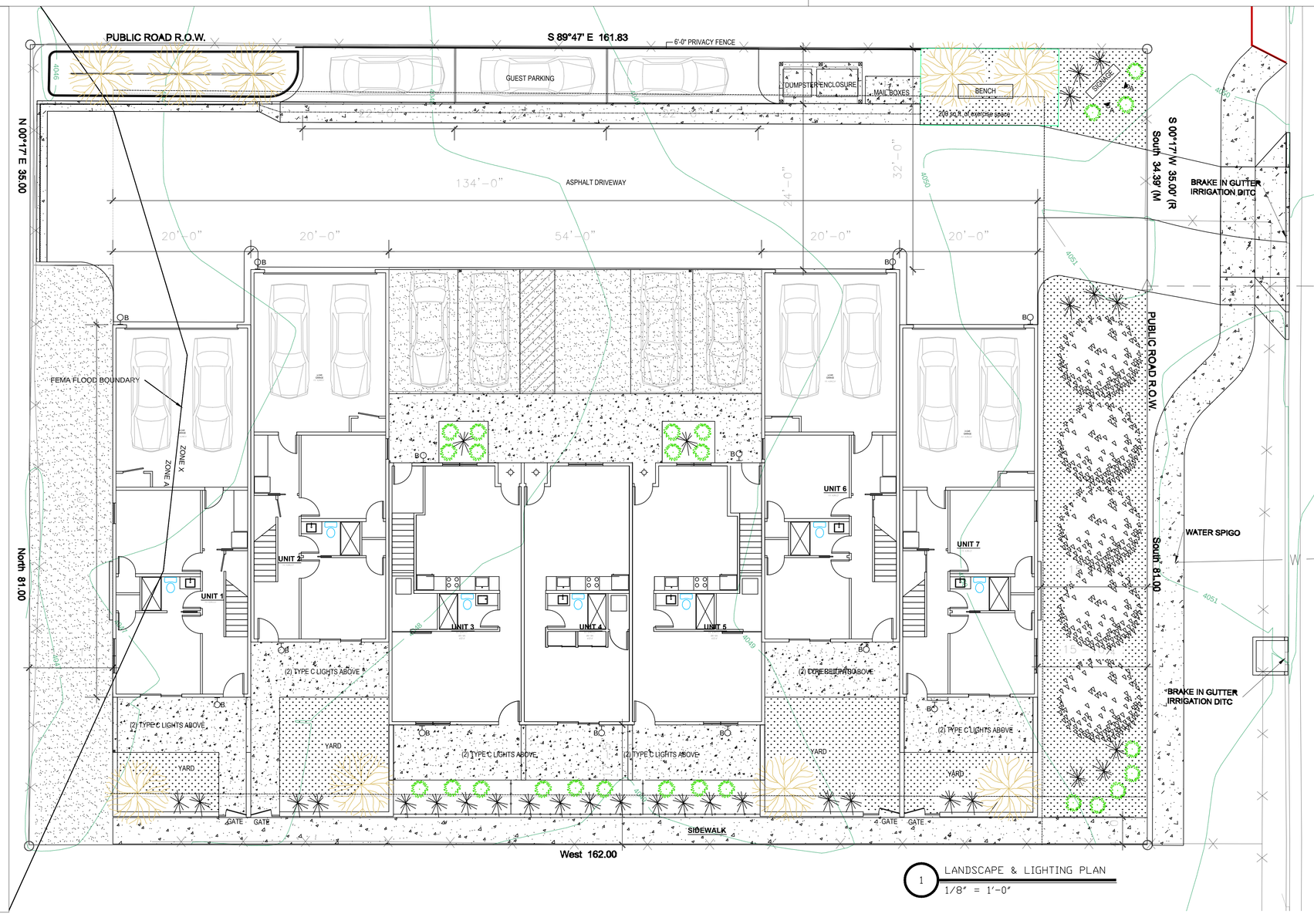
LIGHTING LEGEND

- A = LIGHT A = GROUND MOUNT-SIGN LIGHT
- B = LIGHT B = WALL MOUNT-EXTERIOR SCONCES
- C = LIGHT C = RECESSED CAN

LANDSCAPE LEGEND

- DESERT WILLOW
- AUSTRIAN PINE
- JAPANESE SILVER GRASS
- MUGO PINE

NOTE: ALL TREES & PLANTING AREAS WILL HAVE DRIP IRRIGATION.



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CREEKSIDE
214 S 200 E
MOAB, UTAH

Date
Phase
December 17, 2021

Current Phase:
SITE APP L&L PLAN

JUNE 21, 2022

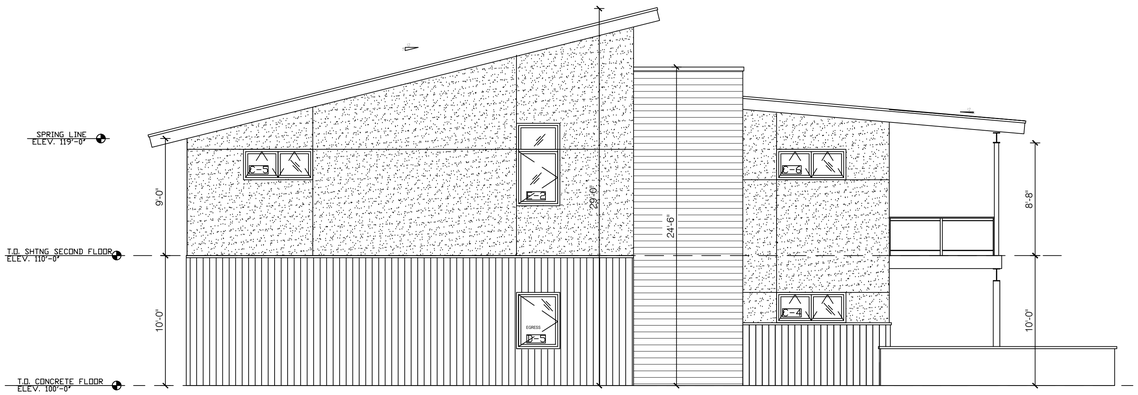
SITE PLAN

A1.1

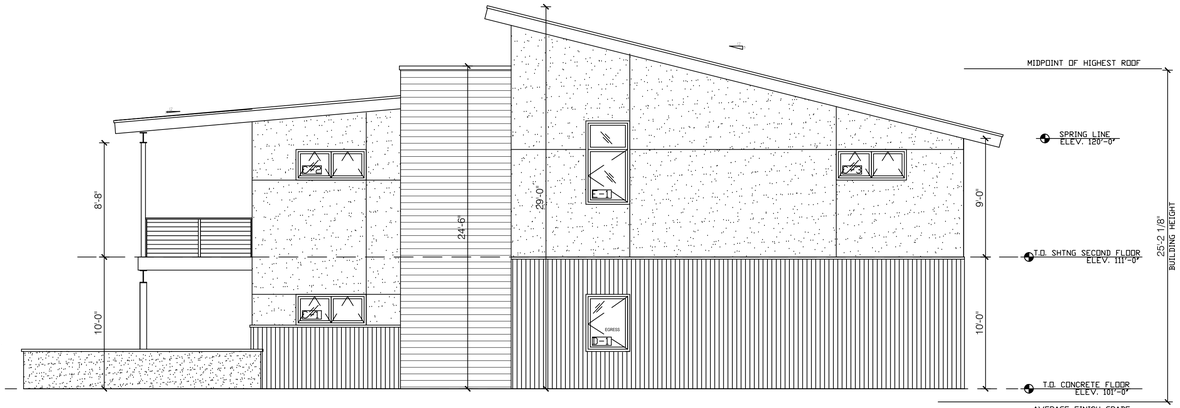
MATERIALS LEGEND

- METAL ROOFING
- STUCCO
- WOOD TONE LAP SIDING
- METAL SIDING

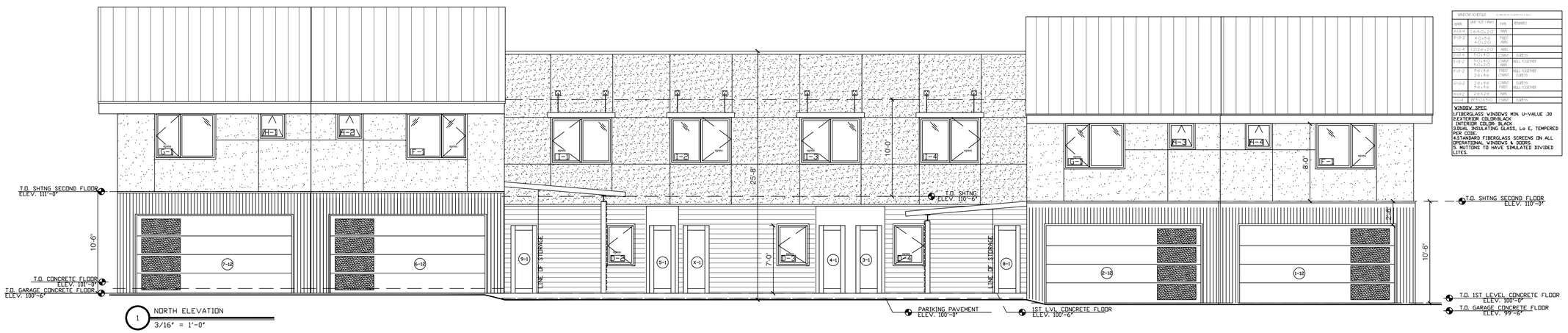
4 SOUTH ELEVATION
3/16" = 1'-0"



2 WEST ELEVATION
1/4" = 1'-0"



3 EAST ELEVATION
1/4" = 1'-0"



WINDOW SCHEDULE			
MARK	UNIT SIZE (WxH)	TYPE	REMARKS
A1-A4	4'-5"x5'-2"	AWN	
F1-F2	4'-0"x5'-6" 4'-0"x5'-6"	FIXED AWN	
A1-A4	1'-2"x1'-2"	AWN	
G1-G2	1'-6"x5'-0"	CSMNT	EGRESS
F1-F2	5'-0"x5'-0" 5'-0"x5'-0"	CSMNT AWN	WELL TOGETHER
F1-F2	3'-6"x4'-6" 3'-6"x4'-6"	FIXED CSMNT	WELL TOGETHER EGRESS
G1-G2	3'-6"x4'-6" 3'-6"x4'-6"	CSMNT FIXED	EGRESS WELL TOGETHER
S1-S2	1'-8"x1'-8"	AWN	
S1-A4	1'-8"x2'-0"	CSMNT	EGRESS

WINDOW SPEC
1.FIBERGLASS WINDOWS MIN U-VALUE .30
2.EXTERIOR COLOR:BLACK
INTERIOR COLOR: BLACK
3.DUAL INSULATING GLASS, Lo E, TEMPERED PER CODE
4.STANDARD FIBERGLASS SCREENS ON ALL OPERATIONAL WINDOWS & DOORS.
5. MUTTONS TO HAVE SIMULATED DIVIDED LITES.

1 NORTH ELEVATION
3/16" = 1'-0"

HINES DESIGNS, LLC
PHONE: (970) 626.2300
188 MARIE STREET RIDGWAY, CO 81432

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Written dimensions take precedence over scaled dimensions. Any discrepencies regarding dimensions are to be brought to the designer before commencing work.

SNOOK APARTMENTS

214 S 200 E
MOAB, UTAH

Date

Phase
December 17, 2021

Current Phase:
DESIGN DEVELOPMENT

January 19, 2021

ELEVATIONS

A4.1

LIGHTING CALC:
(2) A TYPE @ 1045 LUMENS EACH

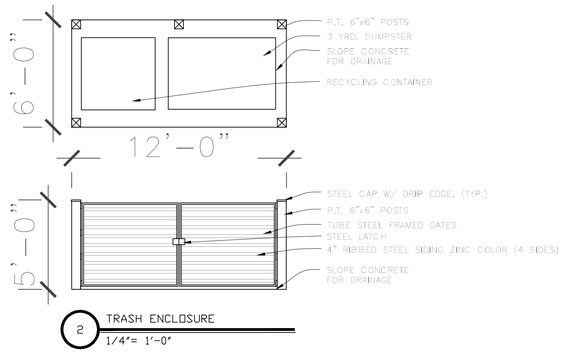
(13) B TYPE @ 50 WATTS

(15) C TYPE @ 700 LUMENS EACH

LIGHT C @ IN CEILING

LIGHT B @ 80" OFF FINISHED FLOOR

LIGHT A
GROUND MOUNTED



LANDSCAPE CALCULATION:

18,735 sq.ft. total lot size/
3,109 sq.ft. total landscaping =
16.6% landscaping

HARDSCAPE LEGEND

- CRUSHED GRANITE
- CONCRETE
- DECORATIVE ROCK

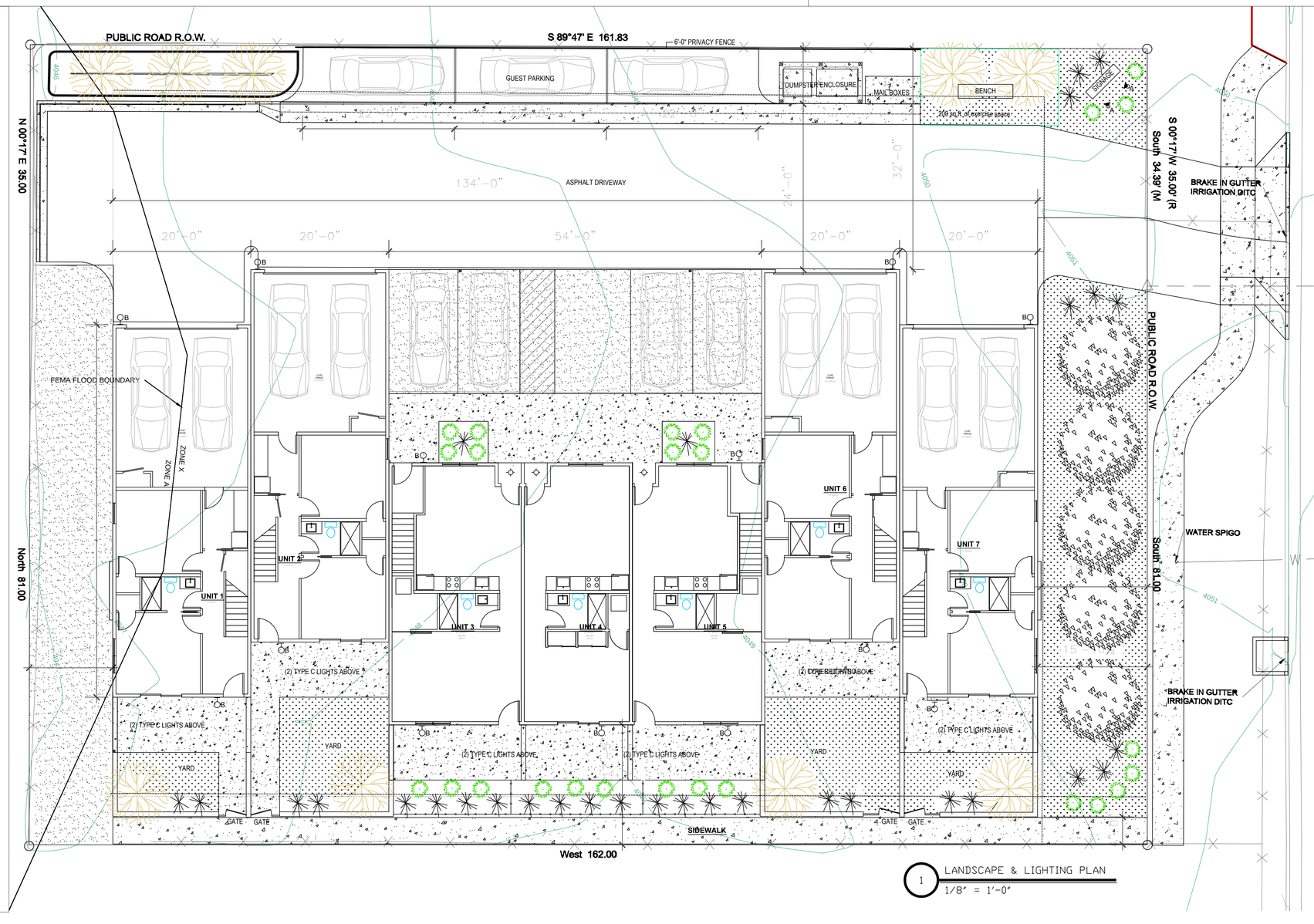
LIGHTING LEGEND

- A = LIGHT A = GROUND MOUNT-SIGN LIGHT
- B = LIGHT B = WALL MOUNT-EXTERIOR SCONCES
- C = LIGHT C = RECESSED CAN

LANDSCAPE LEGEND

- DESERT WILLOW
- AUSTRIAN PINE
- JAPANESE SILVER GRASS
- MUGO PINE

NOTE: ALL TREES & PLANTING AREAS WILL HAVE DRIP IRRIGATION.



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CREEKSIDE
214 S 200 E
MOAB, UTAH

Date
Phase
December 17, 2021

Current Phase:
SITE APP L&L PLAN

JUNE 21, 2022

SITE PLAN

A1.1

BENCHMARK:

1. CONTACT RED DESERT LAND SURVEYING, 435-259-8171, TO ESTABLISH BENCHMARK AND CONSTRUCTION CONTROL.

GENERAL NOTES:

1. EXISTING CONDITIONS SHOWN IN THESE PLANS IS FROM SURVEY DATA PROVIDED BY RED DESERT LAND SURVEYING.
2. ALL MATERIALS AND CONSTRUCTION SHALL BE COMPLETED PER CITY OFMOAB STANDARDS AND REQUIREMENTS, MOST CURRENT VERSION.
3. THE CONTRACTOR SHALL HAVE ONE APPROVED AND SIGNED (CITY AND ENGINEER) COPY OF THE PLANS ON THE JOB SITE AT ALL TIMES. CONTRACTOR SHALL ALSO HAVE THE JOB SPECIFICATIONS, AND CONSTRUCTION STANDARDS ON SITE.
4. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL HAVE A COPY OF ALL APPLICABLE PERMITS ON SITE.
5. AT LEAST TWO (2) FULL WORKING PRIOR TO CONSTRUCTION ACTIVITIES OF ANY KIND THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENT OF COLORADO AT 1-800-922-1987 OR 811 TO OBTAIN AN INQUIRE IDENTIFICATION NUMBER AND TO REQUEST THE UTILITY OWNERS TO MARK THE LOCATION OF ALL UNDERGROUND UTILITIES WHICH MAY BE IMPACTED BY CONSTRUCTION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES, INCLUDING UTILITIES NOT SHOWN ON THE CONSTRUCTION DRAWINGS. PRIOR TO ADJUSTING ANY UTILITIES THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE UTILITY OWNER.
7. IF THERE ARE EXISTING UTILITIES IN CONFLICT WITH THE PROPOSED IMPROVEMENTS THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE OWNER, ENGINEER, AND UTILITY OWNER TO DETERMINE A SOLUTION FOR THE CONFLICT. THE CONTRACTOR SHALL PROTECT ALL UTILITIES AND STRUCTURES FOUND AT THE SITE UNLESS OTHERWISE INDICATED IN THESE PLANS.
8. ALL TRENCHING CONSTRUCTION SHALL MEET OSHA STANDARDS AND REQUIREMENTS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES. CONTRACTOR SHALL OBTAIN ALL REQUIRED LOCAL AND STATE CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT PERMITS.

