PLANNING PERMIT APPLICATION

Planning & Building Department
Planning Division

150 E Pearl Ave.
P.O. Box 1687
Jackson, WY 83001

ph: (307) 733-0440
fax: (307) 734-3563
www.townofjackson.com

For Office Use Only

Fees Paid_____

Check # _____ Credit Card_____ Cash_____

Application #s _____ _____ _____

PROJECT.

Name/Description: Town Hill Lofts

Physical Address: 680 / 700 S.

Lot, Subdivision: 1 & 2 Pine Lodge PIDN: 22-41-16-34-3-06-001, 002

OWNER.

Name: Crystal Creek Capital, LLC Phone: 733-4733

Mailing Address: PO Box 844 / Jackson, WY ZIP: 83001

E-mail: jim@crystalcreekcapital.com

APPLICANT/AGENT.

Name: Berlin Architects Phone: 733-5697

Mailing Address: PO Box 4119 / Jackson, WY ZIP: 83001

E-mail: larryb@berlinarchitects.com

DESIGNATED PRIMARY CONTACT.

_____Owner X_____Applicant/Agent

TYPE OF APPLICATION. *Please check all that apply; see Fee Schedule for applicable fees.*

Use Permit

_____Basic Use

_____Conditional Use

_____Special Use

Physical Development

_____Sketch Plan

X_____Development Plan

Interpretations

_____Formal Interpretation

_____Zoning Compliance Verification

Relief from the LDRs

_____Administrative Adjustment

_____Variance

_____Beneficial Use Determination

_____Appeal of an Admin. Decision

Development Option/Subdivision

_____Development Option Plan

_____Subdivision Plat

_____Boundary Adjustment (replat)

_____Boundary Adjustment (no plat)

Amendments to the LDRs

_____LDR Text Amendment

_____Zoning Map Amendment

_____Planned Unit Development

PRE-SUBMITTAL STEPS. *Pre-submittal steps, such as a pre-application conference, environmental analysis, or neighborhood meeting, are required before application submittal for some application types. See Section 8.1.5, Summary of Procedures, for requirements applicable to your application package. If a pre-submittal step is required, please provide the information below. If you need assistance locating the project number or other information related to a pre-submittal step, contact the Planning Department.* ***If this application is amending a previous approval, indicate the original permit number.***

Pre-application Conference #: P15-103 Environmental Analysis #: _____

Original Permit #: _____ Date of Neighborhood Meeting: _____

SUBMITTAL REQUIREMENTS. *Twelve (12) hard copies and one (1) digital copy of the application package (this form, plus all applicable attachments) should be submitted to the Planning Department.. Please ensure all submittal requirements are included. The Planning Department will not hold or process incomplete applications. Partial or incomplete applications will be returned to the applicant.*

Have you attached the following?

X **Application Fee.** Fees are cumulative. Applications for multiple types of permits, or for multiple permits of the same type, require multiple fees. See the currently adopted Fee Schedule in the Administrative Manual for more information.

X **Notarized Letter of Authorization.** A notarized letter of consent from the landowner is required if the applicant is not the owner, or if an agent is applying on behalf of the landowner. If the owner is a partnership or corporation, proof that the owner can sign on behalf of the partnership or corporation is also required. Please see the Letter of Authorization template in the Administrative Manual for a sample.

X **Response to Submittal Checklist.** All applications require response to applicable review standards. These standards are outlined on the Submittal Checklists for each application type. If a pre-application conference is held, the Submittal Checklists will be provided at the conference. If no pre-application conference is required, please see the Administrative Manual for the applicable Checklists. The checklist is intended as a reference to assist you in submitting a sufficient application; submitting a copy of the checklist itself is not required.

FORMAT.

The main component of any application is demonstration of compliance with all applicable Land Development Regulations (LDRs) and Resolutions. The submittal checklists are intended to identify applicable LDR standards and to outline the information that must be submitted to sufficiently address compliance with those standards.

For some submittal components, minimum standards and formatting requirements have been established. Those are referenced on the checklists where applicable. For all other submittal components, the applicant may choose to make use of narrative statements, maps, drawings, plans and specifications, tables and/or calculations to best demonstrate compliance with a particular standard.

Note: Information provided by the applicant or other review agencies during the planning process may identify other requirements that were not evident at the time of application submittal or a Pre-Application Conference, if held. Staff may request additional materials during review as needed to determine compliance with the LDRs.

Under penalty of perjury, I hereby certify that I have read this application and associated checklists and state that, to the best of my knowledge, all information submitted in this request is true and correct. I agree to comply with all county and state laws relating to the subject matter of this application, and hereby authorize representatives of Teton County to enter upon the above-mentioned property during normal business hours, after making a reasonable effort to contact the owner/applicant prior to entering.

Larry K Berlin
Signature of Owner or Authorized Applicant/Agent

4/27/16
Date

Larry Berlin
Name Printed

Principal
Title

LETTER OF AUTHORIZATION

Crystal Creek Capital, LLC ,"Owner" whose address is: _____

(NAME OF ALL INDIVIDUALS OR ENTITY OWNING THE PROPERTY)

Crystal Creek Capital, LLC , as the owner of property more specifically legally described as: _____

680 / 700 S. Cache Street / Jackson, WY 83001

Lots 1 & 2 Pine Lodge / PIPN: 22-41-16-34-3-06-001, 002

(If too lengthy, attach description)

HEREBY AUTHORIZES Berlin Architects as agent to represent and act for Owner in making application for and receiving and accepting on Owners behalf, any permits or other action by the Town of Jackson, or the Town of Jackson Planning, Building, Engineering and/or Environmental Health Departments relating to the modification, development, planning or replatting, improvement, use or occupancy of land in the Town of Jackson. Owner agrees that Owner is or shall be deemed conclusively to be fully aware of and to have authorized and/or made any and all representations or promises contained in said application or any Owner information in support thereof, and shall be deemed to be aware of and to have authorized any subsequent revisions, corrections or modifications to such materials. Owner acknowledges and agrees that Owner shall be bound and shall abide by the written terms or conditions of issuance of any such named representative, whether actually delivered to Owner or not. Owner agrees that no modification, development, platting or replatting, improvement, occupancy or use of any structure or land involved in the application shall take place until approved by the appropriate official of the Town of Jackson, in accordance with applicable codes and regulations. Owner agrees to pay any fines and be liable for any other penalties arising out of the failure to comply with the terms of any permit or arising out of any violation of the applicable laws, codes or regulations applicable to the action sought to be permitted by the application authorized herein.

Under penalty of perjury, the undersigned swears that the foregoing is true and, if signing on behalf of a corporation, partnership, limited liability company or other entity, the undersigned swears that this authorization is given with the appropriate approval of such entity, if required.

OWNER: _____

(SIGNATURE) (SIGNATURE OF CO-OWNER)

Title: President & Managing Member

(if signed by officer, partner or member of corporation, LLC (secretary or corporate owner) partnership or other non-individual Owner)

STATE OF Wyoming)
)SS.
COUNTY OF Teton)

The foregoing instrument was acknowledged before me by James D. Walto this 27 day of April, 2016.

WITNESS my hand and official seal.

Emily D. Eldredge (Seal)

(Notary Public)

My commission expires:

EMILY D. ELDREDGE NOTARY PUBLIC TETON COUNTY, WYOMING

TOWN HILL LOFTS

680 and 700 S. Cache Street

Final Development Plan Submittal

April 27, 2016

CRYSTAL CREEK CAPITAL
REAL ESTATE ADVISORS

BERLIN ARCHITECTS

Crystal Creek Capital Real Estate Advisors, LLC

P.O. Box 844 | 275 Veronica Lane, Suite 300 | Jackson, Wyoming 83001 | Telephone 307-733-4733

April 27, 2016

Mr. Tyler Sinclair
Jackson Planning Director
P.O. Box 1687
Jackson, WY 83001

Re: Town Hill Lofts

Dear Tyler,

Please accept this final development plan ("FDP") application for the Town Hill Lofts ("Lofts") located at 680 S. Cache within the Snow King Planned Resort District. This FDP proposes 34 residential condominiums, the corresponding necessary employee housing units and approximately 3,672 square feet of non-residential area for commercial uses. All uses and their respective allocations of square footage or unit counts comply with the Snow King Resort Master Plan ("SKMP").

As you know, the SKMP serves as the development guidelines for properties within the Snow King Planned Resort District. It specifies allowed uses, locations, scale of buildings, among numerous other relevant details. The SKMP approval by the Town of Jackson also serves as a sketch plan approval. As a result of the sketch plan approval, this submittal represents the FDP for Town review and approval.

Background:
Over the last year, Crystal Creek Capital Real Estate Advisors, LLC, the entity that manages the property on behalf of Crystal Creek Capital, tasked itself with submitting an FDP that is fully compliant with the SKMP. This process involved collaboration with you and your fellow staff members at the Town of Jackson, the Directors of the Snow King Resort Master Association ("SKRMA"), and our professional consultants (Berlin Architects, Collins Planning Associates, Jorgensen Associates and GE Johnson Construction Wyoming). We are pleased to report that the proposed plan enclosed is in complete compliance with the SKMP. No amendments or variances are requested. This is a direct result of the support and feedback from all participants. You and your staff were a critical part of this process.

Master Plan Compliance

- The project is a mixed-use development containing land uses that are permitted per the SKMP.
- The building is located in a designated development site and complies with the three-dimensional building envelope.
- The building conforms to the size and scale criteria that are approved by the Town for the Snow King Resort.
- The architecture matches the design guidelines.
- The site design facilitates pedestrian circulation between Town and the Resort.
- The development preserves all outdoor activities that occur in the area, such as tubing, skiing, farmers' market, summer concerts, hiking, and the hill climb.

Responsive to Preliminary Reviews

Preliminary reviews involved a pre-application conference process with the Town of Jackson, SKRMA review, and various meetings with local experts and interested parties. The changes which occurred from our initially proposed design (Fall 2015) to the FDP represent a complete redesign of every aspect of the building. The key changes involved:

- Complete redesign of the architecture to include sloping roof lines.
  - Resulting in CCCREA to abandon their design preferences while also decreasing their desired unit count.
- Removal of the majority of structured parking above grade to below grade.
  - Resulting in a significant increase in construction cost.
- Modification to the design of the sidewalk and parking access along the S. Cache St. frontage to facilitate pedestrian movement.
- Reduction of entrances to the parking facilities from four to three.
- Reduction of site utilization for the Lofts from two lots (680 S. Cache and 700. S. Cache) to one.
  - The entire development is proposed on 680 S. Cache. No further development is considered or allocated to 700 S. Cache.

Parallel Reviews

We have submitted to SKRMA per the Snow King Master Plan guidelines. The SKRMA decision should occur within the next several days (May 5, 2016). We are very encouraged by the preliminary responses we have received and expect approval. As you may recall, the Snow King Resort Master Plan requires SKRMA to fulfill the design review responsibilities that are normally handled by the Jackson Design Review Committee.

In addition to the SKRMA review and the Town FDP process, we will reach out to several neighbors of the site and to key community groups prior to the Planning Commission meeting. The purpose of these meetings is to provide these community members an informal review of the application and an opportunity to ask any questions they may have.

We welcome early and frequent communication as you and the town staff review the attached materials. We understand this application will receive detailed scrutiny but we also know it is in complete compliance with all requirements for Town approval. We look forward to working with you throughout this process.

Sincerely,

James D. Walter

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- EXHIBIT A – Initial Concept Design – December 2015
- EXHIBIT B – Transfer and Allocation of Lodging Average Peak Occupancy and Building Floor Area
- EXHIBIT C – Land Use Agreement
- EXHIBIT D – Site Logistics Plan
- EXHIBIT E – Geotechnical Report
- EXHIBIT F – Traffic Impact Statement
- EXHIBIT G – Utility Study
- EXHIBIT H – Storm Water Calculation
- EXHIBIT I – Civil Engineering Plan
- EXHIBIT J – Parking Calculation
- EXHIBIT K – Employee Housing Calculation
- EXHIBIT L – Bike Calculation

Project Overview

Project Overview

Crystal Creek Capital, LLC ("CCC") purchased Lots 1 and 2 of the Pine Lodge Amended Addition on June 17, 2009 from Snow King Holdings, LLC. The purchase included 57,000 square feet of building area and 316 Average Peak Occupancy Units[1]. Crystal Creek Capital Real Estate Advisors, LLC ("CCCREA"), an affiliate of CCC, manages Lots 1 and 2 on behalf of CCC. The Final Development Plan submittal enclosed represents a 54,653 square foot mixed-use building. It consists of 42,571 square feet of residential space comprised of 38 units: 34 units are free market condominium units available for short-term rental and four employee units. In addition, 3,672 square feet of commercial space will be included on the northern aspect of the building. The uses, allocation of square footage, and employee housing follow Snow King Resort Master Plan guidelines noted on pages 46, 75 and 95, respectively. 73 parking spaces have been allocated to the residential and commercial spaces. In addition, over 60 bike spaces or racks are included in the project.

CCCREA submitted a pre-application to the Town of Jackson on December 1, 2015. This application was submitted after several meetings with Directors of the Snow King Resort Master Association and local interest parties, which took place in the fall of 2015 (see Exhibit A for the Initial Concept Design). A number of recommendations were made by staff from the Town of Jackson, SKRMA, and community members. The feedback from the Town was summarized in a memorandum dated February 5, 2016 (see the Pre-Application Memorandum section). As a result of the feedback, CCCREA redesigned the entire project to ensure its compliance with the Snow King Resort Master Plan. The byproduct is the proposed development in this FDP submittal. The major changes include but are not limited to:

- Roof Pitch: The roof is now pitched per the SKMP.
- Parking: The majority of the above grade structured parking is now below grade. This reduced the parking count from 110 spaces to 73.
- Access: The vehicular access points from Cache Street have been reduced from four to three.
- Street Presence: The sidewalk and parking strip along Cache frontage was changed to further accommodate and encourage pedestrian traffic.
- Footprint: The Lofts now utilize only one of the two parcels owned by CCC.

[1] Please refer to Exhibits B and C.

Proposed Development

Town Hill Lofts

PARKING CALCULATIONS

VEHICLE PARKING PROVIDED — **73 SPACES TOTAL**

CALCUATION METHOD
1 SPACE PER EACH 1 BEDROOM UNIT
1 x 10 = 10 SPACES
2 SPACES FOR EVERY OTHER UNIT
2 x 28 = 56 SPACES
COMMERCIAL SPACE
(3,672 SF / 1,000) x 3.3 = 12.1 SPACES

TOTAL SPACES — **78.1**

FIGURED FOR SOME SHARED PARKING BETWEEN COMMERCIAL AND LODGING USE.

HANDICAP SPACES - 5 TOTAL
3 SPACES REQUIRED BY LDRs
2 ADDITIONAL SPACES, 1 FOR EACH ACCESSIBLE UNIT

PARKING DISTRIBUTION
FIRST FLOOR: 37 SPACES TOTAL, INCLUDING 3 HANDICAP SPACES
SECOND FLOOR: 28 SPACES TOTAL, INCLUDING 1 HANDICAP SPACE
THIRD FLOOR: 8 SPACES TOTA, INCLUDING 1 HANDICAP VAN SPACE

BIKE PARKING PROVIDED — **90 SPACES TOTAL**

SHORT TERM BIKE PARKING - 14 BIKES TOTAL
7 INVERTED U BIKE RACKS ARE PROPOSED, 2 BIKES PER RACK.

LONG TERM BIKE PARKING - 76 BIKES TOTAL
EACH OF THE 38 UNITS HAS A STORAGE UNIT THAT CAN HOLD A MINIMUM OF 2 BIKES

EMPLOYEE HOUSING CALCULATIONS

REQUIRED EMPLOYEE HOUSING

REQUIRED FOR HOUSING

74 MARKET BEDROOMS x 2 APOs PER BEDROOM x .065 = 9.62 EMPLOYEES

REQUIRED FOR COMMERCIAL OFFICE SPACE:

(3,672 SF OFFICE / 1000 SF) / .03 = 1.11 EMPLOYEES

TOTAL REQUIRED EMPLOYEE HOUSING — **9.73 EMPLOYEES**

PROVIDED EMPLOYEE HOUSING

2 x 1 BEDROOM 1 BATHROOM UNITS (1.75 EMPLOYEES PER UNIT) — 3.5 EMPLOYEES

2 x 3 BEDROOM 3 BATHROOM UNITS (3 EMPLOYEES PER UNIT) — 6 EMPLOYEES

TOTAL PROVIDED EMPLOYEE HOUSING — **9.5 EMPLOYEES**

FEE IN LIEU — **.23 EMLOYEES**

UNIT TYPE DISTRIBUTION

UNIT TYPE	QUANTITY ON LEVEL
SECOND FLOOR - 6 UNITS TOTAL:	
1 BEDROOM 1 BATHROOM	3
2 BEDROOM 2 BATHROOM	1
3 BEDROOM 2 BATHROOM	1
3 BEDROOM 3 BATHROOM	1
THIRD FLOOR - 11 UNITS TOTAL:	
1 BEDROOM 1 BATHROOM	3
2 BEDROOM 2 BATHROOM	3
3 BEDROOM 2 BATHROOM	4
3 BEDROOM 3 BATHROOM	1
FOURTH FLOOR - 11 TOTAL UNITS:	
8 MARKET UNITS	
1 BEDROOM 1 BATHROOM	1
2 BEDROOM 2 BATHROOM	3
3 BEDROOM 2 BATHROOM	3
3 BEDROOM 3 BATHROOM	1
3 EMPLOYEE UNITS	
1 BEDROOM 1 BATHROOM	1
3 BEDROOM 2 BATHROOM	2
FIFTH FLOOR - 10 UNITS TOTAL:	
9 MARKET UNITS	
1 BEDROOM 1 BATHROOM	1
2 BEDROOM 2 BATHROOM	5
3 BEDROOM 2 BATHROOM	3
1 EMPLOYEE UNIT	
1 BEDROOM 1 BATHROOM	1
TOTAL UNITS - 38	
34 MARKET UNITS	
1 BEDROOM 1 BATHROOM	8
2 BEDROOM 2 BATHROOM	12
3 BEDROOM 2 BATHROOM	11
3 BEDROOM 3 BATHROOM	3
4 EMPLOYEE UNITS	
1 BEDROOM 1 BATHROOM	2
3 BEDROOM 2 BATHROOM	2

TOTAL BEDROOMS - 84
74 MARKET BEDROOMS
8 EMPLOYEE BEDROOMS

PROJECT DATA

SITE LOCATION:
Lot 1, Pine Lodge
680 S. Cache St.
PIDN:

OWNER:
CRYSTAL CREEK CAPITAL, LLC
PO BOX 844
JACKSON, WY 83001

ARCHITECT:
BERLIN ARCHITECTS
PO BOX 4119
JACKSON, WY 83001
CONTACT: HANS SCHULDT
307-733-5697
HANS@BERLINARCHITECTS.COM

SEE STRUCTURAL DRAWING COVER SHEET FOR STRUCTURAL DESIGN CRITERIA

FLOOR AREA CALCULATIONS

BASEMENT NON-HABITABLE:		**33,600 SF**
BASEMENT STORAGE:	3,932 SF	
FIRST FLOOR PARKING:	14,184 SF	
SECOND FLOOR PARKING:	11,171 SF	
THIRD FLOOR PARKING:	4,313 SF	
ABOVE GROUND HABITABLE:		
FIRST FLOOR COMMERCIAL:		3,672 SF
SECOND FLOOR:		7,621 SF
MARKET HOUSING:	6,944 SF	
CIRCULATION:	677 SF	
THIRD FLOOR:		14,626 SF
MARKET HOUSING:	13,554 SF	
CIRCULATION:	1,072 SF	
FOURTH FLOOR:		15,444 SF
MARKET HOUSING:	10,756 SF	
EMPLOYEE HOUSING:	3,522 SF	
CIRCULATION:	1,166 SF	
FIFTH FLOOR:		13,290 SF
MARKET HOUSING:	11,317 SF	
EMPLOYEE HOUSING:	733 SF	
CIRCULATION:	1,240 SF	
TOTAL ABOVE GROUND HABITABLE:		**54,653 SF**
COMMERCIAL:	3,672 SF	
MARKET HOUSING:	42,571 SF	
EMPLOYEE HOUSING:	4,255 SF	
CIRCULATION:	4,155 SF	

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BERLIN ARCHITECTS
BOX 4199
JACKSON, WY 83001

307-733-5697
FAX 307-733-5761

Town Hill Lofts
Lot 1, Pine Lodge
Jackson, WY

STRUCTURAL ENGINEERS:
Collins Pearson Associates
307-690-9000

MECHANICAL / ELECTRICAL ENGINEERS
Jorgensen Associates, PC
307.733.5150

INTERIOR / CIVIL / LANDSCAPE
Weaver & Associates PA
208.529.9504

Date:
Final Development Plan
4.27.2016
Revisions:

A1.1
Title Sheet

VIEW FROM CACHE STREET

BERLIN
ARCHITECTS

BOX 4199
JACKSON, WY 83001

307-733-5697
FAX 307-733-5761

Town Hill Lofts

Lot 1, Pine Lodge
Jackson, WY

PLANNING CONSULTANT:
Collins Planning Associates
307.690.9400

CIVIL ENGINEER:
Jorgensen Associates, PC
307.733.5150

LANDSCAPE ARCHITECT:
Weisner & Associates PA
208.529.9604

Date:
Final Development Plan
4.27.2016
Revisions:

A1.2

3D Rendering

VIEW FROM SNOW KING AVENUE

BERLIN ARCHITECTS

BOX 4199
JACKSON, WY 83001

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FAX 307-733-5761

Town Hill Lofts

Lot 1, Pine Lodge
Jackson, WY

PLANNING CONSULTANT:
Collins Planning Associates
208.529.9504

CIVIL ENGINEER:
Jorgensen Associates, PC
307.733.5150

LANDSCAPE ARCHITECT:
Weaver & Associates PA
208.529.9504

Date:
Final Development Plan
4.27.2016
Revisions:

A1.3

3D Rendering

AERIAL VIEW

BERLIN
ARCHITECTS

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307-733-5697
FAX 307-733-5761

Town Hill Lofts

Lot 1, Pine Lodge
Jackson, WY

PLANNING CONSULTANT:
Collins Planning Associates
208.529.9504

CIVIL ENGINEER:
Jorgensen Associates, PC
307.733.5150

LANDSCAPE ARCHITECT:
Weaver & Associates PA
208.529.9504

Date:
Final Development Plan
4.27.2016
Revisions:

A1.4

3D Renderings

EAST ELEVATION

VIEW FROM NORTHEAST

BERLIN ARCHITECTS

BOX 4199
JACKSON, WY 83001

307-733-5697
FAX 307-733-5761

Town Hill Lofts

Lot 1, Pine Lodge
Jackson, WY

PLANNING CONSULTANT:
Collins Planning Associates
307-690-4481

CIVIL ENGINEER:
Jorgensen Associates, PC
307.733.5150

LANDSCAPE ARCHITECT:
Weaver & Associates PA
208.529.9504

Date:
Final Development Plan
4.27.2016
Revisions:

A1.5

3D Renderings

VIEW FROM NORTHWEST

WEST ELEVATION

BERLIN
ARCHITECTS

BOX 4199
JACKSON, WY 83001

307-733-5697
FAX 307-733-5761

Town Hill Lofts

Lot 1, Pine Lodge
Jackson, WY

PLANNING CONSULTANT:
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CIVIL ENGINEER:
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307.733.5150

LANDSCAPE ARCHITECT:
Weaver & Associates PA
208.529.9504

Date:
Final Development Plan
4.27.2016
Revisions:

A1.6

3D Renderings

AERIAL VIEW FROM SOUTHWEST

AERIAL VIEW FROM SOUTHEAST

BERLIN
ARCHITECTS

BOX 4199
JACKSON, WY 83001

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FAX 307-733-5761

Town Hill Lofts

Lot 1, Pine Lodge
Jackson, WY

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LANDSCAPE ARCHITECT:
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Date:
Final Development Plan
4.27.2016
Revisions:

A1.7

3D Rendenng

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FAX 307-733-5761

Town Hill Lofts

Lot 1, Pine Lodge

Jackson, WY

GENERAL CONSTRUCTION NOTES

1. ALL SITE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF WYOMING PUBLIC WORKS STANDARD SPECIFICATIONS AND ARTICLE 4 OF THE TOWN OF JACKSON LAND DEVELOPMENT REGULATIONS.

2. EXISTING BASE MAPPING WAS PREPARED BY JORGENSEN ASSOCIATES, P.C. (FALL 2015).

3. BURIED UTILITIES
   - 3.1. CONTRACTOR SHALL VERIFY LOCATION OF ALL BURIED AND OVERHEAD UTILITIES PRIOR TO ANY EXCAVATION IN THE VICINITY. UTILITY LOCATIONS SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. ENGINEER DOES NOT WARRANT THE ACCURACY NOR COMPLETENESS OF THE INFORMATION SHOWN FOR EXISTING UTILITIES.
   - 3.2. CONTRACTOR SHALL COORDINATE WITH THE PROJECT REPRESENTATIVE TO LOCATE AND AVOID DAMAGE TO ANY FUEL PUMPING FACILITIES, IRRIGATION FACILITIES, WATER UTILITIES, AND STATE MONITORING WELLS AND PIPING.
   - 3.3. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES PRIOR TO INSTALLING IMPROVEMENTS.
   - 3.4. CONTRACTOR SHALL NOTIFY WYOMING ONE CALL, 1-800-348-1030, A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION FOR UTILITY LOCATES.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY NPDES STORMWATER PERMIT PRIOR TO COMMENCING ANY LAND DISTURBING ACTIVITIES.

5. CONTRACTOR SHALL CONSTRUCT EROSION CONTROL STRUCTURES PRIOR TO ANY EARTHWORK OR CONSTRUCTION. EROSION CONTROL STRUCTURES SHALL BE CONSTRUCTED AND MAINTAINED BY CONTRACTOR UNTIL VEGETATION IS REESTABLISHED IN DISTURBED AREAS.

6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND SHALL PROMPTLY NOTIFY THE ENGINEER OF ANY VARIATIONS OR DISCREPANCIES.

7. ALL EXCAVATION ACTIVITIES SHALL COMPLY WITH PERMIT REQUIREMENTS ISSUED FOR THE PROJECT. CONTRACTOR SHALL REVIEW AND BE RESPONSIBLE FOR PERMIT COMPLIANCE.

8. CONTRACTOR TO CONFIRM STOCKPILE AND STAGING LOCATIONS WITH THE OWNER.

9. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

10. FILL MATERIAL SHALL BE SUITABLE ON-SITE OR IMPORTED MATERIAL WITH ROCKS NO LARGER THAN 6 INCHES IN DIAMETER. LARGER MATERIAL MAY BE PLACED ONLY WHEN AUTHORIZED BY THE ENGINEER.

11. CRUSHED GRAVEL BASE COURSE MATERIAL SHALL BE GRADING H. BASE COURSE SHALL BE MECHANICALLY COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 (AASHTO T-180 - MODIFIED PROCTOR DENSITY).

12. DESTRUCTION AND DAMAGE TO TREES AND OTHER NATURAL VEGETATION SHALL BE MINIMIZED AND ALL DISTURBED SURFACES SHALL BE RESEEDED AS SOON AS PRACTICABLE IN ACCORDANCE TO THE REVEGETATION SPECIFICATIONS.

13. STRIP AND SALVAGE TOPSOIL FROM ALL EXCAVATED AREAS.

14. WEEDS SHALL BE CONTROLLED BY SPRAYING, LIMITING DISTURBANCE AREA, OR OTHER MEANS PRIOR TO REVEGETATION AND AFTER REVEGETATION IS COMPLETE.

15. FUGITIVE DUST WILL BE CONTROLLED BY WATERING DURING DRY PERIODS OR AS REQUIRED BY ENGINEER.

16. ALL EXCAVATED MATERIALS SHALL BE STOCKPILED AND PROCESSED ON-SITE ONLY AT LOCATIONS AS DESIGNATED ON THE PLANS.

17. TOPS OF CUT AND FILL SLOPES SHALL BE ROUNDED TO AVOID RAVELING AND EROSION.

18. A FOUR INCH MINIMUM LAYER OF TOPSOIL SHALL BE PLACED ON ALL SLOPES AND AREAS STRIPPED FOR GRADING PRIOR TO REVEGETATION.

19. CUT AND FILL SLOPES SHALL NOT EXCEED 2:1.

WATER AND SEWER UTILITY NOTES

1. WATER AND SEWER INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY, WATER QUALITY DIVISION RULES AND REGULATIONS AND THE TOWN OF JACKSON STANDARDS FOR CONSTRUCTION.

2. CONTRACTOR SHALL NOTIFY THE TOWN OF JACKSON PUBLIC WORKS DEPARTMENT AT PHONE NUMBER (307) 733-3079, PRIOR TO START OF CONSTRUCTION AND PRIOR TO EACH WATER AND SEWER TEST.

3. CONTRACTOR SHALL MAINTAIN WATER AND SEWER SLOPES CONSISTENT WITH THE PLANS. ABRUPT ELEVATION CHANGES ARE NOT PERMITTED AND MAY REQUIRE ADDITIONAL AIR RELEASE VALVES OR BLOW-OFFS AT THE CONTRACTORS EXPENSE.

4. TYPE A TRENCH BACKFILL SHALL APPLY TO ALL PAVED SURFACES AND AROUND ALL APPURTENANCES INCLUDING VALVES, FIRE HYDRANTS AND MANHOLES. TYPE B TRENCH BACKFILL SHALL APPLY TO NON-TRAVELED AREAS. SEE SPECIFICATION WPWSS 02225.

5. CONTINUOUS RIGID TYPE B PIPELINE INSULATION SHALL BE PROVIDED AS SHOWN ON THE TYPICAL TRENCH DETAIL, UNDER ALL TRAVELED AREAS AND AT ALL LOCATIONS WHERE DEPTH OF COVER IS LESS THAN 5 FEET FOR SEWER MAINS AND SERVICES; LESS THAN 7 FEET FOR SEWER FORCE MAINS, WATER MAINS AND SERVICES OR AS SHOWN ON THE PLANS.

6. MAINTAIN A MINIMUM OF 10 FEET HORIZONTAL SEPARATION BETWEEN WATER PIPES AND SEWER PIPES/MANHOLES, MEASURED EDGE TO EDGE. MAINTAIN A MINIMUM OF 18 INCHES VERTICAL SEPARATION AT WATER-SEWER PIPE CROSSINGS. WHERE SEWER PIPE CROSSES ABOVE WATER PIPE, SPECIAL CONSTRUCTION IS REQUIRED. SEE TYPICAL DETAILS.

7. WATER SERVICE LINES 4" AND LARGER SHALL BE DUCTILE IRON PIPE, OR APPROVED EQUAL. FITTINGS FOR WATER MAINS SHALL BE DUCTILE IRON, CONFORMING TO AWWA C110 OR C153. MINIMUM DEPTH OF BURY FOR ALL WATER LINES SHALL BE 7'.