GRADING AND EROSION CONTROL NOTES:

1. A GRADING PERMIT IS REQUIRED FOR OVER 100 CY OF FILL MATERIAL. CONTRACTOR SHALL OBTAIN PERMIT IF REQUIRED.
2. ALL FILL MUST BE COMPACTED TO 90% MODFIFIED PROCTOR AT PLUS OR MINUS 2% OF THE OPTIMUM MOISTURE CONTENT OR AS REQUIRED IN THE PROJECT GEOTECHNICAL ENGINEERING SOIL REPORT.
3. UNSUITABLE MATERIAL SHALL BE REMOVED AS REQUIRED BY THE GEOTECHNICAL ENGINEER.
4. EARTHWORK SHALL NOT BE COMPLETED WHEN THE GROUND IS FROZEN.
5. TOPSOIL SHALL BE STOCKPILED FOR USE ON FINAL LANDSCAPING. STOCKPILES SHALL BE PROTECTED FROM EROSION.
6. AT ALL TIMES THE CONSTRUCTION SHALL INCORPORATE TECHNIQUES TO LIMIT WIND-CAUSED EROSION INCLUDING BUT NOT LIMITED TO WATERING.
7. CONTRACTOR SHALL KEEP STREET CLEAN OF DEBRIS AT ALL TIMES. CONTRACTOR SHALL CLEAN STREET AND ADJACENT PROPERTIES AS REQUIRED.
8. CONTRACTOR SHALL ESTABLISH A CONSTRUCTION ENTRANCE AND STORAGE/STAGING AREA.

WATER UTILITY NOTES:

1. ALL WATER UTILITY WORK, MATERIALS, AND CONSTRUCTION SHALL MEET CITY OF MOAB STANDARDS AND REQUIREMENTS, MOST CURRENT VERSION.
2. CONTRACTOR SHALL NOTIFY CITY OF MOAB PUBLIC WORKS OR ENGINEERING DEPARTMENT 48 HOURS PRIOR TO ANY WATER MAIN OR SERVICE LINE CONSTRUCTION.
3. ALL WATER MAIN VALVES, HYDRANTS, AND METER LIDS SHALL BE ADJUSTED TO FINISHED GRADE.
4. ALL WORK SHALL BE INSPECTED BY CITY OF MOAB PUBLIC WORKS OR ENGINEERING STAFF PRIOR TO BACKFILL.

SEWER UTILITY NOTES:

1. ALL SEWER UTILITY WORK, MATERIALS, AND CONSTRUCTION SHALL MEET CITY OF MOAB STANDARDS AND REQUIREMENTS, MOST CURRENT VERSION.
2. CONTRACTOR SHALL NOTIFY CITY OF MOAB PUBLIC WORKS OR ENGINEERING DEPARTMENT 48 HOURS PRIOR TO ANY SEWER MAIN OR SERVICE LINE CONSTRUCTION.
3. ALL SEWER MAIN MANHOLES, CLEANOUTS, ETC... SHALL BE ADJUSTED TO FINISHED GRADE.
4. ALL WORK SHALL BE INSPECTED BY CITY OF MOAB PUBLIC WORKS STAFF PRIOR TO BACKFILL.

FRANCHISE UTILITY NOTES:

1. FRANCHISE (GAS, ELECTRIC, TELECOM, FIBER, ETC...) DESIGN IS BY THE UTILITY PROVIDER.
2. CONTRACTOR SHALL BE COMPLETE ALL WORK PER FRANCHISE UTILITY PROVIDER REQUIREMENTS.

COTTONWOOD CONDOMINIUMS

INFRASTRUCTURE IMPROVEMENTS

FOR CONSTRUCTION

1/11/23

VICINITY MAP

SHEET INDEX

#	TITLE
1.	C000 – COVER SHEET
2.	C100 – SITE PLAN
3.	C200 – UTILITY PLAN
4.	C300 – GRADING AND DRAINAGE PLAN
5.	C400 – DETAILS
6.	C401 – DETAILS
7.	C402 – DETAILS

CITY OF MOAB ENGINEERING APPROVAL

PRINTED NAME Chuck Williams,PE

SIGNATURE Chuck Williams DATE 02/03/2023

Blue Stakes of UTAH 811 Bluestakes.org

Revisions:

#	DATE	DESCRIPTION

COTTONWOOD CONDOMINIUMS
COVER SHEET AND NOTES
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.

C000

Sheet 1 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

PROFESSIONAL ENGINEER
1/11/23
No. 12990137
ANDREW RAPIEJKO
STATE OF UTAH

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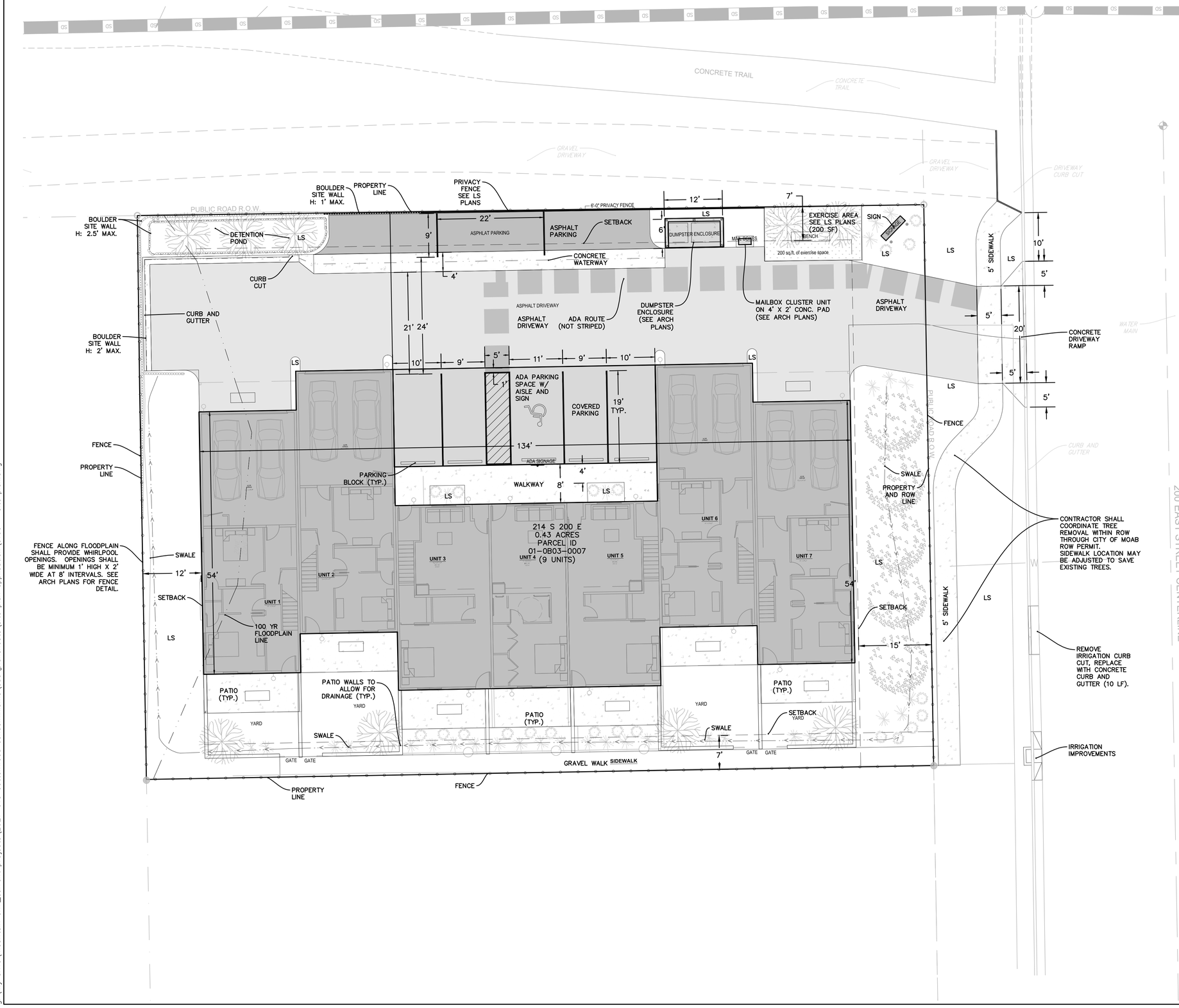

SITE PLAN NOTES:

1. SEE ARCHITECTURAL SITE PLAN FOR ADDITIONAL DETAIL OF SITE IMPROVEMENTS INCLUDING FENCING.
2. SEE LANDSCAPE PLANS FOR LANDSCAPE IMPROVEMENTS.
3. SEE LIGHTING PLANS FOR LIGHTING IMPROVEMENTS.
4. ALL IMPROVEMENTS WITHIN RIGHT OF WAY SHALL BE COMPLETED PER CITY OF MOAB STANDARDS AND SPECIFICATIONS.
5. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO COMPLETING WORK.
6. ADA ROUTE SHOWN FOR REFERENCE ONLY. ADA ROUTE IS NOT TO BE STRIPED.

GRAPHIC SCALE
0 5 10 FEET 20
0 ¼ ½ ¾ 1 INCHES 2

Revisions:

#	DATE	DESCRIPTION

COTTONWOOD CONDOMINIUMS
SITE PLAN
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C100

Sheet 2 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

PROFESSIONAL ENGINEER
1/11/23
No. 12990137
ANDREW RAPIEJKO
STATE OF UTAH

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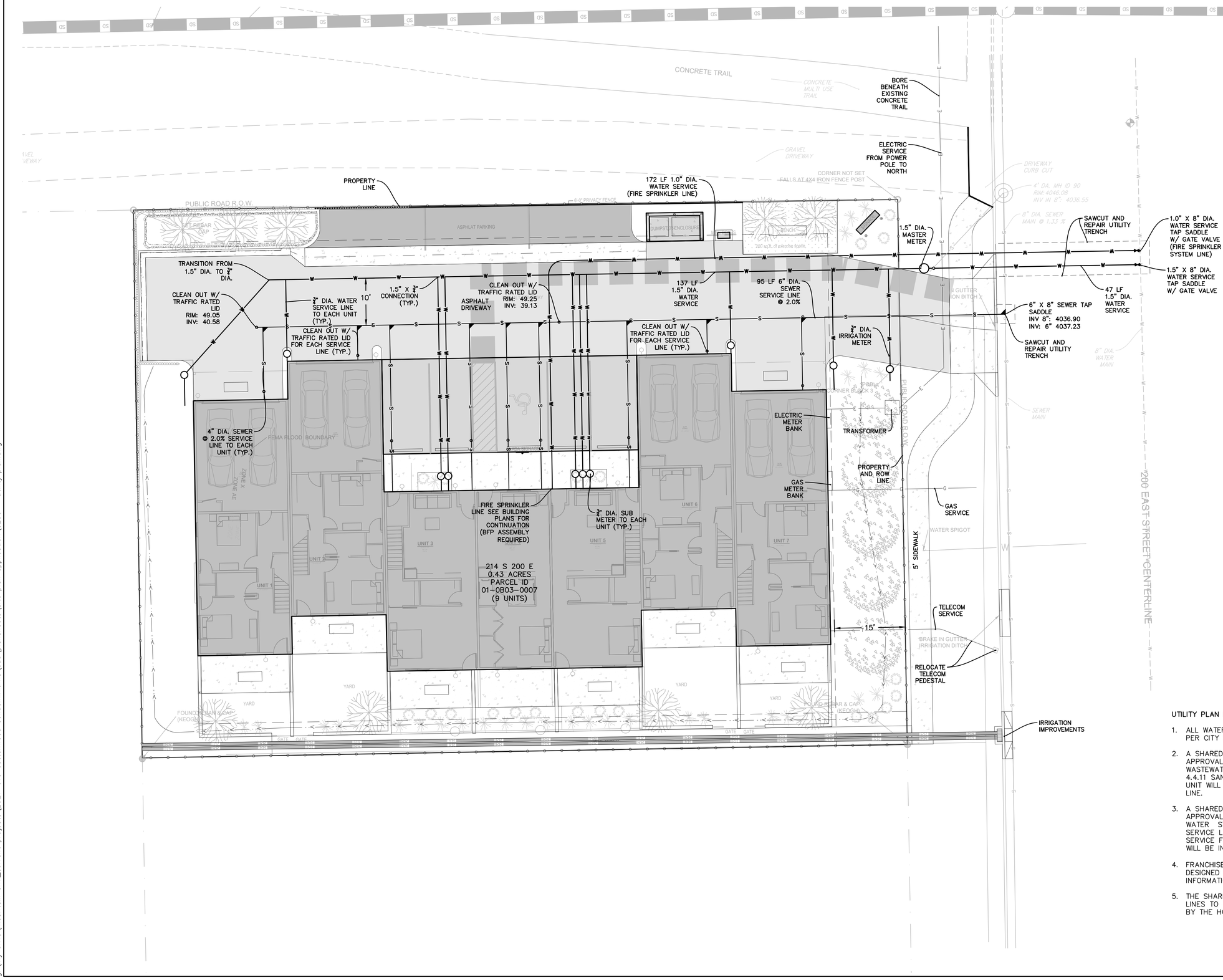

UTILITY PLAN NOTES:

1. ALL WATER AND SEWER MAIN WORK SHALL BE COMPLETED PER CITY OF MOAB STANDARDS AND SPECIFICATIONS.
2. A SHARED SEWER SERVICE LINE IS REQUESTED FOR APPROVAL BY CITY ENGINEER AS ALLOWED BY CITY OF MOAB WASTEWATER COLLECTION SYSTEM DESIGN CRITERIA SECTION 4.4.11 SANITARY SEWER SERVICE LINES. EACH INDIVIDUAL UNIT WILL HAVE A SINGLE SERVICE FROM THE SHARED SEWER LINE.
3. A SHARED WATER SERVICE LINE IS REQUESTED FOR APPROVAL BY CITY ENGINEER AS ALLOWED BY CITY OF MOAB WATER SYSTEM DESIGN CRITERIA SECTION 4.4.15 WATER SERVICE LINES. EACH INDIVIDUAL UNIT WILL HAVE A SINGLE SERVICE FROM THE SHARED SEWER LINE. A MASTER METER WILL BE INSTALLED. EACH UNIT WILL HAVE A SUB-METER.
4. FRANCHISE UTILITIES (ELECTRIC, TELECOM, GAS) SHALL BE DESIGNED BY UTILITY OWNER. GENERAL LAYOUT SHOWN FOR INFORMATION ONLY.
5. THE SHARED WATER AND SEWER SERVICE LINES AND SERVICE LINES TO EACH BUILDING, SHALL BE OWNED AND MAINTAINED BY THE HOA.