8. SANITARY SEWER LINES AND FITTINGS SHALL BE SCHEDULE 40 PVC AND CONFORM TO ASTM D-3034.

0 20 40 60
SCALE: 1 INCH = 20 FEET
THIS SCALE VALID ONLY FOR 30x42 PRINTS

– PRELIMINARY –
SUBJECT TO CORRECTION
AND APPROVAL

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Date:
Final Development Plan
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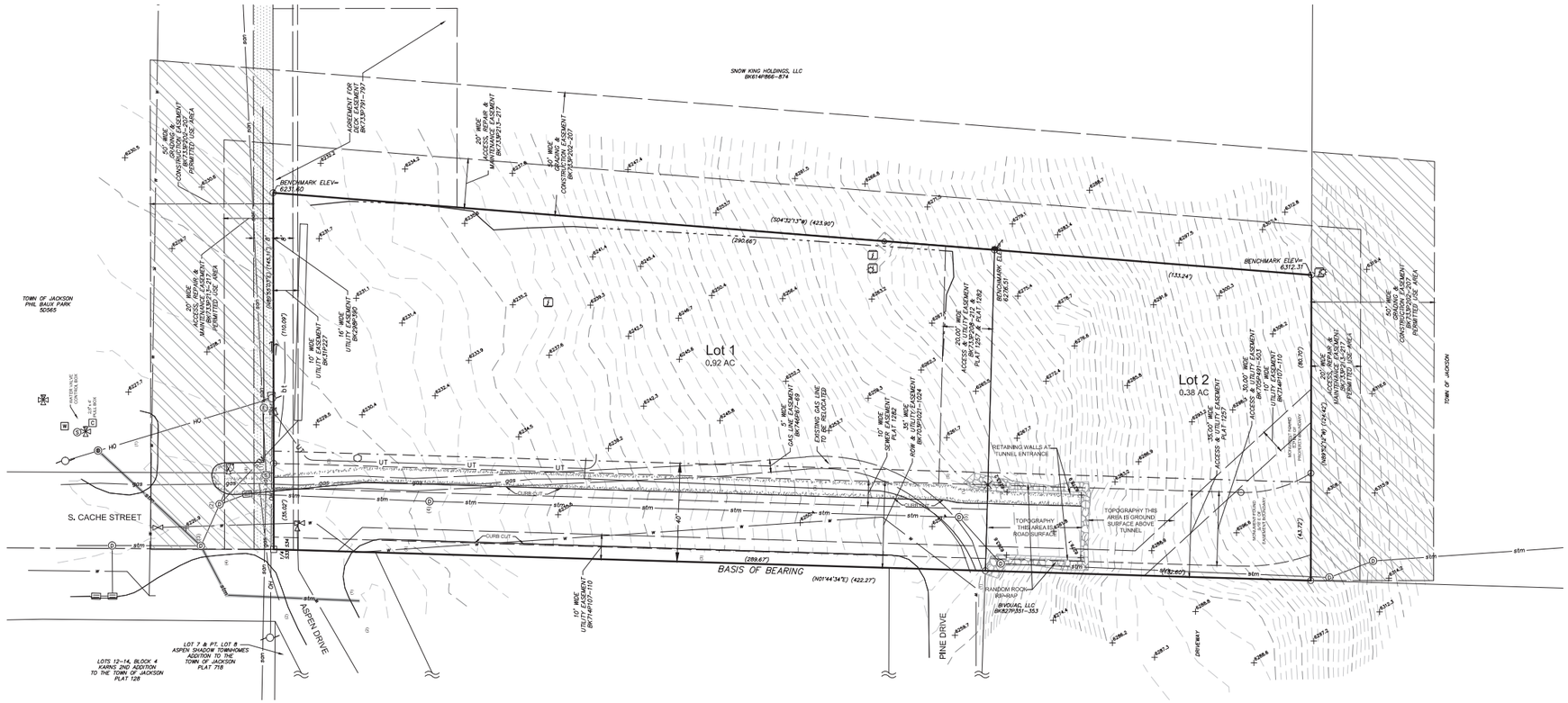
Revisions:

C1.0

PROJECT OVERVIEW



LEGEND:

- IRON PIPE WITH BRASS CAP FOUND, CERTIFIED LAND CORNER OF RECORD
- 5/8 INCH DIAMETER STEEL REINFORCING BAR WITH 1-1/2 INCH DIAMETER ALUMINUM CAP INSCRIBED "PLS 4270", FOUND THIS SURVEY
- 5/8 INCH DIAMETER STEEL REINFORCING BAR WITH 2 INCH DIAMETER ALUMINUM CAP INSCRIBED "PLS 3831", FOUND THIS SURVEY
- PK NAIL INSCRIBED "PLS 3831" FOUND THIS SURVEY
- N89°54'57"E 145.15' — MEASURED BEARING AND DISTANCE
- (N89°55'03"E) (145.11') — RECORD BEARING AND DISTANCE (PLAT 1282)
- BOUNDARY, SUBJECT PROPERTY
- BOUNDARY, LOT WITHIN SUBJECT PROPERTY
- BOUNDARY, ADJOINING LOT
- BOUNDARY, BUILDING SETBACK
- BOUNDARY, ACCESS AND UTILITY EASEMENT, AS NOTED
- BOUNDARY, UTILITY EASEMENT, AS NOTED
- 4090 — INDEX CONTOUR (5' INTERVAL)
- INTERMEDIATE CONTOUR (1' INTERVAL)
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- CURB
- FLOWLINE
- GUARDRAIL
- C — COMMUNICATIONS PEDESTAL OR PULL-BOX VAULT
- bt — UNDERGROUND TELEPHONE LINE
- SPRINKLER CONTROL BOX
- gas — UNDERGROUND GAS LINE
- ELECTRIC JUNCTION BOX
- ELECTRIC TRANSFORMER
- E — ELECTRIC VAULT ACCESS
- UTILITY POLE
- GUY ANCHOR
- POLE-MOUNTED LIGHTS, SKI RUN
- OH — OVERHEAD UTILITY LINES
- S — SANITARY SEWER MANHOLE
- san — SANITARY SEWER LINE, RECORD TOWN OF JACKSON GIS
- STORM SEWER INLET
- D — STORM SEWER MANHOLE
- stm — STORM SEWER LINE, RECORD TOWN OF JACKSON GIS
- FIRE HYDRANT
- WATER SERVICE CURBSTOP
- W — WATER METER
- WATER VALVE
- w — WATER LINE, RECORD TOWN OF JACKSON GIS
- U — UTILITY MANHOLE
- SIGN, SEE SIGN LEGEND THIS SHEET
- ASPEN TREE, <6" CALIPER
- CONIFER TREE, <6" CALIPER / 12" CALIPER
- COTTONWOOD TREE, 3' CALIPER

SANITARY SEWER MANHOLE DETAILS

(1) **Rim Elevation = 6227.63'**
Invert In Elevation = 6221.88' (8" Ø)
Invert Out Elevation = 6221.78' (8" or 10" Ø)

STORM SEWER MANHOLE DETAILS

(2) **Rim Elevation = 6226.65'**
Invert In 1 Elevation = 6222.95' (1.0' Ø)
Invert In 2 Elevation = 6222.95' (1.5' Ø)
Invert Out Elevation = 6222.85' (1.0' Ø)

(3) **Rim Elevation = 6226.72'**
Invert In 1 Elevation = 6222.72' (1.0' Ø)
Invert Out Elevation = 6222.62' (2.0' Ø)
indicates record from Town of Jackson GIS unconfirmed by survey

(4) **Rim Elevation = 6230.53'**
Invert In Elevation = 6224.33' (1.5' Ø)
Invert Out Elevation = 6224.13' (1.5' Ø)

(5) **Rim Elevation = 6258.07'**
Invert In Elevation = 6250.47' (1.5' Ø)
Invert Out Elevation = 6250.27' (1.5' Ø)

SURVEY NOTES:

1. **THIS SURVEY WAS CONDUCTED IN OCTOBER 2015 AND PREPARED UNDER THE DIRECTION OF KENNETH G. MAGRATH, WYOMING PLS 8469.**
2. **LOCATIONS OF UTILITIES DEPICTED HEREON ARE LIMITED TO VISIBLE STRUCTURES; UNDERGROUND LOCATION MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION ACTIVITY.**
3. **BUILDING ENVELOPES ARE BASED ON RECORD INFORMATION FROM THAT SUBDIVISION MAP OF RECORD AS PLAT 1282, THAT AGREEMENT OF RECORD IN BOOK 733 OF PHOTO, PAGES 189-196, AND THAT AFFIDAVIT AFFECTING TITLE RE: SNOW KING PLANNED RESORT DISTRICT MASTER PLAN OF RECORD IN BOOK 429 OF PHOTO, PAGES 1-211 IN THE OFFICE OF THE CLERK OF TETON COUNTY, WYOMING, COVENANTS, CONDITIONS AND RESTRICTIONS FOR THE SNOW KING PLANNED RESORT DISTRICT MAY FURTHER RESTRICT THE AREA OF ALLOWABLE DEVELOPMENT.**
4. **EASEMENTS SHOWN ARE BASED ON RECORD INFORMATION FROM PLAT 1282 AND THAT TITLE REPORT PREPARED BY FIRST AMERICAN TETON LAND TITLE COMPANY DATED SEPTEMBER 30, 2009 UNLESS OTHERWISE NOTED. OTHER EASEMENTS OR ENCUMBRANCES MAY EXIST ON THE SUBJECT PROPERTY. NO THOROUGH SEARCH OF PUBLIC RECORDS WAS CONDUCTED.**
5. **ELEVATIONS WERE DERIVED USING GPS RTK OBSERVATION METHODS REFERENCED TO A LOCAL COORDINATE SYSTEM.**
6. **RECORD DIMENSIONS SHOWN ARE FROM PLAT 1282.**
7. **BASIS OF BEARING FOR THIS SURVEY IS N01°43'38"E ON THE WEST LINE OF THE NW1/4SW1/4 OF SECTION 34, TOWNSHIP 41 NORTH, RANGE 116 WEST, 6TH P.M.**

0 20 40 60

SCALE: 1 INCH = 20 FEET
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SIGN LEGEND:

(1) REGULATORY "STOP"

(2) REGULATORY "NO PARKING"

(3) REGULATORY–TWO SIGNS, SIGLE-POLE MOUNTED, "NO PARKING THIS SIDE OF STREET"

(4) REGULATORY/WARNING–TWO SIGNS, SINGLE-POLE MOUNTED "PEDESTRIAN CROSSING"

(5) INFORMATIONAL–TWO-POST, FRAMED "FOR SALE"

EASEMENT NOTES:

PORTIONS OF 20' WIDE AND 50' WIDE EASEMENTS OF RECORD IN BOOK 733 OF PHOTO, PAGES 213-217 AND BOOK 733 OF PHOTO, PAGES 202-207, RESPECTIVELY, WITHIN TOWN OF JACKSON PROPERTY MAY NOT BE ALLOWED UNDER THE TERMS OF THE LEASE FROM THE TOWN OF JACKSON TO THE SNOW KING RESORT. USE OF THIS AREA IS SUBJECT TO THE TERMS OF SAID LEASE.

PORTION OF 16' WIDE EASEMENT OF RECORD IN BOOK 298 OF PHOTO, PAGE 390 WITHIN TOWN OF JACKSON PROPERTY MAY BE INVALID AS TOWN OF JACKSON WAS NOT A GRANTOR OF THE EASEMENT.

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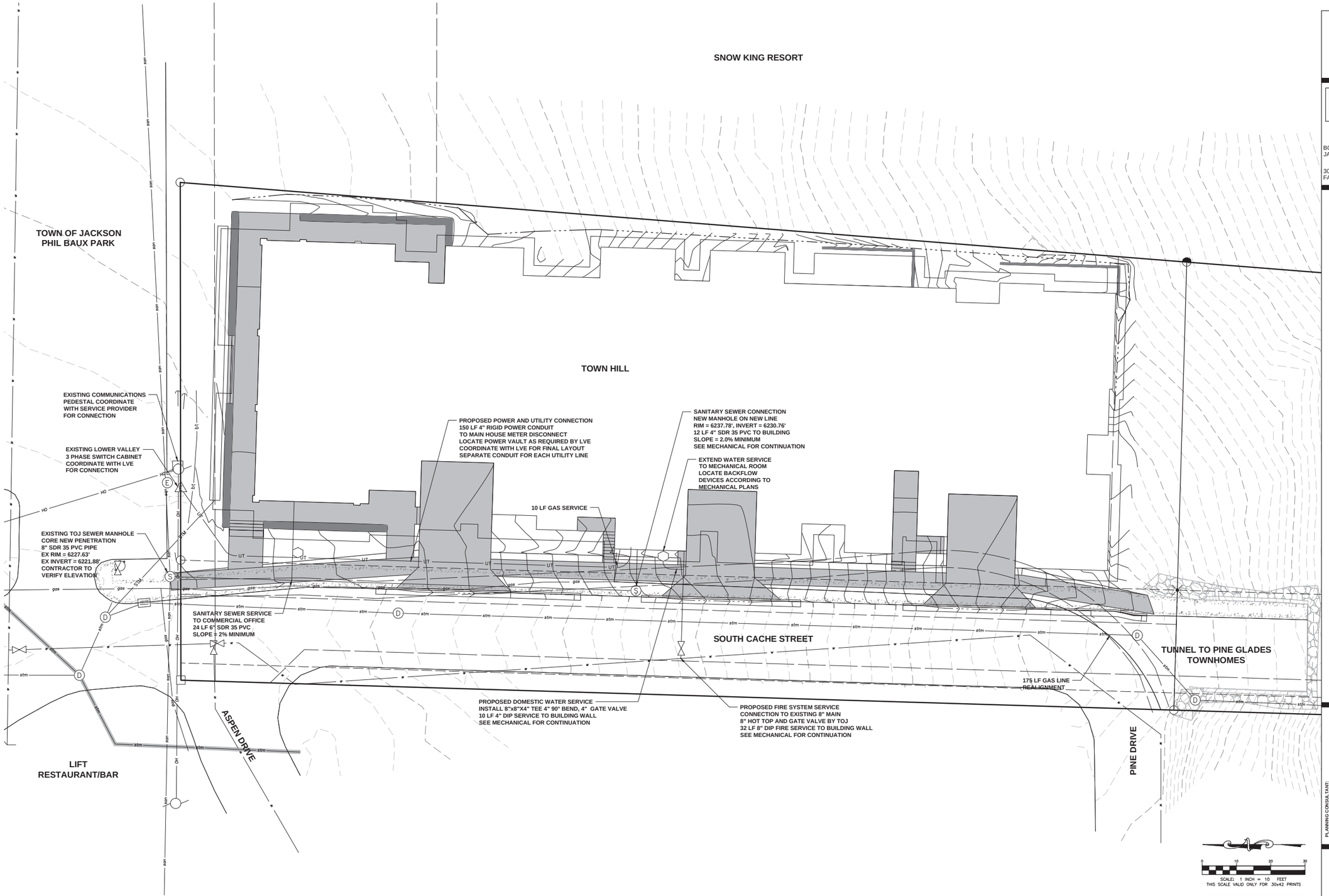
Date:
Final Development Plan
4.27.2016
Revisions:

C1.1

EXISTING
CONDITIONS



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Weaver & Associates PA
208/726-9001

Date:
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4.27.2016
Revisions:

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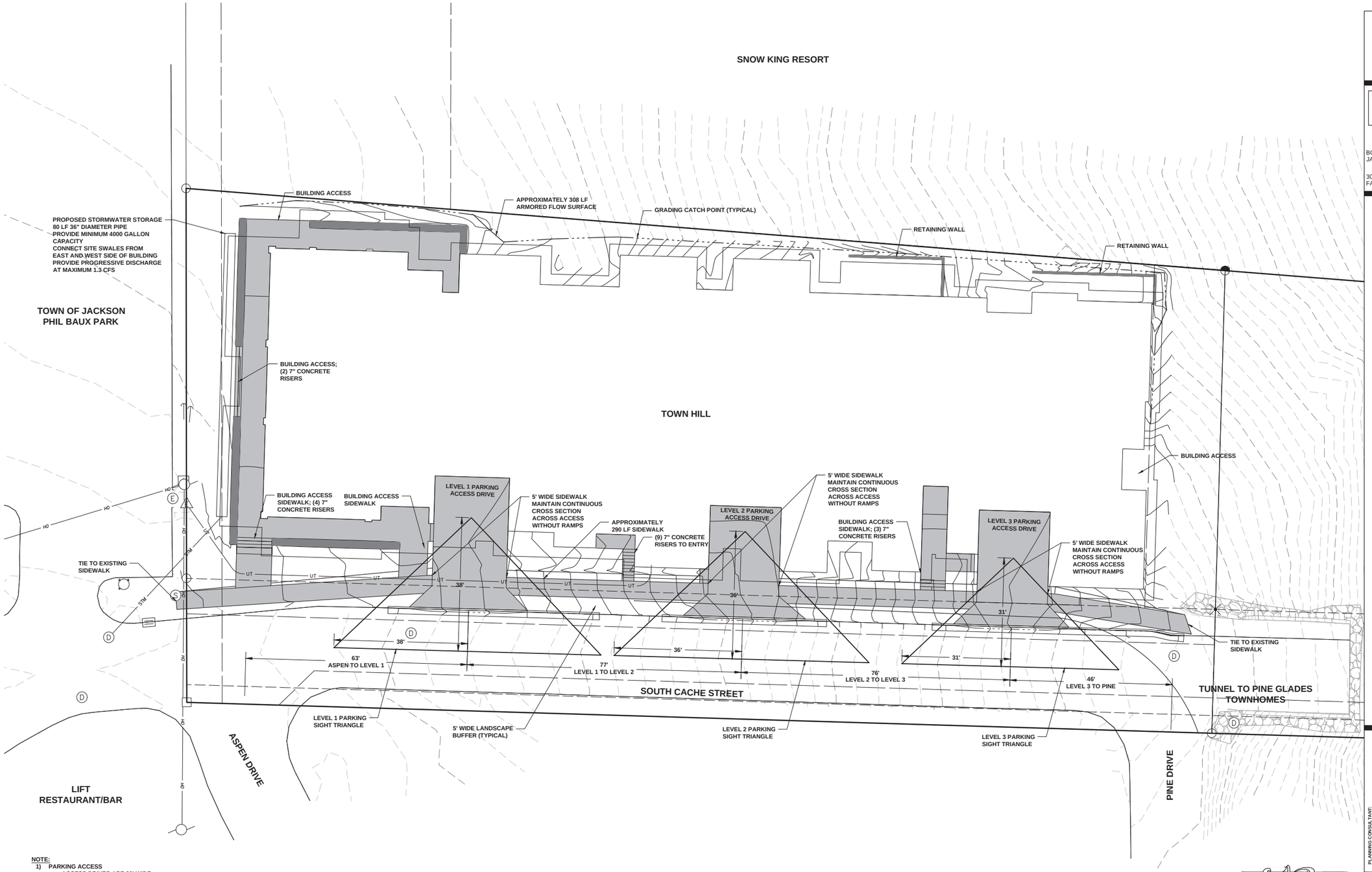
PROPOSED
UTILITY PLAN



NOTE:

1) PARKING ACCESS
   a. ACCESS DRIVES ARE 20' WIDE
   b. SAWCUT EXISTING CURB AND PAVEMENT. INSTALL LONGITUDINAL TAPER CURB
2) NO SIGNS OR OBSTRUCTIONS SHALL BE PERMITTED WITHIN THE CLEAR ZONE OF THE SIGHT TRIANGLE

SCALE: 1 INCH = 10 FEET
THIS SCALE VALID ONLY FOR 30x42 PRINTS

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Date:
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4.27.2016
Revisions:

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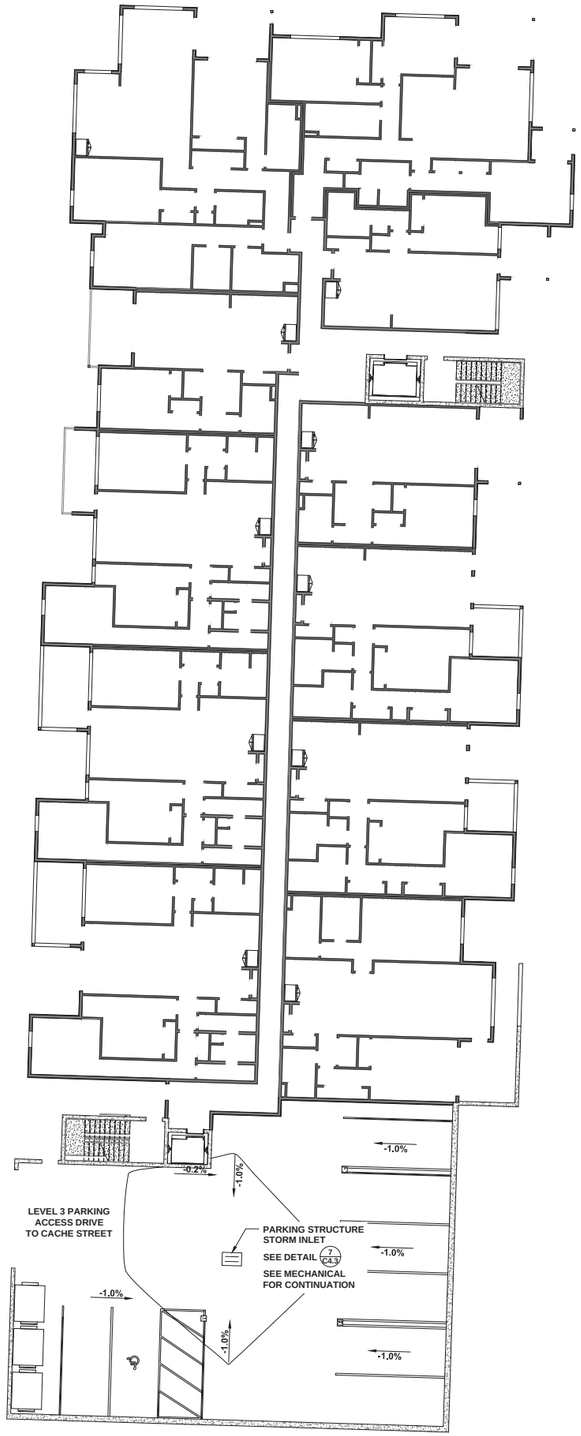
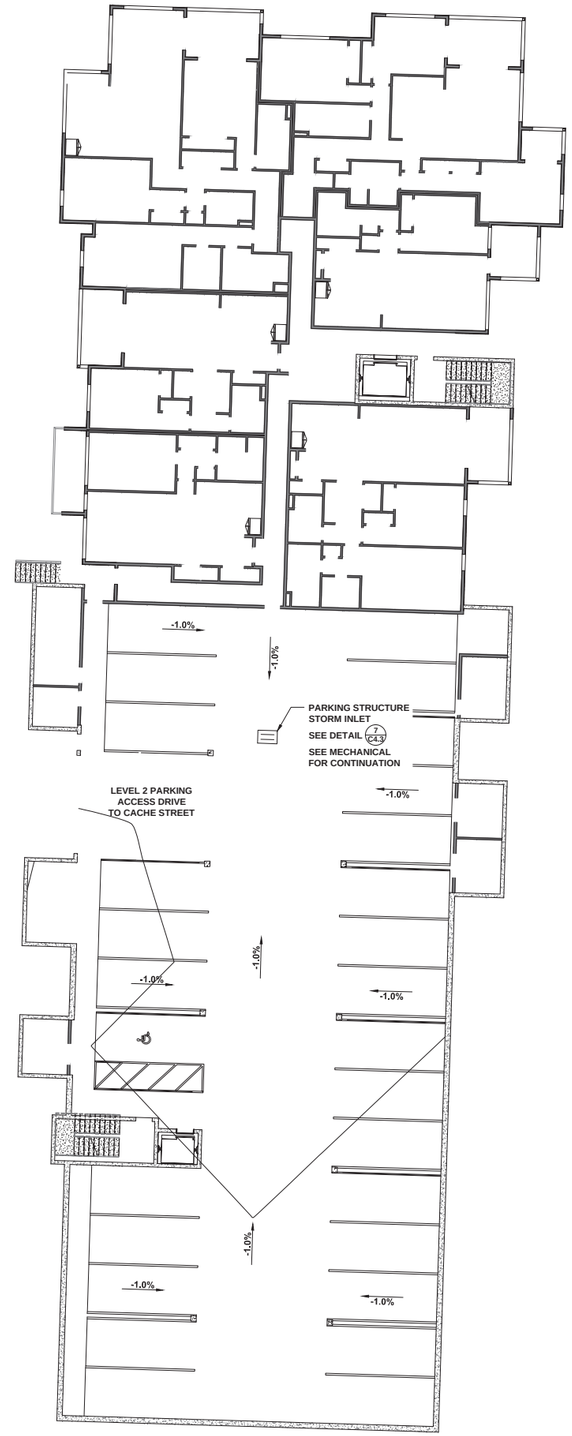
PROPOSED SITE
GRADING



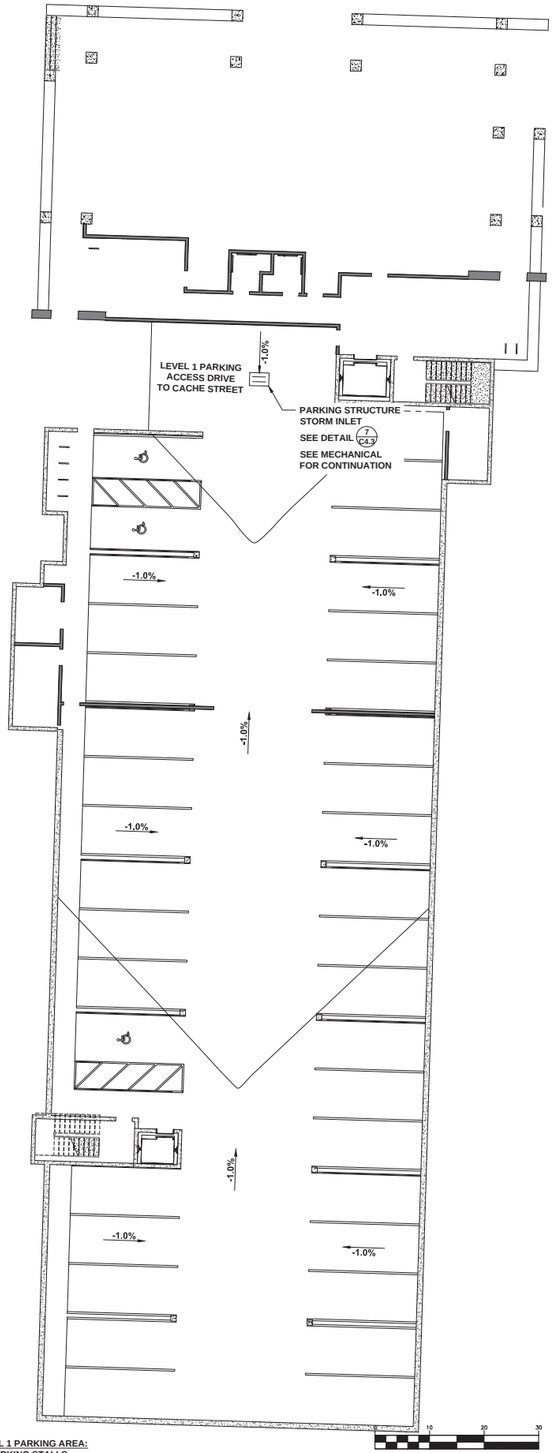
LEVEL 3 PARKING AREA:
7 PARKING STALLS
1 HANDICAPPED STALL
GARBAGE DUMPSTER AREA

LEVEL 3 PARKING PLAN



LEVEL 2 PARKING AREA:
27 PARKING STALLS
1 HANDICAPPED STALL

LEVEL 2 PARKING PLAN



LEVEL 1 PARKING AREA:
34 PARKING STALLS
3 HANDICAPPED STALL

LEVEL 1 PARKING PLAN

10 20 30
SCALE: 1 INCH = 10 FEET
THIS SCALE VALID ONLY FOR 30x42 PRINTS

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Final Development Plan
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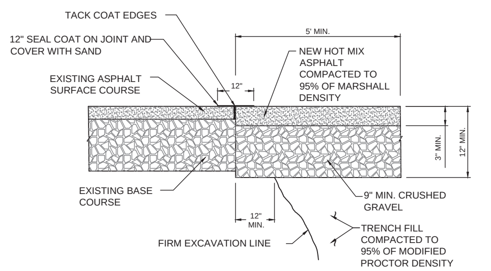
Revisions:

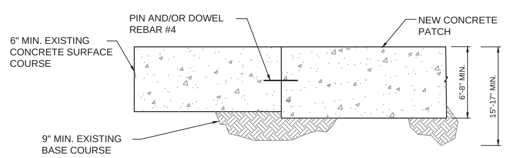
C3.1

PROPOSED PARKING PLAN



BITUMINOUS MATERIAL SHALL MEET THE APPLICABLE REQUIREMENTS OF SECTION 02545 BITUMINOUS MATERIALS OF WYOMING PUBLIC WORKS STANDARDS AND SPECIFICATIONS

ASPHALT PATCH REPAIR DETAIL

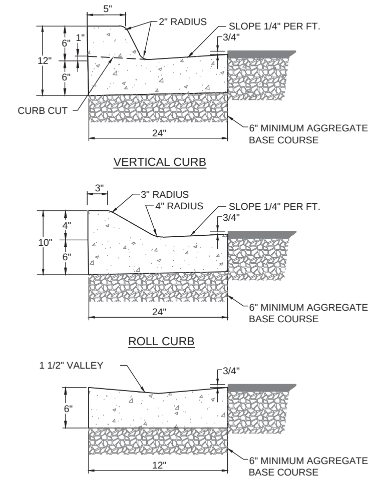


CONCRETE PATCH REPAIR DETAIL

NOTES:

1. REPLACEMENT ASPHALT THICKNESS SHALL BE 1" GREATER THAN EXISTING AND NO LESS THAN 3" MINIMUM.
2. ASPHALT SHALL BE PLACED IN TWO (2) LIFTS, EACH NO LESS THAN $1\frac{1}{2}$" IN THICKNESS, AND COMPACTED TO 95% OF MARSHALL DENSITY.
3. PORTLAND CEMENT CONCRETE PAVEMENT SHALL MEET APPLICABLE REQUIREMENTS OF SECTION 02520, 02776 AND 03304 AS DIRECTED BY TOWN PUBLIC WORKS DEPARTMENT.

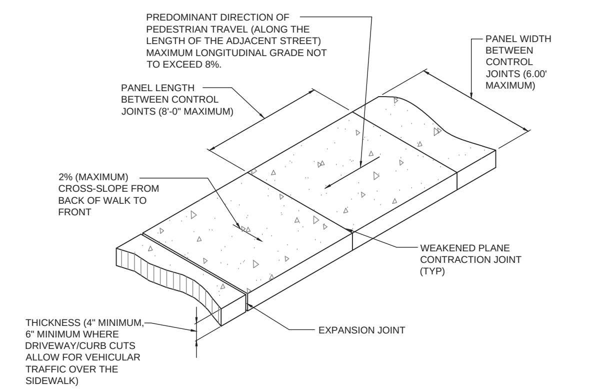
1 C4.1 PATCH REPAIR DETAIL
NTS



NOTES:

1. CURBS SHALL CONFORM TO WPWSS SECTION 02525, EXCEPT THAT PORTLAND CEMENT CONCRETE SHALL BE FIBERMESH-REINFORCED CLASS 4000 CONCRETE CONFORMING WITH WPWSS SECTION 03304, PART 2.07.
2. AGGREGATE BASE COURSE SHALL BE SIX INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.
3. REMOVAL AND REPLACEMENT OF CURB SHALL TAKE PLACE IN FULL PANELS.
4. VERTICAL CURB SHALL BE USED IN PREFERENCE TO ROLL CURB.

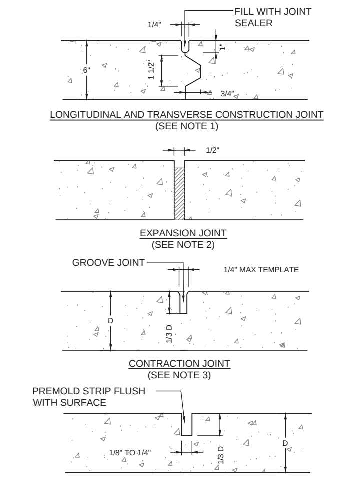
2 C4.1 CURB SECTION DETAIL
NTS



NOTES:

1. SIDEWALK SHALL CONFORM TO ALL APPLICABLE ADA STANDARD REQUIREMENTS SIDEWALKS SHALL CONFORM TO WPWSS SECTION 02776, EXCEPT THAT PORTLAND CEMENT CONCRETE SHALL BE FIBERMESH-REINFORCED CLASS 4000 CONCRETE CONFORMING WITH WPWSS SECTION 03304, PART 2.07.
2. EXPANSION JOINTS SHALL BE PLACED IN SIDEWALK AT THE SAME LOCATIONS AS THOSE IN CURB AND GUTTER WHEN SIDEWALK IS ADJACENT TO CURB. (PER WPWSS SECTION 03251, PART 3.04 SPACING SHALL NOT EXCEED 16'-0" ON CENTER.)
3. FOR SIDEWALKS GREATER THAN SIX FEET IN WIDTH, A LONGITUDINAL CONTROL JOINT SHALL BE INSTALLED AT THE CENTER OF THE WALK.
4. REMOVAL AND REPLACEMENT OF SIDEWALK SHALL TAKE PLACE IN FULL PANELS.
5. AGGREGATE BASE COURSE SHALL BE FOUR INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.

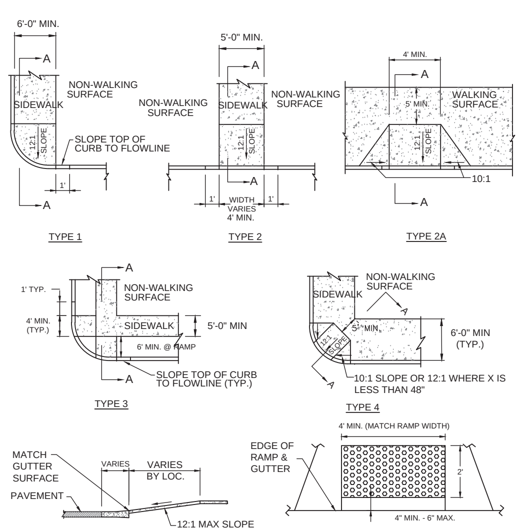
3 C4.1 CONCRETE SIDEWALK
NTS



NOTE:

1. KEYWAY FORMED BY FASTENING METAL KEY TO FORM.
2. ½" PREMOLDED NON-EXTRUDING EXPANSION JOINT MATERIAL TO MEET AASHTO M-59. EXPANSION MATERIAL SHALL BE INSTALLED WHEN ABUTTING EXISTING CONCRETE OR FIXED STRUCTURES SUCH AS INLETS AND DRIVEWAYS, AND EVERY 300' ON LONG STRAIGHT CONCRETE STRETCHES.
3. FORM WITH TEMPLATE OR SAWCUT JOINTS. IF SAWCUT JOINTS ARE USED, THEY SHALL BEGIN AS SOON AS CONCRETE IS HARDENED SUFFICIENTLY TO PERMIT SAWING WITHOUT EXCESSIVE RAVELING AND BEFORE UNCONTROLLED CRACKING OCCURS. MINIMUM DISTANCE BETWEEN JOINTS IS 5'.
4. JOINT LAYOUT FOR CONCRETE STREETS IS TO BE SUBMITTED TO THE TOWN ENGINEER FOR APPROVAL.

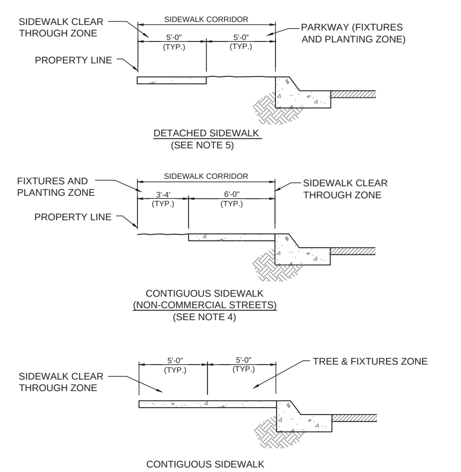
4 C4.1 PAVING & CONCRETE JOINT
NTS



NOTES:

1. SIDEWALKS SHALL CONFORM TO ALL APPLICABLE ADA STANDARD REQUIREMENTS.
2. LIP AT GUTTER TO BE NO MORE THAN ¼" HIGH.
3. CONCRETE TO BE A BROOM FINISH.
4. ALL PEDESTRIAN RAMPS SHALL INCLUDE PLACEMENT OF CAST IRON TRUNCATED DOME DETECTION PANELS IN A BRICK RED COLOR. (PANELS SHALL BE PROVIDED BY TOJ.)
5. DETECTION PANELS SHOWN IN ARC ARRANGEMENT SHALL BE MANUFACTURED IN A CONTINUOUS RADIAL GRID PATTERN WITH NO GAP BETWEEN PANELS

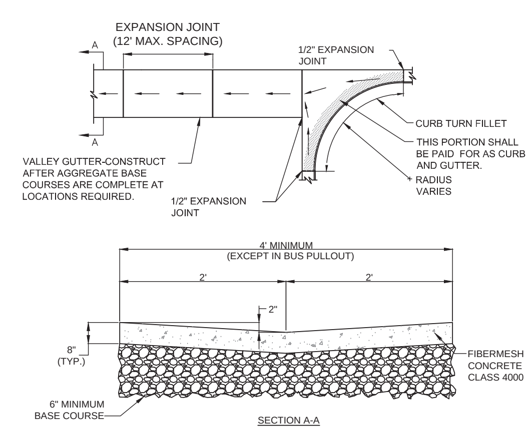
5 C4.1 PEDESTRIAN RAMP DETAILS
NTS



NOTES:

1. SIDEWALKS SHALL CONFORM TO ALL APPLICABLE ADA STANDARD REQUIREMENTS.
2. SIDEWALK CONSTRUCTION SHALL BE PER TOWN STANDARDS.
3. WITHIN THE TOWN'S BOARDWALK DISTRICT, BOARDWALK (RATHER THAN SIDEWALK) SHALL BE INSTALLED.
4. MINIMUM CLEARANCE AROUND ALL OBSTRUCTIONS SHALL BE 5'-0".
5. ON NON-COMMERCIAL STREETS DETACHED SIDEWALK SHALL BE THE PREFERRED OPTION.
6. IN ORDER TO MAINTAIN THE CLEAR THROUGH ZONE, THE FIXTURES ZONE SHALL BE WHERE FIRE HYDRANTS, UTILITY POLES, GUY WIRES, PULL BOXES, NEWSPAPER BOXES, PHONE BOOTHS, AND OTHER SUCH OBSTRUCTIONS ARE LOCATED.

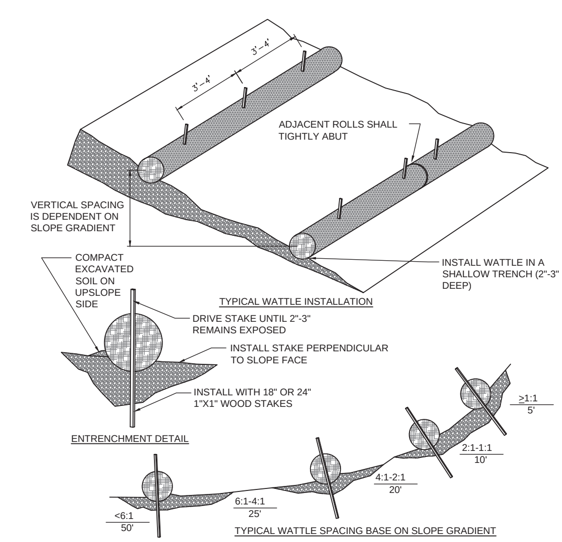
6 C4.1 SIDEWALK CORRIDOR
NTS



NOTES:

1. VALLEY GUTTERS AND CURB TURN FILLETS SHALL CONFORM TO WPWSS SECTION 02528, EXCEPT THAT PORTLAND CEMENT CONCRETE SHALL BE FIBERMESH CLASS 4000 CONCRETE CONFORMING WITH WPWSS SECTION 03304, PART 2.08.
2. AGGREGATE BASE COURSE SHALL BE SIX INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.
3. REMOVAL AND REPLACEMENT OF VALLEY GUTTER SHALL TAKE PLACE IN FULL PANELS.
4. CURB AND GUTTER SECTION SHALL BE POURED SEPARATE OF VALLEY PAN AS WELL AS PEDESTRIAN RAMP AND/OR SIDEWALK.

7 C4.1 VALLEY GUTTER & CURB TURN FILLET
NTS



NOTES:

1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2"-3" DEEP BY 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
3. SECURE THE WATTLE WITH 18"-24" STAKES EVERY 3'-4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2"-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.
4. EROSION CONTROL PLAN AND LOCATION OF STRAW WATTLES SHALL BE APPROVED BY THE TOJ PUBLIC WORKS DEPARTMENT.

8 C4.1 STRAW WATTLE DETAIL
NTS

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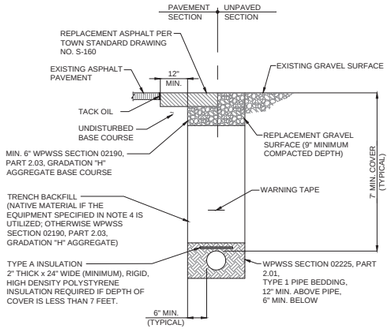
C4.1

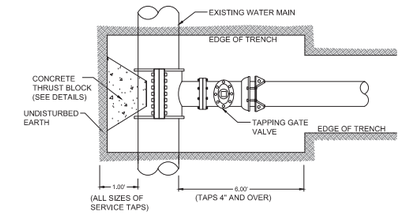
ROAD & GRADING DETAILS



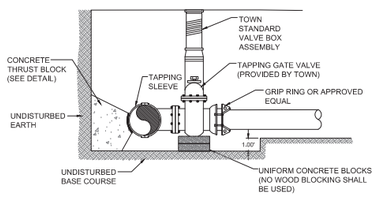
NOTES:

1. TRENCH BACKFILL BELOW THE SURFACE SHALL MEET THE FOLLOWING CRITERIA:
   - 95% MODIFIED PROCTOR DENSITY WITHIN STREET AND ALLEY RIGHTS-OF-WAY.
   - 90% MODIFIED PROCTOR DENSITY OUTSIDE STREET AND ALLEY RIGHTS-OF-WAY.
2. COMPACTION OF TRENCH BACKFILL SHALL BE CARRIED OUT WITH A HOE-PACK OR A SHEEPSFOOT ROLLER ON A BACK-HOE ARM.
3. PIPE BEDDING SHALL BE PLACED IN 6" LIFTS AND THOROUGHLY COMPACTED TO PROVIDE UNIFORM PIPE SUPPORT.
4. ALL TRENCH EXCAVATION SHALL CONFORM TO WYOMING OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (WYOSHA) REGULATIONS.
5. FOR WATER MAINS 8" OR LARGER IN DIAMETER, PIPE MATERIAL SHALL BE DUCTILE IRON, CLASS 50, OR APPROVED SUBSTITUTE.
6. FOR WATER MAINS 6" OR SMALLER IN DIAMETER, PIPE MATERIAL SHALL BE DUCTILE IRON, CLASS 52, OR APPROVED SUBSTITUTE.

1 / C4.2 WATER & SEWER TRENCH
NTS



PLAN

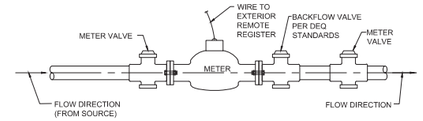


ELEVATION

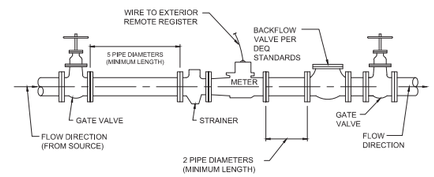
NOTES:

1. THE TOWN SHALL COMPLETE THE TAPPING OF THE MAIN. NO OTHER PERSONS SHALL COMPLETE TAP WITHOUT CONSENT OF TOWN. ALL OTHER WATER MAIN WORK SHALL BE THE RESPONSIBILITY OF THE OWNER.
2. TRENCH WILL BE EXCAVATED TO MEET ALL WYOSHA STANDARDS PRIOR TO TAPPING.

2 / C4.2 WATER MAIN TAPPING
NTS



1-1/2" AND 2" DIAMETER ASSEMBLY

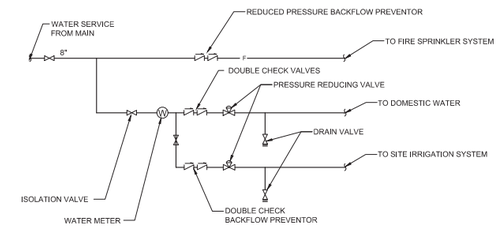


3" DIAMETER AND LARGER ASSEMBLY

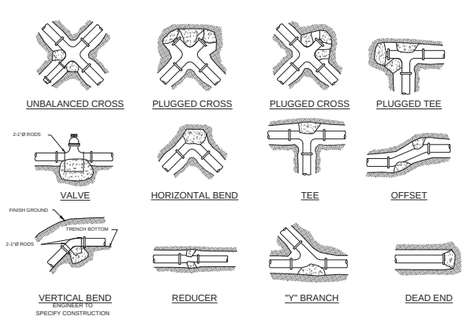
NOTES:

1. SERVICE PIPE MATERIAL SHALL MEET ADOPTED PLUMBING CODE REQUIREMENTS.
2. METER SHALL BE INSTALLED IN HORIZONTAL ALIGNMENT ONLY.
3. CONNECTIONS WITHIN THE ASSEMBLY SHALL BE THREADED OR BOLTED FLANGED, AS APPROPRIATE.

3 / C4.2 WATER METER INSTALLATION
NTS



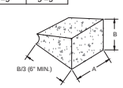
4 / C4.2 WATER SERVICE FIRE ENTRY DETAIL
NTS



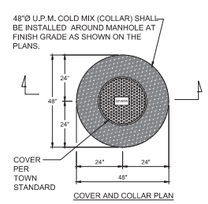
MINIMUM DIMENSIONS FOR THRUST BLOCKING												
FITTING SIZE	TEES & PLUGS		90° BENDS		45° BENDS & WYES		REDUCERS & 22 1/2° BENDS		11 1/4° BENDS			
	A	B	A	B	A	B	A	B	A	B		
4"	1'-7"	1'-2"	1'-9"	1'-6"	1'-8"	0'-10"	1'-7"	0'-6"	0'-6"	0'-6"		
6"	2'-0"	1'-11"	2'-5"	2'-2"	1'-10"	1'-7"	1'-9"	0'-10"	1'-0"	0'-6"		
8"	2'-8"	2'-4"	3'-2"	3'-0"	2'-5"	2'-1"	1'-9"	1'-6"	1'-0"	1'-0"		
10"	3'-4"	3'-3"	4'-0"	3'-10"	3'-0"	2'-9"	2'-2"	1'-11"	1'-6"	1'-0"		
12"	4'-0"	3'-10"	4'-8"	4'-8"	3'-8"	3'-3"	2'-7"	2'-3"	2'-0"	1'-0"		
14"	5'-5"	3'-10"	6'-6"	4'-11"	4'-9"	3'-5"	3'-5"	2'-5"	2'-0"	1'-6"		
20"	5'-0"	5'-0"	6'-0"	6'-0"	5'-0"	4'-0"	3'-6"	3'-0"	3'-0"	2'-0"		
24"	6'-0"	6'-0"	7'-0"	7'-0"	5'-0"	5'-0"	4'-6"	3'-0"	3'-0"	3'-0"		
30"	7'-6"	7'-6"	8'-0"	8'-0"	6'-3"	6'-3"	4'-9"	4'-6"	3'-3"	3'-3"		

NOTES:

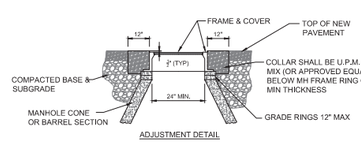
1. SIZE OF BLOCK SHALL BE A MINIMUM OF 6" THICK.
2. ALL BLOCKING SHALL BEAR AGAINST UNDISTURBED MATERIAL.
3. FITTINGS SHALL BE SEPARATED FROM THRUST BLOCK WITH AN APPROVED BOND BREAKER.
4. DESIGN IS BASED ON 150 PSI MAIN PRESSURE AND 2000 PSF SOIL BEARING CAPACITY.



5 / C4.2 THRUST BLOCK DETAIL
NTS



COVER AND COLLAR PLAN

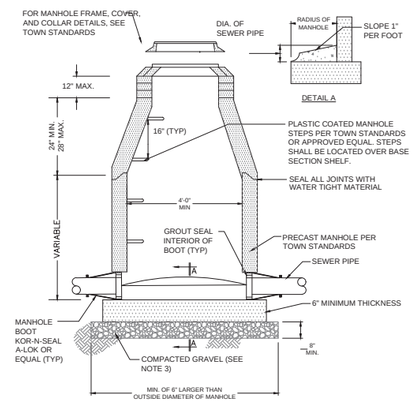


ADJUSTMENT DETAIL

NOTES:

1. ADJUST MANHOLE UPWARD WITH ADJUSTING RINGS UNDER FRAME, ADJUST MANHOLE DOWNWARD BY REMOVING A PORTION OF THE MANHOLE RISER AND REBUILDING TO PROPER HEIGHT. SLOPE MANHOLE RING AS REQUIRED TO MATCH STREET GRADE AND CROSS SLOPE. MAKE FINAL MANHOLE ADJUSTMENT AFTER PAVING AND BEFORE SEAL COATING.
2. IF MANHOLE IS WITHIN UNPAVED AREA USE TAPERED COLLAR. SEE TOWN SANIATRY SEWER DETAIL SS-110.

6 / C4.2 MANHOLE ADJUSTMENT DETAIL
NTS



NOTES:

1. DROP ACROSS INVERT SHALL BE GREATER THAN OR EQUAL TO SLOPE OF ADJACENT SEWER PIPE.
2. BASE SHALL BE REINFORCED WHEN THE DISTANCE FROM INVERT TO TOP OF COVER EXCEEDS 15'. REINFORCEMENT TO BE APPROVED BY ENGINEER.
3. GRAVEL SHALL BE EIGHT INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.
4. ALL PIPES GOING INTO MANHOLE SHALL BE INSTALLED TO MATCH TOP OF PIPE CROWNS.
5. TROUGH DEPTH AT CENTER TO BE HALF THE DIAMETER OF THE PIPE.

7 / C4.2 MANHOLE INSTALLATION DETAIL
NTS

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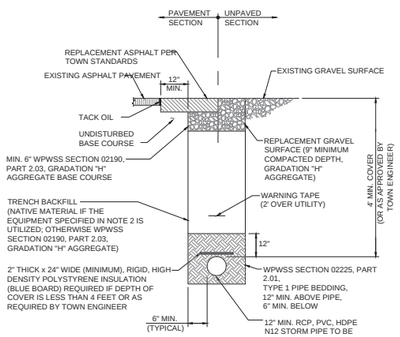
LANDSCAPE ARCHITECT: Weaver & Associates PA 208.529.9504

Date:
Final Development Plan
4.27.2016
Revisions:

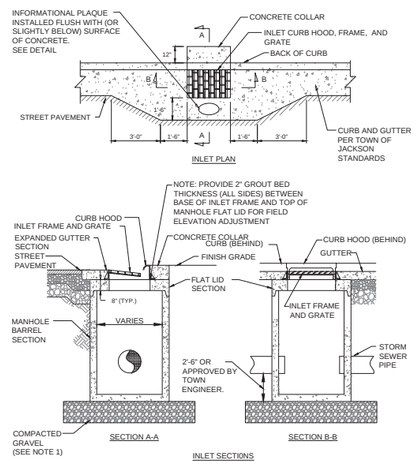
C4.2
WATER & SEWER DETAILS



NOTES:

1. TRENCH BACKFILL BELOW THE SURFACE SHALL MEET THE FOLLOWING CRITERIA:
   - 95% MODIFIED PROCTOR DENSITY WITHIN STREET AND ALLEY RIGHTS-OF-WAY.
   - 90% MODIFIED PROCTOR DENSITY OUTSIDE STREET AND ALLEY RIGHTS-OF-WAY.
2. COMPACTION OF NATIVE TRENCH BACKFILL, WITH ALL ROCK LARGER THAN 6" REMOVED, SHALL BE CARRIED OUT IN 2' LIFTS WITH A HOE-PACK OR A VIBRATORY SHEEPS FOOT ROLLER (COMPACTION METHOD AND EQUIPMENT SHALL BE REVIEWED AND APPROVED BY TOWN ENGINEER PRIOR TO BACKFILLING).
3. PIPE BEDDING SHALL BE PLACED IN 6" LIFTS AND THOROUGHLY COMPACTED WITH A JUMPING JACK TO PROVIDE UNIFORM PIPE SUPPORT.
4. UNLESS OTHERWISE DIRECTED, ALL BASE COURSE AND GRAVEL SURFACE REPLACEMENT SHALL BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.
5. ALL TRENCH EXCAVATION SHALL CONFORM TO WYOMING OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (WOSHA) REGULATIONS.

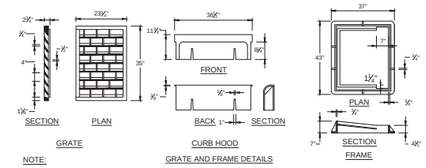
1 C4.3 STORM SEWER TRENCH
NTS



NOTES:

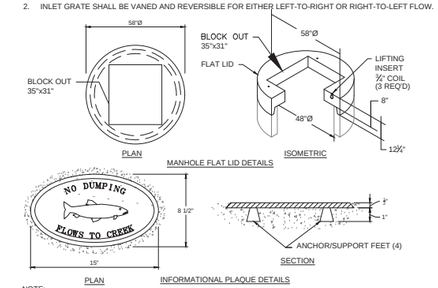
1. GRAVEL SHALL BE EIGHT INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.

2 C4.3 CURB INLET DETAIL
NTS 1 OF 2



NOTE:

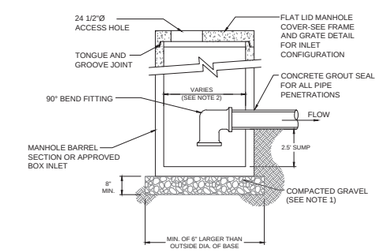
1. INLET GRATE AND FRAME SHALL BE MODEL NO. I-3520, AS MANUFACTURED BY D&L SUPPLY OF LINDON, UTAH, OR APPROVED SUBSTITUTE.
2. INLET GRATE SHALL BE VANED AND REVERSIBLE FOR EITHER LEFT-TO-RIGHT OR RIGHT-TO-LEFT FLOW.



NOTE:

1. PLAQUE SHALL BE SUBSTANTIALLY AS SHOWN, AS SUPPLIED BY D&L SUPPLY OF LINDON, UTAH, OR APPROVED SUBSTITUTE.

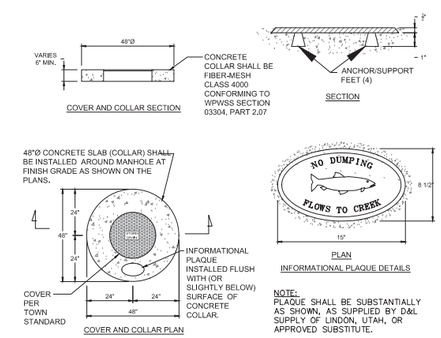
3 C4.3 CURB INLET DETAIL
NTS 2 OF 2



NOTES:

1. GRAVEL SHALL BE EIGHT INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.
2. ALL DIMENSIONS TO BE APPROVED BY THE TOWN PUBLIC WORKS DEPARTMENT.
3. MANHOLE COVER SHALL BE DESIGNED FOR H20S LOADING.
4. SEE DETAIL FOR CAST IRON FRAME AND COVER.
5. SEE ADJUSTMENT AND COLLAR DETAIL.

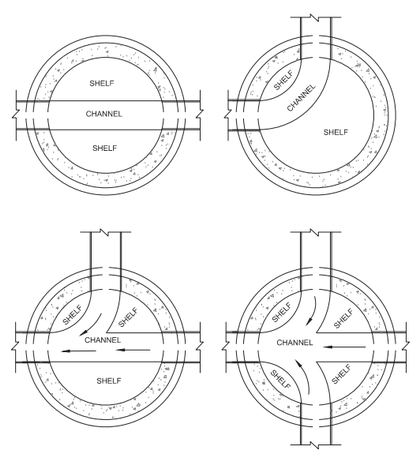
4 C4.3 CATCH BASIN INLET DETAIL
NTS



NOTES:

1. ADJUST MANHOLE UPWARD WITH ADJUSTING RINGS UNDER FRAME. ADJUST MANHOLE DOWNWARD BY REMOVING A PORTION OF THE MANHOLE RISER AND REBUILDING TO PROPER HEIGHT. SLOPE MANHOLE RING AS REQUIRED TO MATCH STREET GRADE AND CROSS SLOPE. MAKE FINAL MANHOLE ADJUSTMENT AFTER PAVING AND BEFORE SEAL COATING.
2. IF STORM DRAIN IS WITHIN UNPAVED AREA USE TAPERED COLLAR. SEE TOWN DETAIL.

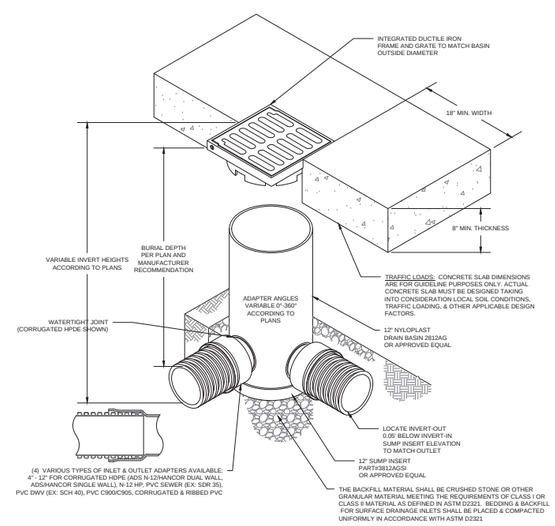
5 C4.3 STORM DRAIN MANHOLE COLLAR AND PLAQUE DETAILS
NTS



NOTES:

1. SLOPE ALL SHELVES TO CHANNEL AT 1" PER FOOT.
2. SEE PLAN-PROFILE SHEETS FOR SLOPE OF CHANNEL.

6 C4.3 MANHOLE CHANNEL DETAILS
NTS



NOTES:

1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
2. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
3. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING FOR SPECIFIC CONFIGURATION.

7 C4.3 PARKING STRUCTURE STORM INLET DETAIL
NTS

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Date:
Final Development Plan
4.27.2016
Revisions:

C4.3
STORMWATER DETAILS

PLANT LIST

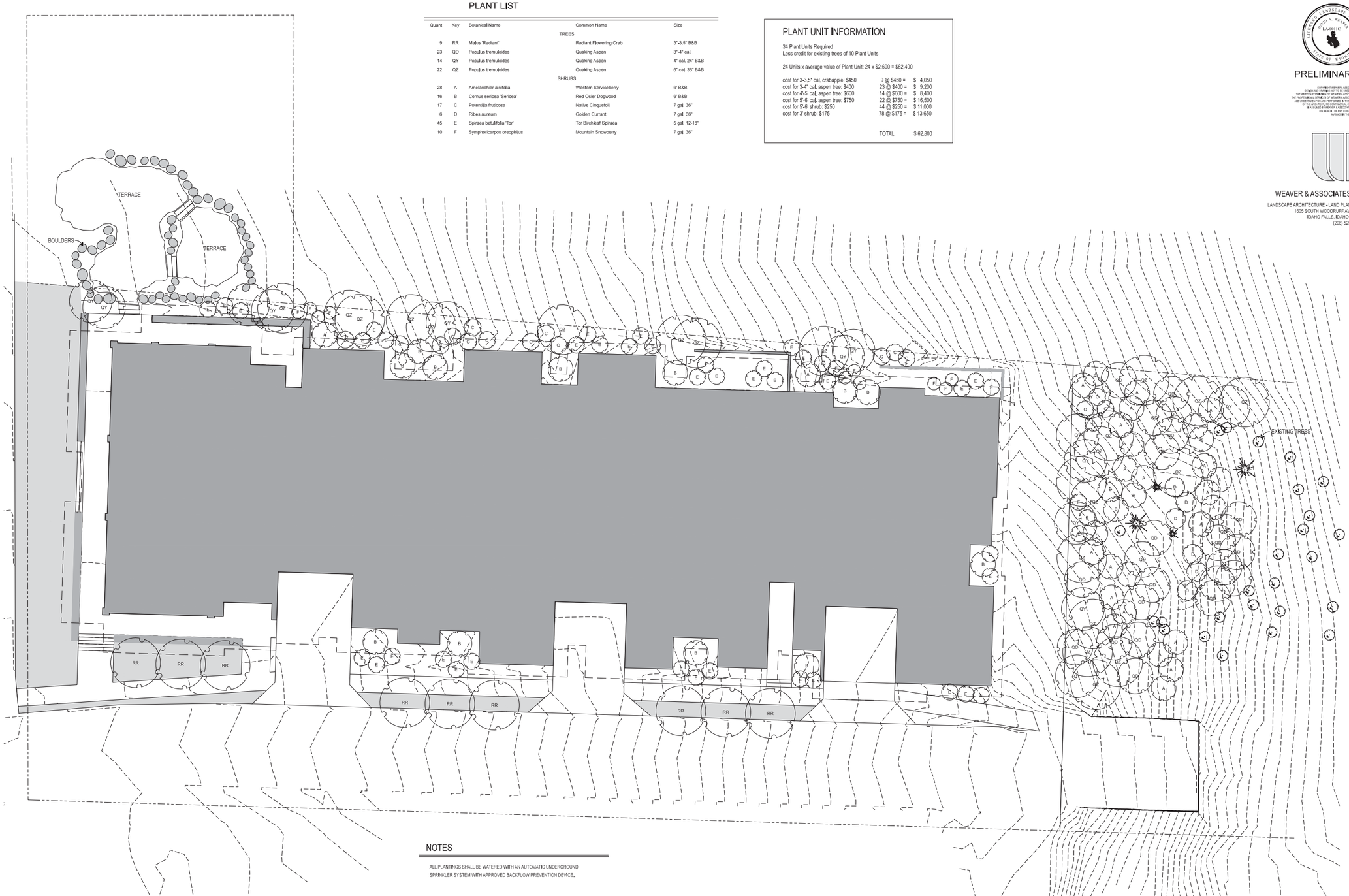
Quant	Key	Botanical Name	Common Name	Size
		TREES		
9	RR	Malus 'Radiant'	Radiant Flowering Crab	3"-3.5" B&B
23	QD	Populus tremuloides	Quaking Aspen	3"-4" cal.
14	QY	Populus tremuloides	Quaking Aspen	4" cal. 24' B&B
22	QZ	Populus tremuloides	Quaking Aspen	6" cal. 36" B&B
		SHRUBS		
28	A	Amellanchier alnifolia	Western Serviceberry	6' B&B
16	B	Cornus sericea 'Sericea'	Red Osier Dogwood	6' B&B
17	C	Potentilla fruticosa	Native Cinquefoil	7 gal. 36"
6	D	Ribes aureum	Golden Currant	7 gal. 36"
45	E	Spiraea betulifolia 'Tor'	Tor Birchleaf Spiraea	5 gal. 12-18"
10	F	Symphoricarpos oreophilus	Mountain Snowberry	7 gal. 36"

PLANT UNIT INFORMATION

34 Plant Units Required
Less credit for existing trees of 10 Plant Units

24 Units x average value of Plant Unit: 24 x $2,600 = $62,400

cost for 3-3.5" cal, crabapple: $450	9 @ $450 =	$ 4,050
cost for 3-4" cal, aspen tree: $400	23 @ $400 =	$ 9,200
cost for 4'-5' cal, aspen tree: $600	14 @ $600 =	$ 8,400
cost for 5'-6' cal, aspen tree: $750	22 @ $750 =	$ 16,500
cost for 5'-6' shrub: $250	44 @ $250 =	$ 11,000
cost for 3' shrub: $175	78 @ $175 =	$ 13,650
	TOTAL	$ 62,800



NOTES

ALL PLANTINGS SHALL BE WATERED WITH AN AUTOMATIC UNDERGROUND SPRINKLER SYSTEM WITH APPROVED BACKFLOW PREVENTION DEVICE.

LEGEND

AREA OF SODDED LAWN

PRELIMINARY LANDSCAPE PLANTING PLAN

N

10 5 0 10 20 40

1" = 10'-0" - 30" x 42" SHEET SIZE — 1' CONTOUR INTERVAL

PRELIMINARY

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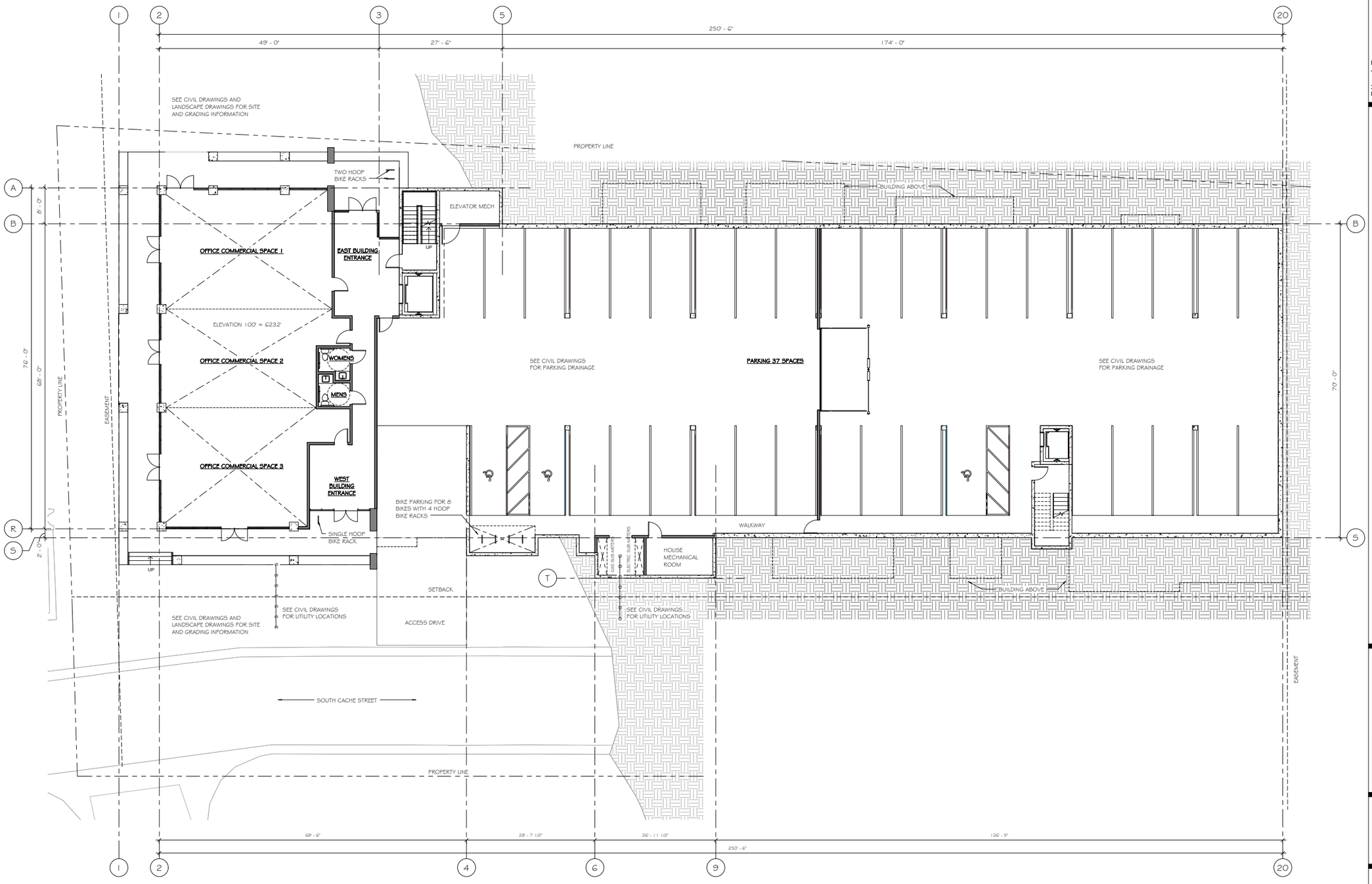
L-1

Landscape Planting Plan



1 First Floor Plan
A2.1 1/8" = 1'-0" A1 30x42

Graphic Scale: 1 inch = 8 feet
0 8' 16' 24' 32'

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4.27.2016
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A2.1
First Floor Plan

1 A2.2 Second Floor Plan
1/8" = 1'-0" AT 30x42

Graphic Scale: 1 inch = 8 feet
0 8' 16' 24' 32'

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Date:
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A2.2
Second Floor Plan

Third Floor Plan
A2.3 1/8" = 1'-0" AT 30x42

Graphic Scale: 1 inch = 8 feet
0 8' 16' 24' 32'