GRAPHIC SCALE
0 5 10 FEET 20
0 ¼ ½ ¾ 1 INCHES 2

Revisions:

#	DATE	DESCRIPTION

COTTONWOOD CONDOUMINIUMS
UTILITY PLAN
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C200

Sheet 3 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

PROFESSIONAL ENGINEER
1/11/23
No. 12990137
ANDREW RAPIEJKO
STATE OF UTAH

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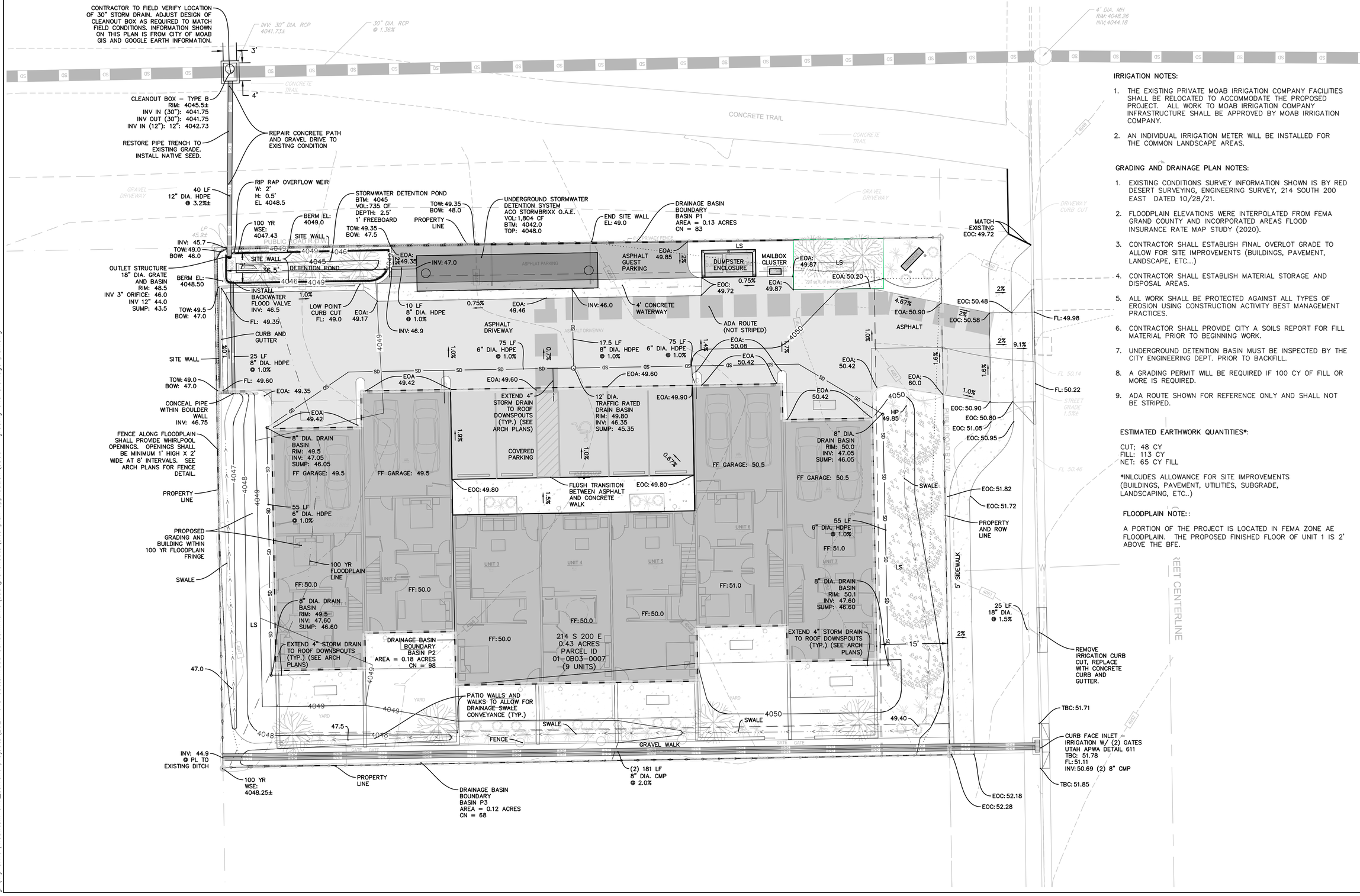

IRRIGATION NOTES:

1. THE EXISTING PRIVATE MOAB IRRIGATION COMPANY FACILITIES SHALL BE RELOCATED TO ACCOMMODATE THE PROPOSED PROJECT. ALL WORK TO MOAB IRRIGATION COMPANY INFRASTRUCTURE SHALL BE APPROVED BY MOAB IRRIGATION COMPANY.
2. AN INDIVIDUAL IRRIGATION METER WILL BE INSTALLED FOR THE COMMON LANDSCAPE AREAS.

GRADING AND DRAINAGE PLAN NOTES:

1. EXISTING CONDITIONS SURVEY INFORMATION SHOWN IS BY RED DESERT SURVEYING, ENGINEERING SURVEY, 214 SOUTH 200 EAST DATED 10/28/21.
2. FLOODPLAIN ELEVATIONS WERE INTERPOLATED FROM FEMA GRAND COUNTY AND INCORPORATED AREAS FLOOD INSURANCE RATE MAP STUDY (2020).
3. CONTRACTOR SHALL ESTABLISH FINAL OVERLOT GRADE TO ALLOW FOR SITE IMPROVEMENTS (BUILDINGS, PAVEMENT, LANDSCAPE, ETC...)
4. CONTRACTOR SHALL ESTABLISH MATERIAL STORAGE AND DISPOSAL AREAS.
5. ALL WORK SHALL BE PROTECTED AGAINST ALL TYPES OF EROSION USING CONSTRUCTION ACTIVITY BEST MANAGEMENT PRACTICES.
6. CONTRACTOR SHALL PROVIDE CITY A SOILS REPORT FOR FILL MATERIAL PRIOR TO BEGINNING WORK.
7. UNDERGROUND DETENTION BASIN MUST BE INSPECTED BY THE CITY ENGINEERING DEPT. PRIOR TO BACKFILL.
8. A GRADING PERMIT WILL BE REQUIRED IF 100 CY OF FILL OR MORE IS REQUIRED.
9. ADA ROUTE SHOWN FOR REFERENCE ONLY AND SHALL NOT BE STRIPED.

ESTIMATED EARTHWORK QUANTITIES*:

CUT: 48 CY
FILL: 113 CY
NET: 65 CY FILL

*INLCUDES ALLOWANCE FOR SITE IMPROVEMENTS (BUILDINGS, PAVEMENT, UTILITIES, SUBGRADE, LANDSCAPING, ETC..)

FLOODPLAIN NOTE::

A PORTION OF THE PROJECT IS LOCATED IN FEMA ZONE AE FLOODPLAIN. THE PROPOSED FINISHED FLOOR OF UNIT 1 IS 2' ABOVE THE BFE.

GRAPHIC SCALE
0 5 10 FEET 20
0 ¼ ½ ¾ 1 INCHES 2

Revisions:

#	DATE	DESCRIPTION

COTTONWOOD CONDOMINIUMS
OVERLOT GRADING PLAN
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C300

Sheet 4 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

PROFESSIONAL ENGINEER 1/11/23 No. 12990137 ANDREW RAPIEJKO STATE OF UTAH

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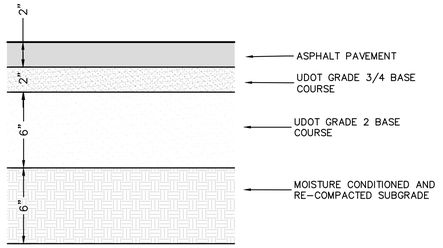
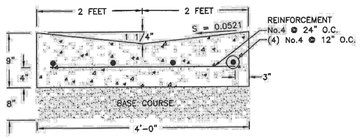


PARKING AND ACCESS
TYPICAL PAVEMENT SECTION

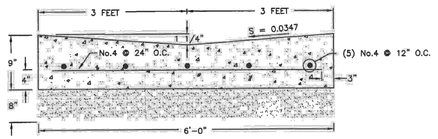
UTAH APWA DETAILS:

1. THE CONTRACTOR SHALL HAVE A COPY OF THE MOST CURRENT UTAH APWA MANUAL OF STANDARD PLANS AND SPECIFICATIONS ON SITE AT ALL TIMES. APPLICABLE DETAILS ARE SHOWN IN THIS PLAN FOR REFERENCE. UTAH APWA DETAILS SHALL BE APPLIED TO THE PROJECT PER CITY OF MOAB CONSTRUCTION STANDARDS AND REQUIREMENTS.



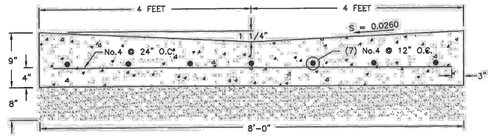
4'-0" WATERWAY

CONCRETE AREA = 2.583 SQ. FT.



6'-0" WATERWAY

CONCRETE AREA = 3.875 SQ. FT.



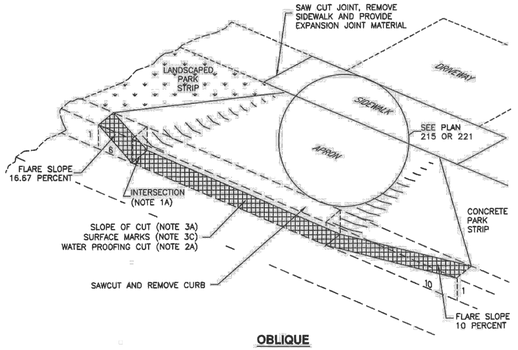
8'-0" WATERWAY

CONCRETE AREA = 5.166 SQ. FT.

Plan 211 July 2011

Waterway

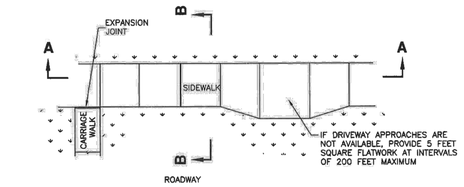
NARRATIVE: THIS PLAN IS USED IF AN EXISTING CURB MUST BE CUT TO INSTALL A DRIVEWAY APPROACH. THE SLOPE OF THE CURB FLARE DEPENDS UPON WHETHER THE PARK STRIP IS LANDSCAPED OR IF THE PARK STRIP IS CONCRETE.



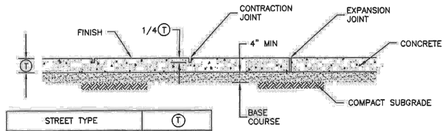
OBLIQUE

Plan 222 February 2011

Saw-cut driveway approach



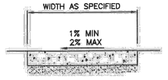
PLAN



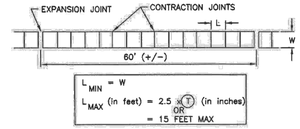
STREET TYPE	T
RESIDENTIAL (WITH PARK STRIP)	4"
RESIDENTIAL (NO PARK STRIP)	6"
OTHER	
REPLACING EXISTING SIDEWALK	MATCH EXISTING (4" MIN.)

SEE DRIVEWAY APPROACH PLANS FOR SIDEWALK THICKNESS AT DRIVEWAYS

SECTION A-A



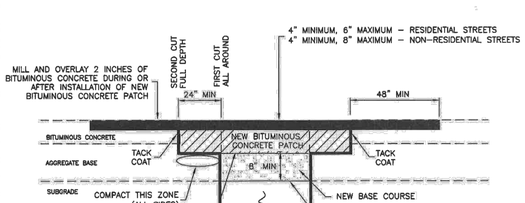
SECTION B-B



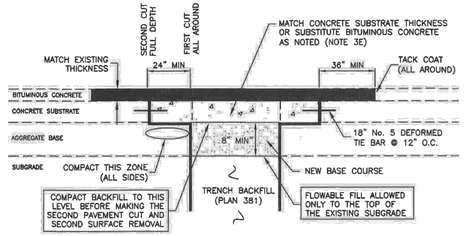
SIDEWALK JOINT DETAIL

Plan 231 March 2009

Sidewalk



BITUMINOUS CONCRETE RESTORATION

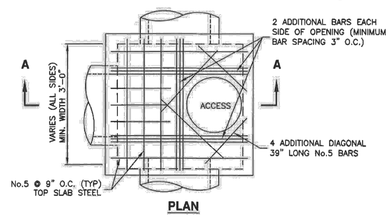


COMPOSITE RESTORATION

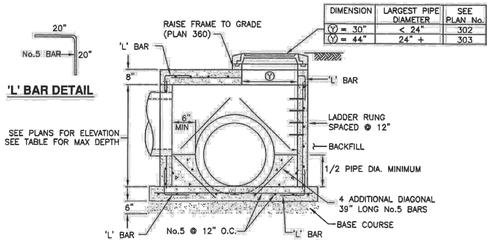
Plan 255 November 2015

Bituminous pavement T-patch

TYPE B



PLAN



'L' BAR DETAIL

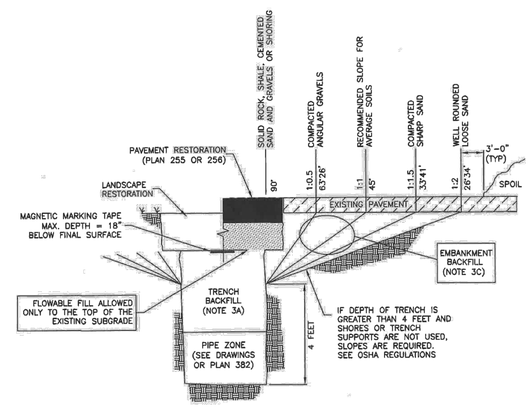
SECTION A-A

WALL THICKNESS AND WALL STEEL				
LOW WATER TABLE				
MAX. BOX WIDTH	6 FEET	8 FEET	8 FEET	9 FEET
MAX. BOX DEPTH	5 FEET	8 FEET	12 FEET	12 FEET
WALL THICKNESS	8 INCHES	8 INCHES	12 INCHES	12 INCHES
WALL CURTAIN STEEL	#5 @ 12"	#5 @ 6"	#5 @ 6"	#7 @ 9"
MODIFICATIONS FOR HIGH WATER TABLE				
WALL THICKNESS	8 INCHES	10 INCHES	16 INCHES	12 INCHES
WALL CURTAIN STEEL	#5 @ 9"	#5 @ 6"	#5 @ 6"	#6 @ 6"

Plan 331.2 April 2011

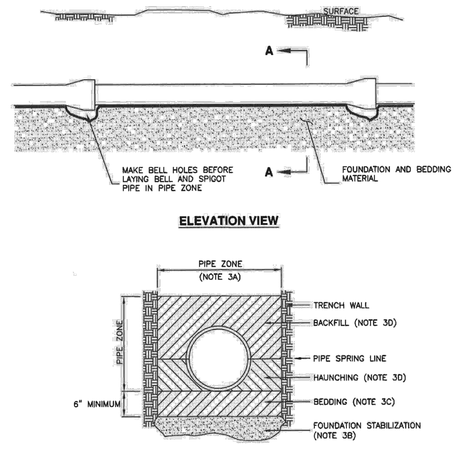
Cleanout box

NARRATIVE: THIS PLAN SHOWS VARIOUS SLOPES RECOMMENDED FOR VARIOUS TYPES OF SLOPE STABILITY PROBLEMS. THE VERTICAL TEXT INDICATES VARIOUS MATERIALS THAT MAY BE ENCOUNTERED. THE SERVICES OF A PROFESSIONAL SOILS ENGINEER SHOULD BE USED TO VERIFY SLOPE STABILITY.



Plan 381 July 2016

Trench backfill



ELEVATION VIEW

SECTION A-A

INSTALLATION

CONCRETE PIPE: FOLLOW ASTM C 1479
"STANDARD PRACTICE FOR INSTALLATION OF PRECAST CONCRETE SEWER, STORM DRAIN, AND CULVERT PIPE USING STANDARD INSTALLATIONS.

PLASTIC PIPE: FOLLOW ASTM D 2321
"STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS"

CORRUGATED METAL PIPE: FOLLOW ASTM A 798
"STANDARD PRACTICE FOR INSTALLING FACOTRY-MADE CORRUGATED STEEL PIPE FOR SEWERS AND OTHER APPLICATIONS.

VITRIFIED CLAY PIPE: FOLLOW ASTM C 12.
"STANDARD RECOMMENDED PRACTICE FOR INSTALLING VITRIFIED CLAY PIPE LINES.

Plan 382 January 2011

Pipe zone backfill

Revisions:

#	DATE	DESCRIPTION

COTTONWOOD CONDOMINIUMS
SITE DETAILS
CITY OF MOAB, UTAH

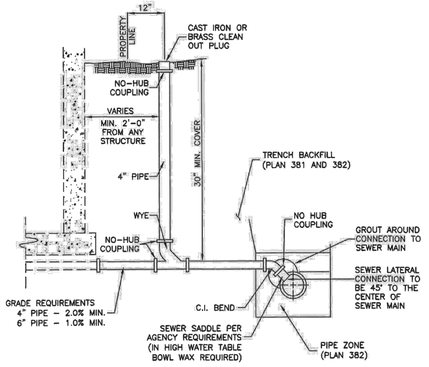
MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C400

Sheet 5 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

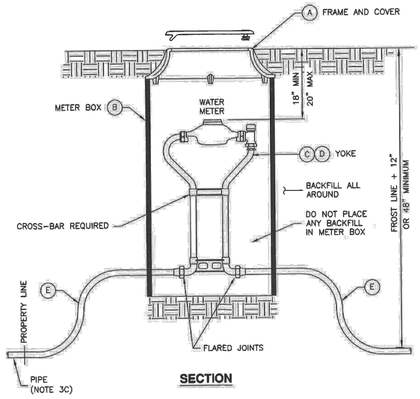
PROFESSIONAL ENGINEER
1/11/23
No. 12990137
ANDREW RAPIEJKO
STATE OF UTAH

g:\my drive\mountain civil_current projects\2021-015 cottonwood condominiums\cad\plansheets\site plan application\c400 - details.dwg



Sewer lateral connection

Plan **431** January 2011



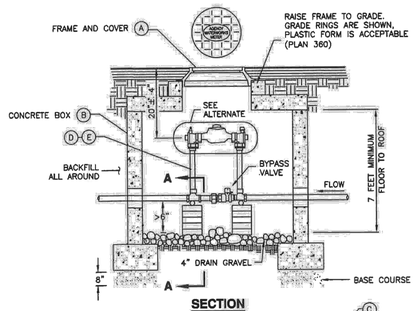
SECTION

LEGEND			
No.	*	ITEM	DESCRIPTION
A		FRAME AND COVER	CAST IRON COVER
B		METER BOX (18" TO 21" DIAMETER) (30" TO 36" DEEP)	CORRUGATED PE, PVC, CMP OR MATERIAL ACCEPTABLE TO AGENCY
C		3/4" METER YOKE	OPTIONAL BACKFLOW PROTECTION PER AGENCY REQUIREMENTS
D		1" METER YOKE	OPTIONAL BACKFLOW PROTECTION PER AGENCY REQUIREMENTS
E		COPPER PIPE	TYPE K (SOFT)

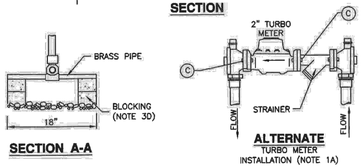
* FURNISHED BY UTILITY AGENCY

3/4" and 1" meter

Plan **521** August 2001



SECTION



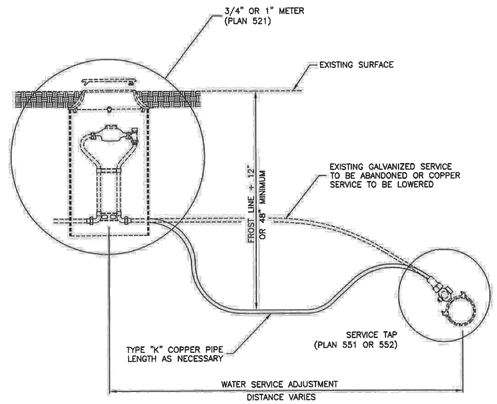
SECTION A-A **ALTERNATE** TURBO METER INSTALLATION (NOTE 1A)

LEGEND			
No.	*	ITEM	DESCRIPTION
A		27" FRAME AND COVER	PLAN 502
B		CONCRETE BOX	PLAN 505
C		STAINLESS STEEL METER BOLTS	5/8" x 2 3/4" BRASS
D		1 1/2" CUSTOM SETTER WITH BYPASS	
E		2" CUSTOM SETTER WITH BYPASS	

* FURNISHED BY UTILITY AGENCY

1 1/2" and 2" meter

Plan **522** August 2001



Water service line

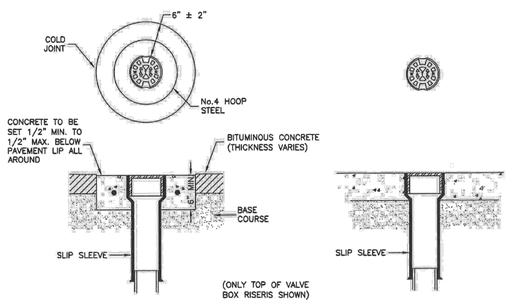
Plan **541** August 2001

1 1/2" and 2" Service taps

1. **GENERAL**
   A. Before backfilling around taps, secure inspection of installation by ENGINEER.

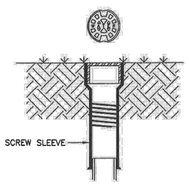
2. **PRODUCTS**
   A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
   B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
   C. Tape: Teflon tape is required on all taps.

3. **EXECUTION**
   A. Tapping: Place taps a minimum of 36-inches apart. Use a tapping tool that is sized corresponding to the size of the service line to be installed. No taps within 36-inches of end of pipe.
   B. PVC or AC Pipe: A service saddle clamp is required on all PVC and AC pipe taps unless specified otherwise.
   C. Backfill: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
   D. Blocks: Clay brick or concrete block required under valve box to assure a 1" or greater space between the box and the corporation stop and pipe assembly.



BITUMINOUS PAVEMENT

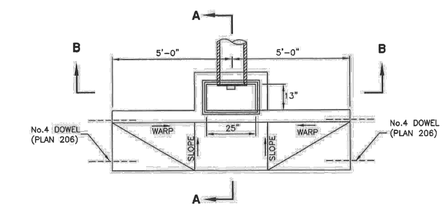
PORTLAND CEMENT CONCRETE PAVEMENT



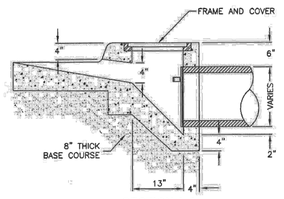
LANDSCAPED AREA

Cover collar for water valve box

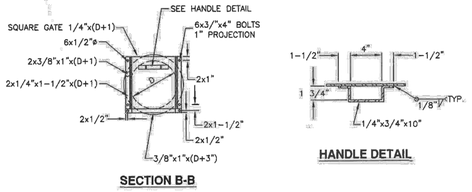
Plan **574** August 2001



PLAN



SECTION A-A



SECTION B-B **HANDLE DETAIL**

Curb face inlet - irrigation

Plan **611** August 2005

Revisions:

#	DATE	DESCRIPTION

COTTONWOOD CONDOMINIUMS
SITE DETAILS
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C401

Sheet 6 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

PROFESSIONAL ENGINEER 1/11/23 No. 12990137 ANDREW RAPIEJKO STATE OF UTAH

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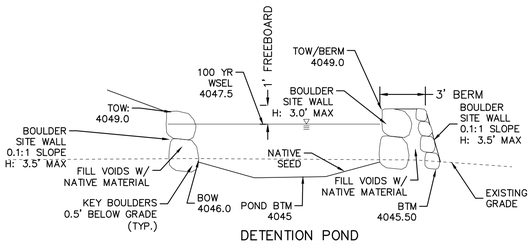
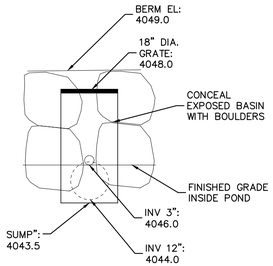


DETENTION POND
TYPICAL SECTION

NOTES:

1. DETENTION POND BOTTOM, BERM, AND SLOPES SHALL BE REVEGETATED WITH NATIVE SEED.



OUTLET STRUCTURE
DETAIL

ACO StormBrixx®

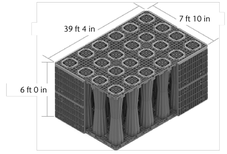
Online Project Configuration

Project Details
Description : Snook Townhomes
Date : 04-22-2022
City : MOAB
State : UTAH
Zip Code : 84532
Country : USA

Customer Details
Contact : Andrew Rapiejko
Email : mountaincivildurango@gmail.com

Tank Configuration

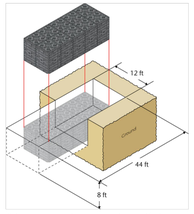
Tank Function	Infiltration
Product	Standard Duty (SD)
Number of Layers	2.0
Total Net Volume (ft³)	1,803.4 ft³
Total Gross Volume (ft³)	1,859.2 ft³
Length of Tank (ft/in)	39 ft 4 in
Width of Tank (ft/in)	7 ft 10 in
Depth of Tank (ft/in)	6 ft 0 in



Cavity & Excavation Details

Length of Cavity (ft/in)	43 ft 4 in
Width of Cavity (ft/in)	11 ft 10 in
Depth of Cavity (ft/in)	7 ft 6 in
Volume of Material to be Excavated (ft³)	3,861.0 ft³
*Membrane Quantity (ft²)	1,364.7 ft²
Cover Dimension (ft/in)	1 ft 0 in
**Backfill Material (ft³)	2,001.8 ft³

* Calculation includes a 15% overlap
** Pavement not accounted for



* Diagram shows cavity size rounded to nearest foot

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Casa Grande, AZ 85122
Tel : (888) 490-9552
info@acousa.com

Project Configuration Inlets, Outlets, and Access

Inlets

	Qty
Inlets	**1**
Remote Access Unit	0
Side Panels	1
Horizontal Pipe Connector	0

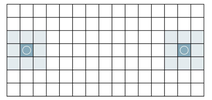
Outlets

	Qty
Outlets	**1**
Remote Access Unit	0
Side Panels	0
Horizontal Pipe Connector	1

Access

	Qty
Access Points	**2**
Remote Access Unit	0
Remote Access Plate	2

Grid Note
The grids below do not represent accurate dimensions or proportions they just give a general guide to both inlet / outlet and access placement on your StormBrixx scheme.



Inlet/Outlet Grid Key
Inlet/Outlet Pipe
Inlet/Outlet using Remote Access Unit

Access Grid Key
Remote Access Unit with maintenance access
Remote Access Plate with maintenance access

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Bill of Materials

Pt No.		Description	Qty	Price Each ($)	Extended Price ($)	Weight Each (lbs)	Extended Weight (lbs)
314090		SD Half-Module	160	79.50	12,720.00	21.60	3,456.0
314091		SD Side Panel	96	27.50	2,640.00	7.20	691.2
314092		SD Top Cover	80	10.50	840.00	1.60	128.0
314093		SD Layer Connectors	120	0.90	108.00	0.03	3.6
314075		Remote Access Plate	2	75.00	150.00	10.80	21.6
314038		Extension Shaft	3	83.00	249.00	4.80	14.4
314053		Remote Access Vented Cover - Ductile Iron	2	250.00	500.00	83.60	167.2
93146		Horizontal Pipe Connector 6" SCH 40	2	115.00	230.00	2.80	5.6
314039		Extension Shaft with Pipe Socket	1	92.00	92.00	6.20	6.2
Totals				**Price**	**17,529.00**	**Weight**	**4,493.8**

Notes:
1) These prices are the manufacturer's suggested retail price (MSRP). Please contact your local dealer or ACO Customer Service for more information.

2) You should have received an email with your output results from: no-reply@acosbconfigurator.com If you do not receive the confirmation within a few minutes, please check your spam folder.

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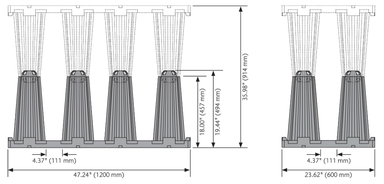
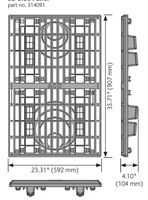
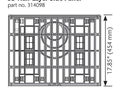
SD Half-Module
part no. 314090



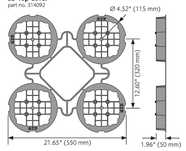
SD Side Panel
part no. 314091



SD Half-Layer Side Panel
part no. 314098



SD Top Cover
part no. 314092



ACO Specification Information

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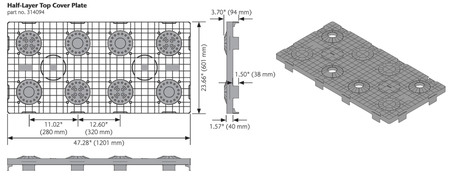
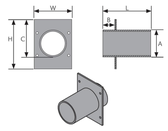
Half-Layer Top Cover Plate
part no. 314094

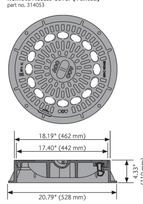


Horizontal Pipe Connector
part no.: see chart



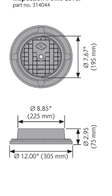
Part No.		A in (mm)	B in (mm)	C in (mm)	H in (mm)	W in (mm)	L in (mm)
93139	SDR 35 - 4"	2.00 (51)	6.25 (158)	8.25 (209)	6.70 (170)	8.00 (203)	
93145	SCH 40 - 4"	2.00 (51)	7.47 (189)	8.29 (210)	6.70 (170)	8.00 (203)	
93140	SDR 35 - 6"	2.00 (51)	8.95 (227)	9.93 (252)	10.22 (259)	8.00 (203)	
93146	SCH 40 - 6"	2.00 (51)	9.11 (231)	9.93 (252)	10.22 (259)	8.00 (203)	
93141	SDR 35 - 8"	2.00 (51)	10.46 (265)	11.39 (289)	11.64 (295)	8.00 (203)	
93147	SCH 40 - 8"	2.00 (51)	10.57 (268)	11.39 (289)	11.64 (295)	8.00 (203)	
93142	SDR 35 - 12"	2.00 (51)	13.48 (342)	14.30 (363)	16.66 (423)	8.00 (203)	
93144	SCH 35 - 15"	2.00 (51)	17.28 (439)	19.25 (489)	19.25 (489)	8.00 (203)	

Remote Access Cover (Vented)
part no. 314053



Remote Access Cover (Non-Vented)
part no. 314043

Inspection Point Cover
part no. 314044



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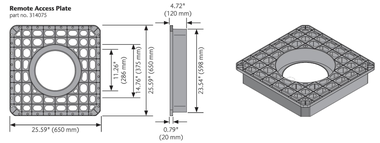
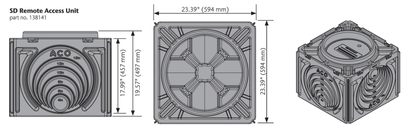
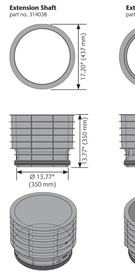
Remote Access Plate
part no. 314075



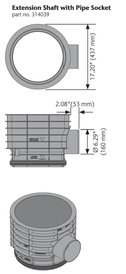
SD Remote Access Unit
part no. 138141



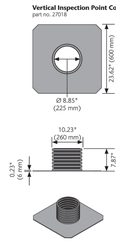
Extension Shaft
part no. 314038



Extension Shaft with Pipe Socket
part no. 314039



Vertical Inspection Point Connector
part no. 27018



ACO Specification Information

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ACO StormBrixx SD Parts Table	Part No.	Length in (mm)	Width in (mm)	Depth in (mm)	Weight lbs (kg)
SD Half-Module	314090	47.24 (1200)	23.62 (600)	19.45 (494)	21.60 (9.80)
SD Side Panel	314091	35.71 (907)	23.31 (592)	1.57 (40)	7.20 (3.30)
SD Half-Layer Side Panel	314098	17.85 (454)	23.31 (592)	1.57 (40)	3.40 (1.54)
SD Top Cover	314092	21.65 (550)	21.65 (550)	1.96 (50)	1.60 (0.70)
Half-Layer Top Cover Plate	314094	47.25 (1200)	23.63 (600)	3.70 (94)	7.70 (3.50)
SD Remote Access Unit	138141	23.39 (594)	23.39 (594)	19.57 (497)	40.00 (18.12)
SD Layer Connector	314093	2.11 (54)	1.75 (44)	1.05 (27)	0.03 (0.02)
Remote Access Plate	314075	25.59 (650)	25.59 (650)	4.72 (120)	10.78 (4.90)
Remote Access Cover - Ductile Iron (Load Class D400)	314043	-	Ø 20.79 (528)	4.34 (110)	86.46 (39.30)
Remote Access Vented Cover - Ductile Iron (Load Class D400)	314053	-	Ø 20.79 (528)	4.34 (110)	83.60 (38.00)
Inspection Point Cover - Ductile Iron (Load Class D400)	314044	-	Ø 8.85 (225)	2.95 (75)	34.54 (15.70)
Extension Shaft	314038	-	Ø 17.21 (437)	13.78 (350)	4.84 (2.60)
Extension Shaft with Pipe Socket	314039	-	Ø 17.21 (437)	13.78 (350)	6.16 (2.80)
Vertical Inspection Point Connector	27018	-	Ø 8.85* (225)	7.87 (200)	5.52 (2.50)
Horizontal Pipe Connectors					
SDR 35 - 4"	93139		4.00* (102)		1.9 (0.87)
SCH 40 - 4"	93145		4.00* (102)		1.9 (0.87)
SDR 35 - 6"	93140		6.00* (152)		3.2 (1.49)
SCH 40 - 6"	93146	8.00 (203)	6.00* (152)	-	3.20 (1.49)
SDR 35 - 8"	93141		8.00* (203)		5.52 (2.50)
SCH 40 - 8"	93147		8.00* (203)		5.52 (2.50)
SDR 35 - 12"	93142		12.00* (305)		5.52 (2.50)
SDR 35 - 15"	93144		15.00* (381)		5.52 (2.50)

*Internal width

Specifications

General
The StormBrixx stormwater Detention*/ Infiltration*/Retention* system shall be ACO StormBrixx SD as supplied by ACO, Inc.

ACO StormBrixx SD meets AASHTO H-20 and HS-20 loading conditions.

Materials
The half-module shall be manufactured from polypropylene and have minimum properties as follows:
Tensile impact strength:
152 ft-lb/in² (319 kJ/m²)
Tensile strength, ultimate:
3,480 psi (23,994 kpa)
Water absorption: 0.01%
Frost proof, salt proof and fuels and oils resistant

The stormwater tank shall provide an average 97% open area*, holding up to 22.53* ft³ (0.63 m³) per module (2 half-modules assembled) and offer full access to all areas and levels for maintenance.

Geomembranes/Geotextiles
The StormBrixx stormwater system shall be wrapped in appropriate permeable geotextile or impermeable geomembrane* (supplied by others) as indicated by project design engineer.

Accessories
The StormBrixx stormwater system shall be used in conjunction with remote access unit or plate**/extension shaft**/inspection point connector**.

Installation
The StormBrixx stormwater system shall be installed in strict accordance with the manufacturer's installation instructions and recommendations.

*Choose one
**Choose none, one or more
*Configuration and use of side/top panels will marginally impact these figures

ACO, Inc.

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All reasonable care has been taken in compiling the information in this document. All recommendations and suggestions on the use of ACO products are made without guarantee since the conditions of use are beyond the control of the company. It is the customer's responsibility to ensure that each product is fit for its intended purpose and that the actual conditions of use are suitable. ACO, Inc. reserves the right to change products and specifications without notice.