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Date:
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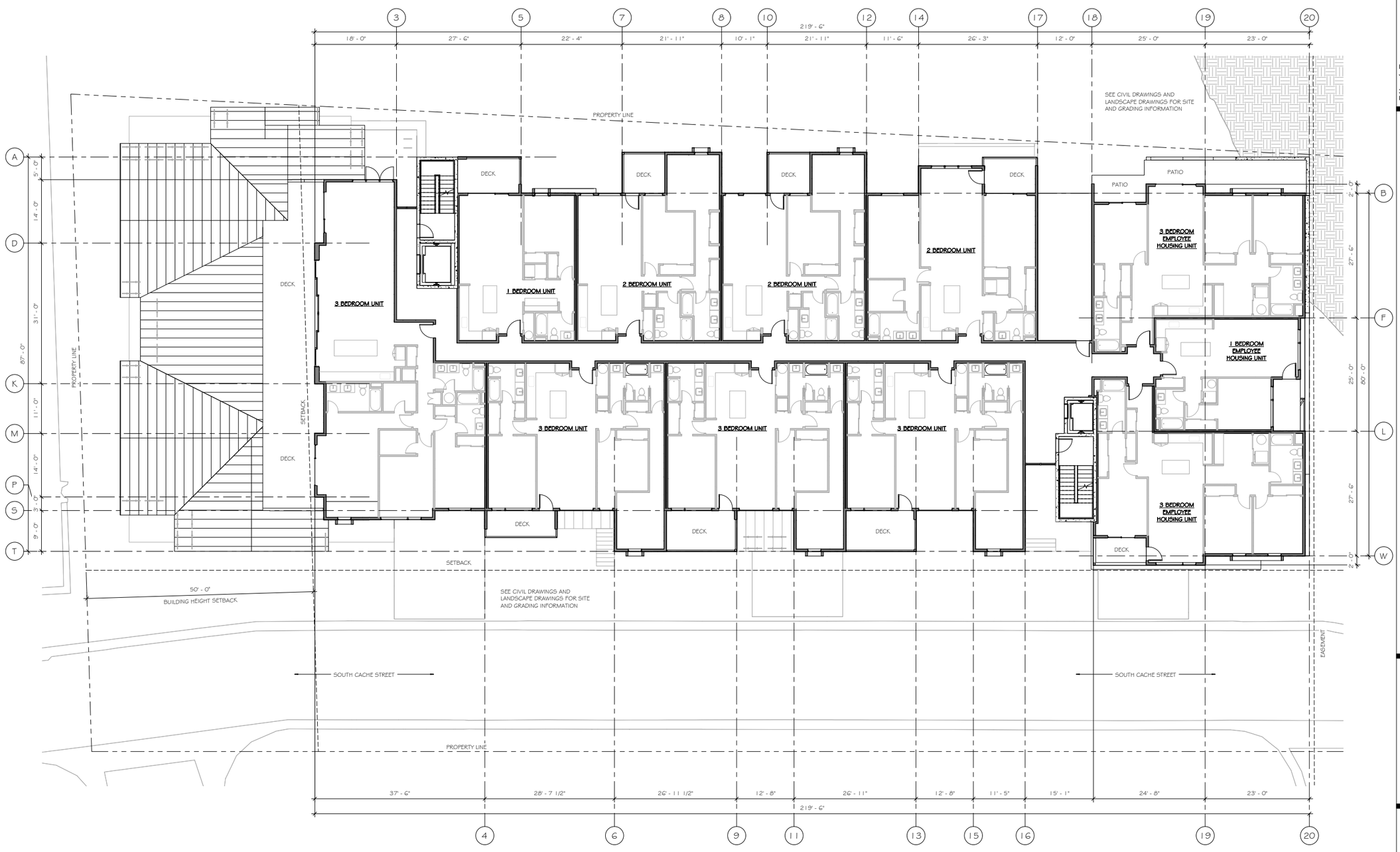
Revisions:

A2.3
Third Floor Plan



1 A2.4 Fourth Floor Plan
1/8" = 1'-0" AT 30x42

Graphic Scale: 1 inch = 8 feet
0 8' 16' 24' 32'

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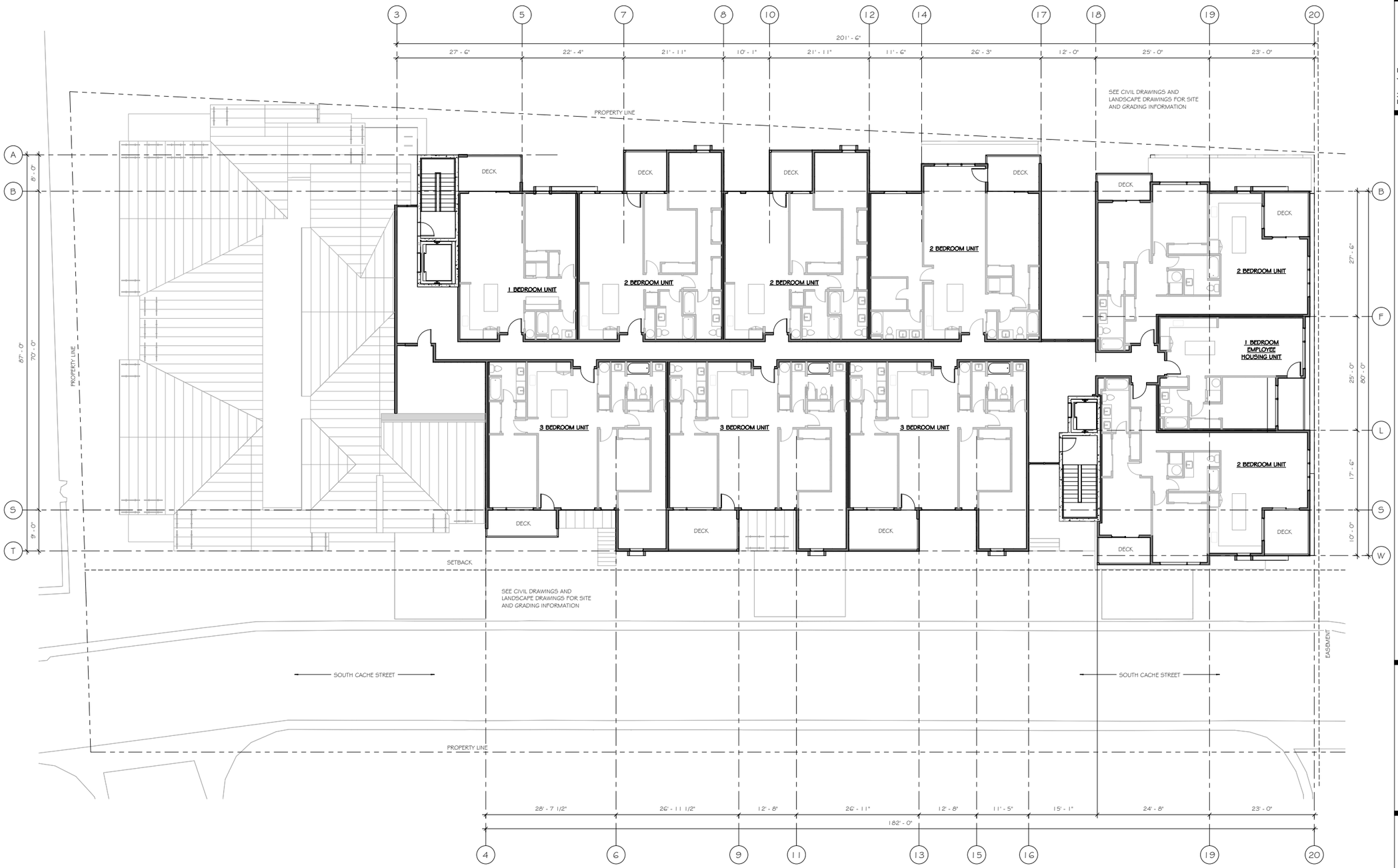
Revisions:

A2.4
Fourth Floor Plan



1 A2.5 Fifth Floor Plan
1/8" = 1'-0" AT 30x42

Graphic Scale: 1 inch = 8 feet
0 8' 16' 24' 32'

BERLIN ARCHITECTS
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Town Hill Lofts

Lot 1, Pine Lodge
Jackson, WY

PLANNING CONSULTANT:
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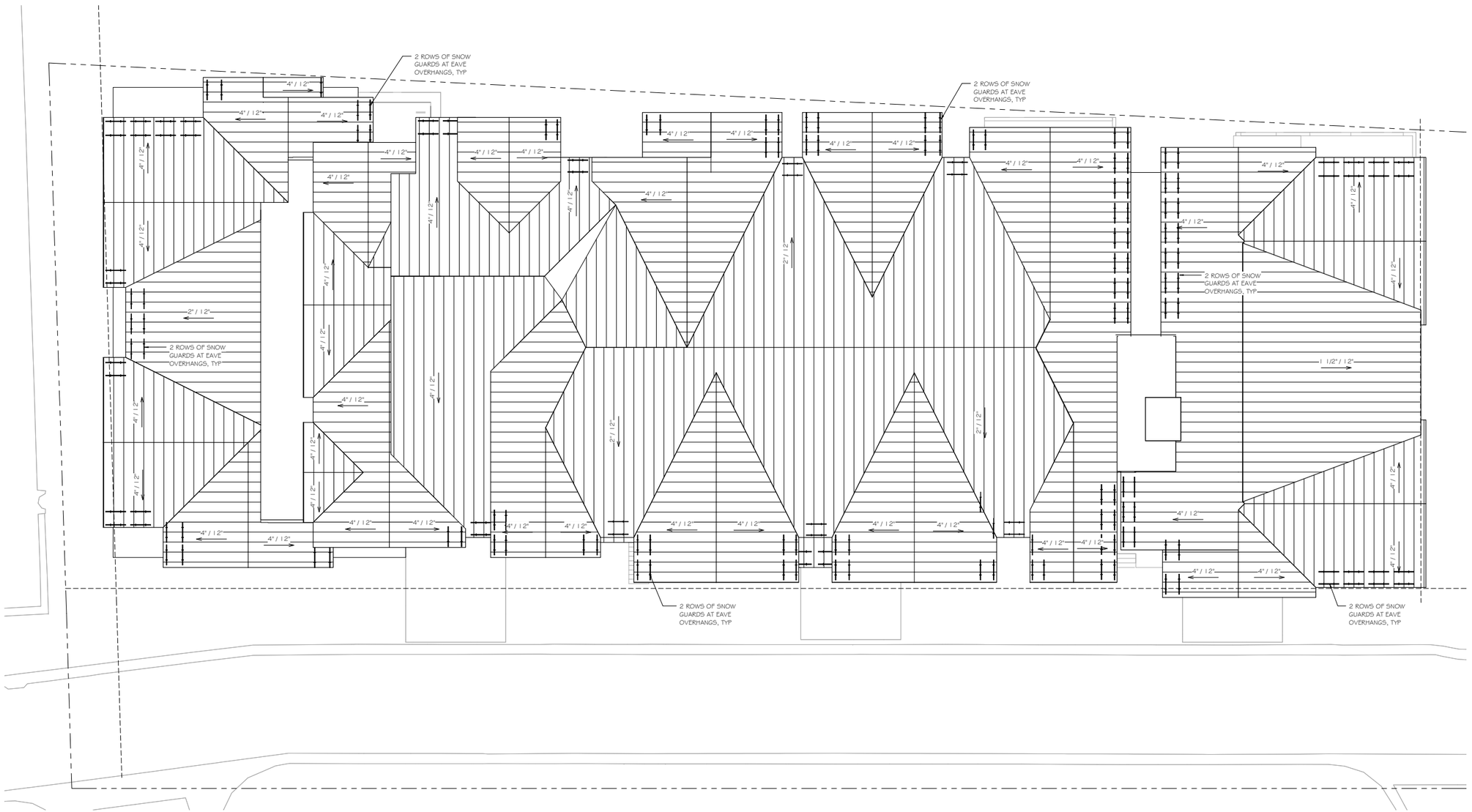
CIVIL ENGINEER:
Jorgensen Associates, PC
307 733.5150

LANDSCAPE ARCHITECT:
Weaver & Associates PA
208.529.9504

Date:
Final Development Plan
4.27.2016
Revisions:

A2.5

Fifth Floor Plan



Roof Plan
A2.6 1/8" = 1'-0" AT 30x42

Graphic Scale: 1 inch = 8 feet
0 8' 16' 24' 32'

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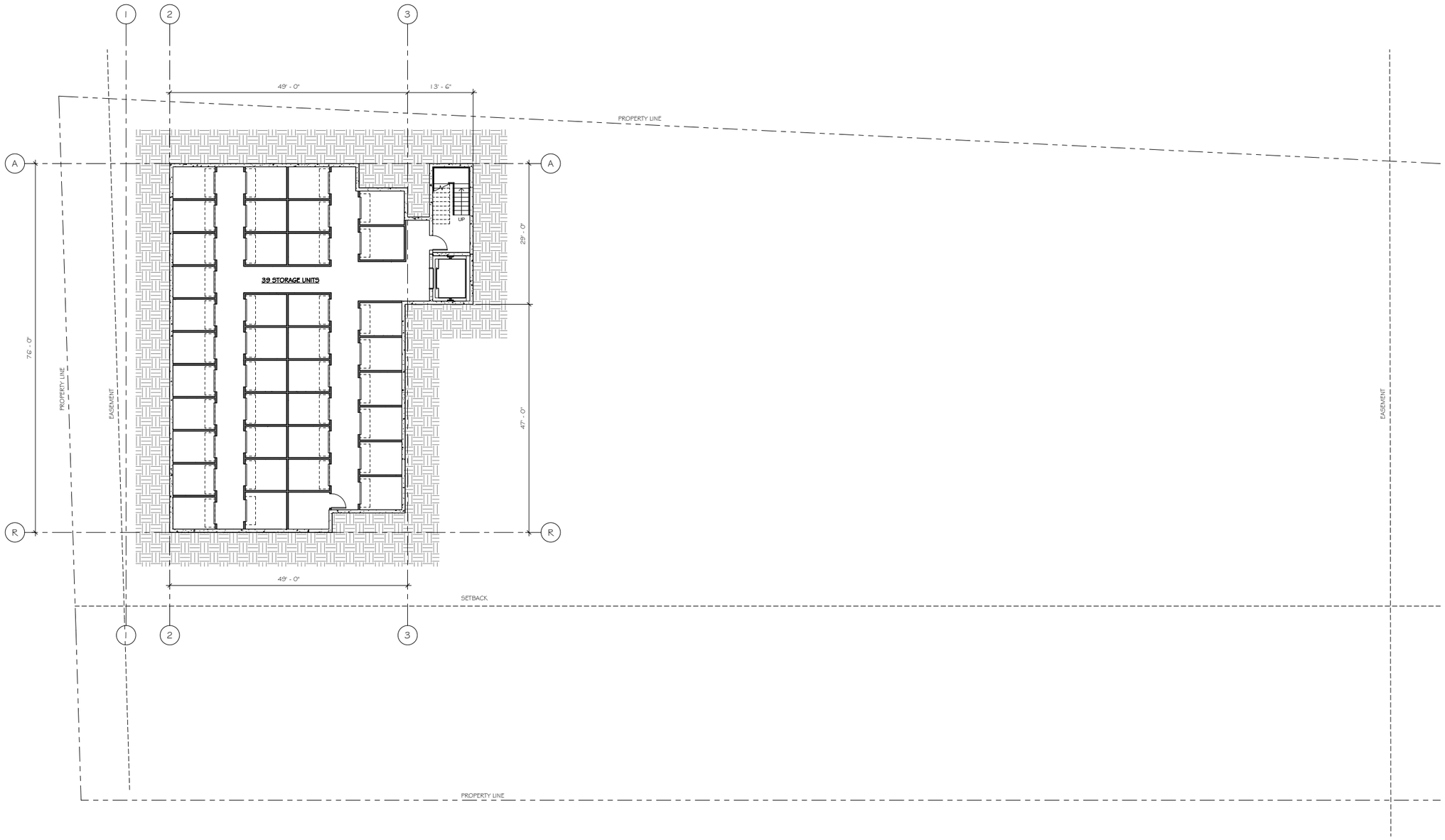
Date:
Final Development Plan
4.27.2016
Revisions:

A2.6
Roof Plan



1 A2.7 Basement Floor Plan
1/8" = 1'-0" AT 30x42

Graphic Scale: 1 inch = 8 feet
0 8' 16' 24' 32'

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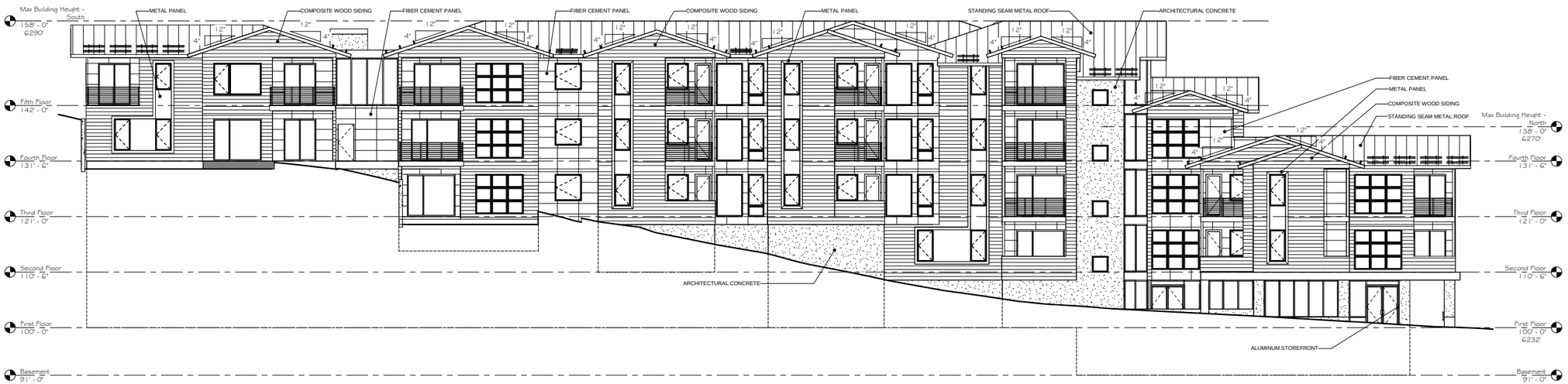
Date:
Final Development Plan
4.27.2016
Revisions:

A2.7
Basement Floor Plan



1 A3.1 East Elevation
1/8" = 1'-0"

Graphic Scale: 1 inch = 8 feet
0 8' 16' 24' 32'

2 A3.1 West Elevation
1/8" = 1'-0"

Graphic Scale: 1 inch = 8 feet
0 8' 16' 24' 32'

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Town Hill Lofts

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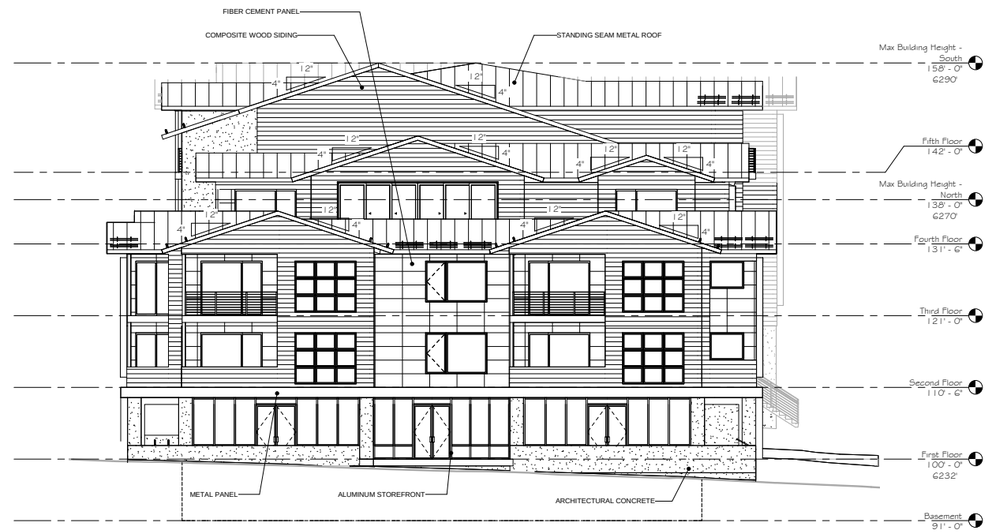
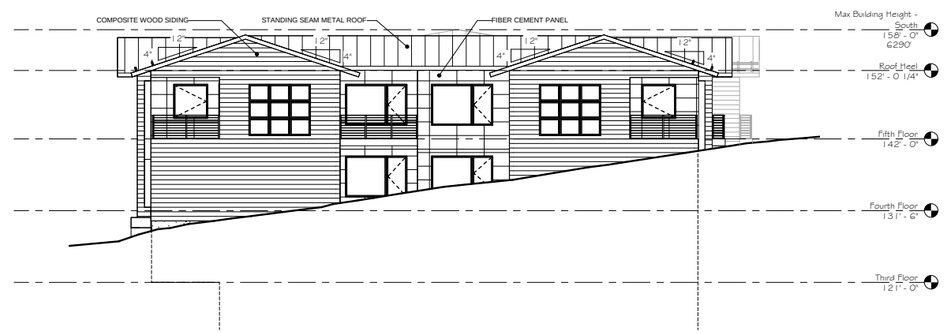
Date:
Final Development Plan
4.27.2016
Revisions:

A3.1
Elevations



1 A3.2 North Elevation
1/8" = 1'-0"

Graphic Scale: 1 inch = 8 feet
0 8' 16' 24' 32'



2 A3.2 South Elevation
1/8" = 1'-0"

Graphic Scale: 1 inch = 8 feet
0 8' 16' 24' 32'

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Town Hill Lofts

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Date:
Final Development Plan
4.27.2016
Revisions:

A3.2

Elevations

Findings for Approval

Findings for Approval

Physical Development

1. **Is consistent with the desired future character described for the site in the Jackson / Teton County Comprehensive Plan.**

   The Town Hill Lofts implement the desired character for the site as defined by the Jackson / Teton County Comprehensive Plan. The Town Hill Lofts are part of the Snow King Resort District and included in Character District 2.1. This adopted Comprehensive Plan establishes the following descriptions, goals and objectives for the area containing the Town Hill Lofts:

   - area is designated for transition;
   - create a vibrant mixed-use resort complex;
   - contribute to the economy of downtown;
   - create a permeable boarder between Town and Snow King Mountain;
   - compliment downtown lodging and tourist amenities;
   - contain sizes and a scale of buildings larger than typically allowed in other areas to create a larger critical mass that is necessary to support resort functions;
   - maintain an abundance of open space in the characteristic district;
   - create a mixed-use corridor along Snow King Avenue; and,
   - create a more visible and attractive base area to attract residents and visitors to the Snow King Resort.

   This application implements the goals noted above that have been adopted by the Town of Jackson ("Town"). In order to avoid excessive duplication in this written submittal, please see the section of the application entitled Master Plan Compliance Analysis for detailed information. Summarily, the Town Hill Lofts provide short-term lodging as part of the Snow King Resort and are within walking distance of the Town Square. In addition, over 3,672 square feet of non-residential area is proposed on the northern aspect of the building, which faces Snow King Avenue and Phil Baux Park. The entire development will contribute to the vibrancy of the area.

   The site provides an important design opportunity to define the western boundary of the Snow King Resort. It creates a terminus to the southern end of Cache Street and establishes a visual attraction for the Snow King Resort as viewed from downtown. In addition, the Town Hill Lofts creates a porous boundary on the western end of Snow King Resort that allows pedestrians to easily access the on-mountain trail system. Furthermore, the building is large enough to anchor the western resort boundary at the base of Snow King Mountain. The proposed development complies with the setback limitations and is minimized to only one of the two lots available for development. Community residents and visitors enjoy year round activities in the open space adjacent to this development that also bring vibrancy to the area. The Town Hill Lofts will sit adjacent to these areas and not impede the skiing, hiking, tubing, hill climb, farmers' market, summer concerts or other activities that occur in the park or on Snow King Mountain.

2. **Achieves the standards and objective of the Natural Resource Overlay and Scenic Resources Overlay, if applicable.**

   Not Applicable.

3. **Does not have significant impact on public facilities and services, including transportation, potable water and wastewater, parks, schools, police, fire and EMS facilities.**

   The Town Hill Lofts will create no significant impact on public facilities. Please see the engineers' report in this application for the applicable technical information. In general, the water and wastewater infrastructure is adequate to accommodate the proposed development. The traffic analysis demonstrates the roadway and nearby intersection will continue to operate at desired Levels of Service after development and the resort condominiums will not generate demand for schools or parkland. In addition, future residents of the site will not create a measurable impact on law enforcement, fire or EMS facilities.

4. **Complies with the Town of Jackson Design Guidelines, if applicable.**

   Town Design Guidelines do not apply to developments within the Snow King Master Plan, but the master plan contains numerous guidelines. The proposed building fully complies with these guidelines as detailed in the Master Plan Compliance Analysis.

5. **Complies with all relevant standards of these LDRs and other Town Ordinances.**

   The proposed development complies with all applicable LDRs and other Town ordinances.

6. **Is in substantial conformance with all standards or conditions of any prior applicable permits and approvals.**

   The prior approval that is applicable to this application is the sketch plan approval that is created by the Snow King Master Plan. As summarized above, and detailed in the Master Plan Compliance Analysis section of the application, this development is in complete compliance with the Snow King Master Plan and the approved sketch plan.

Basic Use Permit

1. **Complies with the use specific standards of Division 6.1.**

   Division 6.1 of the LDR's does not apply to the Snow King Planned Resort District as the permitted uses were established when the Town approved the Snow King Master Plan. The proposed development fully complies with the allowed uses. Permitted uses for the subject site include residential condominiums available for short-term rental, a variety of non-residential uses located in the 3,672 square feet in the northern aspect of the building and employee housing units. Please see the Master Plan Compliance Analysis for a detailed discussion on this topic.

2. **Complies with all other relevant standards of these LDR's and all other Town Ordinances.**

   The proposed development complies with all applicable LDR's and other Town ordinances.

3. **Is in substantial conformance with all standards or conditions of any prior applicable permits or approvals.**

   The prior approval that is applicable to this application is the sketch plan approval that is created by the Snow King Master Plan. As summarized above and detailed in the Master Plan Compliance Analysis section of the application, this development is in complete compliance with the Snow King Master Plan and the sketch plan.

Master Plan Compliance Analysis

Master Plan Compliance Analysis

The Snow King Master Plan ("SKMP") is an elaborate written narrative that describes a vision, goals and objectives for the resort. It establishes an overall limit on the amount of development that can occur in the resort, and provides an example allocation of this development potential to various lots and building areas throughout the resort. The master plan also contains general design guidelines to guide the visual appearance of future development.

Below is an evaluation of the Town Hill Lofts for consistency and compliance with the master plan. The organization of this evaluation follows the outline of the SKMP and directly responds to statements in the numerous subsections of the plan.

Site Plans

Site plans for Snow King provide a layout of building envelopes that locate future development, while emphasizing pedestrian movement during the summer and winter seasons. The Town Hill Lofts is within an approved building envelope and fulfills both the summer and winter pedestrian circulation plans in the following ways:

- The building fronts on the southern Cache Street sidewalk and the Snow King parking lot;
- The site plan provides an at-grade outdoor terrace on the northeastern corner of the building for summer use (the terrace will be covered with snow during the skiing/tubing season); and,
- The site plan maintains the access easement from Cache Street into the property (opposite Pine Drive) for services and a pedestrian connection to the on-mountain trail network.

Land Use Plan

The SKMP states "… a major goal is to create a vibrant mixed-use resort. To attain this goal, many varied uses are allowed and the whole site is considered as an integral unit in order to maximize efficiency and create the desired results. The objective of this Master Plan is to develop a high-intensity resort node of development, which is compatible with its location in the neighborhood and with its crucial relationship with downtown Jackson."

The Town Hill Lofts implements the major goals and objectives of the SKMP. The development contains:

- Land uses approved for the building envelopes in the SKMP;
- 34 residential condominium units that will be in a short-term rental pool when not occupied by the owners;
- A mix of market and employee housing units; and,
- Approximately 3,672 square feet of non-residential area that is at-grade and on the north end of the building. The specific uses that will occupy this floor area have not yet been specified, but the ultimate uses will provide a lively and active interaction with the street, Phil Baux Park, and the tubing and ski slopes. The design of this space with glass walls on three sides will create a visual draw to the resort as viewed from pedestrians traveling south on Cache from downtown Jackson.

The SKMP establishes overall maximum development levels for the entire resort district and lists approved land uses. The Town Hill Lofts is well within the maximum development levels, occupying approximately 6% of the total floor area that has been approved. The short-term rental units, year round employee housing, and non-residential land uses are approved land uses that will bring vitality to the resort.

Design Guidelines – Character and Design Objectives

The SKMP contains a general discussion about the design of buildings and public outdoor spaces. It establishes overall design objectives and sets out detailed ideas for several sub-topics that contribute to the overall design theme of the resort. Below are responses to these objectives and sub-topics that track the basic organization of the master plan.

Objectives

Design guidelines in the SKMP extensively describe several design and character objectives. They include:

- creating a terminus for the eastern end of Snow King Avenue;
- creating visual interest;
- creating a sense of arrival;
- directing pedestrians between Snow King and the Town Square;
- developing the resort with the size and layout that attracts people; and,
- creating a pedestrian streetscape and porous edges for pedestrian access into the resort.

The Town Hill Lofts accomplishes each of these objectives with one exception. The parcels are located at the southern end of Cache Street and therefore do not create a terminus at the eastern end of Snow King Avenue. Given the importance of connecting Snow King and the Town Square, the southern end of Cache is important to the resort development as well. The proposed development will accomplish a terminus at the southern end of Cache Street.

General Purposes

The SKMP predominately focuses on the development that will occur between the ice skating rink and the hotel. Emphasis is also given to the eastern terminus of Snow King Avenue. The southern terminus of Cache Street is critical to the resort design and character objectives as well. The Town Hill Lofts provides a terminus to Cache Street and provides an opportunity to accomplish the strong and long-standing goal of Town Planning to connect Snow King and the Town Square. This proposed development provides an opportunity to create a focus of attention and visual interest that draw pedestrians down Cache Street from the central core of town toward Snow King.

The expansive context at the base of Snow King Mountain, including the Town Hill Lofts, demands largescale structures to avoid the built environment appearing insignificant. The design objectives and general terms in the SKMP describe this expansive context created by Snow King Mountain and states that development must be compatible with the scale of the natural environment. The mountain rises about 1,900 feet from its base, looming over the resort buildings, and the distance from the western edge of the resort district to the hotel is over 2,000 linear feet. Buildings in the resort district must be large enough to accomplish the design objectives and therefore the Town of Jackson approved a master plan that contains relatively largescale buildings for the resort.

Furthermore, the resort district needs the western boundary defined in a manner that encloses the open spaces and activity areas. The Town Hill Lofts defines this western edge of the resort and encloses the open activity areas in a manner that is in scale with the natural context.

Scale

The design guidelines not only require buildings to be in scale with the natural environment, they also require the buildings to have a common scale throughout the resort district. The SKMP defines several buildings with square foot sizes that are comparable with, or larger than, the Town Hill Lofts. The overall SKMP has granted “sketch plan” approval to about 915,000 square feet of development above ground,

and an additional 265,000 square feet of belowground floor area, for a total of 1,180,000 square feet. The Town Hill Lofts propose to use about 6% of this total (54,653 sq. ft.), leaving about 858,000 square feet remaining for aboveground development. To break up the mass of the building, the structure has numerous levels and recessed components.

Porous Edge for Pedestrians

A porous edge to the resort development that encourages pedestrian travel into the resort is a design objective. The Town Hill Lofts maintains an access easement across the property opposite Pine Drive that allows direct access to the trail network on the mountain. In addition, the current Snow King parking lot and pedestrian access into Phil Baux Park are maintained immediately north of the Town Hill Lofts. Pedestrian access through and around the site provides easy routes to public lands and the trail network on the mountain.

Sense of Arrival; Attract People

Design and development of the Snow King Resort is to create a sense of arrival, and "a layout that attracts people." While the emphasis for these design objectives is the eastern portion of Snow King Avenue, there is also a need for the resort to be visible from the center of town. The Town Hill Lofts provide the visual hook as viewed from the central core of town that will draw people toward Snow King. The glass-wall non-residential space on the north end of the building will create a lively and active space that further attracts attention to the resort.

Architecture, Multi-use

The design guidelines call for "a continuity of architecture" throughout the resort that reflects the character of Jackson while also bridging in the more modern community, and "a mixed use." The pitched rooflines and emphasis on wood materials and natural colors, when united with a more modern window design, combine the historic with the modern Jackson architecture. These architectural features are consistent with the existing Snow King structures and will contribute to the continuity of architecture throughout the resort. The mix of market short-term rentals, employee housing and about 3,672 square feet of non-residential space (commercial, office or service) provides a mixed use that is consistent with the SKMP.

Skiing

The continuation of skiing on the Town Hill also is a design goal. The Town Hill Lofts will not restrict the use of the ski area, and future residents of the residential and commercial areas will be well informed of all skiing activities and their potential impacts, including maintenance and snow making that are essential to the ski and tubing areas.

General Guidelines

The Town Hill Lofts implements a design detail of the SKMP by constructing an outdoor terrace at grade level on the northeast corner of the building. This feature "concentrates activities and human interaction into identifiable spaces, such as a plaza or mall." The terrace will provide an outdoor space during non-ski season, and can be covered with snow during the ski season to allow the tubing park to continue unimpeded. The sloping rooflines and materials will further contribute to a "visual continuity among resort structures and design elements …"

Architecture
The relationship between the scale of the structure and the pedestrian is less important on this site given the limited pedestrian activity along the extreme southern end of Cache Street. Nonetheless, changes in the wall planes and the glass walls of the commercial area will allow a pleasant pedestrian experience. The predominant interaction the public will have with this building will come from viewing it from several hundred feet away with its mountain backdrop.

The building will provide commercial/non-residential space (approximately 3,672 sq. ft.) with extensive glass walls at grade on the north end of the building. This will provide "ground level doors, windows and design features of buildings that create an interesting diversity for people walking past the buildings" or viewing it from a distance.