ACO...creating the future of drainage

ACO Specification Information

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Revisions:

#	DATE	DESCRIPTION

COTTONWOOD CONDOMINIUMS
STORM DRAIN DETAILS
CITY OF MOAB, UTAH

MOUNTAIN CIVIL CONSULTING
712 Eagle- Pass
Durango, CO 81301
970-946-3175

PLAN NO.
C402

Sheet 7 of 7
Project: 2021-015
Date: 1/11/23
Drawn By: ABR
Checked By:

PROFESSIONAL ENGINEER
1/11/23
No. 12990137
ANDREW RAPIEJKO
STATE OF UTAH

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City of Moab - Planning Approval Criteria - Cottonwood Condominiums Site Plan Approval Review

	Description
Permitted Use	Multi-Household Dwelling
Development	Condominium
Red Color = Area of Clarification	
Blue Color = N/A Area	
Green Color = Area of Authority	

Code Provision	Title	Approved As	Compliance	Clarification	Justification
17.48	**R-3 Multi-Household Residential Zone**				
17.48.020.7	Multi-household dwellings.				
b.	Developments consisting of seven or more multi-household units shall be subject to the following additional requirements:	9 Units	Yes		
i.	Access. Vehicular access shall be provided to the property in such a way that it does not impede traffic patterns on adjacent streets.	Provided	Yes		
ii.	Parking. Off-street parking shall be designed in such a way as to allow vehicles to pull forward into the on-street traffic flow.	Provided	Yes		
iii.	Garages or Carports. If provided, garages and carports shall not be located in the front yard and shall be set back from the front wall of the principal structure at least fifteen feet or be accessed from the rear or side of the property.	Provided	Yes		
iv.	Landscaping. All off-street parking shall be landscaped and buffered from adjacent uses. A minimum of fifteen percent of the interior of the parking area shall be landscaped to provide shade and break up the expanse of asphalt.	Provided	Yes	Off-street Parking is buffered from adjacent uses, consistent with methodology used on this approval and all other similar type approvals.	
v	Buffering. All adjacent uses shall be buffered by a distance of not less than fifteen feet and contain berms, shrubs, and other plantings. Buffering may be combined with screens, fences and hedges.	Mitigated combination areas of horizontal landscaping and vertical screening	Yes	There is discrepancy in how adjacent uses are defined and measured. The interpretation since 2019 has been that a use constitutes a structure or reviewable floor area, not a zone or property. In cases where adjacent uses are located near a shared property line, the proposed development will need to be buffered proportionately to the measured distance along with other buffering or screening measures. Buffering and Buffering Areas allow for mitigated and approved combinations of horizontal landscaping and vertical screening, provided underlying setbacks are complied with. Not less than 15' horizontal Landscaping Buffer shall be provided if no vertical screening elements are provided, thus changing structural setbacks for entire property from underlying zone setbacks to 15'. If approved combination of horizontal and vertical buffering and screening plans are proposed, structural setbacks return to underlying zone setbacks.	Language does not say, "Proposed uses shall be setback not less than fifteen feet from property lines"
vi.	Apartments and court apartments shall designate an open space/recreation area that is a minimum of two hundred square feet in size to be developed into recreation, play or landscaped areas. The requirement can be met with the construction of a recreation room ("rec room") or club house of a similarly sized area that can be used for residents and their guests for recreation/social activities and/or relaxation.	Provided	Yes	Current specific permitted use requirement prevails and supersedes previous general requirement. This requirement provision was updated as recent as 2022, generated in 2018. Previous related requirement was generated in 1993, replaced.	1. Approved Development is a Multi-Household Dwelling - Condominium, not a Multi-Household Dwelling - Apartment. 2. Prevailing Requirement, superseding previous requirements for open space.
vii.	The allowed number of multi-household units shall be determined by Section 17.48.030.	Calculates	Yes		
	(Ord. 22-05 § 2, 2022; Ord. 21-16 § 3, 2021; Ord. 19-13 § 21 (part), 2019; Ord. 18-01 (part), 2018: Ord. 12-05 (part), 2012; prior code § 27-17-2)				
17.48.030	Area Requirements				
	An area of not less than five thousand square feet shall be provided and maintained for each one-household dwelling and two-household dwellings. All other multi-household development shall provide a minimum of two thousand square feet per unit for three-household dwellings and above. Schools, churches, boarding houses and other main buildings shall have a building site area in which the area of the building is equal to or less than twenty percent of the total parcel size area.	18,730.80 sf @ 1 Dwelling p/2000sf = 9.36 = 9 Units	Yes		
	(Ord. 19-13 § 21 (part), 2019; Ord. 13-01 (part), 2013: Ord. 97-04, 1997: prior code § 27-17-3)				
17.48.040	Width Requirements				
	The minimum width of any building site for a one-household dwelling or other buildings shall be fifty linear feet measured at a distance twenty-five feet back from the front lot line.	~115'	Yes		
	(Ord. 19-13 § 21 (part), 2019; Ord. 13-01 (part), 2013: Ord. 11-15 (part), 2011; prior code § 27-17-4)				
17.48.050	Location Requirements				
A.	feet. No accessory building shall be constructed on a lot prior to the main building.	East: 15'10"	Yes		
B.	Side Setback. The minimum side setback for any dwelling or any other main building shall be seven feet; provided, that the minimum distance between dwellings located on the same or adjoining lots shall be more than ten feet. On corner lots, the side yard that faces on a street shall be not less than twelve feet.	North: 32' South: 17' 5"	Yes	South façade, main frame of structure, excluding deck extensions, is measured at 17'.5"	
C.	twelve feet	West: 12' 1"	Yes		
D.	The minimum side setback for accessory buildings on interior and corner lots is listed in Section 17.09.560, Accessory use or structure.	N/A			
	(Ord. 19-13 §§ 12, 13, 2019; Ord. 13-01 (part), 2013: Ord. 10-14 (part), 2010; prior code § 27-17-5)				
17.48.060	Special Provisions				
	The following special provisions shall apply in this zone in order to protect its essential characteristics and to promote the purpose of this title:				
A.	The ground floor area of the primary dwelling shall be at least five hundred square feet.	N/A			
B.	The maximum permitted density of planned unit developments shall be ten units per acre of land contained within the development	N/A			
	(Ord. 18-01 (part), 2018: prior code § 27-17-6)				
17.48.070	Supplementary provisions				
	See Supplementary Requirements and Procedures Applicable Within Zones (Chapter 17.09 of this title)				
	(Prior code § 27-17-7)				
17.09	**SUPPLEMENTARY REQUIREMENTS AND PROCEDURES APPLICABLE WITHIN ZONES**				
Sections:					
17.09.010	Intent.				
	The intent of this chapter is to accumulate under one heading, regulations which apply to two or more zones, rather than to repeat them several times. (Prior code § 27-3-1)				
17.09.020	Yard space for one building only.				
17.09.030	Every dwelling to be on a zoning lot.				
17.09.035	Dwelling unit to front on public street.				

	Except as otherwise provided for in this title, at least one side of each lot used as a dwelling site shall abut upon a street which has been designated or dedicated to the public for street purposes and the length of such abutting side measured at the setback line shall be at least as great as the width required for dwelling sites in the zone in which such building site is located. (Ord. 06-01 (part), 2006: prior code § 27-3-28(E). Formerly 17.09.580)		Yes	This provision requires that all lots maintain legal street access with a consistent buildable area width; Does not require that front doors are oriented toward the street.	Frontage and Access provided off 200 east
17.09.040	Sale or lease of required space prohibited.				
17.09.050	Yards to be unobstructed--Exceptions.				
	Every part of a required yard shall be open to the sky and unobstructed except for permitted accessory buildings and except for ordinary and customary projection of sills, belt courses, cornices, and other ornamental features and unenclosed steps and unwalled stoops, porches, and carports, which may project up to three feet into a required yard. No projection into a required court which is provided in connection with a court apartment shall be constructed except for customary sills, belt courses, and cornices which may extend into the court not more than sixteen inches. (Prior code § 27-3-5)		Yes		
17.09.060	Outdoor lighting – Scope and applicability.				
17.09.062	Outdoor lighting – Definitions.				
17.09.063	Outdoor lighting – Fully shielded fixture requirements.				
17.09.064	Outdoor lighting – Total light output.				
B.	Residential. Total outdoor light output shall not exceed ten thousand lumens of lighting for parcels one-half acre, or larger, in size. Parcels smaller than one-half acre shall be permitted five thousand lumens of lighting regardless of parcel size. Total outdoor light output of any apartment development shall not exceed twenty thousand lumens of lighting per net acre.				
1	In residential zones, partially shielded and unshielded lighting on a property shall not exceed one thousand lumens per lot, and shall be included in the total outdoor light output calculation	Condition of Approval			
2	Residential units used for overnight accommodations or other commercial uses shall comply with the residential standards for total light output. (Ord. 19-03 Att. 1 (part), 2019)		CA		
17.09.065	Outdoor lighting – Lighting hours.				
17.09.066	Outdoor lighting – Lighting color.				
17.09.067	Outdoor lighting – Specialized outdoor lighting conditions and standards.				
17.09.068	Outdoor lighting – Application and review procedures.		CA		
17.09.069	Outdoor lighting – Amortization of nonconforming outdoor lighting.				
17.09.070	Accessory building--Prohibited as living quarters.				
17.09.080	Kitchen units in motels and hotels.				
17.09.090	Storage of large vehicles prohibited.				
17.09.100	Residential zone--Storage of junk and debris prohibited.				
17.09.110	Additional height allowed for public buildings.				
17.09.120	Minimum height of dwellings and fences.				
B.	B. No fence or wall shall be constructed higher than four feet above the ground in any required front or side yard that fronts on a street, except that in agricultural zones such fences may be constructed to a height of six feet. (Prior code § 27-3-12)	Building Permit Plan Set Conditional Approval	CA		
17.09.130	Location of barns.				
17.09.140	Drainage.				
	Surface water from roof tops, lots or irrigation ditches shall not be allowed to drain onto adjacent lots or streets, except after written agreement between the parties involved. (Prior code § 27-3-14)				
	(Prior code § 27-3-14)		Yes		
17.09.150	Clear view of intersecting streets.				
17.09.160	Effect of street plan.				
	Wherever a front or side yard is required for a building which building abuts on a proposed street which has not been constructed but which has been designated by the Planning Commission as a future street, the depth of such front or side yard shall be measured from the planned street lines. (Prior code § 27-3-16)		Yes	Taken into context that this property was not required to provide a street plan for the Mill Creek Pathway ROW given that the existing dedications of that Pathway will prevent this ROW from being utilized as a Street as current conditions exist, unless exiting conditions/ dedications are amended.	
17.09.170	Exception to front and side setback requirements.				
17.09.180	Concessions in public parks and playgrounds.				
17.09.190	Sewage disposal.				
17.09.200	Location of gasoline pumps.				
17.09.210	Off-street parking and loading-Generally.				
17.09.220	Off-street parking and loading-Number of spaces.		Yes		
17.09.230	Off-street parking and loading--Location and control of facilities.				
17.09.240	Off-street parking and loading-Computation of required spaces.				
17.09.250	Off-street parking and loading-Combined areas.				
17.09.260	Off-street parking and loading-Mixed uses.				
17.09.270	Off-street parking and loading-Access to facilities.				
17.09.280	Off-street parking and loading-Circulation within a parking area.				
17.09.290	Off-street parking and loading-Location of facilities restricted.				
17.09.300	Reserved.				
17.09.310	Off-street parking and loading-Continuing obligation.				
17.09.320	Off-street parking and loading-Plot plan approval required.				
17.09.330	Off-street parking and loading-Landscaping.				
17.09.340	Off-street parking and loading--Loading space required.				
17.09.350	Reserved.				
17.09.360	Landscaping--Required.				
	At least seventy percent of the area contained within a required front or side yard adjacent to a street in any residential or residential-agricultural zone shall be landscaped. Also, other landscaping shall be required in other zones as specified. (Prior code § 27-3-23)	20' Hard surfaced ~95' Landscaped	Yes		
17.09.370	Landscaping--Specifications generally.				
17.09.380	Landscaping--Scope of requirements.				
17.09.390	Landscaping--Maintenance.				
17.09.400	Landscaping--Screening requirements (shrubs).				
	Where landscaped screening is required, said screening shall consist of evergreen shrubs, walls, berms, opaque fences, or other densely planted shrubs or vegetation, closely spaced and maintained at substantially the specified height of said required screening. When not otherwise specified, natural screening shall be maintained at a height of from four feet to six feet.		Yes		
	A buffer of ten feet of landscaping and an opaque screen or fence shall be installed and maintained along commercial zoning boundaries (other than streets) that abut residential zones. The opaque screen or fence shall have a total height of six feet. Where there is a difference in elevation on the opposite sides of the screen, the height shall be measured from the highest elevation.		N/A		Note: Zone Boundary Buffering is only required to maintain a 10' horizontal landscape area with a 6' opaque screen. This boundary is considered a more significant difference of use than dense residential to less dense residential.
	Under special conditions where it has been determined that the development may create unique impacts on an adjoining residential zone, such as in the case of parking lots, extended business hours, or hillside developments, the Zoning Administrator may review and approve other methods of screening such as bermed landscaping, screen height, placement of screening, or other types of screening.		N/A		
	Screening of mechanical equipment, loading areas, dumpsters or structures built to accommodate the storage of trash and garbage shall be required. (Ord. 94-01 (part), 1994: prior code § 27-3-24(C))		Yes		
17.09.410	Landscaping--Plot plan required.				
17.09.420	Landscaping--Nonconforming status.				
17.09.430	Reserved.				
17.09.440	Reserved.				
17.09.450	Reserved.				
17.09.460	Reserved.				
17.09.465	Reserved.				

17.09.470	Reserved.				
17.09.480	Pollution prevention.				
17.09.490	Manufactured home--Generally.				
17.09.500	Manufactured home--Code compliance.				
17.09.510	Manufactured home--Development standard.				
17.09.520	Manufactured home--Procedure.				
17.09.530	Reserved.				
17.09.531	Reserved.				
17.09.540	Reserved.				
17.09.560	Accessory use or structure.				
17.09.570	Reserved.				
17.09.620	Reserved.				
17.09.630	Reserved.				
17.09.650	Reserved.				
17.09.660	Reserved.				
17.09.665	Reserved.				
17.09.670	Designated recreation areas for apartments.				
	Apartments and court apartments that have nine or more dwelling units shall designate twenty-five percent of the lot to be developed into recreation, play or landscaped areas. The designated twenty-five percent shall exclude parking, driveways, dwellings and required setbacks. Apartments and court apartments that have eight or less dwelling units shall designate fifteen percent of the lot to be developed into recreation, play or landscaped areas. The designated fifteen percent shall exclude parking, driveways, dwellings and required setbacks. (Ord. 93-14, 1993)		N/A	Proposed use is not an Apartment or Court Apartment	1. This requirement pertains to Apartments and Court Apartments, not Multi-Household Dwelling Condominiums 2. This is an antiquated provision (1993), that was intended to be replaced during later code updates (2018). Current more direct code provisions prevail.
17.09.680	Reserved.				
17.09.690	Development design standards for all primary residential dwellings.				
17.09.700	Residential short-term rentals prohibited.				
17.79	**Condominium Developments**				
17.79.010	Definition, approval required				
	As used in this chapter, the term "condominium" shall be defined to be a real property development in which individual units in a multi-unit residential, commercial, or business complex are conveyed to a buyer, together with an undivided interest in common areas. No person shall sell or offer for sale any property purporting to be a condominium unless all approvals required by this chapter and the Moab Municipal Code have been obtained. (Ord. 06-10 (part), 2006)				
17.79.020	New condominium developments.	In Process	Pending		
	New condominium developments shall be subject to all zoning and building code requirements generally applicable to new residential, commercial, or business development under the City code. An application for condominium development shall be processed under the applicable development review procedure except that a condominium shall not be subject to subdivision review procedures unless the development includes: a) common areas dedicated to public use; or b) condominium units that are not wholly contained within existing or proposed buildings. (Ord. 06-10 (part), 2006)				
17.79.030	Condominium conversions.	In Process	Pending		
	Existing structures shall not be converted to condominium ownership without first receiving review and recommendation of the City planning staff. The Planning Commission shall review all staff recommendations and approve, deny, or approve subject to conditions all condominium conversion applications. (Ord. 06-10 (part), 2006)				
17.79.040	Required compliance with existing codes.	In Process	Pending		
	All structures subject to condominium conversion shall be brought into compliance with all building and zoning requirements prior to condominium plat approval, except that the Planning Commission shall have discretionary authority to grant special exceptions to compliance with zoning code requirements where the applicant demonstrates that: a) site constraints prevent full compliance; and b) public health and safety is not jeopardized; and c) and appropriate mitigation measures are provided by the applicant. (Ord. 06-10 (part), 2006)				
17.79.050	Notice requirement for tenants in buildings to be converted.	In Process	Pending		
	Before proceeding with the conversion of any apartment or other long-term rental unit in a project, the owner shall notify all existing tenants in such project, in writing, of the owners' intent to convert, and the proposed date thereof. Such notice shall provide, at a minimum, a sixty day review and relocation period, wherein no conversion may be approved by the City until such period has expired. Any tenant may waive any required notice period; provided that such waiver be executed in writing after the date of the notice; provided that all existing tenants waive the required notice period, an owner may proceed with a conversion before the expiration of the sixty-day period. Nothing in this chapter shall prevent an owner from preparing materials and submitting an application for conversion, as required by the City. Nothing in this chapter obligates an owner to proceed with a conversion after notice has been given. All condominium conversion applications shall provide a written report outlining the status of each existing unit as vacant or occupied and copies of all required notices. (Ord. 06-10 (part), 2006)				
17.79.060	Plat and declaration approval.	In Process	Pending		
	All condominium developments shall include a condominium plat and condominium declaration complying with the provisions of the Utah Condominium Ownership Act. The proposed plat and declaration shall be submitted with the application for staff review prior to any applicable decision by the body having land use authority. The final plat for all condominium conversions shall include a signature block for the Planning Commission, City Planner, City Engineer, and City Attorney which must be executed prior to recording. Except where the applicant posts a performance guarantee under Section 16.20.060 (subdivisions) or Section 17.66.180(C) (planned unit developments), the condominium plat and declaration shall not be recorded until all approvals required under by city code have been obtained and all required improvements have been completed. (Ord. 06-10 (part), 2006)				
17.79.070	Additions and amendments.	In Process	Pending		
	No additional units may be developed in an existing condominium project without prior city approval. Such additions shall require condominium plat amendments and shall be processed under the applicable development review procedure. (Ord. 06-10 (part), 2006)				
17.79.080	Appeals.	Open	Open		
	Any person adversely affected by a decision with respect to a condominium development may appeal pursuant to the procedures specified for the type of application. In the case of condominium conversions reviewed under this chapter, the appeal body shall be the appeal authority. Appeals of condominium conversions shall be filed with the City Recorder no later than thirty days from the Planning Commission decision. (Ord. 06-10 (part), 2006)				
17.67	**Site Plan Review**				
17.67.060	Approval Criteria				
B.	Discretion to Grant Conditional Approval				
	The applicable land use authority has discretion to impose conditions during the review process that address: (1) deficiencies in the application; (2) performance of the design in providing efficient access, vehicle circulation, connectivity, pedestrian/nonmotorized vehicle access; (3) **buffering of off-site impacts**; (4) storm water management and flood damage prevention; (5) **landscaping and architectural design**; (6) utility design issues; and/or (7) other provisions of Moab ordinances or advisory documents.				Discretionary Authority for applicable Land Use Authority to impose conditions during the review process that address buffering of off-site impacts and Landscaping design