Bulk and Scale
The SKMP has granted "sketch plan" approval for several new buildings that will be as large as, or larger than, the Town Hill Lofts. These new buildings will be in context with the existing buildings, which include the Snow King hotel that is larger than 130,000 square feet and the Snow King Center at over 53,000 square feet. The design guidelines call for compatibility with other structures within the resort. The 54,653 square feet of building, with its broken up mass and multiple levels, achieves this required compatibility. Furthermore, the design guidelines recognize the expansive context of the natural environment and calls for large buildings to achieve compatibility with the environment and to avoid appearing insignificant at the base of the Mountain.

Site Planning
The grade-level terrace on the northeast corner of the building provides "public spaces within the Planned Resort … with view of, and access to, the principal resort recreational amenity." The access easement across the property, directly opposite of Pine Drive, complies with the design guideline for "safe, convenient, and direct access throughout the resort, to public lands …"

Architectural Design Guidelines

The SKMP strikes a deliberate balance between relatively large buildings at the base of Snow King Mountain that are appropriately scaled for their expansive natural setting, and the desire for development to fit into the character of Jackson. The Master Plan addresses this balance with several architectural design guidelines. Responses to these guidelines are below.

Building Form, Massing and Character
The design of the Town Hill Lofts incorporates several architectural features that are called for in the design guidelines. Namely,

- numerous offsets in the wall planes breaks down the building mass,
- different roof forms and roof lines create the appearance of multiple buildings rather than a large single building,
- the use of colors and building materials also break down the building mass, and
- balconies on all levels softens the appearance of the building.

The siting and orientation further lessen the apparent size of the building. The Town Hill Lofts will typically be viewed from Snow King Avenue, and the building is setback 350 feet from the street, longer than the length of a football field. The narrow end of the building, furthermore, faces the avenue, rather than the broadside of the structure.

This particular design guideline also focuses on buildings that will front the pedestrian plaza that is planned for the central area of the resort and describes the need for these buildings to be arranged in a manner that encloses that public space. The guidelines do not discuss the western end of the resort, however, but the western boundary should be deliberately addressed as well. The public areas of the ski hill and tubing park also should be enclosed just as the pedestrian plaza. The Town Hill Lofts defines the western edge of the resort and helps enclose the public spaces that are a critical activity area for the resort.

The Town Hill Lofts, with sloping roofs, overall building form and materials fits perfectly into the context of Jackson, as required by the SKMP design guidelines.

Roofs
The roof form of the Town Hill Lofts fully complies with the SKMP and the several design guidelines that address this topic.

- The proposed Town Hill Lofts design is "sympathetic to the existing Snow King Resort …" and complies with the design guideline that says, "new buildings must relate to existing architecture by using similar roof forms …" The master plan describes the sloping roofs of the existing buildings in the resort and calls for new buildings to have similar sloping roofs.
- The Town Hill Lofts complies with the requirement for sloping roofs that have slopes "predominately within the range of 4:12 to 7:12."
- The roof design also complies with the design guideline that states "special consideration is to be given to designing roofs in reference to nearby pedestrian uses." The sloping roof avoids shedding snow and ice onto pedestrian areas and walkways below.
- The roof design also provides "thin eave lines that avoids the heavy look of typical cold roof structures."

Exterior Materials
The Town Hill Lofts fully complies with the exterior materials specified in the design guidelines. The exterior will be predominately wood, composite materials and natural materials.

Windows
The design of the Town Hill Lofts includes large windows in the residential units. The at-grade commercial space has glass walls facing Snow King Avenue and Town. The commercial space design significantly exceeds the design guideline for at least 75% of the linear wall frontage to be glass.

Commercial Frontage, Entryways
The commercial space on the north end of the building far exceeds the requirement for glass on 75% of the linear frontage of such spaces. As required by the SKMP design guidelines, this space "appear(s) light, glassy and as transparent as possible."

Decks and Balconies
Most of the residential units have exterior balconies that add visual interest and character to the building. The lofts take advantage of long views to the west, east and north as viewed from the units. The at-grade terrace on the northeast corner of the building also provides an amenity for residents and users of the commercial space. This terrace will be constructed to allow it to be covered with snow for the ski and tubing season.

Color
The Town Hill Lofts fully complies with the color guidelines and will "be built around natural materials …" as required by the SKMP. The exterior of the building will be predominately wood siding, composite and natural materials.

Lighting
Lighting will fully comply with town requirements, per the SKMP design guidelines.

Disabled Accessibility
The Town Hill Lofts fully complies with the requirements for disability access, as required by the SKMP design guidelines.

Site Design Guidelines, Plant Palette
The Town Hill Lofts fully complies with the landscaping goals of the SKMP.

Pathways and Circulation Elements
The isolated location of the Town Hill Lofts places it in a different context from the remainder of the resort, and the specific guidelines for the pedestrian network do not directly apply. However, the Town Hill Lofts will extend the sidewalk along southern Cache Street and maintain the access easement across the property that is opposite Pine Drive. Access through and around the Town Hill Lofts will allow easy access to the on-mountain trails and pathways.

Signage
The Town Hill Lofts will fully comply with all design guidelines for signage.

Dimensional Limitation Plan
Three-Dimensional Building Envelopes
The Town Hill Lofts fully complies with the 3D building envelop designated for the site.

Setbacks, LSR, OSR, FAR
The Town Hill Lofts is part of sub-area 5 within the SKMP. The proposed building allows all of sub-area 5 to maintain compliance with these various dimensional regulations. The proposed building, furthermore, is in complete compliance with the three-dimensional building envelope.

Building Floor Area
The Snow King Master Plan contains example developments in numerical terms to provide a basis for projecting parking, employee housing and other needs. The examples are not prescriptive but more illustrative, as clarified 12 different times throughout the SKMP. The example development for the subject site identifies 60 hotel rooms and 10,000 square feet of unspecified commercial development. The Town Hill Lofts contains 38 residential units with 82 bedrooms, and about 3,672 square feet of unspecified commercial space along with 73 parking spaces.

Lodging Capacity
The Master Plan limits Snow King Resort to a maximum lodging capacity of 2,048 guests, as measured in Average Peak Occupancy (APO). The Town Hill Lofts will consume 156 APO, or 7.6% of the allowed lodging guests.

Employee Housing

The Town Hill Lofts will comply with, or exceed, the employee-housing requirement that is specified within the SKMP. Assuming the 3,672 square feet of non-residential space will be used for office, and 74 bedrooms in the 34 free-market residential units, 9.73 employees are to be housed. Two 1-bedroom and two 3-bedroom units will house 9.5 employees and a fee in-lieu will cover the remaining fraction (0.23).

Furthermore, the Master Plan mandates that a minimum of 30% of the required employee housing shall be located within the SKMP site. The remaining required housing can be in other locations within the Town. The employee housing for the Town Hill Lofts will be located entirely on-site and will contribute to the 30% minimum requirement, thereby preserving the greatest amount of flexibility for other employee housing to be located outside of the SKMP site.

Transportation Elements

The SKMP emphasizes shared parking among the various land uses that will be developed within the master plan site. However, the Town Hill Lofts is far removed from the other planned developments and therefore, must stand alone with its own parking plan. Concurrently, the Town Hill Lofts should not have an excessive amount of parking and the parking should be visually screened from view.

The Town Hill Lofts will contain 73 parking spaces for 82 bedrooms and roughly 3,672 square feet of non-residential space, and all of the spaces will be screened under the proposed building. In addition to the on-site parking spaces, on-street parking along Cache and the Snow King parking lot will provide overflow flexibility if needed. The Town Hill Lofts also provides extensive bicycle storage and parking for residents and guests with space for more than 60 bikes.

Engineering Report

Engineering Report

Introduction

The Town Hill Lofts is a proposed development within the Snow King Planned Resort District Master Plan located at 680 South Cache Street at the east end of Aspen Drive within the Town of Jackson (TOJ). The property borders Phil Baux Park to the north, the base of Snow King Mountain to the east and the Bridger Teton National Forest to the south. The land included in the proposal is comprised of property under common ownership described as Lots 1 and 2 of the Pine Lodge Amended Addition. The total combined property site is approximately 1.3 acres and is currently undeveloped. The building program is for a mixed-use development consisting of a single building that combines residential condominium units with commercial office space and employee housing. The current building plan is proposed only within Lot 1 and does not extend into Lot 2.

This Final Development Plan Engineer's Report is intended to provide the engineering basis for the design and discuss engineering related items for the development of the project. Site infrastructure associated with the project is described including the expected connections to existing Town of Jackson utilities. The level of detail includes the basic layout and general design elements. Design detail will advance as the plan moves into the construction permitting and construction phases of the project.

Soils and Site Conditions

The site is situated on the north-facing slope of Snow King Mountain with approximately 40' of elevation gain from the north end to the south boundary. A geotechnical investigation by Jorgensen Geotechnical, LLC was conducted on the subject property in October, 2015. The report describes the site to be underlain by gravel and cobble with minor beds of fine grained alluvial and colluvial deposits. Deposits of loess material were discovered on the north portion of Lot 1. It is expected that the layers of stony gravel and cobble will provide adequate bearing capacity for the proposed structure. The analysis included six borings drilled to depths from 11 to 32 feet below the ground surface and two test pits excavated to 20-foot depths. The geotechnical report showing the test pit locations and specific analysis information is included in Exhibit D.

Groundwater

This part of the Town of Jackson has historically low groundwater elevations. Groundwater was not encountered in any of the test pits or boreholes. The investigation was conducted after peak runoff and may represent relatively low groundwater levels with knowledge gained from working in the Town for many years. The groundwater at the site is assumed to be deep and is unlikely to pose an issue with anticipated construction. A below grade structure is proposed for this development though high groundwater is not anticipated within the lower level or area of proposed infrastructure.

Access and Parking

The access to the site will be from South Cache Street via three separate access points. The separate access points allow the grade of each access to step with the elevation of South Cache Street and match the varying levels of the building. The current plan does not alter the existing grade along South Cache Street, but rather transition from the street grade to the access drive. The access points are each separated horizontally by approximately 75 lineal feet. This allows adequate space for proper sight

distance. An exhibit showing the access driveways and sight triangles is included in the plan set. The “clear zone’” that is created by the sight triangles will be free from obstructions that would limit the visibility to and from the access driveway.

Parking for the development is located internal to the building within three separate parking layouts accessed by each of the three separate access locations. This allows the parking to be in direct proximity to the units at the access level. All proposed parking meets the dimensional limitations criteria and design standards. Each internal parking layout will be graded such that drainage will collect to a collection and treatment system. Plan views of the parking layouts and associated dimensions and grades are included in the plan set. There is no on-street parking proposed for South Cache, as the existing conditions do not allow on-street parking. Parking calculations and counts are included in the Proposed Development section of the submittal.

The frontage along South Cache Street will be improved to include a separated sidewalk with a 5’ green space buffer between the sidewalk and the street. The buffer space provides additional separation for the sidewalk user from the roadway and allows for winter snow storage. The buffer also allows space for the road grade to transition to the access driveway and allow the sidewalk to maintain a continuous elevation without ramps to and from the access drive. A sidewalk will also be installed along the north side of the building creating a connection to the adjacent parks and the Snow King Resort base area.

A traffic impact statement is included comparing this project to the Traffic Impact Study and Transportation Demand Management Plan that were developed as part of the approved Snow King Master Plan. It is apparent that this project will generate fewer trips than was estimated in the Master Plan.

Grading, Drainage, and Stormwater Management

The grading of the site will generally place the building slightly above the elevation of the adjacent road. The current plan does not alter the grade within South Cache Street. The access driveways will step up the hill along with the upper stories of the building to match the existing elevation as the grade increases to the south. The drainage scheme for the site incorporates drainage swales to allow stormwater runoff to be absorbed by the ground. This drainage scheme minimizes runoff channelization and reduces concentrating large volumes of runoff around the site. A combination of surface swales and inlets will collect runoff down either side of the building.

The pre-construction condition of the site is made up of primarily undeveloped land. There are multiple areas with minor land disturbance from stockpiled materials and temporary gravel access drives used by the ski resort. A small resort staging building was recently removed from the northern portion of the lot. The existing conditions on the site currently route stormwater runoff primarily downhill to adjacent roads and ultimately to TOJ stormwater infrastructure. The current TOJ Land Development Regulations (LDR’s) allow post-development stormwater flows to be released from a proposed development at a rate equal to or lower than the pre-development runoff rate. The Master Plan identifies the use of stormwater facilities for storage and controlled release.

As previously described, the parking portions of the project are internal to the building. The surface of the parking areas will be sloped such that runoff from vehicles will collect at low points through inlet grates and trench drains to route all drainage through a proper water/oil separator prior to introduction to the

stormwater system. Coordination with the mechanical engineering design of the building will be required for this effort.

The existing TOJ storm sewer system extends the entire length of South Cache Street and extends through the parking area of Phil Baux Park adjacent to the project area. This project plans to connect to the storm sewer with a controlled progressive discharge. The stormwater design calculations show a 100-year storage volume requirement to be approximately 4000 gallons with a 100-year pre-development discharge of 1.3 cfs. The 25-year storage volume of 2700 gallons is generated with a 25-year pre-development discharge of 0.85 cfs. The 100-year storage volume may be accommodated in various scenarios. A 36" diameter pipe that is 80 lineal feet would provide enough volume and may be sited on the north end of the project. This would easily connect to the runoff paths on either side of the building and have close proximity to the Town storm system. It has been our experience that the Town prefers to balance the volume and discharge in order to maintain proper flows within the system. Preliminary stormwater runoff calculations for pre and post development are included in Exhibit F. These calculations and the grading and stormwater management plans will be refined through the Grading and Erosion Control Permit process as the project develops and as alternative volume solutions are explored.

Water Supply and Distribution System

The TOJ water system extends along the north and east sides of the projects frontage. A mechanical and fire system riser room is planned for the second story on the east side of the building midway from north to south. Currently, the project plans to connect to the TOJ main within South Cache for water supply. The water system connection will likely consist of a dedicated 8-inch line from the main to the fire suppression system. A 4-inch line will branch from the fire line just outside the building to provide water for domestic and irrigation purposes.

The connection to the TOJ system will require an encroachment permit and a coordinated effort with the TOJ Public Works Department to identify the appropriate water service tap location. The new service main will be owned and operated by the development and all maintenance will be the responsibility of the development. The building mechanical design plans will specify the final layout, metering, and backflow equipment configurations.

The maximum domestic water demand is estimated based on the current building program to be approximately 31,400 gallons per day with a peak hour flow of approximately 130 gallons per minute (Peak Factor 6). This is based upon the bedroom count (including employee housing), commercial space and anticipated irrigation demand. Water Demand was also calculated using the AWWA M22 method and estimated at 82 gpm based on fixture counts for the building improvements. The lower value of the M22 is likely due to the peak factor 6 being above average and the irrigation demand not included in the M22 calculation. Based on preliminary discussions with the Town Engineer, it is expected that adequate capacity is available from the adjacent water main.

The fire suppression system demand is estimated to be 1500 gpm from Appendix B, Table 105.1 of the 2006 International Fire Code based on the proposed building area and Type III-B construction. A water model analysis was performed for these criteria and estimates the pressure at the building under the maximum daily demand to be 57.1 psi static and 47.9 psi with the additional 1500 gpm fire flow. The velocities in the 8-inch main line in South Cache are expected to be 7.4 fps north of the connection and 2.2 fps south of the connection. The velocity in the service connection line itself is expected to be 9.6 fps

under the additional 1500 gpm fire flow. The project team will coordinate with the fire sprinkler designer as the project advances and coordinate with the Fire Department to ensure adequate fire protection measures and equipment are in place.

Wastewater Collection and Treatment Systems

Sanitary sewer will be connected to the existing Town of Jackson sewage collection lines in the north end of South Cache Street and eventually be treated at the TOJ Wastewater Treatment Plant in South Park. The project will extend the existing sewage collection lines approximately 130 lineal feet to a mechanical room on the east side of the building within the first level of the building. A new concrete manhole will be placed at the south terminus prior to connection to the mechanical room. The collection lines internal to the project will be the responsibility of the development for operation and maintenance. The sewer system connection consists of an 8-inch sewer line connected to an existing manhole on the northeast corner of the project site with 6-inch building connections. The building mechanical design plans will show the specific internal layout and location.

The maximum sanitary sewer demand is estimated based on the current building program to be approximately 13,050 gallons per day with a peak hour flow of approximately 30 gallons per minute (Peak Factor 3). These values are based upon the bedroom count and commercial space within the building improvements. Based on preliminary discussions with the Town Engineer, it is expected that adequate capacity is available in the adjacent sewer main. Additional analysis of downstream sewer mains may be required as the project develops.

Cable Utilities and Gas

Cable utilities and natural gas connections will be coordinated with Lower Valley Energy (Electric and Gas), Century Link Communications (telephone and communication services), Charter Communications (cable television, internet, and other communications), and Silver Star Communications (fiber optic internet). There is an existing Lower Valley 3-phase switch cabinet on the south side of the Phil Baux parking lot that will likely serve as the power connection for the building. Service connection pedestals for the other cable utilities are also in this location. The current plan shows these utilities routed up to the building mechanical room along South Cache. Proposed metering will be located within the service connection location near the mechanical room on the first floor of the building. There is currently a Lower Valley gas line that extends the entire frontage of South Cache. There also appears to be an existing service stub in the vicinity of the mechanical room that may be reconfigured to serve the building. The south end of the existing gas line appears to extend into the property in conflict with the building location. Coordination with Lower Valley to adjust this portion of gas main will be required as the project develops. Trenching for the utility connections will require a coordinated effort with the Town of Jackson and specific utility providers. Design development and continued coordination with all utility providers for layout specifics will continue as the project develops. The building mechanical design plans will show the specific internal layout and location of equipment and metering configurations.

Refuse, Garbage, Trash, and Recycling

Refuse, garbage, trash, and recycling will be kept in covered containers at all times, and any such container will be kept within the enclosed parking structure or appropriately screened from view. All containers will not be accessible to or attract wildlife.

Snow Storage

Snow storage equal to or greater than 2.5% of the plowed area will be provided and coordinated with landscaping to provide adequate and functional space to stack the large amounts of snow that typically accumulate at the base of Snow King Mountain. The buffer zone between South Cache and the pedestrian sidewalk will provide a location for snow storage. Snow storage for the site will be coordinated with the landscape design and other features such as fire hydrants, site lighting, and cable utility structures.

Construction Management

The project expects GE Johnson Construction Wyoming to be the construction manager overseeing the project. GE Johnson is familiar with developing management plans with the Town of Jackson and has completed many large-scale projects within TOJ.

Hours of Operation

The hours of operation for construction will be according to the current Town of Jackson Municipal Code, generally limited to 7AM-7PM, Monday through Saturday. Certain aspects of the project construction may require additional hours and will have to be approved specifically by TOJ. Radio and stereo noise will be kept to a minimum.

Dust Control

It will be the responsibility of the onsite project manager to ensure that air quality is maintained relative to the site work. Construction will be managed to minimize negative impacts to air quality. All criteria in the LDRs will be followed. When natural moisture in the soil is inadequate to provide soil stability, dust will be minimized by the use of water trucks, sprinkler systems and/or environmentally safe tackifiers as necessary. Water trucks will be on site as needed and will be working at all excavated and filled areas to ensure soils are sufficiently moist to not become airborne. During periods of rain or snowfall, when moisture conditions are equal to or greater than what is to be provided by water trucks, water truck operation is not required.

Construction Lighting

Except for emergency nighttime maintenance operations, there will be no exterior lighting for this construction project but there will be interior egress lighting.

Grading and Erosion Control

The site work will disturb less than 1 acre. In addition to a Town of Jackson Grading and Erosion Control Permit, a WyoDEQ Construction Permit with a Stormwater Pollution Prevention Plan (SWPPP) will be required by the site contractor before work on the project may begin. Erosion control methods will be

established and installed prior to the beginning of construction. Periodic inspections will be conducted and any repairs or adjustments to minimize the offsite transport of pollutants will be made.

No stormwater from this project will be allowed to run off site uncontrolled during construction. As the area is developed, stormwater will become more of an issue. However adequate space is available and stormwater routing will be monitored to prevent major impacts to adjacent properties. The initial approach is to prevent stormwater from traveling great distances thereby reducing velocities and channelization and preventing the long distance transport of eroded materials.

Soil Stockpiling

Stockpiling soil for this project will be limited to storing material during excavation until backfill operations may be complete. Stockpiles will also include stripped topsoil preserved for site reclamation. Excess foundation material will be stockpiled and used to backfill foundations once complete or hauled off site. Stockpiling of material may temporarily occur within the construction staging area and within the construction easement on the east side of the property. To prevent stormwater runoff from the site carrying sediment into adjacent properties or the erosion of soil from large stockpiles on site, stockpiles will be protected from wind and water erosion by appropriate methods that may include erosion sediment barriers, watering, spray on tackifiers, mulch, or temporary seeding.

Construction Access

Access to the site will be via South Cache Street and the Phil Baux parking area. The excavated site will be surfaced with a clean pit run gravel subgrade material that will not result in excessive mud tracking on to roadways. If tracking mud becomes a problem and occasional sweeping will not remedy the issue, a clean gravel approach at least 50’ in length, 12’ in width, and 1 foot deep will be placed at each access point. This mud-shedding pad will be scraped down and replaced if it becomes overly contaminated. It will be the contractor’s responsibility to sweep South Cache Street and the Phil Baux parking area if excessive mud is tracked on to the road surface.

Dewatering

It is not expected that excessive dewatering will be required for the building construction. Underground work will be scheduled to minimize dewatering requirements. Any dewatering will be discharged to large open areas and allowed to infiltrate. Diking, berming, and channeling may be used to encourage infiltration. If excessive dewatering is encountered, coordination with the Town of Jackson will be done to identify the appropriate discharge for dewatering.

Material and Equipment Storage (Staging Area)

Where adequate space is available, material and equipment storage will be located on the project site for easy access, close to where materials will be used, and to reduce construction traffic. The use of the staging area will allow for larger deliveries to be made reducing traffic on South Cache Street. Any storage of fuels, oil, or other hazardous materials on site will be within an impermeable containment area with sufficient capacity to hold 110% of the volume of the largest vessel to be stored within as outlined in the SWPPP. Should additional area be needed, coordination with the Town of Jackson and/or Snow King Resort will be required.

Job Trailers

Job trailers for offices, operations, and meetings will be located on the project site or within the base area of Snow King Mountain upon approval.

Sanitary Facilities

Construction toilets and wash facilities will be placed around the construction site to provide access for all workers. There will be one toilet per twenty-five persons on site. Facilities will be relocated as needed to provide reasonable access and maintained at a minimum of once per week.

Garbage Collection

The construction area will have separate dumpsters for trash and wood materials that will be emptied as needed to prevent overflow. Standard refuse will be placed in separate containers from construction trash. Construction trash will be separated as required by the Teton County Solid Waste board requirements. Wildlife attractants, including food and food-related products, will be stored in wildlife resistant containers at all times, both during and after construction.

Construction Phasing

Construction will commence upon approval in the spring of 2017 with site stripping and underground infrastructure work. This will allow work to be completed without the need for construction dewatering. Construction progress may vary at any time throughout the spring or early summer depending on a myriad of factors including but not limited to winter conditions, contractor availability, materials, etc. Construction will continue throughout 2017, and 2018, with the completion of the project expected in fall 2018.

Note: As the project progresses, there may be a need to alter the approach to some aspects to achieve goals and maintain a safe and secure project with minimal impact to the surrounding environment and neighbors.

Pre-Application Conference Memorandum

Pre-Application Checklist

	Pre-Application Comment	CCCREA Comment/Reference - See Master Plan Compliance Analysis for a Complete and Detailed Response	Incorporated into Design (YES/NO)
1	Satisfy applicable conditions within SKMP	All applicable conditions within the SKMP have been satisfied. See Master Plan Compliance Analysis Tab for a detailed response to this comment.	YES
2	Land Use Plan (Example Development) - sub-area compliance - Sub-area 5 allows for 45,000sf above grade and 4,000sf below grade; Floor Area Ratio of 0.16; 60 hotel rooms are allotted 120 guests calculated for the average peak occupancy of the lodge; minimum Landscape Ratio is 0.75	Three-Dimensional Building Envelopes The Town Hill Lofts fully complies with the 3D building envelop designated for the site. **Setbacks, LSR, OSR, FAR** The Town Hill Lofts is part of sub-area 5 within the SKMP. The proposed building allows all of sub-area 5 to maintain compliance with these various dimensional regulations. The proposed building, furthermore, is in complete compliance with the three-dimensional building envelope. **Building Floor Area** The Snow King Master Plan contains example developments in numerical terms to provide a basis for anticipating parking, employee housing and other needs. The examples are not prescriptive but more illustrative as noted in 12 separate comments in the SKMP. The example development for the subject site identifies 60 hotel rooms and 10,000 square feet of unspecified commercial development. The Town Hill Lofts contains 38 residential units with 82 bedrooms, and about 3,672 square feet of unspecified commercial space along with 73 parking spaces. **Lodging Capacity** The Master Plan limits Snow King Resort to a maximum lodging capacity of 2,048 guests, as measured in Average Peak Occupancy (APO). The Town Hill Lofts will consume 156 APO, or 7.6% of the allowed lodging guests.	NA

3	Design Guidelines - Visual enhancement of existing resort, add new dimensions to the Town of Jackson and blend with the built and natural landscape	The design of the Town Hill Lofts incorporates several architectural features that are called for in the design guidelines. Namely, • numerous offsets in the wall planes breaks down the building mass, • different roof forms and roof lines create the appearance of multiple buildings rather than a large single building, • the use of colors and building materials also break down the building mass, and • balconies on all levels softens the appearance of the building. The siting and orientation further lessen the apparent size of the building. The Town Hill Lofts will typically be viewed from Snow King Avenue, and the building is setback 350 feet from the street, longer than the length of a football field. The narrow end of the building, furthermore, faces the avenue, rather than the broadside of the structure. This particular design guideline also focuses on buildings that will front the pedestrian plaza that is planned for the central area of the resort and describes the need for these buildings to be arranged in a manner that encloses that public space. The guidelines do not discuss the western end of the resort, however, but the western boundary should be deliberately addressed as well. The public areas of the ski hill and tubing park also should be enclosed just as the pedestrian plaza. The Town Hill Lofts defines the western edge of the resort and helps enclose the public spaces that are a critical activity area for the resort. The Town Hill Lofts, with sloping roofs, overall building form and materials fits perfectly into the context of Jackson, as required by the SKMP design guidelines.	YES
4	Capitalization on Location at Terminus of Snow King Avenue	Design and development of the Snow King Resort is to create a sense of arrival, and "a layout that attracts people." While the emphasis for these design objectives is the eastern portion of Snow King Avenue, there is also a need for the resort to be visible from the center of town. The Town Hill Lofts provide the visual hook as viewed from the central core of town that will draw people toward Snow King. The glass-wall non-residential space on the north end of the building will create a lively and active space that further attracts attention to the resort.	YES
5	Attractive, safe and direct pedestrian streetscape connection to Town Square	Design and development of the Snow King Resort is to create a sense of arrival, and "a layout that attracts people." While the emphasis for these design objectives is the eastern portion of Snow King Avenue, there is also a need for the resort to be visible from the center of town. The Town Hill Lofts provide the visual hook as viewed from the central core of town that will draw people toward Snow King. The glass-wall non-residential space on the north end of the building will create a lively and active space that further attracts attention to the resort.	YES

6	Porous edge that encourages pedestrian travel	A porous edge to the resort development that encourages pedestrian travel into the resort is a design objective. The Town Hill Lofts maintains an access easement across the property opposite Pine Drive that allows direct access to the trail network on the mountain. In addition, the current Snow King parking lot and pedestrian access into Phil Baux Park are maintained immediately north of the Town Hill Lofts. Pedestrian access through and around the site provides easy routes to public lands and the trail network on the mountain.	YES
7	Structure sizes and layout that draw people into the resort.	The Town Hill Lofts provide the visual hook as viewed from the central core of Town that will draw people toward Snow King. The glass-wall non-residential space on the north end of the building will create a lively and active space that further attracts attention to the resort.	YES
8	A continuity of architecture and activities within the resort, creating a multi-use sense of place.	The design guidelines call for "a continuity of architecture" throughout the resort that reflects the character of Jackson while also bridging in the more modern community and "a mixed use." The pitched rooflines and emphasis on wood materials and natural colors, when united with a more modern window design, combine the historic architecture with the modern Jackson architecture. These architectural features are consistent with the existing Snow King structures and will contribute to the continuity of architecture throughout the resort. The mix of market short-term rentals, employee housing and approximately 3,672 square feet of non-residential space (commercial, office or service) provides a mixed use that is consistent with the SKMP.	YES
9	Pathways that connect to the pathways system	The Snow King Master Plan contains example developments in numerical terms to provide a basis for anticipated parking, employee housing and other needs. The examples are not prescriptive but more illustrative. The example development for the subject site identifies 60 hotel rooms and 10,000 square feet of unspecified commercial development. The Town Hill Lofts contains 38 residential units with 82 bedrooms, and about 2,975 square feet of unspecified commercial space along with 73 parking spaces.	YES
10	Design Guidelines - General Purpose - visual continuity among the resort structures and design elements.	See Master Plan Compliance Analysis for a detailed response to this comment.	YES
11	Architecture - reflect community character and themes	See Master Plan Compliance Analysis for a detailed response to this comment.	YES
12	Architecture - human scale - height	See Master Plan Compliance Analysis for a detailed response to this comment.	YES
13	Architecture - human scale - diversity for pedestrians	See Master Plan Compliance Analysis for a detailed response to this comment.	YES

14	A built environment in keeping with the cultural and aesthetic values of the community	The architecture of the building takes into consideration the character and themes of the Town of Jackson while adhering to the design characteristics set forth within the SKMP. See "Design Guidlines" section noted within the Master Plan Compliance Analysis section.	YES
15	Natural attributes of the immediate vicinity	The building architecture takes into consideration the scale of the surrounding mountain range and integrates architectural features of the surrounding area. See Design Guidliness section noted within the Master Plan Compliance Analysis section.	YES
16	Building Materials and colors compatible with the surrounding natural and built environment	The Town Hill Lofts will use natural materials and colors including mostly wood siding. Building accents will include hardipanel, metal paneling, and architectual / board formed concrete - all of which comply with the Snow King Master Plan.	YES
17	Bulk and Scale	The SKMP has granted "sketch plan" approval for several new buildlings as large as, or larger than Town Hill Lofts. These new buildings will be in context with the existing buildings which include the Snow King hotel that is larger than 130,000 square feet and the Snow King Center at over 53,000 square feet. The design guideliness call for compatibility with other structures within the resort. The 54,653 square feet of the Lofts with its broken up mass and multiple levels achieves this required compatibility. Furthermore, the design guideliness recognize the expansive context of the natural enviornment and calls for large buildings to achieve compatibility with the environment and to avoid appearing insignifcant at the base of the mountain.	YES
18	Architectural Design Guidelines - Building Form, Massing and Character	See Master Plan Compliance Analysis for a detailed response to this comment.	YES

19	Architectural Design Guidelines - Roofs	The roof form of the Town Hill Lofts fully complies with the SKMP and the several design guidelines that address this topic. • The proposed Town Hill Lofts design is "sympathetic to the existing Snow King Resort …" and complies with the design guideline that says, "new buildings must relate to existing architecture by using similar roof forms …" The master plan describes the sloping roofs of the existing buildings in the resort and calls for new buildings to have similar sloping roofs. • The Town Hill Lofts complies with the requirement for sloping roofs that have slopes "predominately within the range of 4:12 to 7:12." • The roof design also complies with the design guideline that states "special consideration is to be given to designing roofs in reference to nearby pedestrian uses." The sloping roof avoids shedding snow and ice onto pedestrian areas and walkways below via snow guards and a heat tap and gutter system. • The roof design also provides "thin eave lines that avoids the heavy look of typical cold roof structures."	YES
20	Architectural Design Guidelines - Exterior Materials	The Town Hill Lofts fully complies with the exterior materials specified in the design guidelines. The exterior will be predominately wood, composite materials and natural materials.	YES
21	Architectural Design Guidelines - Windows	The design of the Town Hill Lofts includes very large windows in the residential units, and the at-grade commercial space has glass walls facing Snow King Avenue and Town. The commercial space significantly exceeds the design guideline for at least 75% of the linear wall frontage to be glass.	YES
22	Architectural Design Guidelines - Commercial Frontage, Entryways	The commercial space on the north end of the building far exceeds the requirement "for glass on 75% of the linear frontage of such spaces." As required by the SKMP design guidelines, this space "appear(s) light, glassy and as transparent as possible."	YES
23	Architectural Design Guidelines - Decks and Balconies	Most of the residential units have exterior balconies that add visual interest and character to the building. The lofts take advantage of long views to the west, east and north as viewed from the units. The at-grade terrace on the northeast corner of the building also provides an amenity for residents and users of the commercial space. This terrace will be constructed to allow it to be covered with snow for the ski and tubing season.	YES
24	Architectural Design Guidelines - Walkways	The Town Hill Lofts will extend the sidewalk along South Cache Street and maintain the access easement across the property that is opposite Pine Drive. Access through and around the Town Hill Lofts will allow easy access to the on-mountain trails and pathways.	YES

25	Dimensional Limitations	The Town Hill Lofts fully complies with the 3D building envelop designated for the site. **Setbacks, LSR, OSR, FAR** The Town Hill Lofts is part of sub-area 5 within the SKMP. The proposed building allows all of sub-area 5 to maintain compliance with these various dimensional regulations. **Building Floor Area** The Snow King Master Plan contains example developments in numerical terms to provide a basis for projecting parking, employee housing and other needs. The examples are not prescriptive but more illustrative. The example development for the subject site identifies 60 hotel rooms and 10,000 square feet of unspecified commercial development. The Town Hill Lofts contains 38 residential units with 82 bedrooms, and about 3,672 square feet of unspecified commercial space along with 73 parking spaces. **Lodging Capacity** The Master Plan limits Snow King Resort to a maximum lodging capacity of 2,048 guests, as measured in Average Peak Occupancy (APO). The Town Hill Lofts will consume 156 APO, or 7.6% of the allowed lodging guests.	YES
26	Housing Elements	The Town Hill Lofts will comply with the employee-housing requirement that is specified within the SKMP. Please see Exhibit K for additional information. Furthermore, the Master Plan mandates that a minimum of 30% of the required employee housing shall be located within the SKMP site. The remaining required housing can be in other locations within the Town. The employee housing for the Town Hill Lofts will be located entirely on-site and will contribute to the 30% minimum requirement, thereby preserving the greatest amount of flexibility for other employee housing to be located outside of the SKMP site.	YES
27	Parking - Division 4200	73 parking spaces will be created to accommodate the residence's and the commercial space in accordance with the SKMP guidelines.	YES

Appendix

Exhibit A

Initial Concept Design – December 2015

Design Highlights

- Flat roof
- Located on Lot 1, only
- Above ground exposed parking
- Use of natural materials
- Elevated southern building allowing visual connection through the building
- Bulk and scale broken down with positive and negative voids

Design Statistics

	First Floor	Second Floor	Third Floor	Fourth Floor	Fifth Floor	Total
One Bedroom	-	5 (4,130 sf)	5 (4,130 sf)	1 (855 sf)	1 (855 sf)	7 (9,970 sf)
Two Bedroom	-	5 (5,695 sf)	5 (5,695 sf)	4 (4,640 sf)	4 (4,640 sf)	20 (20,670 sf)
Tw0 Bedroom Loft	-	-	-	6 (9,090 sf)	-	6 (9,090 sf)
Three Bedroom	-	-	-	2 (3,152 sf)	2 (3,152 sf)	4 (6,304 sf)
Total	-	10	10	13	7	40
Commercial	5,300 sf	-	-	-	-	5,300 sf
Total Net	5,300 sf	9,825 sf	9,825	17,737		51,334 sf
Circulation	-	-	-	-	-	4,252 sf
Total Gross	-	-	-	-	-	55,646 sf
Parking	64	19	22	-	-	105

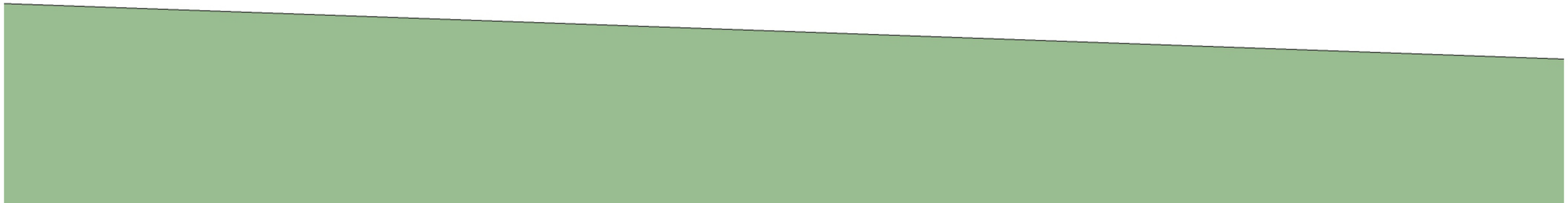


Exhibit B

TRANSFER AND ALLOCATION OF
LODGING AVERAGE PEAK OCCUPANCY
AND
BUILDING FLOOR AREA

This Agreement is made to be effective as of the 17TH day of June _____, 2009 and is entered into by and between Snow King Holdings, LLC, a Wyoming limited liability company, ("SKH"), Snow King Resort, Inc., a Wyoming corporation ("SKR"), Snow King Resort Master Association, a Wyoming nonprofit corporation, ("SKRMA"), Grand View Development, LLC ("GVD"), collectively referred to as "Transferor", and Crystal Creek Capital, LLC, a Wyoming limited liability company ("Transferee").

RECITALS

WHEREAS the Snow King Planned Resort District Master Plan ("Master Plan") recorded by an Affidavit Affecting Title which was recorded in the office of the Teton County Clerk on July 19, 2001 in Book 429 of Photo, Pages 1-211 as Document No. 547519, specifies a limited number of average peak occupancies ("APOs") and maximum building floor area for development within the Snow King Planned Resort District ("District");

WHEREAS Transferor is the record owner of a majority of the remaining undeveloped or underdeveloped property in the District and has the right to allocate APO and building floor area for development within the District;

WHEREAS Transferee and Transferor have entered into a Contract to Buy and Sell Lots 1 and 2 of the Pine Lodge Addition Subdivision, according to that plat recorded as Plat No. 1257 in the office of the County Clerk in Teton County, Wyoming (the "Property");

WHEREAS as a condition of Transferee purchasing the Property, and as a material inducement to Transferee to purchase the Property, Transferor has agreed to transfer and allocate to Transferee a total of Three Hundred Sixteen (316) APOs and a total building floor area of Fifty Seven Thousand (57,000) square for use upon the Property.

NOW, THEREFORE, in consideration of the above recitals and other good and valuable consideration, the receipt of which is hereby acknowledged, the parties agree as follows:

1. Transfer and Allocation of APO. Transferor hereby warrants, conveys, transfers, assigns and allocates to Transferee, and its successors and assigns as the owner of the Property, a total of Three Hundred Sixteen (316) APOs out of the total remaining unallocated APOs within the District pursuant to the Master Plan as follows:

a. One Hundred Fifty (150) APOs are conveyed, transferred, assigned and allocated to Transferee outright, without any restriction whatsoever, for Transferee's use on any part of the Property ("Unrestricted APOs").

b. Ninety (90) APOs ("90 Restricted APOs") are conveyed, transferred, assigned and allocated subject only to the restrictions contained in subparagraph d. below.

c. Seventy Six (76) APOs ("76 Restricted APOs") are conveyed, transferred, assigned and allocated subject to the following restrictions as well as those contained in subparagraph d. below:

i. Transferee shall not utilize any of the 76 Restricted APOs until all of the Unrestricted APOs are used up within an FDP.

ii. If after seven and one-half (7 ½) years from the date hereof, there remain any of the 76 Restricted APOs that are not approved for use pursuant to an approved FDP or otherwise contained in a pending application for approval of an FDP, such unused APOs shall revert back to the Transferor and Transferee shall have no further right to the use of such APOs, without the necessity of any further documentation, it being the intent of the parties that this provision be self executing. In such event and after having given Transferee twenty (20) days written notice in advance of its intent to do so, Transferor shall have the right to memorialize the return of any APOs pursuant to this paragraph by filing an affidavit to that effect in the real property records of Teton County, Wyoming.

d. If after the issuance of Certificates of Occupancy by the Town of Jackson for all improvements on the Property as contained in one or more FDP(s) that constitute full development of the Property under the Master Plan and Town of Jackson ordinances then in effect to the extent applicable and there remain any of the 90 Restricted APOs or 76 Restricted APOs that are not used pursuant to such FDP(s), such unused APOs shall revert back to the Transferor and Transferee shall have no further right to the use of such APOs without the necessity of any further documentation, it being the intent of the parties that this provision be self executing. In such event and after having given Transferee twenty (20) days written notice in advance of its intent to do so, Transferor shall have the right to memorialize the return of any APOs pursuant to this paragraph by filing an affidavit to that effect in the real property records of Teton County, Wyoming.

2. Transfer and Allocation of Building Floor Area. SKH as Transferor hereby conveys, transfers, assigns and allocates to Transferee, and its successors and assigns as the owner of the Property, a total of 57,000 square feet of Building Floor Area to be located upon the Property. The parties acknowledge that this 57,000 square feet is in addition to and does not include any employee housing requirements that may be imposed upon Transferee as a result of such development, which uses are excluded from the square-footage limitations imposed in the Master Plan.

3. Warranties and Representations Transferor warrants and represents to Transferee that this transfer is being made to the Transferee free and clear of any mortgage or other security interest on the APOs or Building Floor Area, and that

Transferor is the sole owner of the APOs and Building Floor Area and has legal authority to convey, transfer, assign and allocate the APOs and Building Floor Area.

4. Binding Effect; Assignment. This Agreement shall be binding upon and inure to the benefit of the respective parties hereto and their successors and assigns. Transferee may freely convey, assign, transfer and allocate the rights and entitlements conveyed hereunder to subsequent purchasers of any part or all of the Property.

5. Enforcement and Remedies. The parties hereto each shall be entitled to enforce this Agreement by specific performance, by injunction or restraint to prevent a violation or attempted violation of this Agreement or to compel performance under the Agreement, or by bringing an action for damages, or any of them, without the necessity of making an election. The prevailing party shall be entitled to recover from the other party such sums as the court may adjudge reasonable as attorney's fees and costs, in addition to all other relief provided by law or in equity.

6. Final and Entire Agreement. This Agreement contains the final and entire agreement between the parties hereto as to the subject matter hereof. Any subsequent amendment to this Agreement shall be valid only if executed in writing by the parties hereto, their successors or assigns. Moreover, compliance with any condition or term set forth herein may not be waived, except by a writing duly and validly executed by the party waiving compliance. No delay on the part of any party hereto in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any waiver on the part of any party hereto of any such right, power or privilege, nor any single or partial exercise of any such right, power or privilege preclude any further exercise thereof or the exercise of any other such right, power or privilege.

7. Captions. Captions and headings in this Agreement are for convenience only and shall not be used to interpret or construe its provisions.

8. Gender, Singular, Plural Terms. As used in this Agreement, the singular shall include the plural, the plural the singular, and the use of any gender shall be applicable to all genders.

9. Recordation. The parties hereto agree and warrant that this Agreement shall be recorded in the land records of the Office of the Teton County Clerk for Lots 1 and 2 of the Pine Lodge Addition Subdivision, according to that plat recorded as Plat No. 1257.

10. Governing Law. This Agreement shall be construed, performed and enforced in accordance with, and governed by, the laws of the State of Wyoming.

11. Severability. In the event that any part of this Agreement is declared by any court or other judicial or administrative body to be null, void or unenforceable, said provision shall survive to the extent it is not so declared, and all of the other provisions of this Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have made and executed this Agreement as of the day and year first above written.

Snow King Holdings, LLC, a Wyoming limited liability company:

Manuel Lopez, Manager

STATE OF WYOMING)
)
COUNTY OF TETON)

This instrument was acknowledged before me on this 17 day of June _____, 2009 by Manuel Lopez as Manager of Snow King Holdings, LLC, a Wyoming limited liability company.

WITNESS my hand and official seal.

Notary Public
My Commission expires: 11-16-2011

DELLA LeBLANC - NOTARY PUBLIC
COUNTY OF TETON STATE OF WYOMING
MY COMMISSION EXPIRES 11/16/2011

Snow King Resort Master Association, a Wyoming non-profit corporation:

Manuel Lopez, President

STATE OF WYOMING)
)
COUNTY OF TETON)

This instrument was acknowledged before me on this 17 day of June _____, 2009 by Manuel Lopez as President of Snow King Resort Master Association, a Wyoming non-profit corporation.

WITNESS my hand and official seal.

Notary Public
My Commission expires: 11-16-2011

DELLA LeBLANC - NOTARY PUBLIC
COUNTY OF TETON STATE OF WYOMING
MY COMMISSION EXPIRES 11/16/2011

Snow King Resort, Inc., a Wyoming corporation:

Manuel Lopez, Manager

STATE OF WYOMING)
)
COUNTY OF TETON)

This instrument was acknowledged before me on this 17 day of June _____, 2009 by Manuel Lopez as Manager of Snow King Resort, Inc., a Wyoming corporation.

WITNESS my hand and official seal.

DELLA LeBLANC - NOTARY PUBLIC
COUNTY OF TETON STATE OF WYOMING
MY COMMISSION EXPIRES 11/16/2011

Notary Public
My Commission expires: 11-16-2011

Grand View Development, LLC, a Wyoming limited liability company:

Manuel Lopez, Manager

STATE OF WYOMING)
)
COUNTY OF TETON)

This instrument was acknowledged before me on this 17 day of June _____, 2009 by Manuel Lopez as Manager of Grand View Development, LLC, a Wyoming limited liability company.

WITNESS my hand and official seal.

DELLA LeBLANC - NOTARY PUBLIC
COUNTY OF TETON STATE OF WYOMING
MY COMMISSION EXPIRES 11/16/2011

Notary Public
My Commission expires: 11-16-2011

Crystal Creek Capital, LLC, a
Wyoming limited liability company:
June 17th 2009

~~Jim~~ James Walter, Manager

STATE OF WYOMING)
)
COUNTY OF TETON)

This instrument was acknowledged before me on this 17 day of June, 2009 by ~~Jim~~ James Walter as Manager of Crystal Creek Capital, LLC, a Wyoming limited liability company.

WITNESS my hand and official seal.

Notary Public
My Commission expires: 8/29/2010

ARLENE RUDD – NOTARY PUBLIC
COUNTY OF LINCOLN STATE OF WYOMING
MY COMMISSION EXPIRES – August 29, 2010

Exhibit C

FILED FOR RECORD BY
FIRST AMERICAN TITLE INSURANCE COMPANY
AS AN ACCOMMODATION ONLY

LAND USE AGREEMENT

This Land Use Agreement ("Agreement") made effective the 17TH day of June, 2009 is entered into by and between Snow King Holdings, LLC, a Wyoming limited liability company, ("SKH"); Snow King Resort Master Association, a Wyoming non-profit corporation, ("SKRMA"); Snow King Resort, Inc., a Wyoming corporation ("SKR"); Snow King Mountain Recreation, LLC, a Wyoming limited liability company ("SKMR"); Grand View Development, LLC ("GVD"); and Crystal Creek Capital, LLC, a Wyoming limited liability company ("CCC"). SKH, SKRMA, SKR, and SKMR shall hereinafter be collectively referred to as "Snow King".

RELEASED
INDEXED ✓
ABSTRACTED ✓
SCANNED

RECITALS

WHEREAS SKH is the current owner of Lots 1 and 2 of the Pine Lodge Addition Subdivision, according to that plat recorded as Plat No. 1257 in the office of the County Clerk in Teton County, Wyoming (the "Property");

WHEREAS SKH and CCC have entered into a Contract to Buy and Sell the Property;

WHEREAS the development and use of the Property is subject to the Snow King Planned Resort District Master Plan recorded by an Affidavit Affecting Title which was recorded in the office of the Teton County Clerk on July 19, 2001 in Book 429 of Photo, Pages 1-211 as Document No. 547519, and the same may be amended from time to time ("Master Plan");

WHEREAS SKRMA is charged with various rights and responsibilities under the Master Plan, including but not limited to:

- Implementing and monitoring the Transportation Demand Management Plan, Housing Mitigation Plan, adherence to Design and Dimensional Limitation Plans and will act as the Architectural Review Board for the Snow King Planned Resort District.
- Building or providing all required improvements or services as needed according to the phased development commensurate and coincidental with phases of the resort's development.
- To either own or have others build and own on its behalf, as well as to maintain, employee housing, parking areas and structures and other infrastructure. All roads, pathways and utilities within the extent of this Master Plan will remain private.
- To act as a Master Association for all the property owners within Sub-Areas 1,2,4,5 and 6 and coordinate the activities within Sub-Area 3 and the Existing Condominiums area that may affect common utilities, safety, transportation, employee housing and parking within the Snow King PRD district.
- Snow removal, lighting, signing, construction and maintenance of common roads, operation of airport, Teton Village and Town Square shuttles, development of

GRANTOR: SNOW KING HOLDINGS LLC ET AL
GRANTEE: SNOW KING HOLDINGS LLC ET AL
Doc 0754334 bk 733 pg 189-196 Filed At 13:02 ON 06/18/09
Sherry L. Daigle Teton County Clerk fees: 29.00
By Michele Fairhurst Deputy

marketing materials, operation of common elements, security systems and personnel, information booths, special events, central check-in areas and other common activities.

- Being the vehicle for pre-screening any final development applications prior to presentation to the Town of Jackson for final development approval. All Final Development plans submitted for review by the Town shall be first reviewed and approved by the Snow King Resort Master Association.

WHEREAS SKR is identified in the Mater Plan, together with SKRMA, as having various obligations under the Master Plan including but not limited to constructing and maintaining any improvements that are their responsibility including landscaping, roads, utilities, employee housing, parking, pathways, recreation, district promotion, common signage, transportation, marketing and any other aspects associated with the proper and successful implementation of the Master Plan. The collective rights, responsibilities and obligations of SKRMA and SKR under the Master Plan are hereinafter referred to as ("Master Plan Obligations").

WHEREAS SKMR operates recreational activities recreational activities on and around Snow King Mountain.

WHEREAS GVD is an owner of a substantial tract of property subject to the Master Plan.

WHEREAS as a condition of CCC purchasing the Property, and as a material inducement to CCC to purchase the Property, CCC is requiring that SKH, SKRMA, SKR, SKMR and GVD enter into this Agreement which shall be for the benefit of CCC and its successors and assigns.

NOW, THEREFORE, in consideration of the above recitals and other good and valuable consideration, the receipt of which is hereby acknowledged, the parties agree as follows:

1. Approval of Building Design.

a. Pursuant to the Master Plan, CCC shall submit to SKRMA for review and approval development plans for the Property ("Development Plans) prior to submission of a final development plan to Town of Jackson for the Property. Development Plans shall consist of a site plan identifying the location of any building or improvements within the Property, sketch elevation drawings showing the exterior elevations of the buildings and improvements, together with a description of the intended uses of the Property.

b. SKRMA shall review the Development Plans and respond with any comments on the major architectural features of the buildings and improvements within thirty (30) days of receipt of the Development Plans, otherwise the Development Plans shall be deemed approved.

c. So long as the proposed uses and major architectural components of any proposed buildings and improvements comply with the terms of the Master Plan, and

specifically those relating to the Property listed on pages 45 to 64, SKRMA shall approve such Development Plans. SKRMA shall not withhold approval based upon any minor architectural or design details, which shall be in the sole discretion of CCC. The parties agree and acknowledge that the sketches for the Property set for in the Master Plan are for illustrative purposes only and shall not be a factor in determining whether or not a proposed design for building or improvement complies with the Master Plan.

d. SKRMA agrees to act in good faith in reviewing Development Plans under this paragraph and to assist and support CCC in its applications to the Town of Jackson for future development of the Property.

e. Should SKRMA be succeeded by any other entity with the duty and authority to review Development Plans for the Property under the Master Plan, Snow King agrees that the provisions of this paragraph shall be binding upon any such entity

2. Waiver of Objection to and Agreement not to Oppose Replat of Property or Proposed Amendment to Master Plan for the Property. Snow King hereby waives any objections they might have to any proposed replat of the Property for the purpose of either reconfiguring the division of the Property or further subdividing the Property so long as such replat affects only the Property. The parties acknowledge that any such replat may require an amendment to the Master Plan. Accordingly, Snow King hereby waives any objections to any proposed amendment to the Master Plan affecting the Property and agrees not to oppose any such replat of the Property or proposed amendment to the Master Plan so long as such replat or proposed amendment affects only the Property. Any impact from any such replat or amendment shall be CCC's responsibility at its sole cost and expense.

3. Landscape Ratio and Setback. Snow King has agreed to establish landscape ratios ("LSR") and Set Back requirements for the Property in accordance with the Master Plan. The LSR for the Property is hereby established at zero (0) provided that Snow King represents and CCC acknowledges that in spite of the zero LSR the Town of Jackson may require some landscape screening on the Property as part of any final development plan approval. The setback from the east boundary line of the Property is hereby established at zero (0) feet in accordance with the authority granted pursuant to the Master Plan. To the extent that Snow King is able under the Master Plan it hereby agrees to and will not object to a zero (0) foot setback on the south boundary.

4. Responsibility for Obligations under Master Plan; SKRMA Assessments The parties agree to comply with, satisfy and remain current with any and all of their respective obligations under the Master Plan so as to not jeopardize, and to keep in good standing, the rights of all parties hereto under the Master Plan. Snow King further agrees that CCC shall not be required to bear the costs of any Master Plan Obligations other than subdivision improvements necessary for the development and use of the Property. Examples of subdivision improvements necessary for the development and use of the Property shall include: onsite parking on the Property, sewer and water system connections from sewer and water service lines located on the Property to Town of Jackson water and sewer mains, and side walk improvements on the Property **and employee and affordable housing obligations generated by CCC's use and**

development of the Property. Should the Town of Jackson require the construction of any improvements under the Master Plan as a condition of approval of development on the Property, which might be triggered by development on the Property and which are not situated upon the Property, Snow King shall be responsible for financing and constructing any such improvements. Snow King further agrees to defend, indemnify and hold CCC harmless from any and all costs resulting from Master Plan Obligations other than subdivision improvements necessary for the development and use of the Property. **Anything within the Master Plan or the Covenants imposed on the Property to the contrary notwithstanding** CCC shall not be responsible to SKRMA for any assessments unless otherwise specifically agreed to by CCC.

5. Indemnity for Access and Recreation Easement Agreement. CCC and SKH hereby agree to the following provisions regarding affirmative responsibilities of SKH and SKMR under that Access and Recreation Easement Agreement by and between Pine Glades Development, LLC and SKH and SKMR recorded in the office of the Teton County Clerk on August 20, 2008 in Book 706 of Photo, Pages 518-531 as Document No. 0736570 ("Access and Recreation Easement") as amended:

a. SKH and/or SKMR shall be solely responsible to maintain insurance required under section 2, and to construct and maintain any improvements under sections 4(b) and 4(c), of the Access and Recreation Easement.

b. SKH and SKMR shall indemnify, defend and hold harmless CCC from and against any and all claims, actions, suits, liabilities, damages, fines, penalties, costs, expenses and fees (including reasonable attorneys fees) (collectively referred to as "Claim") which may be suffered by, incurred by, or asserted against SKH, SKMR or their employees, agents heirs, legal representatives, successors and assigns as a result of or in connection with SKH and/or SKMR's use of the Access and Recreation Easement unless the Claim is a result of or in connection with CCC's use of the Access and Recreation Easement, in which case CCC shall indemnify, defend and hold harmless SKH and/or SKMR from such Claim.

c. SKH and SKMR shall provide notice of this obligation to indemnify CCC to its successors and assigns of its obligations under the Access and Recreation Easement

6. Relocation of Gas Line and Realignment of South Cache Street. Snow King hereby agrees to relocate or cause the relocation of the gas line, and realign the portion of South Cache Street, located upon the Property so that the gas line and South Cache Street are located entirely within the thirty-five (35) foot easement located on the western boundary without cost or expense to CCC. CCC shall give Snow King notice at least 150 days in advance of the estimated date for commencement of construction of improvements and Snow King shall accomplish the relocation of the pipe line and roadway prior to commencement of construction.

7. Agreement and Obligations to Run With Land. The agreements and obligations contained herein contained shall be for the benefit of the Lots , and shall inure

to the benefit of, and be binding upon, the parties hereto and their respective heirs, successors and assigns and any and all entities currently existing or which may be formed in the future that are related to or affiliated with SKH, SKRMA, SKR, SKMR, or GVD

8. Enforcement and Remedies. The parties hereto each shall be entitled to enforce this Agreement by specific performance, by injunction or restraint to prevent a violation or attempted violation of this Agreement or to compel performance under the Agreement, or by bringing an action for damages, or any of them, without the necessity of making an election. The prevailing party shall be entitled to recover from the other party such sums as the court may adjudge reasonable as attorney's fees and costs, in addition to all other relief provided by law or in equity.

9. Final and Entire Agreement. This Agreement contains the final and entire agreement between the parties hereto as to the subject matter hereof. Any subsequent amendment to this Agreement shall be valid only if executed in writing by the parties hereto, their successors or assigns. Moreover, compliance with any condition or term set forth herein may not be waived, except by a writing duly and validly executed by the party waiving compliance. No delay on the part of any party hereto in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any waiver on the part of any party hereto of any such right, power or privilege, nor any single or partial exercise of any such right, power or privilege preclude any further exercise thereof or the exercise of any other such right, power or privilege.

10. Captions. Captions and headings in this Agreement are for convenience only and shall not be used to interpret or construe its provisions.

11. Gender, Singular, Plural Terms. As used in this Agreement, the singular shall include the plural, the plural the singular, and the use of any gender shall be applicable to all genders.

12. Recordation. The parties hereto agree and warrant that this agreement shall be recorded in the land records for Lots 1 and 2 of the Pine Lodge Addition in the Office of the Teton County Clerk, Teton County, Wyoming.

13. Governing Law. This Agreement shall be construed, performed and enforced in accordance with, and governed by, the laws of the State of Wyoming.

14. Severability. In the event that any part of this Agreement is declared by any court or other judicial or administrative body to be null, void or unenforceable, said provision shall survive to the extent it is not so declared, and all of the other provisions of this Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have made and executed this Agreement as of the day and year first above written.

Snow King Holdings, LLC, a Wyoming limited liability company

Manuel Lopez, Manager

STATE OF WYOMING)
)
COUNTY OF TETON)

This instrument was acknowledged before me on this 17 day of June _____, 2009 by Manuel Lopez as Manager of Snow King Holdings, LLC, a Wyoming limited liability company.

WITNESS my hand and official seal.

DELLA LeBLANC - NOTARY PUBLIC
COUNTY OF TETON STATE OF WYOMING
MY COMMISSION EXPIRES 11/16/2011

Notary Public
My Commission expires 11·16·2011

Snow King Resort Master Association, a Wyoming non-profit corporation

Manuel Lopez, President

STATE OF WYOMING)
)
COUNTY OF TETON)

This instrument was acknowledged before me on this 17 day of June _____, 2009 by Manuel Lopez as President of Snow King Resort Master Association, a Wyoming non-profit corporation.

WITNESS my hand and official seal.

DELLA LeBLANC - NOTARY PUBLIC
COUNTY OF TETON STATE OF WYOMING
MY COMMISSION EXPIRES 11/16/2011

Notary Public
My Commission expires 11·16·20091

Snow King Resort, Inc., a Wyoming corporation:

Manuel Lopez, Manager

STATE OF WYOMING)
)
COUNTY OF TETON)

This instrument was acknowledged before me on this 17 day of June _____, 2009 by Manuel Lopez as Manager of Snow King Resort, Inc., a Wyoming corporation.

WITNESS my hand and official seal.

DELLA LeBLANC - NOTARY PUBLIC
COUNTY OF TETON STATE OF WYOMING
MY COMMISSION EXPIRES 11/16/2011

Notary Public
My Commission expires: 11·16·2011

Snow King Mountain Recreation, LLC, a Wyoming limited liability company:

Manuel Lopez, Manager

STATE OF WYOMING)
)
COUNTY OF TETON)

This instrument was acknowledged before me on this 17 day of June _____, 2009 by Manuel Lopez as Manager of Snow King Mountain Recreation, LLC, a Wyoming limited liability company.

WITNESS my hand and official seal.

DELLA LeBLANC - NOTARY PUBLIC
COUNTY OF TETON STATE OF WYOMING
MY COMMISSION EXPIRES 11/16/2011

Notary Public
My Commission expires: 11·16·2011

Grand View Development, LLC, a
Wyoming limited liability company

Manuel Lopez, Manager

STATE OF WYOMING)
)
COUNTY OF TETON)

This instrument was acknowledged before me on this 17 day of June _____, 2009 by Manuel Lopez as Manager of Grand View Development, LLC, a Wyoming limited liability company.

WITNESS my hand and official seal.

DELLA LeBLANC - NOTARY PUBLIC
COUNTY OF TETON STATE OF WYOMING
MY COMMISSION EXPIRES 11/16/2011

Notary Public
My Commission expires 11·16·2011

Crystal Creek Capital, LLC, a Wyoming
limited liability company:

~~Jim~~ James Walter, Manager

STATE OF WYOMING)
)
COUNTY OF TETON)

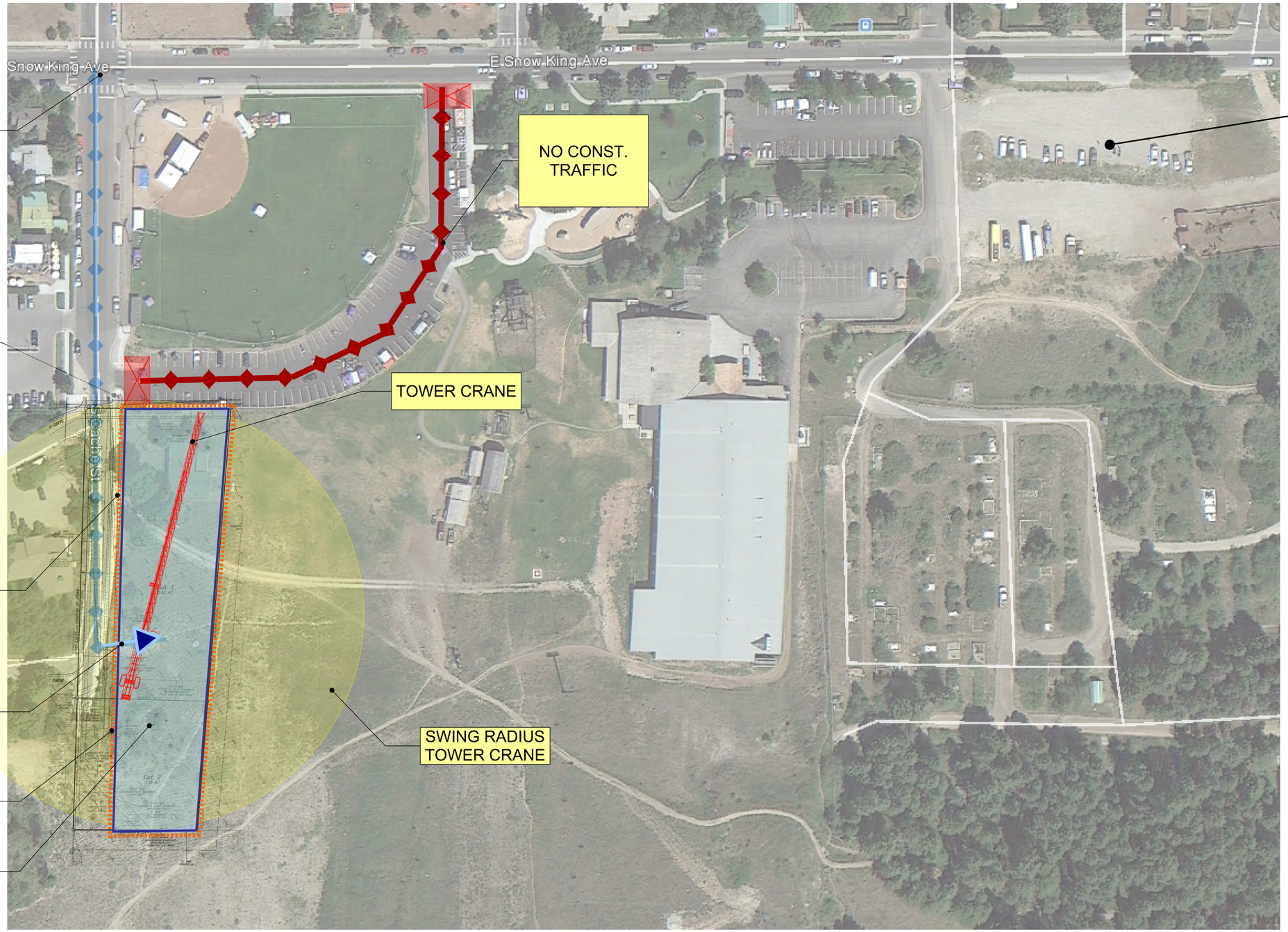
This instrument was acknowledged before me on this 17 day of June _____, 2009 by ~~Jim~~ James Walter as Manager of Crystal Creek Capital, LLC, a Wyoming limited liability company.

WITNESS my hand and official seal.

ARLENE RUDD – NOTARY PUBLIC
COUNTY OF LINCOLN STATE OF WYOMING
MY COMMISSION EXPIRES – August 29, 2010

Notary Public
My Commission expires: 8/29/2010

Exhibit D



GE JOHNSON
CONSTRUCTION COMPANY

TOWN HILL LOFTS
JACKSON, WY
- SITE LOGISTICS -

CONTRACTOR OF CHOICE℠

Exhibit E

JORGENSEN
GEOTECHNICAL, LLC

PO Box 9550 · 1315 HWY 89 S., Suite 201
Jackson, WY 83002
PH: 307.733.5150
| www.jorgeng.com

January 15, 2016

Jim Walters
Crystal Creek Capital
Jackson, Wyoming
Jim@crystalcreekcapital.com

RE: GEOTECHNICAL INVESTIGATION REPORT FOR NEW RESIDENTIAL CONSTRUCTION, 680 SOUTH CACHE STREET, JACKSON, WYOMING

Dear Mr. Walters:

We are pleased to present this report of our Geotechnical Site Investigation for the proposed residential units located at 680 South Cache Street in Jackson, Wyoming. The report describes site conditions and presents conclusions and recommendations to support the design and construction of foundation elements.

In summary, 680 South Cache is underlain by gravel and cobble with minor beds of fine grained alluvial and colluvial deposits. Loess deposits were also discovered on the north portion of the lot. The layers of stony gravel and cobble should provide adequate bearing capacities for the proposed structures.

If you have any questions about this report, or if we may provide other services to you, please contact us. As the project progresses, we will be available to answer questions.

Respectfully submitted,
JORGENSEN GEOTECHNICAL, LLC.

Reviewed by:

Professional Engineer (Civil)
WESLEY R. WOMACK
4958
Date
WYOMING

1/15/2016

Harrison Carter, E.I.