17.06	Definitions				
Buffering	means a landscaped screen, solid fencing, berms, swales, or other feature that individually or in combination reduces the impact of a land use on adjacent areas, which are of a significantly different character, density, or intensity. A buffer consists of a horizontal distance from a lot line, which may only be occupied by screening, underground utilities, retention areas, and landscaping and fencing materials. The more different the use of the adjoining property, the more dense or extensive the buffer must be.				Horizontal or Vertical Buffering features can be used individually or in combination to reduce impact of a land use on adjacent areas.
Buildable area	means the area of a lot remaining after the minimum yard and open space requirements of the applicable zone have been met.				
Building setback	means a line within a lot or other parcel of land, so designated on the plat of the proposed subdivision, between which line the adjacent boundary of the street upon which the lot abuts, the erection of an enclosed structure or portion thereof is prohibited.				
Common area	means an area designed to serve two or more dwelling units or separate uses with convenient access to the area.				
Apartment house (multi-household dwelling)	means any building or portion thereof which is designed, built, rented or leased, let or hired out to be occupied or which is occupied as the home or residence of three or more households living independently of each other and doing their own cooking within the premises.				
Court apartment (dwelling group)	means one or more dwellings (other than mobile home parks), arranged around two or three sides of a court which opens onto a street, may include single-household, two-household or multiple-household dwellings.				
Condominium	means a legal form of ownership of real estate and not a specific building style. The purchaser has title to the interior space in the building and an undivided interest in parts of the interior, the exterior, and other common elements. The property is identified in a master deed and recorded on a plat with the local jurisdiction.				
Multi-household dwelling	means three or more residential dwelling units within a single building and under a single roof, including apartments, townhouses and attached condominiums. Any building or portion thereof which is designed, built, rented or leased, let or hired out to be occupied or which is occupied as the home or residence of three or more households living independently of each other and doing their own cooking within the premises.				
Fence, sight obscuring	means any fence or wall that is designed to limit visual access to a parcel, or portion of a parcel, in order to shield permitted, yet potential unsightly conditions from public view. All plans for all sight obscuring fences and walls shall first be submitted and approved by the planning department and the Zoning Administrator. All sight obscuring fences and walls shall be constructed of substantial material and the design and construction of said fence or wall shall be consistent with the quality of dwellings and other improvements within the surrounding area as determined by the Zoning Administrator. No fence shall be constructed which prohibits direct and convenient access to a fire hydrant or which obstructs the proper and efficient operations of a hydrant.				
Landscaping	means some combination of planted trees, shrubs, vines, groundcover, flowers or lawns. In addition, the combination or design may include rocks and such structural features as foundations, pools, art works, screens, walls, fences or benches, but such objects alone shall not qualify as landscaping. The selected combination of objects for landscaping purposes shall be arranged in a harmonious manner as determined by the Zoning Administrator.				
Setback	means the shortest distance between the property line and the foundation, wall, or main frame of the building.				
Yard	means an open space on the same lot with a building unoccupied or unobstructed from the ground upward, except as otherwise provided in this title				
Yard, front	means the minimum horizontal distance between the street line and the front line of the building or any projection thereof, excluding nonenclosed steps. On a corner lot the front yard may be applied to either street.				
Yard, rear	means an open, unoccupied space on the same lot as a building, measured from the rear line of the building (exclusive of steps) and the rear lot line, and extending for the entire width of the lot. In case of a corner lot where the building facade faces on the side street, the rear yard may be established from the side of the house to the side property line.				
Yard, required	means the open space around buildings which is required by the terms of this title.				
Yard, side	means a yard between the building and the side line of the lot and extending from the front yard to the rear yard				

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Notice to Adjacent Property Owners

Date: March 2, 2023

To Whom it May Concern:

Pursuant to Moab City Code Section 17.67.050 D.1, notice is hereby provided to you as an adjacent property owner of a Level II Site Plan Application involving certain real property located at 214 S. 200 E., Moab, UT more particularly described as Grand County Parcel No. 01-OB03-0007. Based on records from the Grand County Recorder's Office, you are believed to own or have an ownership interest in property adjacent to the property impacted by the Level II Site Plan Application.

The Level II Site Plan Application is scheduled for consideration by the Moab City Planning Commission on March 9, 2023 at 6:00 p.m. Pursuant to Moab City Code Section 17.67.050 D.1 as an adjacent property owner, you have the right to submit written comments to planning commission or provide testimony regarding compliance of the application with applicable approved criteria and Moab City Ordinance.

If you have any questions regarding the time or location of the Planning Commission meeting, please contact Moab City. You may obtain additional information about the Level II Site Plan Application from Moab City. Additional information may also be found on the Utah Public Notice Website https://www.utah.gov/pmn/.

Sincerely,

DocuSigned by: Garry Snook 2FB638E35EB1490...

DocuSigned by: Sharon Snook FD2102797CEA4D0...

GSS PROPERTIES, LLC
By: Garry Snook and Sharon Snook
It's Managers

MOAB CITY PLANNING COMMISSION MINUTES
August 11, 2022

The Moab City Planning Commission held its regularly scheduled meeting on the above date in City Council chambers. Audio is archived at www.utah.gov/pmn and video is archived at www.youtube.com/watch?v=WPU_eZawgqE.

Call to Order:
Planning Commission Chair Pro Tem Jessica O'Leary called the meeting to order at 6:01 p.m. Commission Members Jeremy Lynch, Ruben Villalpando-Salas and Jill Tatton were present. Chair Kya Marienfeld was absent. Planner Cory Shurtleff, Planning and Zoning Administrator Anna Anglin and Recorder Sommar Johnson attended, as well as one member of the public.

Citizens to be Heard: There were no Citizens to be Heard.

Approval Of Minutes: Commission Member Villalpando-Salas moved to approve Moab City Planning Commission Regular Meeting Minutes from July 28, 2022. Commission Member Lynch seconded the motion. The motion passed 4-0 with Commission Members Villalpando-Salas, Lynch, O'Leary and Tatton voting aye.

Cottonwood Condominiums Level II Site Plan—Approved
Presentation and Discussion: Planner Shurtleff introduced a nine-unit condominium project on .43 acre planned for 214 South 200 East. He explained that several conditions were fully outlined in the resolution. Commission Member O'Leary asked about the frontage on the Millcreek Parkway. Planning Commission Member Lynch asked about whether the property was subject to the Active Employment Household ordinance and Shurtleff explained it was not. Fences, proximity to Mill Creek and difficult-to-develop properties were discussed. It was confirmed that overnight accommodations were not an allowed use.
Motion and Vote: Commission Member Villalpando-Salas moved to approve Proposed **Planning Resolution 09-2022**: a planning resolution conditionally approving the Level II site plan for the Cottonwood Condominiums 2022 on property located at 214 South 200 East, Moab UT 84532 with all comments to be addressed to the satisfaction of the City Engineer including 1.a and 1.b concerning site lighting, parking and utilities. Commission Member Tatton seconded the motion. The motion passed 4-0 with Commission Members Villalpando-Salas, Lynch, O'Leary and Tatton voting aye.

Future Land Use Code Amendments and City Initiatives—Discussion
Planner Shurtleff introduced upcoming decision points for Commission members and Planning Administrator Anklin brought up needed changes to the Moab Municipal Code due to recent amendments to state code. It was explained the City hired a consulting firm to work on code revisions. Shurtleff briefed the Commission on the final outcome of the Active Employment Household ordinance as passed by Council and noted there would be a review in two years. A parachute clause was explained which allows for the sale of restricted units if they are not able to be rented at market rate for more than 120 days. Shurtleff also explained the permitting fees would be waived for the 33 percent of units with deed restrictions, and the ordinance would sunset in 50 years. Consequences of foreclosures was mentioned and Commission Member O'Leary requested more detail regarding the parachute clause. Shurtleff also discussed a proposed change of building heights from 30 to 35 feet and noted current market rates for residential rentals are as follows: efficiency apartments $1256, one bedroom $1413 and two bedroom $1589. Also discussed were permitted uses of food trucks at the vendor court, and tiny home and long-term rental housing options. Shurtleff presented draft definitions of various

types of employee housing including temporary units such as tents and vans, and permanent housing types such as tiny homes, bunkhouses, manufactured homes and multi-family developments. Permit options for recreational vehicles and vans as dwellings were mentioned and Commission Member O'Leary asked about permitting mobile tiny homes to be located in floodplains.

Adjournment: Commission Chair city Pro Tem O'Leary adjourned the meeting at 7:11 p.m.

Moab Planning Commission Agenda Item

Planning Resolution No. 09-2022

Meeting Date: August 11, 2022

Title: Consideration and Possible Conditional Approval of the Level II Site Plan for the Cottonwood Condominiums 2022 on Property Located at 214 South 200 East, Moab UT 84532

Disposition: Discussion and Possible Action

Staff Presenter: Cory P. Shurtleff, Planning Director

Attachment(s):
Exhibit 1: Vicinity Map
Exhibit 2: Project Narrative
Exhibit 3: Cottonwood Condominiums 2022 Site Plan Drawings
Exhibit 4: Elevation Plan
Exhibit 5: Landscape and Lighting Plan
Exhibit 6: Planning Resolution No. 09-2022

Options:

1. Approve the Site Plan Application;
2. Continue or table action to a later meeting with specific direction to City Staff and Applicant as to additional information needed to decide; or
3. Deny the Site Plan Application, giving specific findings for decision.

Recommended Motion: I move that the City of Moab Planning Commission Conditionally Approve the Level II Site Plan for the Cottonwood Condominiums 2022 Project on Property Located at 214 S 200 E, Moab, UT 84532, with the following condition:

1. All comments shall be addressed to the satisfaction of the Moab City Planning Director prior to Building Permit Application Approval. Comments include:
    a. The Applicant will need to submit for Condominium plat approval if the Applicant is proposing to sell the units individually. The application should include CC&R's and HOA information according to state law.
    b. Resubmitting a Lighting Plan

Background:
The applicant, Sundra Hines, initially submitted on behalf of the property ownership, Garry Snook of GSS Properties LLC, the appropriate applications, and submittal materials for the Level II Site Plan on May 9, 2022. The Site Plan Application was reviewed by the Development Review Team (DRT) on May 10, 2022 and June 6, 2022. Following the response to DRT comments in the Resubmittal materials, submitted June 23, 2022, the DRT found the outstanding comments were sufficiently addressed. At this time the Site Plan Application has been submitted for review by the Moab City Planning Commission, on August 11, 2022.

Project Description:
Location: 214 S 200 E, Moab UT 84532

Property Owner: Garry Snook (GSS properties LLC)
Applicant: Sundra Hines (Hines Designs)
Parcel: 01-0B03-0007 (18,730.80 sf) (0.43 acres)
Zoning: R-3 Multi-Household Residential Zone
Proposed Use: Residential Multi-Household Condominiums
Project Size: 9-Unit Condominium Development
Parking: 16 spaces

Narrative Summary:
Provided by Applicant:

The site is located within Block 3 of the Moab Townsite within the Northeast Quarter of Section 1. It is located at the corner of 200 East Street and 200 South Street Right of Way. The site is zoned R-3 and will adhere to the size and use requirement of the Municipal Code. The building will have 9 residential units: Four 1,689 sq. ft. 3br/2.5ba, Two 1,026 2br/2ba, and Three 622 sq. ft. 1br/1ba. The property has 13 parking spaces for residence and 3 guest parking spaces for a total of 16 parking spaces. The residence will share one driveway access to a single curb cut to 200 East Street. The building will be completed in one phase of construction that will take around 12 months.

Process: Site Plan Review
Section 17.67.050 of the Moab Municipal Code (MMC) regulates the Review Procedures for a Level II Site Plan Application. The Planning Commission acting as the Land Use Authority shall provide the approval of the submitted Cottonwood Condominiums 2022 Site Plan Application based on the Approval Criteria identified in MMC Section 17.67.060.

17.67.050
D. Level II Applications. Level II applications shall first be reviewed by the DRT, which shall issue a staff report identifying recommendations for the project. The land use authority for Level II applications shall be the Planning Commission, which may approve, approve subject to conditions, or deny the application.

17.67.060
Approval criteria.

A. The following criteria govern site plan approval:-

1. *Compliance with applicable Moab ordinances and building codes;*
2. *Availability of necessary utilities, including culinary water, sewer, electricity, natural gas, and the like;*
3. *Consistency of the design with Moab advisory documents; and*
4. *Accuracy and truthfulness of submittals or representations in the application.*

B. Discretion to Grant Conditional Approval. The applicable land use authority has discretion to impose conditions during the review process that address: (1) deficiencies in the application; (2) performance of the design in providing efficient access, vehicle circulation, connectivity, pedestrian/nonmotorized vehicle access; (3) buffering of off-site impacts; (4) storm water management and flood damage prevention; (5) landscaping and architectural design; (6) utility design issues; and/or (7) other provisions of Moab ordinances or advisory documents.

C. Statement of Reasons in the Event of Denial. Where an application is denied, the land use authority shall provide a statement of reasons explaining the basis for its denial.

CITY OF MOAB PLANNING RESOLUTION NO. 09-2022

A RESOLUTION CONDTIONALLY APPROVING A LEVEL II SITE PLAN FOR THE COTTONWOOD CONDOMINIUMS 2022 ON PROPERTY LOCATED AT 214 S 200 E, MOAB UT 84532.

WHEREAS, the following describes the intent and purpose of this resolution:

a. Sundra Hines, as the Applicant on behalf of the Owner of record, Garry Snook of GSS Properties LLC, for property located at 214 S 200 E, Moab, Utah 84532, has applied for a Level II Site Plan Approval; and

b. The Applicant has furnished a site plan and description of the property located at 214 S 200 E Moab Utah, 84532; Parcel 01-0B03-0007 (18,730.80 sf) (0.43 acres); and

c. The City adopted Site Plan Review regulations in order to promote the health, safety and the general public welfare of the residents of the City by establishing standards for development in zones including the R-3 Multi-Household Residential Zone; and

d. The Moab Planning Commission reviewed the application for Level II Site Plan for the residential multi-household apartment development in a regularly scheduled meeting held on August 11, 2022; and

e. Sufficient evidence provided by the applicant proved that standards of development can meet or exceed the requirements and regulations outlined in the MMC Chapter 17.67 Site Plan Approval; and

f. Following the consideration of the technical aspects of the pertinent code sections, the Moab Planning Commission, pursuant to Planning Resolution #09-2022, hereby finds, that all applicable provisions of the Moab Municipal Code have or can be met.

NOW, THEREFORE, BE IT RESOLVED BY THE MOAB PLANNING COMMISSION, the application for the Cottonwood Condominiums 2022 Site Plan is hereby CONDITIONALLY APPROVED, with the following condition:

1. All comments shall be addressed to the satisfaction of the Moab City Planning Director prior to Building Permit Application Approval. Comments include:
    a. The project will need a Condominium Plat. The application should include CC&R's and HOA information according to law.
    b. The Applicant will resubmit a complete Lighting Plan that addresses the following:
        i. Lighting design and location not provided for Unit No. 8 & 9. Note that the "Second Floor Plan" illustrated on Sheet A2.2 was not included in the June 2022 resubmittal. Please confirm that the second-floor plan (Units 8 & 9) remain part of the design.
        ii. The proposed lighting is calculated at 20,250 lumens. This is beyond the allowable lumen count for a development of this size. However, it has been determined that several fixtures are considered exempt (safety-related). With the removal of thirteen (13) Type B sconces at approximately 580 lumens per fixture this reduces the project's overall lumen count by 7,540 lumens. This reduces the project's overall lumen count to approximately 10,620 lumens. This amount remains over the allowable lumen count. This also does not include the lumen count for lighting associated with the second floor.
        iii. The sign lighting (labeled as Light A Ground Mounted) proposed shows the lighting aimed upwards towards the sign, which is in conflict with Section 17.09.063(A), which prohibits any lighting directed upwards. The Applicant

must revise the sign lighting so it is aimed downward or backlit to meet the requirements.

iv. Parking stalls are undersized. Per Section 17.06.020, a parking space is defined as “a space within a building or parking area, exclusive of driveways, ramps, columns, office and working area, for the parking of a motor vehicle, not less than eighteen and one-half feet in length and not less than nine feet in width”.

v. The proposed Utility Plan indicates that water and sewer lines are going to be shared. The Applicant must indicate how these shared water and sewer utilities, along with the driveway, will be maintained.

PASSED AND APPROVED in an open meeting of the Planning Commission by a majority vote of the Governing Body of Moab Planning Commission on August 11, 2022.

SIGNED: _____
Kya Marienfeld, Chair

BEFORE THE LAND USE APPEAL AUTHORITY
FOR MOAB CITY

Keith Harger, Appellant v. Moab City, Respondent; GSS Properties, LLC, Property Owner.	APPEAL Re: 214 South 200 East, Moab, Utah 84532 Decision Land Use Hearing Officer: Mary J. Woodhead

This matter comes before the Land Use Appeal Authority pursuant to an appeal by Keith Harger (Harger) of Moab City's decision to approve a Level II Site Plan for property located at 214 South 200 East, Moab, Utah 84532. Harger's Appeal was heard on May 10, 2023 by video hearing pursuant to policies adopted by Moab City for hearing land use matters. Harger appeared on his own behalf. Moab City ("Moab") was represented by Clayton Preece. GSS Properties was represented by Amanda Mendenhall. The record in this matter consists of briefs and materials submitted by the parties, the hearing record, and Moab's City's administrative documentation of the case.

BACKGROUND

This appeal arises from a proposal by GSS to build a multi-family housing project ("the project") on property zoned R-3, which allows for a variety of residential uses including single and multi-family. The zoning expresses some priority for multi-family housing as a matter of policy as determined by the Moab City Council. Harger owns the lot abutting and south of the project. He testified that he plans to build a home on his property but has not yet done so. The Planning Commission initially approved the GSS project on August 11, 2022, after which Harger appealed on several grounds related to noticing and the design and proximity of elements of the project. After acknowledging a noticing error correctly raised by Harger, the Planning Commission re-noticed and re-heard the GSS application on March 9, 2023. Following an extensive presentation by Planning Staff including time spent acknowledging, and presenting

analysis to rebut Harger's initial appeal, the Planning Commission unanimously approved the project.

Harger's appeal raises four separate issues. First, he asserts that the Planning Commission incorrectly interpreted the City's buffering ordinances to assign the spacing obligation to both adjoining property owners. He also asserted errors relating to setbacks, flood control obligations and irrigation rights. Because his arguments relating to historic rights to the irrigation ditch falls outside the scope of hearing officer jurisdiction, it will not be addressed herein. But because Harger's appeal as to the correct interpretation of the Moab buffering ordinance is granted, the Hearing Officer remands the project to the Planning Commission to re-assess its determinations related to setbacks and the character of the buffer, based on the analysis below.

STANDARD OF REVIEW

Pursuant to Moab City Code 17.67.090 review of administrative decisions, as with this approval of a site plan, is on the record and subject to being affirmed unless the decision is arbitrary, capricious, or illegal. It is also the case that a decision should be upheld if it is supported by substantial evidence. Utah Code § 10-9a-801(3)(c). "A land use decision is illegal if the land use decision is based on an incorrect interpretation of a land use regulation;" Utah Code § 10-9a-801 (A). And it is for the appeal authority to "determine the correctness of the land use authority's interpretation and application of the plain meaning of the land use regulations." Utah Code § 10-9a-707 (4)(a).