Ray Womack, P.E., P.G.

Enclosure: Report

Geotechnical Investigation Report
680 South Cache Street
Jackson, Wyoming

Prepared for:

Jim Walters
Crystal Creek Capital
Jackson, Wyoming

Prepared by:

JORGENSEN
GEOTECHNICAL, LLC

PO Box 9550
Jackson, Wyoming 83002

January 15, 2016

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PO Box 9550 · 1315 HWY 89 S., Suite 201
Jackson, WY 83002
PH: 307.733.5150
| www.jorgeng.com

1.0 INTRODUCTION

At the request of Mr. Jim Walters, Jorgensen Geotechnical conducted a Geotechnical Site Investigation at 680 South Cache Street in Jackson, Wyoming (Figure 1). The purposes were to observe soil and groundwater conditions, evaluate soil-engineering properties, and to provide recommendations to support design and construction of foundation and drainage elements. The scope of services included 6 geotechnical borings, two test pits, standard penetration tests (SPT), collecting soils samples for laboratory testing, engineering analyses, and this geotechnical investigation report.

2.0 PROPOSED CONSTRUCTION

No site plan was available at the time of the site investigation, but it is our understanding that the construction will consist of multi-story units that will occupy the majority of the lot. From the conceptual drawings provided by Berlin Architects, it is assumed that the building will be stepping up the hill from the north to the south. The drawings also indicate that the bottom level of each unit will consist of a parking structure.

3.0 INVESTIGATION PROCEDURE

3.1 Field Investigation

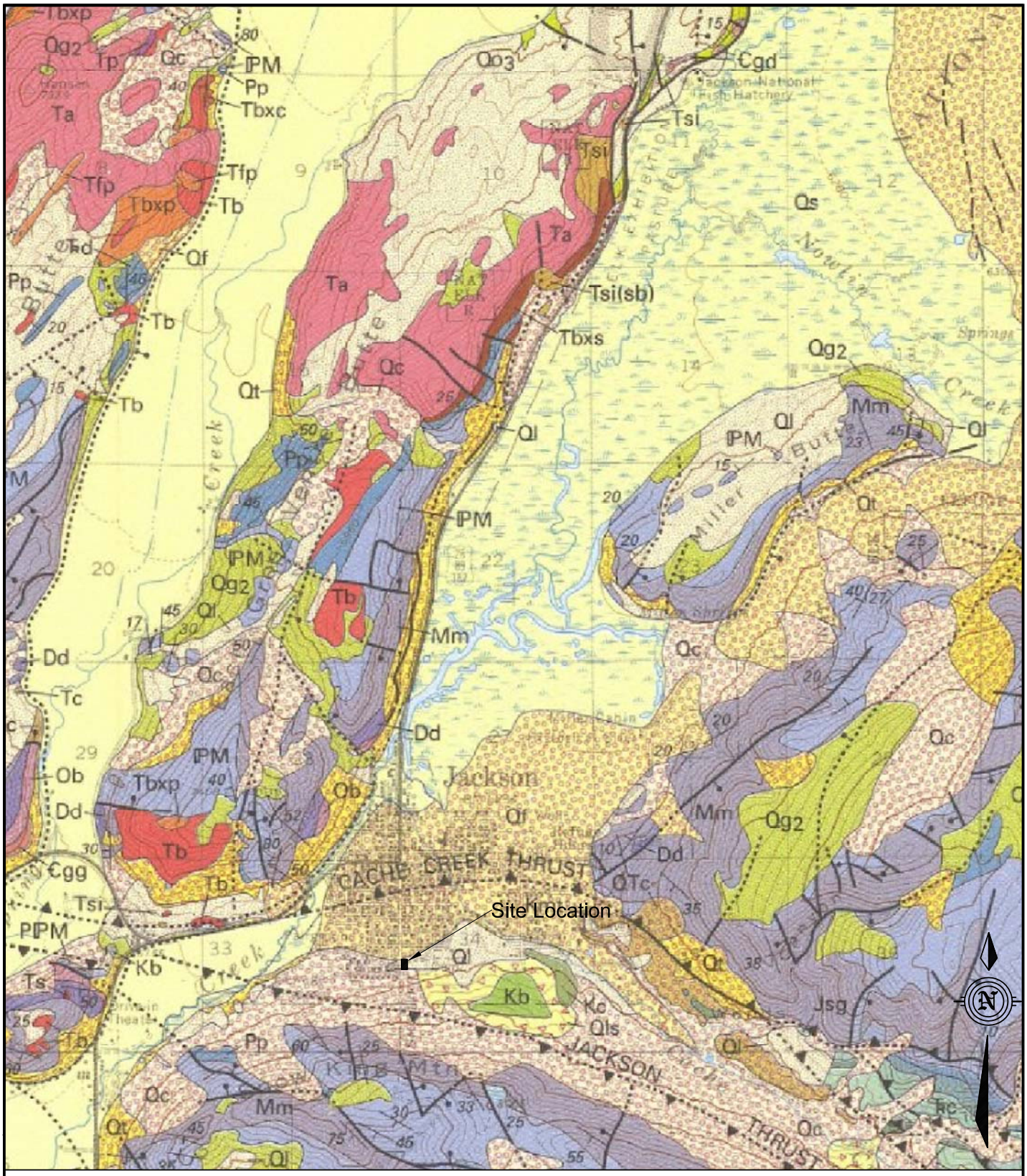
The six geotechnical borings were conducted on October 17th and 18th and were drilled to depths from 11 to 32 feet below ground surface (bgs). Test Pit 1 (TP-1) was excavated on June 27th, 2015 to a depth of 9.5 feet and Test Pit 2 (TP-2) was excavated on December 8th and to depth of 20 feet bgs. Soil type, thickness, consistency, and relative moisture content were observed and documented by a staff Geotechnical Engineer. Site conditions may vary and actual soil conditions may differ from those represented in the exploration logs. Boring and test pit locations are shown on Figure 2. The geotechnical boring logs and test pit logs are presented graphically in Appendix A.

3.2 Laboratory Analysis

Six fine grained soil samples were obtained for laboratory analysis. The six soil samples underwent grain size analysis, insitu moisture contents were determined, and Atterberg Limits were established. A soil sample from borehole 2 (BH15-2) was also sent to SK Geotechnical to have the corrosive characteristics determined. Laboratory test results are discussed in **Soils 4.3** and presented in Appendix B.

3.3 Report Preparation

The report describes the geological site conditions, includes a site location and geologic map, and test pit logs. The report provides engineering analyses and recommendations for construction of foundation elements.



SCALE: 1" = 4000'

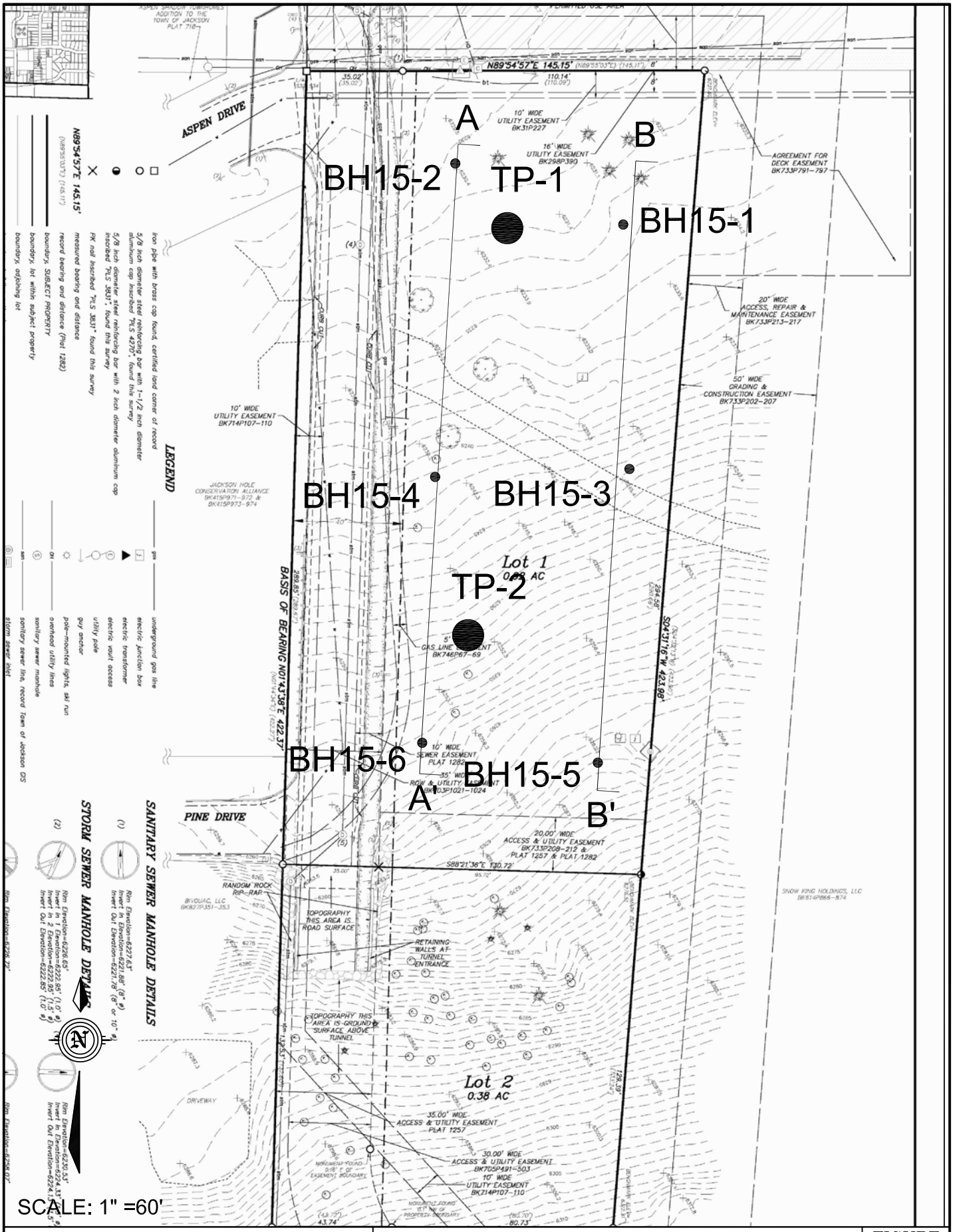
Map Symbols:
- Ql - Loess
- Qls - Landslide Debris
- Qc - Colluvium
- Qf - Alluvial Fan Deposit
- Kb-Bacon Ridge "Sandstone"
- Kc- Cody Shale

From Love et al, 1992, Geologic Map of the Grand Teton National Park, Teton County, Wyoming, Map I-2031

Geotechnical Investigation Report 680 S. Cache Street Jackson, Wyoming	Site Location and Geologic Map	FIGURE 1

UPDATE TIME:
\ \ \mw \jh \ \H:\2015\15427\32-Geotech\Figures\Geo map

Jorgensen Geotechnical, LLC



Geotechnical Investigation Report 680 S. Cache Street Jackson, Wyoming	Test Pit and Cross Section Location Map	FIGURE 2

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4.0 SITE CONDITIONS

4.1 Description

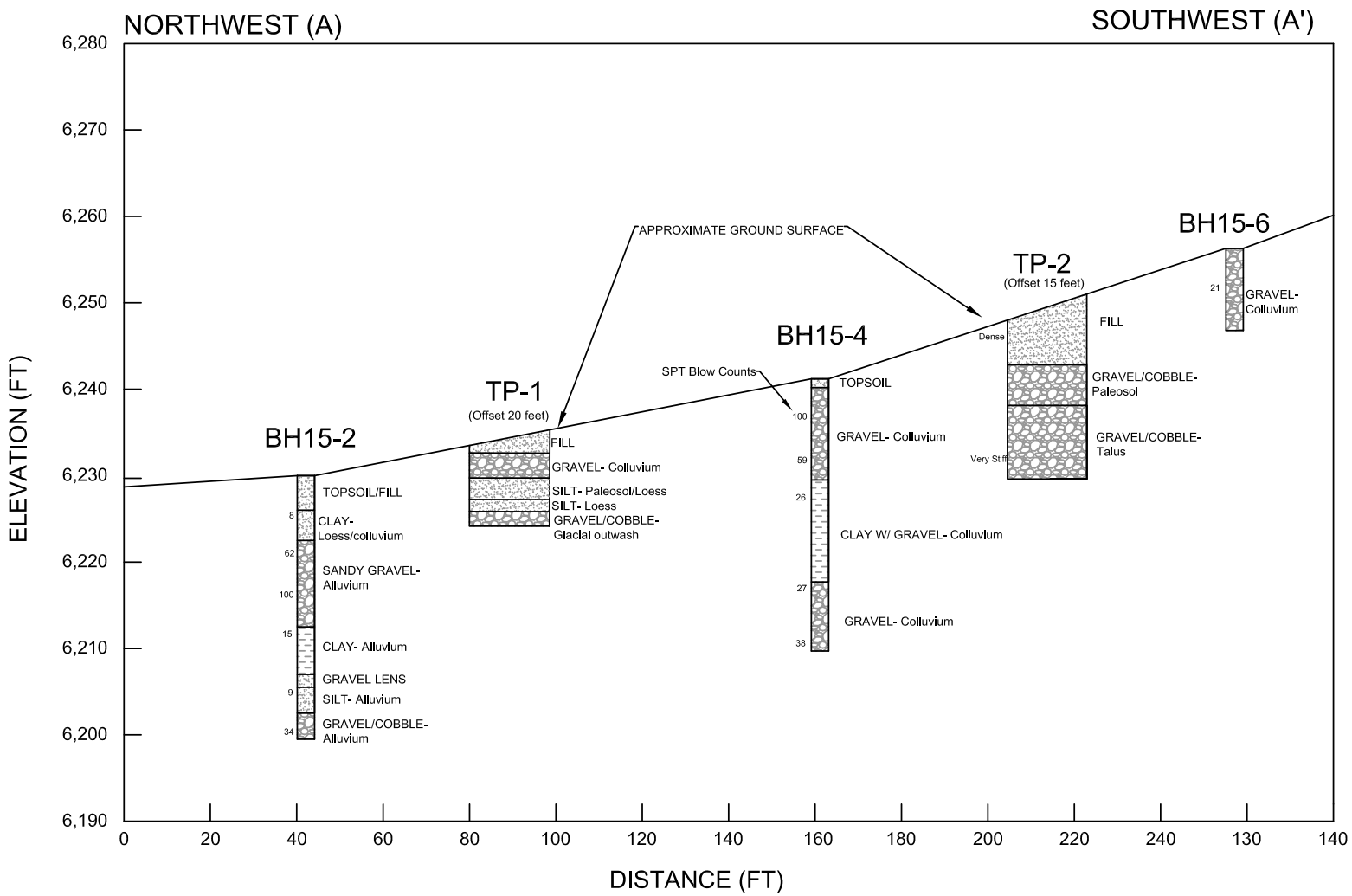
Lot 1 is located southeast of the intersection of South Cache Street and Aspen Drive, and consists of .92 acres (Figure 2). Access to the residences will be via South Cache Street. The site is situated on the north facing slope of Snow King Mountain at an elevation of 6,230 to 6,270 feet above mean sea level. Surface conditions consist of mainly grass with a small group of cottonwood trees near the north end of the lot. The site has had several past improvements including a gravel service road extending west to east approximately 120 feet from the north border of the lot. An area of disturbed soil and lack of vegetation indicates the past location of a small structure, directly north of the gravel service road.

4.2 Geology

The property is located within the Geologic Map of Grand Teton National Park (Love et al, 1992), shown on Figure 1. The map shows the location of surface deposits, bedrock units, and geologic structures (i.e., faults and folds). The site is located in a complex geologic area at the convergence of several geologic units. The north portion of site is underlain by Quaternary aged Loess (Ql) on top of stony and fine grained alluvium. The remainder of the site is underlain by interbedded fine grained and stony alluvial and colluvial deposits. Bedrock was not encountered in any of the boreholes or the test pits. Detailed geological cross sections can be found in Figure 3 and Figure 4.

The inferred trace of the Cache Creek thrust fault is shown in Figure 1 as the dotted line with “teeth” and is located approximately 2,000 feet north of the site. Love, et al. (1992), projected the Jackson Thrust Fault across the north face of Snow King Mountain about 1,000 feet upslope of the project, and it is also shown in Figure 1 as a dotted line with “teeth”. Both of these faults are considered to be very old and should not affect the project. These ancient structures do not offset Quaternary deposits and are not believed to be active. As a result, neither of these faults are included in the calculation of seismic response spectra or local ground acceleration. The Teton Fault at the base of the Teton Range about 5 miles west of the site is considered to be seismically active.

East of the site in the vicinity of the Snow King Resort, landslide deposits occur associated with the outcrops of the Bacon Ridge “Sandstone” (Kb) and Cody Shale (Kc). Bacon Ridge contains shale and bentonite beds subject to sliding, and the Cody formation is a notoriously landslide-prone unit throughout the region. The slide has not been mapped at this site, but is a few hundred feet to the east. It is not known to be active and has been heavily developed.



Silt- Loess or topsoil/fill

Gravel/Cobble- Suitable Bearing Soil

Clay- Alluvium or Colluvium

Note: Blow counts have been adjusted to (N1)60 values

Scale: 1"=40' Horizontal 1"=20' Vertical	Geotechnical Investigation Report 680 S. Cache Street Jackson, Wyoming	Geologic Cross-Section A - A'	FIGURE 3

UPDATE TIME: \0000\ \0000\ \ \H:\2015\15427\32-Geotech\Figures\CSection A-A'

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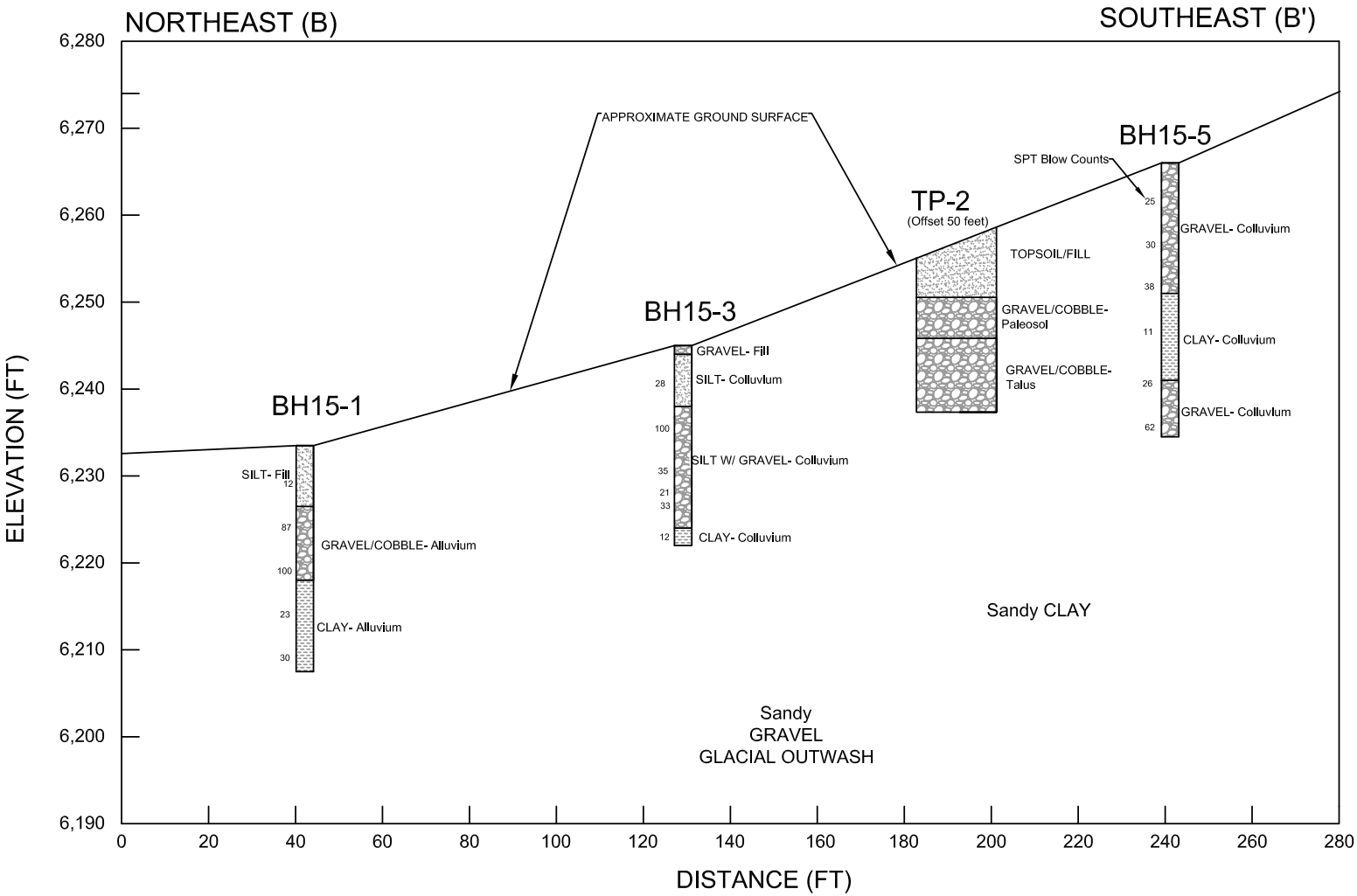

Silt- Loess or topsoil/fill

Gravel/Cobble- Suitable Bearing Soil

Clay- Alluvium or Colluvium

Note: Blow counts have been adjusted to (N1)60 values

Scale: 1"=40' Horizontal 1"=20' Vertical	Geotechnical Investigation Report 680 S. Cache Street Jackson, Wyoming	Geologic Cross-Section B - B'	FIGURE 4

UPDATE TIME: \0000\ \0000\ \ H:\2015\15427\32-Geotech\Figures\CSection B-B'

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4.3 Soils

The north end of the is underlain by alluvial gravel and cobble underlying a layer of a windblown silt known as "loess". The loess extends to depths of 7.5 feet bgs in borehole 2 (BH15-2) and 7.8 feet bgs in TP-1. A silty sandy material was discovered in borehole 1 (BH15-1) to a depth of 8.0 feet bgs that is described as a fill, and is assumed to be a result of reworked loess and topsoil from past construction. In general, the loess is logged as slightly moist, brown, intact/massive, and medium stiff. Large boulders up to 4 feet in diameter were discovered in TP-1 and are expected to be found throughout the site.

A layer of stony alluvium described as dry, brown, dense, mixed, limestone and sandstone clasts with a silty sand matrix lies beneath the loess. The stony alluvium extends to a depth of 17 feet bgs and 19 feet bgs in BH15-2 and BH15-1, respectively. The bottom of the stony alluvium was not discovered in TP-1. The stony alluvium appears to be a suitable bearing stratum for the proposed building. Beneath the suitable bearing layer are several strata of clays, silts and gravels. These soils are too deep to be affected by foundation loads, but sould be further reviewed if foundations extend down to them. Laboratory results from BH15-2 at a depth of 4 feet bgs indicate the absence of corrosive characteristics.

The south portion of the site is underlain by a fine grained topsoil/fill layer that varies in depth, with stony gravel and cobble colluvium extending beneath the topsoil/fill. The silty topsoil/fill layer extends to a depth of 7 feet bgs in borehole 3 (BH15-3). Below the silt layer are stony colluvium layers that are assumed to be suitable bearing strata.

Laboratory tests classify the fine grained samples as lean clay with varying amounts of sand. Atterberg tests of the samples indicate the soils are low plastic to medium plastic, with Plasticity Indices (PI) of 11 to 21.

Detailed geologic cross sections showing the soil layering can be found in Figure 3 and Figure 4. The fine grained silty topsoil layers, acceptable bearing strata, and fine grained layer(s) below the acceptable bearing strata are shown.

4.4 Groundwater

Groundwater was not encountered in any of the Test Pits or Boreholes. Our investigation occurred after peak runoff and may represent relatively low groundwater levels. However groundwater at the site is assumed to be deep and is unlikely to pose an issue with anticipated construction.

4.5 Earthquakes and Seismicity

Jackson Hole is located within the Intermountain Seismic Belt, a zone of seismicity that extends from southern Utah through eastern Idaho, western Montana, and western Wyoming (Smith and Arabasz, 1991). The Teton fault along the eastern margin of the Teton Range is

approximately 8 miles to the northwest is considered an important structural element of the Intermountain Seismic Belt. Predicted recurrence intervals for maximum credible earthquakes have passed for most of the fault systems capable of generating magnitude 7.5 events in western Wyoming (Case, 1997), implying that the risk of major earthquakes is relatively high.

Ground motion accelerations and a design response spectrum were derived for the project site in accordance with the general procedure defined in the 2012 International Building Code (IBC). The provisions of the 2012 IBC are intended to provide uniform levels of performance for structures, depending on their occupancy and use and the risk inherent to their failure. The approach adopted in the 2012 IBC is intended to provide a uniform margin of safety against collapse at the *design* ground motion. The *design* earthquake ground motion is selected at a ground shaking level that is 2/3 of the *maximum considered earthquake* (MCE) ground motion, which has a likelihood of exceedance of 2 percent in 50 years (a return period of about 2,500 years). The United States Geological Survey predicts peak ground accelerations (PGA) with a 10% risk of occurrence in 50 years of .20g and with 2% risk in 50 years of .46g. The Site Ground Motion and Design Response Spectrum is presented in Figure 5. The owner should be aware that the IBC is not intended to prevent damage or loss of function during a major earthquake. It is intended to reduce the risk of loss of life.

4.6 Geologic Hazards and Liquefaction

The owner should be aware that in the event of a large magnitude earthquake (i.e., approximately 7.5), there are several geologic hazards that could potentially cause damage to structures (Smith, et al, 1993). Potential hazards at this site might include strong ground shaking, ground cracking, and instability of steep slopes. The owners may wish to consider the option of carrying earthquake insurance in addition to homeowner's insurance.

Loose, saturated sands and silty sands, and in some cases, silts and gravels, may liquefy when exposed to seismic shaking. Evaluation of the liquefaction potential at this site is beyond the scope of this investigation. However, the gravel and cobbles encountered in the pits appear too stony and dense to liquefy in a seismic event, although it is possible that liquefiable material occurs at greater depths and liquefaction could cause differential settlement but is unlikely to cause “lateral spreading”, which is a major slope movement that is a common source of catastrophic failure during earthquakes.

As discussed in section **4.3 Geology**, and ancient landslide occupies the slope to the east, including the Snow King Resort. Landslide deposits were not identified at the site and no stability issues were encountered at the Pine Glades tunnel upslope. A much more extensive investigation would be required to prove without doubt that there is no chance of slope instability.

USGS Design Maps Summary Report

User-Specified Input

Report Title 680 South Cache Street
Wed December 16, 2015 16:24:58 UTC

Building Code Reference Document 2012 International Building Code
(which utilizes USGS hazard data available in 2008)

Site Coordinates 43.47193°N, 110.76206°W

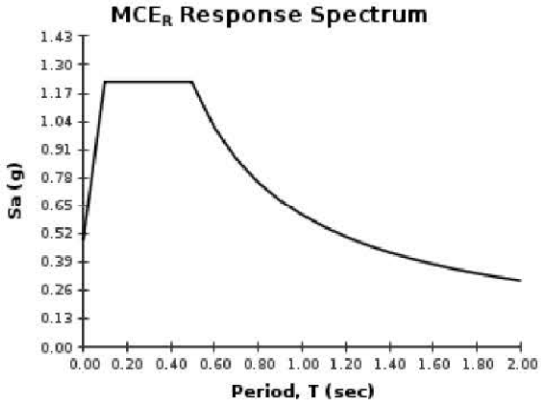
Site Soil Classification Site Class D – "Stiff Soil"

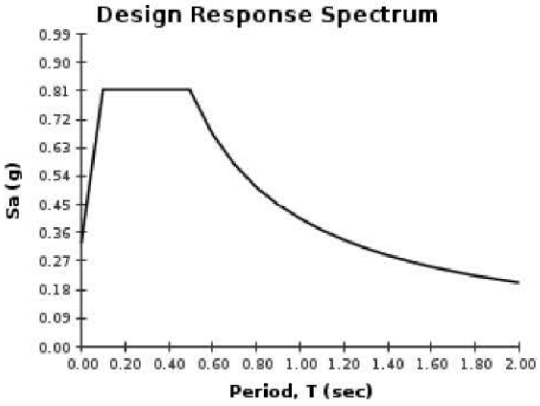
Risk Category I/II/III

USGS-Provided Output

S_S =	1.194 g	S_{MS} =	1.221 g	S_{DS} =	0.814 g
S_1 =	0.361 g	S_{M1} =	0.606 g	S_{D1} =	0.404 g

For information on how the SS and S1 values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the "2009 NEHRP" building code reference document.





Although this information is a product of the U.S. Geological Survey, we provide no warranty, expressed or implied, as to the accuracy of the data contained therein. This tool is not a substitute for technical subject-matter knowledge.

Geotechnical Investigation Report 680 S. Cache Street Jackson, Wyoming	Seismic Design Spectral Response	FIGURE 5

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5.0 ENGINEERING ANALYSES

5.1 Settlement

Significant consolidation of the stony alluvium and colluvium across the site is not anticipated. Topsoil and any fine grained soils should be removed below all footings, including garages. Lenses of loose sand or fine-grained material may occur in the stony material; if encountered during construction, they should be removed and replaced with imported engineered fill.

5.2 Bearing Capacity

Bearing capacity of soil refers to its ability to resist shear failure under load. It is assumed that footings are placed on structural fill or directly in contact with the stony gravel/cobble. The bearing capacity of the compacted stony alluvium or colluvium was estimated using Terzaghi's bearing capacity equation for isolated and strip footings (Bowles, 1996). Based on soil type classification, and assuming 24-inch footings placed at a depth of 3.0 feet, an allowable bearing capacity of approximately 6,000 psf is estimated assuming removal of non-stony material within the zone of influence of foundation elements. Allowable loads may be increased by 1/2 for seismic or other transient loading. **If assumptions stated do not coincide with design assumptions or design documents, this office must be contacted in order to make the appropriate adjustments.**

5.3 Lateral Loads on Foundation Walls

Lateral pressures were calculated using methods suggested by Bowles (1996). Lateral pressures were calculated for at-rest, active, and passive conditions and presented in Table 5-1. Two sets of values are represented in Table 5-1. The first set represents the north end of the lot and assumes a level ground surface slope adjacent to retaining structures. The second set represents the south end of the lot and assumes a sloped ground surface adjacent to the retaining structure. At rest and active pressure have been calculated assuming a +18 degrees slope uphill of the project. We have assumed site derived stony gravel and cobble material (sandy gravel and cobble) will be used as exterior backfill, which has an internal friction of 35° and a unit weight of 135 pcf. **If the assumptions stated above do not reflect the assumptions in the design documents, this office must be contacted in order to make the appropriate adjustments.**

Table 5- 1: Lateral Pressure Parameters for Native Stony Gravel/Cobble

Condition	Coefficient of Earth Pressure*	γK (equivalent fluid pressure psf)†
Static Conditions Level backfill*	K_0 = .43 K_a = .27 K_p = 3.69	γK_0 = 58 γK_a = 37 γK_p = 498
Sloping backfill**	K_0 = .62 K_a = .33	γK_0 = 84 γK_a = 45
Earthquake Conditions Level backfill	K_{ae} = .33 K_{pe} = 3.49	γK_{ae} = 44 γK_{pe} = 472
Sloping backfill**	K_{ae} = .43	γK_{ae} = 57

*Assumes a soil friction angle of 35 degrees.

†Assumes a soil unit weight of 135 pcf.

**Slope angle of +18 degrees upslope

5.3.1 Active Pressures

For lateral pressure design of retaining walls, which are allowed to deflect and develop an active soil wedge, the calculated equivalent fluid pressure (γKa) is about 37 pcf (pounds per cubic foot) for the horizontal soil adjacent to the retaining structure, and 45 pcf for the sloped ground surface. This pressure distribution would be equivalent to a force of approximately $18.5H^2$ pounds per horizontal foot of wall acting at one-third the wall height (H) above the base for the horizontal soil, and $22.5H^2$ for the sloped soil.

Lateral pressures on retaining walls from earthquakes were estimated using the Mononobe-Okabe equations (Bowles, 1996; Duncan et al, 1990). Because the maximum acceleration occurs only briefly during an earthquake, it is common practice when designing dams and other earth structures to reduce the design acceleration to ½ of the maximum design acceleration (Hynes and Franklin, 1984). We have calculated equivalent fluid pressures using a horizontal acceleration k_h of 0.10g (1/2 of k_h max) per the USGS (2008).

Research has indicated that lateral pressures due to earthquakes are non-hydrostatic in distribution, and the resultant acts above the lower third-point of the wall (Bakeer, et al, 1990). Accordingly, active soil pressures have been divided into two components that act at different wall heights. The static force acts at the lower third-point. The Mononobe-Okabe equations were used to estimate dynamic forces against retaining walls, using half the maximum horizontal acceleration (Bowles, 1996; Hynes and Franklin, 1984; Whitman, 1990). A maximum horizontal seismic acceleration in bedrock of 0.20 g is predicted for this site with a uniform likelihood of exceedance of 10% in 50 years. One-half of the maximum acceleration, 0.10 g, was used to estimate lateral loads during an earthquake. The dynamic component is estimated as $0.5*(\gamma K_{ae} - \gamma K_a)$, which is approximately $4H^2$ pounds per foot of wall applied at 0.6H (60% of wall height). For a sloped soil scenario, the dynamic component increases to $6H^2$ pounds per foot of wall applied at .6H.