I. MOAB ORDIANCE CLEARLY REQUIRES GSS TO PROVIDE A 15 FOOT BUFFER MEASURED FROM THE PROPERTY LINE.

Harger argues that the Planning Commission committed legal error when it determined that the 15-foot setback requirement set forth in Moab ordinance 17.48.020.7 be measured from the nearest structure or "use" on adjoining property rather than from the property line. The appeal arises out of a legal landscape where Moab's land use ordinances reference buffers in multiple places and the parties disagree as to whether those provisions should be read as

harmonious or conflicting. Moab City code discusses buffering generally, and then more specifically, with regard to site plans:

Moab City Code Section 17.06.020:

> "Buffering" means a landscaped screen, solid fencing, berms, swales or other feature that individually or in combination reduces the impact of a land use on adjacent areas, which are of significantly different character, density, or intensity. A buffer consists of a horizontal distance from a lot line, which may only be occupied by screening, underground utilities, retention areas, and landscaping and fencing materials. The more different the use of the adjoining property, the more dense or extensive the buffer must be.

And with regard to site plans; 17.67.030 provides:

> "Buffer" means a structure or area provided to reduce the conflict between two different land uses. Buffers may consist of fencing, walls or landscaping set aside to separate particular uses."

Harger argues that the plain language of 17.06.020 requires that the 15-foot buffer be measured from the lot line. He asserts that the two provisions are consistent and can be read together to determine the scope and purpose of buffers between properties.

Moab and GSS assert, and the Planning Commission determined, that 17.06.030 applies directly to site plans, is more specific and therefore governs. *Taghipour v. Jerez*, 2002 UT 74, ¶ 11, 52 P.3d 1252. They argue that rather than measuring from the lot line as set forth in 17.06.020, the ordinance requires that the buffer be measured from structures on adjacent lots. This argument is grounded in the practice of the City to interpret the word "use" in 17.06.030 to mean a structure or reviewable floor area, not a zone or property. However, although this practice is referenced in the Planning Department's design review matrix, it has never been reduced to ordinance or other written rule adopted by the City Council. It is only this unadopted definition of use that

creates a conflict in the ordinance where otherwise the two provisions regarding measurement of the buffer can be read in harmony.

Relying on this definition of use, and because Harger has not yet built on his property, the Planning Commission found that his property bears part of the buffer requirement allowing GSS to build its multi-family project within 7 or 8 feet of the lot line. This is the site plan approved by the commission. This determination further results in the consequence that Harger must develop his lot in such a way that any plantings or structures within the GSS buffer zone on his property comply with the stricter limitations of 17.06.020 as opposed to the City's more lenient requirements for setbacks.

> "The fundamental consideration in interpreting legislation, whether at the state or local level, is legislative intent." Springville Citizens for a Better Community v. City of Springville, 1999 UT 25, ¶ 29, 979 P.2d 332. "The best evidence of the legislature's intent is the plain language of the statute [or ordinance] itself." Marion Energy Inc. v. KFJ Ranch P'ship, 2011 UT 50, ¶ 14, 267 P.3d 863 (quotation simplified). "We read the plain language of the [ordinance] as a whole and interpret its provisions in harmony with other [ordinances] in the same chapter and related chapters." See LPI Services v. McGee, 2009 UT 41, ¶ 11, 215 P.3d 135 (quotation simplified); see also Patterson v. Utah County Board of Adjustment, 893 P.2d 602, 606 (Utah Ct. App. 1995).

Ferre v. Salt Lake City, 2019 Utah. App. ¶ 15, *444* P.3d 567.

Appellees assert that 17.06.030 takes precedence because it is specific to site plans. While the parties present opposing definitions of the word "use" from various places within the planning code, state law and the International Building Code; no adopted definition exists specifically in relation to the site development buffer provision. Thus, the requirement that buffers be measured from the property line set forth in 17.06.020 is the only provision applicable to residential uses of varying intensities where the distance and the method are set forth in the same paragraph. Similarly, Moab City Code §17.09.4000 provides for commercial buffers of 10 feet, also measured from the zoning boundary. Moab's assertion only works by relying on an

unwritten policy regarding the definition of "use" and thus creating a conflict in the Code where none otherwise exists. Section 17.67.030 describes the purpose of buffers, not a separate method of measurement. And while the code does provide the Planning Director with some discretion relating to buffers, the intention is to assure that there is sufficient buffering adjacent to more intense uses, not move the buffering obligation to abutting owners.

Utah law does require the Appeal Authority to "interpret and apply a land use regulation to favor a land use application unless the land use regulation plainly restricts the land use application." Utah Code § 10-9a-707 (4)(b). Had the Moab City Council reduced the Planning Commission's practice of interpreting "use" to mean structure in the case of site development approvals, this code provision might have mandated confirmation of the Planning Commission interpretation. But in this case, the practice has the consequence of creating a land use scheme contrary to the plain language of the adopted and publicly available ordinance. Because there is no conflict to resolve, there is no basis for the interpretation relied on by appellees.

Moab and GSS argue, and the Planning Commission found, that the buffer functions under a "first to build" paradigm where a developer adjacent to a vacant lot has a lesser buffer requirement because that additional spacing can be provided on the neighboring property. But again, that concept has not been reduced to writing by the Moab City Council and therefore cannot be administratively imposed as an overlay to the City's land use scheme.

Appellants assert that requiring a 15-foot buffer infringes the property rights of GSS where the City's reading allows for more developable space. But the property rights argument cuts both ways. The City's reading requires an adjacent landowner, in this case Harger, to develop his property consistent with a buffering requirement created by the nature of the development next door. Had the City Council clearly imposed this requirement, the analysis would be to simply

follow the ordinance, but where measurement of the buffer is by implication based on uncodified practice, the property rights question cannot weigh more substantially to GSS at the expense of Harger's property rights.

Based on the foregoing, Utah law regarding the statutory interpretation of land use ordinances requires a finding that the buffer be measured from the lot line as set forth in 17.67.020.

II. THIS MATTER IS REMANDED TO THE PLANNING COMMISSION TO REASSES THE SITE PLAN PURSUANT TO THIS DECISION.

Because the Planning Commission considered the placement of various structural and landscaping features under an incorrect legal theory, this matter is remanded for the Commission to consider the project pursuant to the ordinance requirement that GSS maintain a 15-foot buffer between its property line and the structural elements of its project. Remand is necessary because the record is less than precise as to what if any elements of the site plan include forbidden intrusions within the 15-foot buffer.

Harger specifically objects to two elements of the site plan; a 4-foot patio wall and a gravel path, as being violations of both the buffer and the setback ordinance. The Planning Commission found both to fit within the requirements of the ordinance. As set forth above, to set aside a Planning Commission decision, the Land Use Appeal Authority must find that the site plan approval was arbitrary, capricious, or illegal. In this case, the Commission finding that the patio walls and gravel path fit within the ordinance landscaping requirements is not so clearly inconsistent with any specific element of the ordinance as to be subject to reversal. While the findings of the Planning Commission might be debatable, the ordinance is not so specific about the exact elements constituting ornament and landscape within the buffer and set-back to find the path and patio enclosure elements of the site plan to be arbitrary, capricious, or illegal. *See,*

Springville Citizens v. City of Springville, 979 P. 2nd 332, (Utah 1999). There are remaining elements related to structures on the property for which the evidence is not sufficiently clear as to whether they violate the 15-foot buffer. Those matters are remanded to the Commission.

III. THE GSS PLAN DOES NOT VIOLATE MOAB'S STORMWATER ORDINANCE.

Harger argues that the site plan is illegal in that it does not allow for surface water from his property to flow onto the GSS property. He asserts that the lack of cross boundary drainage may allow water to back-up onto his property. Moab City code is specific however in mandating that "surface water from roof tops, lots or irrigation ditches shall not be allowed to drain onto adjacent lots or streets." §17.09.140. Harger posits that the ordinance does not address natural floodwaters. Utah law says otherwise. In *Barneck v. Utah Dep't of Transportation*, the Utah Supreme Court noted that the term "surface water" means "water from rain, melting snow, springs or seepage, or detached from subsiding floods, that lies or flows on the surface of the earth but does not form a part of a watercourse…" 215 UT 50, ¶¶ 24-25, 353 P. 3d 140. Given the specificity of Utah law in this regard, the Planning Commission's determination that the site plan is consistent with the requirements of the ordinance cannot be considered arbitrary, capricious, or illegal.

IV. HARGER'S ASSERTION OF A PRESCRIPTIVE EASEMENT IS BEYOND THE SCOPE OF THIS PROCEEDING

Harger argues that the site plan violates his ownership rights to a particular water conveyance pursuant to a prescriptive easement. However, there is no dispute that no such easement has been established in any court of law or by contract and it is not for the Planning Commission in the process of reviewing a site plan to determine ownership of water or water ways. As a result, Harger's appeal as to this issue is not addressed herein.

CONCLUSION

Based on the foregoing, the approval of the GSS site plan by the Moab City Planning Commission is reversed. However, the Planning Commission's findings with regard to the low patio walls, the gravel path and the flow of surface water are not arbitrary and capricious or illegal. This matter is remanded to the Planning Commission to determine if the remaining elements of the site plan are consistent with the 15-foot buffer.

Dated this 30th day of May, 2023.

/s/Mary J. Woodhead
Mary J. Woodhead
Appeal Authority for Moab City

LIGHTING CALC:
(2) A TYPE LANDSCAPE LIGHT
@ 105 LUMENS EACH = 210

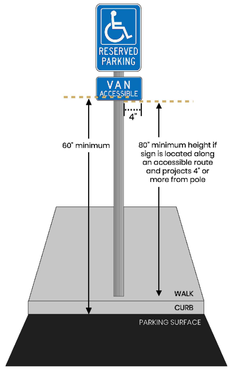
(13) B TYPE FIRST FLOOR SAFETY LIGHTING
@ 580 LUMENS EACH = 7,540

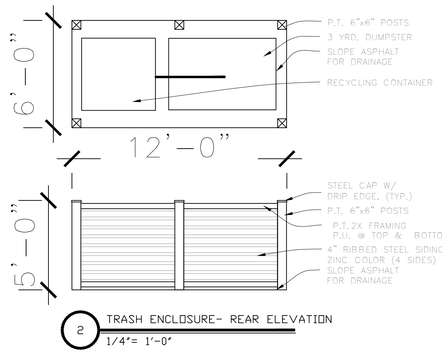
(8) B TYPE SECOND FLOOR DECK LIGHTING
@ 580 LUMENS EACH = 4,560

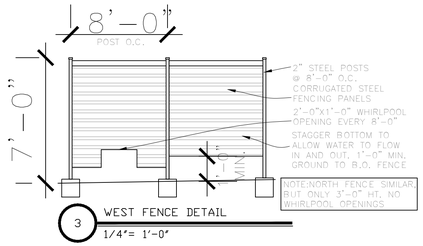
MAILBOX SPEC:
SALSBURY CLUSTER BOX UNIT W/12 DOORS
MODEL #3312GRY-U
COLOR: GREY
CONTRACTOR TO PREPARE PAD PER SPECS.
THIS PRODUCT IS USPS APPROVED
& MEETS ANSI 309 REQS.

LIGHT A @ IN CEILING

LIGHT B- MOUNTED
W/ B.O. FIXTURE @







LANDSCAPE CALCULATION:
18,735 sq.ft. total lot size/
3,109 sq.ft. total landscaping =
16.6% landscaping

HARDSCAPE LEGEND

- CRUSHED GRANITE
- CONCRETE
- DECORATIVE ROCK
- 2'x3'x1-1/4" JUMBO PAVERS BY STONE UNIVERSE INC. SET IN COMPACTED SAND. COLOR: GREY MIST

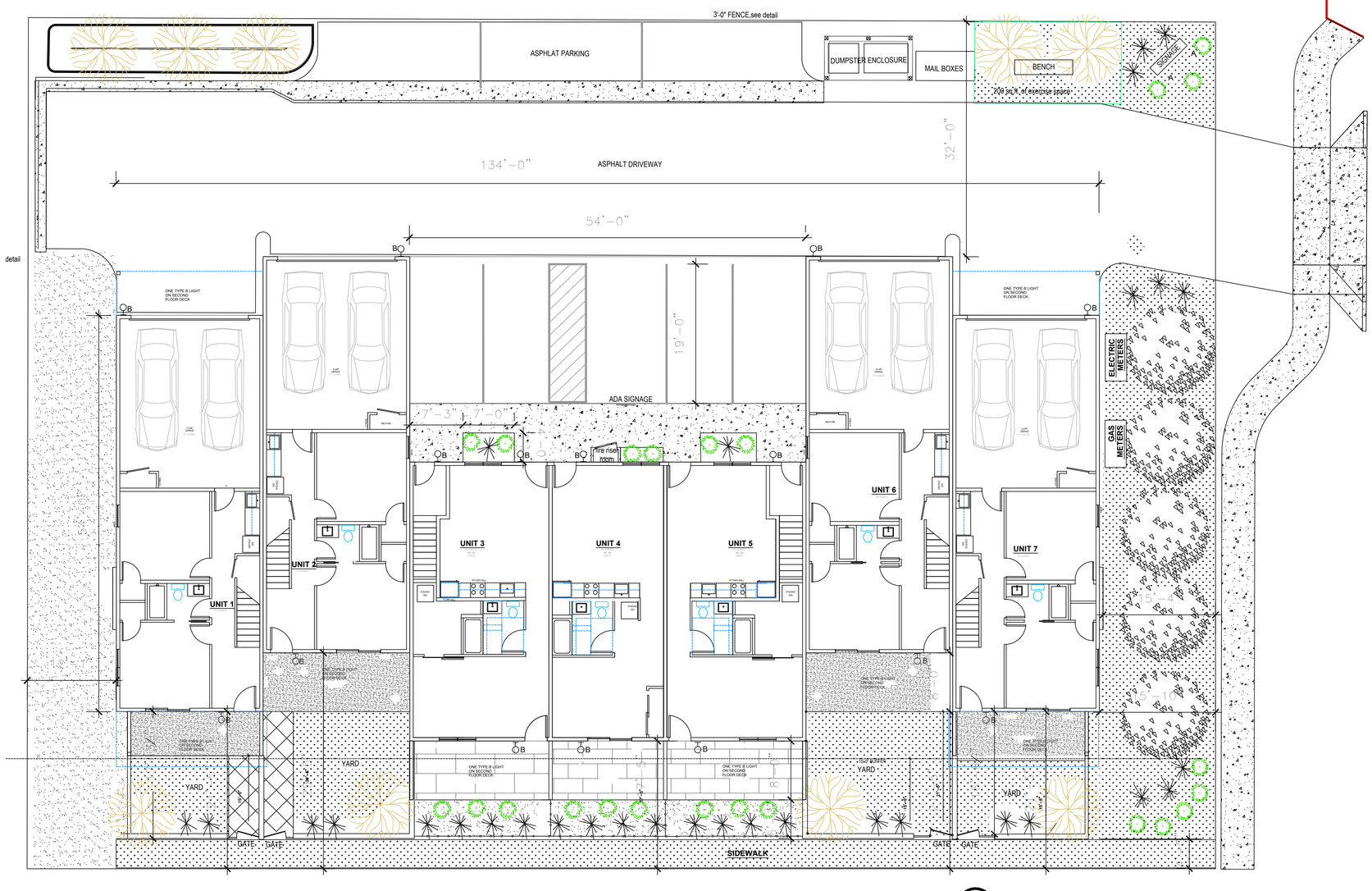
LIGHTING LEGEND

- A — LIGHT A = LANDSCAPE LIGHT
- B ○ — LIGHT B = WALL MOUNT-EXTERIOR SCONCES

LANDSCAPE LEGEND

- DESERT WILLOW
- AUSTRIAN PINE
- JAPANESE SILVER GRASS
- MUGO PINE

NOTE: ALL TREES & PLANTING AREAS WILL HAVE DRIP IRRIGATION.



HINES DESIGNS, LLC
PHONE: (970) 626.2300
188 MARIE STREET RIDGWAY, CO 81432

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Written dimensions take precedence over scaled dimensions. Any discrepancies found in dimensions are to be brought to the designer before commencing work.

COTTONWOOD CONDOMINIUMS
214 S 200 E
MOAB, UTAH

STATE OF UTAH
SUNDRA HINES
No. 8866253
LICENSED ARCHITECT

Phase	Date
Permit Set	August 15, 2022
	November 01, 2022
	December 13, 2022
	January 10, 2023
	January 12, 2023

Current Phase:
Permit Set-revised

June 14, 2023

SITE PLAN

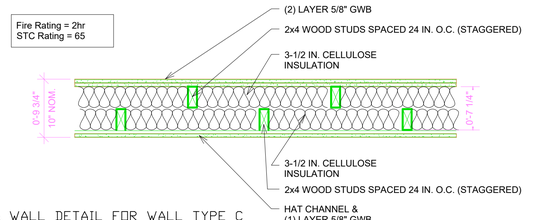
A1.1

PARTITION TYPES

TAG	STUD TYPE	INSULATION	NOTED SIDE SURFACE MATERIAL	NOTED SIDE SURFACE HEIGHT	OPPOSITE SIDE SURFACE MATERIAL	OPPOSITE SIDE SURFACE HEIGHT	REMARKS
A	2x6 WOOD STUDS	5-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	REFER TO SECTIONS & EXTERIOR ELEVATIONS	---	TYPICAL EXTERIOR LOAD-BEARING WALL
B	2x6 WOOD STUDS	5-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	1-HOUR FIRE RESISTIVE RATING
C	STAGGERED 2x4 WOOD STUDS 24" O.C.	CELLULOSE INSULATION	(2) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	HAT CHANNEL & (1) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	2-HOUR FIRE RESITIVE RATING SEE PARTY WALL DETAIL
D	2x4 WOOD STUDS	3-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	TYPICAL INTERIOR NON-LOAD-BEARING WALL
E	2x6 WOOD STUDS	5-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	LOAD-BEARING WALL
F	2x6 WOOD STUDS	CELLULOSE INSULATION	(2) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	HAT CHANNEL & (1) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	1-HOUR FIRE RESISTIVE RATING SEE PARTY WALL DETAIL

1. ALL WOOD STUDS SHALL BE 16" O.C., (UNLESS NOTED OTHERWISE)
2. ALL EXPOSED GYPSUM WALL BOARD SHALL BE TAPED & COATED SMOOTH, READY FOR PAINT.
3. USE 2x4 WOOD STUDS AND INSTALL MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL "WET WALL" LOCATIONS.
4. AT EXTERIOR WALLS, RETURN GYPSUM WALL BOARD INTO WINDOW JAMBS AND HEAD, (UNLESS NOTED OTHERWISE)

Fire Rating = 2hr
STC Rating = 65



2 WALL DETAIL FOR WALL TYPE C
1" = 1'-0"

CONTRACTOR TO VERIFY THE LOCATIONS OF THE DEMISING WALLS AND COORDINATE WITH THE STRUCTURAL DRAWINGS PRIOR TO CONSTRUCTION. CONTACT ARCHITECT WITH ANY DISCREPANCIES.

1 SECOND FLOOR PLAN
3/16" = 1'-0"

HINES DESIGNS, LLC
PHONE: (970) 626.2300
188 MARIE STREET RIDGWAY, CO 81432

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Written dimensions take precedence over scaled dimensions. Any discrepencies regarding dimensions are to be brought to the designer before commencing work.

COTTONWOOD CONDOMINIUMS

214 S 200 E
MOAB, UTAH

STATE OF UTAH
SUNDRA HINES
No. 8866253
LICENSED ARCHITECT

Phase	Date
Permit Set	August 19, 2022
	November 01, 2022
	December 13, 2022
	January 06, 2023
	January 12, 2023
	June 14, 2023

Current Phase:
Permit Set-revised

June 19, 2023

FLOOR PLAN

A 2.2

PARTITION TYPES

TAG	STUD TYPE	INSULATION	NOTED SIDE SURFACE MATERIAL	NOTED SIDE SURFACE HEIGHT	OPPOSITE SIDE SURFACE MATERIAL	OPPOSITE SIDE SURFACE HEIGHT	REMARKS
A	2x6 WOOD STUDS	5-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	REFER TO SECTIONS & EXTERIOR ELEVATIONS	----	TYPICAL EXTERIOR LOAD-BEARING WALL
B	2x4 WOOD STUDS	5-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	1-HOUR FIRE RESISTIVE RATING
C	STAGGERED 2x4 WOOD STUDS 24" O.C.	CELLULOSE INSULATION	(2) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	HAT CHANNEL & (1) 5/8" GYPSUM WALLBOARD	FULL HEIGHT	2-HOUR FIRE RESISTIVE RATING SEE PARTY WALL DETAIL
D	2x4 WOOD STUDS	3-1/2" BATT INSULATION	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	5/8" GYPSUM WALLBOARD	TO UNDERSIDE OF STRUCTURE ABOVE	TYPICAL INTERIOR NON-LOAD-BEARING WALL
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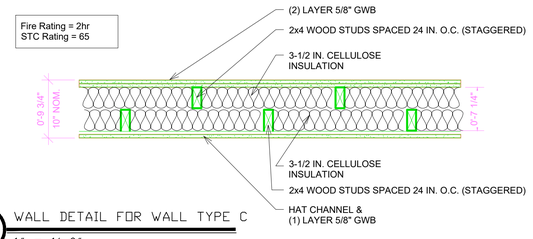
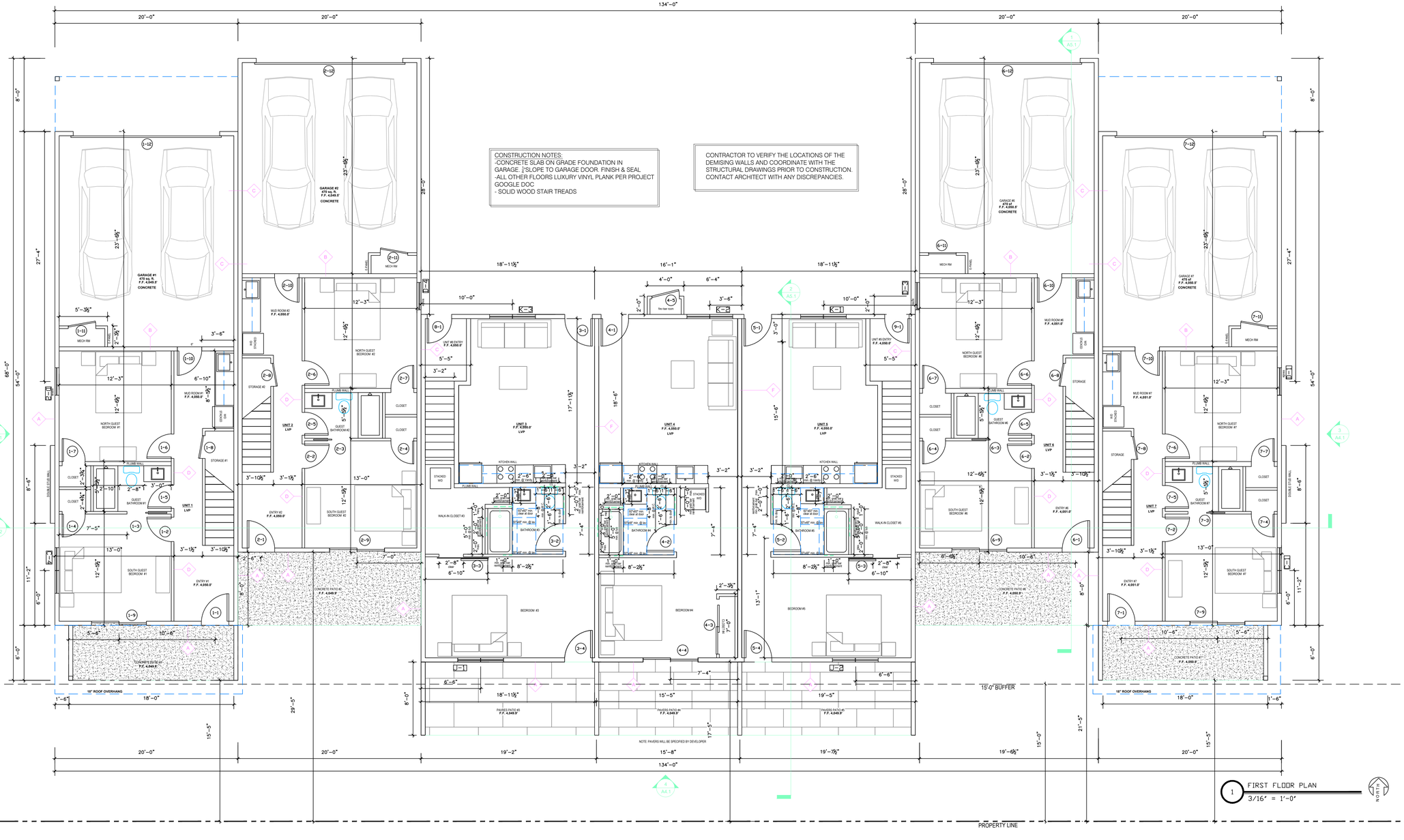


2 WALL DETAIL FOR WALL TYPE C
1" = 1'-0"

CONSTRUCTION NOTES:
-CONCRETE SLAB ON GRADE FOUNDATION IN GARAGE. 1"SLOPE TO GARAGE DOOR. FINISH & SEAL
-ALL OTHER FLOORS LUXURY VINYL PLANK PER PROJECT GOOGLE DOC
- SOLID WOOD STAIR TREADS

CONTRACTOR TO VERIFY THE LOCATIONS OF THE DEMISING WALLS AND COORDINATE WITH THE STRUCTURAL DRAWINGS PRIOR TO CONSTRUCTION. CONTACT ARCHITECT WITH ANY DISCREPANCIES.



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June 14, 2023	

Current Phase:
Permit Set-revised

June 19, 2023

FLOOR PLAN

A 2.1

Statement Addressing the revised Cottonwood Condominiums Landscaping Plan Submitted June 20th 2023.

Presented on behalf of: GSS Properties LLC & Guantanamera LLC

Southside Landscaping Elements:

1. Exterior perimeter fence to be Six (6) feet corrugated metal fence

    a. Providing Privacy from any outdoor activity or access, noise, sight, etc.

2. Planter Box Hardscape to be crushed granite.

    a. This works with the drainage swale system that directs the water to the detention pond on the North side of the property.

3. Plants and Trees in the Planter Area to be a mix of Desert Willows, Austrian Pines, Japanese Silver Grass and Mugo Pines.

    a. All of which will provide a mix of shade and greenery, and appropriate landscaping buffering from sound and adding more privacy.

4. Hardscape on the pathway along the South perimeter fence to be crushed granite.

    a. Providing appropriate landscape buffering, rather than concrete. This allows the drainage to work properly, allowing it to seep into the drainage swale system.

5. Center Three (3) Units back patios hardscape to be landscaping pavers. Units 1 & 2 yard pathways will also be pavers.

    a. This is appropriate landscaping buffer area, showing the end of the structure and the start of the landscaping.

    b. Paver material to be Sandstone.

    c. Provides appropriate ingress and egress from the unit's bedrooms to back yard.

6. Landscaping Pony Walls Separating yard space.

    a. CMU walls with stucco faces and metal caps. Appropriate in Landscaping Buffer Area.

    b. Provides separation between the individual units back yards.

    c. Provides visual and sound privacy, from different occupants patio furniture, BBQ grills etc.

7. Firewalls that separate each Condo to be CMU walls with stucco faces.

    a. Attached to Building providing appropriate fire separation from unit to unit as per City Code, provides visual and sound privacy from other tenants and neighbors.

Moab Planning Commission Approval Item

Findings and Conclusions: Remanded Site Plan Approval - Planning Resolution #02-2023

Cottonwood Condominiums Level II Site Plan

Remanded Site Plan Approval: July 14, 2023

Findings and Conclusions Approval: August 21, 2023

Staff: Cory P. Shurtleff, Planning Director

Background

GSS Properties, LLC owns certain real property located within Moab City's boundaries located at 214 South 200 East, Moab, Utah 84532, more particularly described as Parcel 01-0B03-0007 (the "**Property**") located in the R-3 Residential Zone. The Property consists of approximately 0.43 acres. The Property is a conner lot located on the southwest corner of the intersection of 200 South and 200 East. The front of the lot faces 200 East.

On May 9, 2022, Sundra Hines, as the applicant (the "**Applicant**") on behalf of the owner of record, Garry Snook of GSS Properties, LLC, for property located at 214 South 200 East, Moab, Utah 84532, applied for a Level II Site Plan Approval for Cottonwood Condominiums, a 9-unit multi-household condominium dwelling (the "**Project**").

The Site Plan Application was reviewed by the Moab City Development Review Team ("**DRT**") on May 10, 2022, and June 6, 2022. The Applicant resubmitted materials on June 23, 2022, to address comments provided by the DRT. The DRT found that the resubmitted materials sufficiently addressed DRT's comments and the Project was submitted to the Moab City Planning Commission (the Land Use Authority for site plan approvals) on August 11, 2022.

On August 11, 2022, the Moab City Planning Commission, at a publicly noticed meeting reviewed the application, staff recommendations, and approved the Site Plan. On February 7, 2023, Keith Harger, the owner of the property immediately adjacent to the south of the Property, filed an appeal of the August 11, 2022 approval of the Site Plan for the Project. As part of the appeal, Mr. Harger alleged that he had not received required notice of the Project before the August 11, 2022 meeting of the Moab City Planning Commission where the Site Plan for the Project was approved. The Applicant elected to cure any allegations of improper notice by any adjacent property owner by providing written notice and requesting that the Site Plan Application be resubmitted to the Moab City Planning Commission. Mr. Harger submitted written comments to Moab City Planning Commission. These comments were reviewed by the Moab City Planning Commission The Moab City Planning Commission reconsidered the Site Plan approval for the Project on March 9, 2023. During the March 9, 2023 meeting, the Moab City Zoning Administrator, Cory Shurtleff, presented the Moab City staff's analysis of the Project and compliance with the applicable Moab City Code. After reviewing the comments submitted by adjacent property owners, the documents provided in the packet, and the Moab City Staff's analysis, the Planning Commission approved the Site Plan with conditions. Mr. Harger appealed the decision.

On May 30, 2023, after reviewing submissions and oral arguments from the City, Mr. Harger, and the Applicant, the Land Use Appeal Authority issued its written decision on the appeal (the "**Decision**"). As it relates to the further proceedings, the Decision states as follows:

> While the findings of the Planning Commission might be debatable, the ordinance is not so specific about the exact elements constituting ornament and landscape within the buffer and set-back to find the path and patio enclosure elements of the site plan to be arbitrary, capricious, or illegal. *See Springville Citizens v. City of Springville,* 979 P. 2nd 332*,* (Utah 1999). There are remaining elements related to structures on the property for which the evidence is not sufficiently clear as to whether they violate the 15-foot buffer. Those matters are remanded to the Commission.

(Decision at 6-7.) The Decision concluded:

> Based on the foregoing, the approval of the GSS site plan by the Moab City Planning Commission is reversed. However, the Planning Commission's findings with regard to the low patio walls, the gravel path and the flow of surface water are not arbitrary and

capricious or illegal. This matter is remanded to the Planning Commission to determine if the remaining elements of the site plan are consistent with the 15-foot buffer.

(Decision at 8.)

Based on the Decision, the Applicant revised certain portions of the site plan and resubmitted to the Planning Commission for further decision based on the remand at the July 14, 2023. The Applicant provided notice to Mr. Harger. Mr. Harger submitted written comments to the Planning Commission and presented oral comments during the July 14, 2023 hearing. A representative for the applicant also attended the July 14, 2023 Planning Commission meeting and provided additional information and answered questions asked by the Planning Commission.

Findings

The revised site plan contains certain elements within the 15-foot buffer as measured from the south property line. Based on the written materials and oral information submitted by the Applicant and Mr. Harger, and the oral information presented, the Planning Commission makes the following specific findings relating to each of these elements:

1. Exterior Perimeter 6' Fence
    a. This feature is specifically stated within the Multi-Household Use, Buffering parameter MMC 17.48.020; additionally stated in Buffering and Landscaping definitions. MMC 17.06. Specific conditions resulting from the proposed combination of materials reduce the impact of use on adjacent property, MMC 17.06 Buffering. Accordingly, this element is consistent with landscaping and buffering requirements of Moab City Code and is allowed within the buffer.

2. Planter Box Hardscape Crushed Granite (Gravel)
    a. Landscape "rocks" is expressly stated in Landscaping definition, as referenced by Buffering definition as Landscaping element, MMC 17.06. Specific conditions resulting from the proposed combination of materials reduce the impact of use on adjacent property, MMC 17.06 Buffering. Accordingly, this element is consistent with landscaping and buffering requirements of Moab City Code and is allowed within the buffer.

3. Plants and Trees in the Planter Area
    a. This feature is specifically stated within the Multi-Household Use, Buffering parameter MMC 17.48.020; additionally stated in Buffering and Landscaping definitions. MMC 17.06. Specific conditions resulting from the proposed combination of materials reduce the impact of use on adjacent

property, MMC 17.06 Buffering. Accordingly, this element is consistent with landscaping and buffering requirements of Moab City Code and is allowed within the buffer.

4. Hardscape Crushed Granite (Gravel) Path
    a. Complies; Feature material, landscape "rocks", is stated in Landscaping definition, as referenced by Buffering definition as Landscape element, MMC 17.06. Feature use, intermittent private pedestrian access, is acceptable based on proposed use intent and testimony provided during Remanded Site Plan Review July 14, 2023. Feature intensity, intermittent private pedestrian access, is acceptable based on proposed use intent and testimony provided during Remanded Site Plan Review July 14, 2023. Specific conditions resulting from the proposed combination of materials reduce the impact of use on adjacent property, MMC 17.06 Buffering.
5. Center Three Unit Patio Pavers and Exterior Unit Walkways
    a. Complies; Feature material, sandstone landscape paver "rocks", is stated in Landscaping definition, as referenced by Buffering definition as Landscape element, MMC 17.06. Feature use, private occupancy use, is acceptable based on proposed use intent and testimony provided during Remanded Site Plan Review July 14, 2023. Feature intensity, private occupancy use, is acceptable based on proposed use intent and testimony provided during Remanded Site Plan Review July 14, 2023. Specific conditions resulting from the proposed combination of materials reduce the impact of use on adjacent property MMC 17.06 Buffering; specifically, the additional Landscaped Screening, as defined in MMC 17.09.400.
6. Landscaping Pony Walls between Yard Spaces
    a. Complies; Feature is stated in Landscaping definition, as referenced by Buffering definition as Landscaping element, MMC 17.06. Specific conditions resulting from the proposed combination of materials reduce the impact of use on adjacent property MMC 17.06 Buffering.
7. Firewalls that separate each Condo
    a. Complies; Feature is stated in Landscaping definition, as referenced by Buffering definition as Landscaping element, MMC 17.06. Specific conditions resulting from the proposed combination of materials reduce the impact of use on adjacent property MMC 17.06 Buffering.
8. Roof Eaves extending into Buffering Area 18"
    a. Complies; No specific language governs the extension of eaves into the horizontal buffering area; however, code exists within the MMC that specifies conditions upon which eaves can extend into the setback area, "17.09.050. Yards to be unobstructed--Exceptions. Every part of a required yard shall be open to the sky and unobstructed except for permitted accessory buildings and except for ordinary and customary

projection of sills, belt courses, cornices, and other ornamental features and unenclosed steps and unwalled stoops, porches, and carports, which may project up to three feet into a required yard. No projection into a required court which is provided in connection with a court apartment shall be constructed except for customary sills, belt courses, and cornices which may extend into the court not more than sixteen inches." Based on this nearest adjacent code provision, the Planning Commission determined the proposed 18" eave extension is in-line with the acceptable development standards for eave extensions into buffering area.

As revised, the site plan complies with the 15-foot buffer requirement measured from adjacent property line shared with Mr. Harger.

Options:

1. Approve with or without modifications; or
2. Continue or table action to a later meeting with specific direction to City Staff as to additional information needed to make a decision; or
3. Deny the Findings and Conclusions, giving specific findings for decision.

Motion for Approval: I move that the City of Moab Planning Commission Approve the Findings and Conclusions for the Remanded Level II Site Plan for the Cottonwood Condominiums 2022 Project, Planning Resolution 02-2023.