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5.3.2 At Rest Pressures

For lateral pressure design of basement walls, which are restrained and not allowed to deflect, the calculated at rest earth pressure (γK_o) is about 58 pcf for horizontal ground surface and 84 pcf in the event of sloped ground surface. Design control of such walls should utilize whichever generates the higher resultant force: at-rest pressures (γK_o) or active seismic pressures (γK_{ae}).

5.3.3 Passive Pressures

For passive pressure design, the earth pressure coefficient (γK_p) is about 498 pcf, assuming a horizontal ground surface adjacent to the wall. The passive pressure is reduced to 472 pcf during a seismic event for horizontal ground surface adjacent to the retaining structure. Passive pressure design should neglect loose fill and soil located within the frost zone.

5.4 Soil Friction

Terzaghi et al, (1996) suggest use of the internal strength of the soil for the friction angle along a concrete base in granular soils, with a maximum value of 30 degrees. Accordingly, a friction value of 0.58, which is the tangent of 30 degrees, is suggested if foundation elements are founded on stony pit run material, native or imported, compacted fill. The friction value may be combined with the passive pressure to resist horizontal loads.

6.0 RECOMMENDATIONS

6.1 Foundations

In our opinion, the existing native stony alluvial and colluvial deposits, consisting of sandy gravel and cobbles, are likely to provide adequate support for anticipated foundation loads. We strongly recommend that the building foundation systems be placed entirely on native stony material or compacted structural fill consisting of imported “pit-run” or re-compacted stony site soil. Topsoil, fine-grained deposits and windblown silt should be removed and building foundations should be placed entirely on native stony alluvium or approved engineered fill.

The stony colluvium layer found in TP-1 that extends from .4 to 4.3 feet bgs **in not considered to be a suitable bearing material due to the loess that is found beneath. The suitable bearing material is the gravel/cobble that is found at 7.8 feet bgs in TP-1.** It is suggested that this office review foundation plans to ensure the foundations are placed on suitable soil stratum.

All footings should be placed below the frost line, including exterior footings for awnings and porches. The building code for Teton County requires that footings be placed at a minimum depth of 34 inches from finished grade, with a minimum foundation exposure of 6 inches above finished grade.

Minor cracks in the foundation walls, floor slabs, and sheetrock are normal and should not be a cause for concern. A structural engineer should review the plans to check that adequate lateral restraint is provided to foundation walls by the floor joists.

6.2 Site Preparation

Prior to placement of structural fill, the site should be cleared and stripped of topsoil and organic debris. No brush, roots, frozen material, or other deleterious or unsuitable materials shall be incorporated in the foundation subgrade or structural fill. All exposed subgrade surfaces should be free of mounds and depressions which could prevent uniform compaction. If unexpected fills or obstructions are encountered during site clearing or excavation, such features should be removed and the excavation thoroughly cleared prior to backfill placement and/or construction.

During excavation for the foundation footings, removal of large cobbles may disturb and loosen the surrounding material. All disturbed areas should be compacted with a smooth-drum vibratory roller, in vibratory mode with a minimum of three passes, prior to placement of structural fill and footing construction. The actual number of passes should be determined by observing whether the surface is yielding after each pass. If the surface appears to be yielding, the number of passes should be increased until a non-yielding condition is observed and approved by the Geotechnical Engineer.

All excavations should be inspected by a representative of this office prior to fill or concrete placement, especially if questionable materials are exposed.

6.3 Excavation and Cut Slope Stability

OSHA regulations (29CFR1926) appear to classify the alluvial fan material at the site as Type C soil. Simple cut slopes should be no steeper than 1.5H:1V. The contractor shall be responsible for adherence to OSHA and other safety regulations.

6.4 Final Backfilling and Grading

Properly compacted backfill and site drainage are important. If structural fill is used to achieve final grades, the fill may consist of select granular site material or imported pit run fill placed in lifts no greater than 12 inches loose thickness and compacted. The large cobbles (> 6" diameter) should not be used as structural backfill, except as specified in Table 6-1. Table 6-1 provides guidance for compaction of stony material.

Exterior backfills should be placed as early as possible. Do not over-compact exterior backfills against "green" foundation walls.

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Table 6- 1: Compaction Parameters for Stony Fill

Compactor Type	Lift Thickness	Maximum Particle Size	Minimum Number of Passes
5-ton vibratory	12 inches	9-inch*	3
1.5-ton vibratory	9 inches	6-inch	5
Hand-held	4 inches	4-inch	5

* Occasional clasts to 12-inch are permitted, if encountered, but should not be nested

If the number of passes and equipment used are verified by a qualified observer, density testing is not required. Stony fill will compact into a dense, strong, well-drained structural fill, and tight moisture control is usually not required. The actual number of passes should be determined by observing the compaction after each pass to determine if the surface is non-yielding. If the fill surface appears to be yielding, the number of passes should be increased until a non-yielding condition is observed. Fill should be placed in horizontal lifts.

Utility trenches should also be backfilled in lifts and lightly compacted. The stony soils will require a vibrating smooth-drum roller or vibratory plate (ie. hoe-pack or "jumping jack") for compaction.

6.5 Interior Slabs-on-Grade

Interior slabs should be at least 4 inches thick, and any slabs bearing vehicles should be at least 6 inches thick, or as approved by a Structural Engineer. Minor floor cracking of slab-on-grade construction is difficult if not impossible to prevent. Such cracking is normal and should be expected to occur with time. Buildings are almost never free of cracks, and cracking is caused by many factors other than soil movement, such as concrete shrinkage or curling, or daily and seasonal variability in temperature and humidity.

An impermeable layer (usually plastic) is suggested beneath the slab, underlain by 4 inches of clean drain gravel that will act as a capillary break to reduce dampness. Two options are available to reduce the tendency for the concrete to crack as it dries. Three articles from the American Concrete Institute (ACI) that discuss these options are listed in the references section.

1. A blotter layer may be placed under the slab. In the past, loose sand has been used for this purpose, but is no longer recommended. A cover of 4 inches of trimmable, compactible, granular material may be placed over the sheeting to receive the concrete slab. This material usually consists of "crusher run material", which varies in size from about 1.5-inch down to rock dust. Alternatively, 3 inches of fine graded material such as crusher fines or manufactured sand may be used.
2. The blotter layer may be eliminated if the concrete is reinforced properly. The attached article entitled "Controlling Curling and Cracking in Floors to Receive Coverings"

provides a discussion of proper floor slab reinforcement. If the contractor needs additional guidance on reinforcement, a structural engineer should provide it.

6.6 Exterior Slabs-on-Grade

Exterior slabs such as driveways, patios, and sidewalks often move in response to changes in temperature, soil moisture, or subgrade freezing. Any fine-grained topsoil is potentially compressible and susceptible to frost heave. Any exterior flat work placed on these soils may perform poorly. Performance of exterior slabs at this site may be improved by compacting the surface of the native stony alluvium and seating the slab on at least 6 inches of road mix gravel.

Exterior slabs should be at least 4 inches thick, 6 inches if supporting vehicles, or as approved by the Structural Engineer. Exterior slabs should not be tied to foundation walls. Any movement of exterior slabs may be transmitted to the foundation walls, resulting in damage. Posts for patios or other exterior columns should not bear on exterior slabs. If the slabs settle or rise, the movement can be transmitted to the post, resulting in damage to the structure. Expansion joints are recommended in all concrete flatwork. **Experience has shown that exterior hardscapes are very prone to movement, and sensitive hardscapes should be installed with the same degree of care applied to the house itself.** The owner should be aware that flexible exterior features are likely to be less costly to maintain and more forgiving of vertical offset. This office should review plans for exterior hardscapes and be involved in observation during construction.

6.7 Ventilation and Radon

Evaluation of radon was beyond the scope of work; local codes should be followed and specialty contractors employed, if necessary. The building contractor is ultimately responsible for following local building codes. Ventilation to reduce moisture and potential accumulation of radon gas is required by code for inhabited spaces below grade. A capillary break layer may be necessary to accommodate a radon vent pipe.

6.8 Reinforcing, Utilities Testing, and Concrete Considerations

Footings, slabs, and foundation walls should be reinforced to resist differential movement. Consultation with a Structural Engineer to specify adequate reinforcement is suggested. Water and sewer lines should be pressure tested before backfilling. Exterior concrete should contain 5% to 7% entrained air.

6.9 Observation during Construction

A representative of this office should observe construction of any foundation or drainage elements recommended in this report. Site grading, leak-proof testing, and soil compaction should be observed by a representative of this office. Recommendations in this report are contingent upon our involvement. If any unexpected soils or conditions are revealed during construction, this office should be notified immediately to survey the conditions and make

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necessary modifications.

7.0 LIMITATIONS

This report has been prepared based on a limited amount of data. Actual site conditions may vary. The report is for single use and under no circumstances are the figures and text to be used separately. These services have been performed in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in this area under similar conditions. No other warranty is made or implied.

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APPENDIX A

Test Pit Logs

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TEST HOLE LOG

PROJECT NAME: Crystal Creek Capital, 680 S. Cache	DATE: 6/27/15
PROJECT LOCATION: Jackson, Wyoming	HOLE NO.: TP-1
TEST HOLE LOCATION: See site map	

ELEVATION G.S. (ft.):	TOTAL DEPTH (ft.): 9.5	GROUNDWATER LEVEL (ft.): NA	MEASURED FROM: Surface

DRILL TYPE: JD 310SC Extendahoe	HAMMER:	DRILL CO: Fates Excavation	DRILLER: Tom	LOGGED BY: wrw

DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION COMMENTS:	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1								0.0-0.4ft Sandy GRAVEL: Dry, light brown, loose to medium dense, massive, with trace fines, rounded gravel to 3/4" diameter [FILL]					
2								0.4-4.3ft Clayey silty GRAVEL: Slightly moist, dark brown, medium dense to dense, 70-80% stony limestone and occasional sandstone clasts 1-3" diameter, some clasts to 6" diameter, 20-30% clayey silt, roots and organics [COLLUVIUM]					
3													
4													
5						>4.5		4.3-6.4ft Clayey SILT: Slightly moist, dark yellowish brown streaked white, hard, massive, heavily lime cemented [PALEOSOL/LOESS]					
6													
7						>4.5		6.4-7.8ft Clayey SILT: Slightly moist, light yellowish brown, streaked white, hard, massive, heavily lime cemented [LOESS]					
8								7.8-9.5ft Sandy GRAVEL/COBBLE: Slightly moist, light yellowish brown, stratified, very dense, 70% well rounded limestone gravel and cobble clasts to 8" diameter, 30% medium and fine sand [GLACIAL OUTWASH]					
9													
10													
11													
12													
13													
14													

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Fax: 307-733-5187

TEST HOLE LOG

PROJECT NAME: Crystal Creek Capital, 680 S. Cache	DATE: 12/8/15
PROJECT LOCATION: Jackson, Wyoming	HOLE NO.: TP-2
TEST HOLE LOCATION: See site map	

ELEVATION G.S. (ft.):	TOTAL DEPTH (ft.): 20	GROUNDWATER LEVEL (ft.): NA	MEASURED FROM: Surface

DRILL TYPE: CAT 315 Trackhoe	HAMMER:	DRILL CO: Fish Creek Excavation	DRILLER: Bill	LOGGED BY: wrw

DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION COMMENTS:	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1 2 3 4 5 6								0.0-6.8ft Sandy GRAVEL/COBBLE: Yellow brown, angular limestone and occasional sandstone gravel/cobble, dense, sandy clay matrix, 70% stony [COLLUVIUM]					
7 8 9 10 11								6.8-11.5ft As above, dark yellow brown, organics [PALEOSOL/COLLUVIUM]					
12 13 14								11.5-20.0ft Silty clayey GRAVEL/COBBLE: Pale yellow brown, streaked white, angular limestone and sandstone gravel/cobble, matrix of very stiff silty clay, mostly stones, many large subangular limestone boulders at top [OLDER TALUS] Note: Stopped at request at 20'. No groundwater observed at time of digging. Backfilled with spoils.					

TEST HOLE LOG JORGENSEN GEO CRYSTAL CREEK 680 S. CACHE.GPJ JORGENSEN GEO 08-2015.GDT 12/30/15

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TEST HOLE LOG

PROJECT NAME: Crystal Creek Capital, 680 S. Cache | DATE: 12/8/15

PROJECT LOCATION: Jackson, Wyoming | HOLE NO.: TP-2

DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION COMMENTS:	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													

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Fax: 307-733-5187

TEST HOLE LOG

PROJECT NAME: Crystal Creek Capital, 680 S. Cache	DATE: 11/17/15
PROJECT LOCATION: Jackson, Wyoming	HOLE NO.: BH15-1
TEST HOLE LOCATION: Northeast corner, see site map	

ELEVATION G.S. (ft.):	TOTAL DEPTH (ft.): 26	GROUNDWATER LEVEL (ft.): NA	MEASURED FROM: Surface

DRILL TYPE: CME-550	HAMMER: 140# Rope and Cathead	DRILL CO: LK Drilling	DRILLER: Steve	LOGGED BY: chl/jf

DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION COMMENTS:	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1–8								0.0-0.7ft Gravelly [FILL] 0.7-8.0ft Sandy SILT [FILL]					
5		D1	4,4,4	12	60			4.0ft Sandy SILT: Dry, grayish brown, soft, intact, scattered small gravel, asphalt like material in tip [FILL]					
9–19			20,37,35	87	86			8.0-19.0ft Silty sandy GRAVEL/COBBLE: Dry, brown, dense, mixed, limestone and sandstone clasts, silty sand matrix [ALLUVIUM] 12.0ft Heavy grinding to 14' 14.0ft Silty sandy GRAVEL/COBBLE: As above, becoming very dense, clasts subrounded to rounded [ALLUVIUM]					
15			50/5.75"	100	33								
20		D2	15,7,11	23	40			19.0-26.0ft Sandy CLAY with gravel: Moist, brown, medium stiff, intact, lean clay, stone in sampler shot, with clay "ribbon" forced past stone [ALLUVIUM]					
24		D3	6,8,15	30	100		CL	23.5ft As above, stone in shoe	21.8		31	18	
25–26		U1			50			25.0ft CLAY: As above, grayish with more sand and some gravel [ALLUVIUM] Note: No groundwater observed at time of drilling. Backfilled hole with cuttings and concrete fill/rubble. Very little cuttings coming to surface. Stopped at request.					

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TEST HOLE LOG

PROJECT NAME: Crystal Creek Capital, 680 S. Cache	DATE: 11/17/15
PROJECT LOCATION: Jackson, Wyoming	HOLE NO.: BH15-2
TEST HOLE LOCATION: Northwest corner, see site map	

ELEVATION G.S. (ft.):	TOTAL DEPTH (ft.): 30.5	GROUNDWATER LEVEL (ft.): NA	MEASURED FROM: Surface

DRILL TYPE: CME-550	HAMMER: 140# Rope and Cathead	DRILL CO: LK Drilling	DRILLER: Steve	LOGGED BY: chl/jf

DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION COMMENTS:	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1–4								0.0-7.5ft CLAY: Slightly moist, brown, intact/massive, positive HCL reaction, medium stiff [COLLUVIUM/LOESS]					
5		D1	4,2,3	8	80		CL		15.7		34	11	
6–7													
8–9								7.5-17.0ft Sandy GRAVEL: Slightly moist, brown, dense, smaller subrounded to rounded clasts of limestone, tan sandstone, yellow sandstone, assumed stratified, driller notes gravelly drilling at 7.5' [ALLUVIUM]					
10			19,24,26	62	80								
11–13													
14–15			28/1.5"	100				14.0ft Broken limestone clasts in shoe, bouncing on limestone cobble/boulder					
16–17								16.0ft Heavy grinding, drilling easier at 17'					
18–19		D2	5,5,8	15	100	1.5	CL	17.0-22.5ft CLAY: Moist, brown, soft to medium stiff, micro/pinhole voids, low plastic [ALLUVIUM]	22.5		33	17	
20		U1											
21–22													
23								22.5-24.0ft Gravel lens, as noted from driller					
24–25		D3	11,4,4	9	100	1.25		24.0-27.0ft SILT: Moist, brown, soft, intact, low plastic, no HCL reaction, sand, gravel near top of sample [ALLUVIUM]					
26–27													
28								27.0-30.5ft Silty GRAVEL/COBBLE: Moist, brown, medium dense, stratified, limestone fragments in brown silty sand matrix [ALLUVIUM]					
29–30			11,14,16	34	66			Note: No groundwater observed at time of digging. Backfilled hole with cuttings and concrete fill/rubble. Stopped at request. Very little cuttings coming to surface.					
31–35													

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TEST HOLE LOG

PROJECT NAME: Crystal Creek Capital, 680 S. Cache	DATE: 11/18/15
PROJECT LOCATION: Jackson, Wyoming	HOLE NO.: BH15-3
TEST HOLE LOCATION: Eastern lot line halfway north/south, see site map	

ELEVATION G.S. (ft.):	TOTAL DEPTH (ft.): 23	GROUNDWATER LEVEL (ft.): NA	MEASURED FROM: Surface
DRILL TYPE: CME-550	HAMMER: 140# Rope and Cathead	DRILL CO: LK Drilling	DRILLER: Steve / LOGGED BY: chl

DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION / COMMENTS:	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1–4								0.0-1.0ft Drilling in access road, gravel at surface, thickness assumed 1.0-7.0ft Sandy SILT with gravel: Dry, dark brown, loose to medium dense, intact, with limestone gravel, no HCL reaction in soil, easier drilling at 7' [COLLUVIUM]					
5–6		D1	10,9,10	28	53								
7–9								7.0-13.0ft Sandy SILT with gravel: Slightly moist, tan brown, white from calcite, pinhole voids, hard, limestone clast in shoe, scattered angular limestone gravel [LOESS]					
10–11		D2	9/5.5" for 50	100	66								
12–13								13.0-19.0ft Sandy SILT with gravel: Slightly moist, tan/brown, white from calcite, pinhole voids, hard, 40-50% angular to subrounded gravel of yellow sandstone and limestone [REWORKED LOESS/COLLUVIUM]					
14–16			12,12,16	35	86								
17–18			6,6,12	21	20			17.5ft Limestone clast in shoe, brown soil cuttings in upper sample					
19–20		D3	21,15,13	33	60			19.0-21.0ft Shards of limestone, yellow sandstone and red sandstone, brown silty sand matrix near bottom of sampler, clasts appear angular where not broken [COLLUVIUM]					
21–22		D4	7,5,5	12	90		CL	21.0-23.0ft CLAY: Moist, brown, soft to medium stiff, intact, micro/pinhole voids, lean clay or low plastic silt, scattered angular limestone gravel [COLLUVIUM]	17.3		29	12	
23–35								Note: Difficult drilling. No groundwater observed at time of drilling. Backfilled hole with fill and concrete fill/rubble. Stopped at practical refusal. Very little cuttings returning to surface.					

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TEST HOLE LOG

PROJECT NAME: Crystal Creek Capital, 680 S. Cache	DATE: 11/18/15
PROJECT LOCATION: Jackson, Wyoming	HOLE NO.: BH15-4
TEST HOLE LOCATION: See site map, middle west, west side of lot, approximately halfway north/south	

ELEVATION G.S. (ft.):	TOTAL DEPTH (ft.): 31.5	GROUNDWATER LEVEL (ft.): NA	MEASURED FROM: Surface

DRILL TYPE: CME-550	HAMMER: 140# Rope and Cathead	DRILL CO: LK Drilling	DRILLER: Steve	LOGGED BY: jjf

DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION COMMENTS:	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
								0.0-1.0ft TOPSOIL					
1–5								1.0-10.7ft Sandy silty GRAVEL: Dry, dense to very dense, shattered limestone rock, subangular to angular sandstone clasts, sandy silty matrix, powder from high blow counts, soil cuttings in upper portion of sample [COLLUVIUM]					
6			25,37,48	100	80								
7–9													
10–11		D1	6,16,33	59	93			10.0ft Rock in shoe, first 0.7' of sampler, as above, with slightly more silt in matrix.					
12–14								10.7-22.5ft CLAY: Dry, light brown, medium stiff, intact, mottled with limestone streaks and pinhole voids [COLLUVIUM] 12.5ft Much easier drilling, driller let loose					
15–16		D2	5,9,12	26	80			15.0ft CLAY: As above, occasional limestone pebbles					
17–19													
20		U1	■			2.75	CL	20.0ft CLAY with gravel: Moist, dark brown, medium stiff to stiff, intact, with many pinhole voids, positive HCl reaction, alternating stretches of easy and gravelly drilling to 25' [COLLUVIUM]	23.7		37	16	
21–23								22.5-31.5ft Clayey silty GRAVEL: Slightly moist, light gray with streaks of orange, medium dense, angled limestone, clayey silty sandy matrix, occasional sandstone clasts [COLLUVIUM]					
24–25													
26		D3	7,19,12	27	86								
27–29													
30–31			17,16,19	38	73			30.0ft Sandy silty GRAVEL: Dry, shattered limestone rock, medium dense, subangular to angular sandstone clasts, sandy silty matrix [COLLUVIUM] Note: Stopped at request. No groundwater observed at time of drilling. Backfilled with concrete and soil fill.					
32–35													

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TEST HOLE LOG

PROJECT NAME: Crystal Creek Capital, 680 S. Cache	DATE: 11/18/15
PROJECT LOCATION: Jackson, Wyoming	HOLE NO.: BH15-5
TEST HOLE LOCATION: See site map, southeast corner	

ELEVATION G.S. (ft.):	TOTAL DEPTH (ft.): 31.5	GROUNDWATER LEVEL (ft.): NA	MEASURED FROM: Surface
DRILL TYPE: CME-550	HAMMER: 140# Rope and Cathead	DRILL CO: LK Drilling	DRILLER: Steve / LOGGED BY: jjf

DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION COMMENTS:	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1–5								0.0-18.0ft Clayey silty GRAVEL: Dry, gray/dark brown, medium dense, mixed angular and subangular limestone clasts, occasional sandstone clast, in a clayey silt matrix [COLLUVIUM] 1.0ft Rough drilling to 3.5' 3.5ft Drilling becoming easier					
6			11,10,9	25	53								
7–9													
10–11			20,29,23	30	86			10.0ft As above, dry, light gray to brown matrix, angular limestone clasts with clayey silt matrix, dense [COLLUVIUM]					
12–14													
15–16		D1	10,18,16	38	66			15.0ft Silty CLAY: Slightly moist, brown, medium stiff, intact/massive [COLLUVIUM] 15.5ft Large sandstone, limestone angular to subangular clasts in sand matrix [COLLUVIUM]					
17–18								18.0-25.0ft CLAY: Slightly moist to moist, brown, massive, with limestone, soft to very soft [COLLUVIUM]					
19–20													
21		D2	3,4,5	11	100		CL		26.8		36	21	
22–23								21.5ft CLAY with pebbles, sandy silt in bottom of shoe, very easy drilling from 20-25', attempt thin wall at 25', refusal and no recovery					
24		U1											
25–26			17,11,12	26	66			25.0-31.5ft Silty sandy GRAVEL: Moist, medium dense, large angular broken limestone clasts in clayey silt and sandy pebble matrix, mixed [COLLUVIUM]					
27–29								25.0-26.5 Shelby tube with no recovery					
30–31			16,34,28	62	86			30.0ft Dry, shattered sandstone and limestone with sandy silty matrix, powder from high blow counts, large clasts of limestone					
32–35								Note: No groundwater observed at time of drilling. Backfilled hole with soil and concrete fill. Stopped at request.					

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TEST HOLE LOG

PROJECT NAME: Crystal Creek Capital, 680 S. Cache	DATE: 11/18/15
PROJECT LOCATION: Jackson, Wyoming	HOLE NO.: BH15-6
TEST HOLE LOCATION: See site map	

ELEVATION G.S. (ft.):	TOTAL DEPTH (ft.): 11	GROUNDWATER LEVEL (ft.): NA	MEASURED FROM: Surface

DRILL TYPE: CME-550	HAMMER: 140# Rope and Cathead	DRILL CO: LK Drilling	DRILLER: Steve	LOGGED BY: chl/jf

DEPTH (ft.)	GRAPHICAL LOG	SAMPLE	S.P.T. (N) BLOWS/6 IN.	(N1)60 BLOWS/FT.	RECOVERY (%)	UNCONFINED STRENGTH (TSF)	CLASSIFICATION	DESCRIPTION COMMENTS:	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMITS (%)	PLASTICITY INDEX (%)	WELL COMPLETION
1								0.0-11.0ft Silty sandy GRAVEL: Dry, large angular broken limestone clasts in clayey silt and sandy pebble matrix, mixed, large sandstone clast in shoe [COLLUVIUM]					
2													
3													
4													
5													
6			7,7,8	21	40								
7								7.0ft Very rough drilling, no recovery, sampler bouncing in first 6"					
8													
9													
10								Note: No groundwater observed at time of drilling. Stopped at practical request. Backfilled with soil and concrete fill.					
11													
12													
13													
14													
15													
16													
17													
18													
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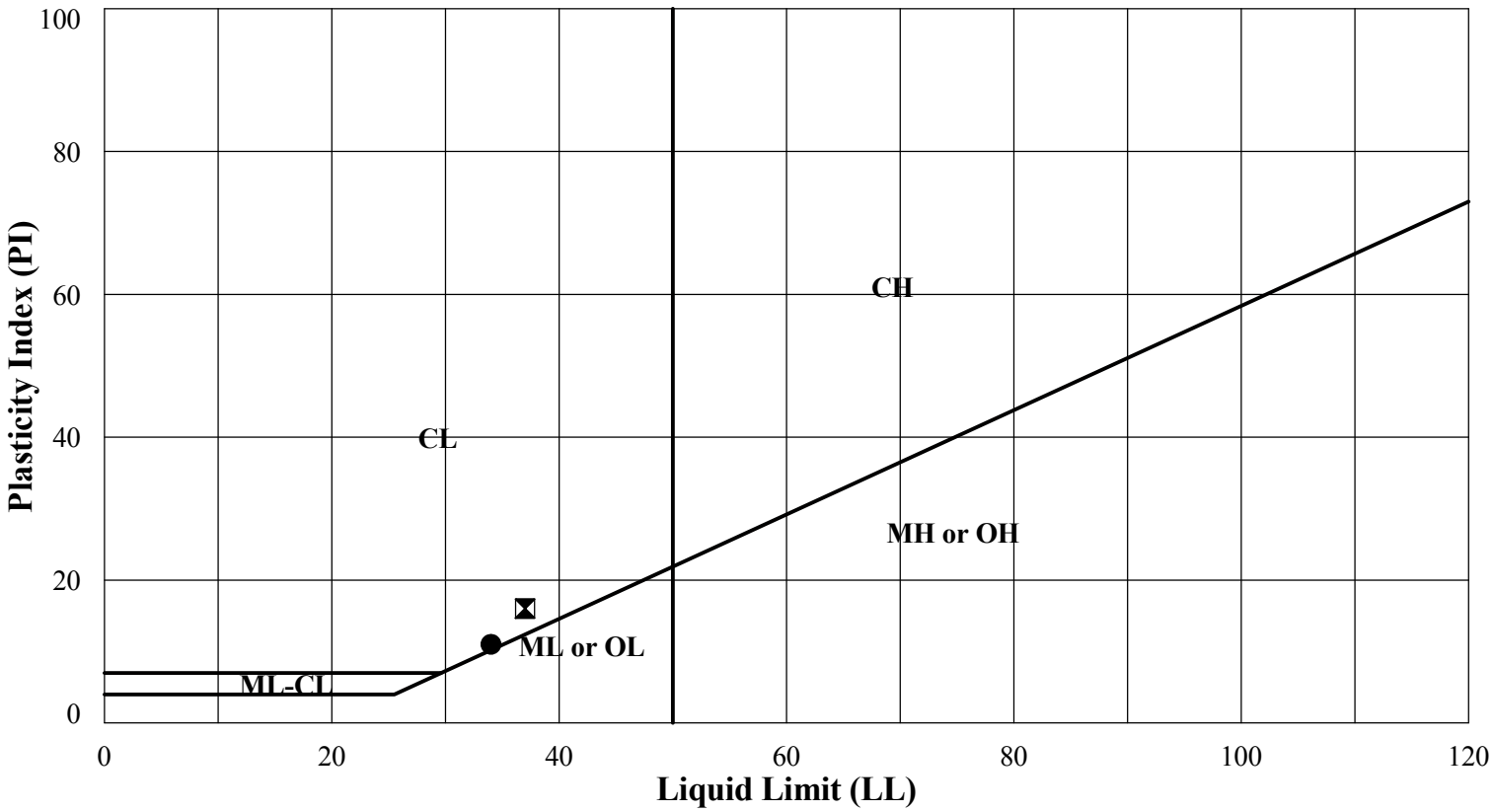
33													
34													
35													

TEST HOLE LOG JORGENSEN GEO CRYSTAL CREEK 680 S. CACHE.GPJ JORGENSEN GEO 08-2015.GDT 1/4/16

APPENDIX B
Laboratory Test Result



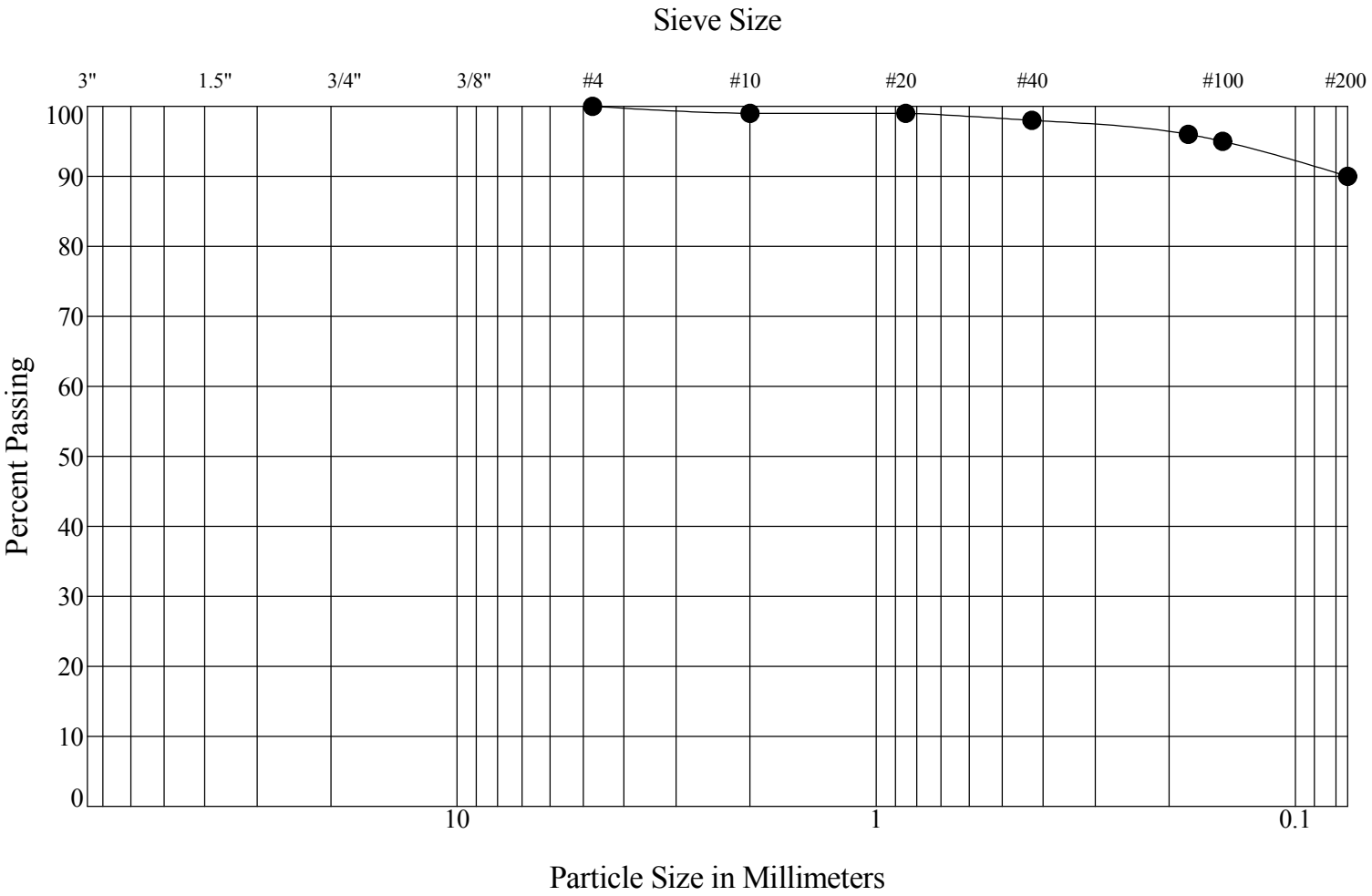
Legend	Boring	Sample No.	Depth	LL	PL	PI	P 200	MC	Classification
●	BH15-2	D1	4.0' to 5.5'	34	23	11	90%	15.7%	CL
⊠	BH15-4	U1	20.0' to 20.5'	37	21	16	77%	23.7%	CL

SK GEOTECHNICAL
2511 Holman Avenue
P. O. Box 80190
Billings, MT 59108-0190
Phone: 406.652.3930
Fax: 406.652.3944

Atterberg Limits' Tests

Project Number: 15-3404L
Crystal Creek Capital
680 S. Cache

12/16/15



Gravel		Sand		
coarse	fine	coarse	medium	fine

Percent Passing U.S. Standard Sieve Size

3"	1 1/2"	3/4"	3/8"	#4	#10	#20	#40	#80	#100	#200
				100	99	99	98	96	95	90

Boring No.: BH15-2
Sample No.: D1
Depth: 4.0' to 5.5'

Date Received: 12/07/2015

Liquid Limit:	34
Plastic Limit:	23
Plasticity Index:	11
Classification:	CL
Moisture Content:	15.7%

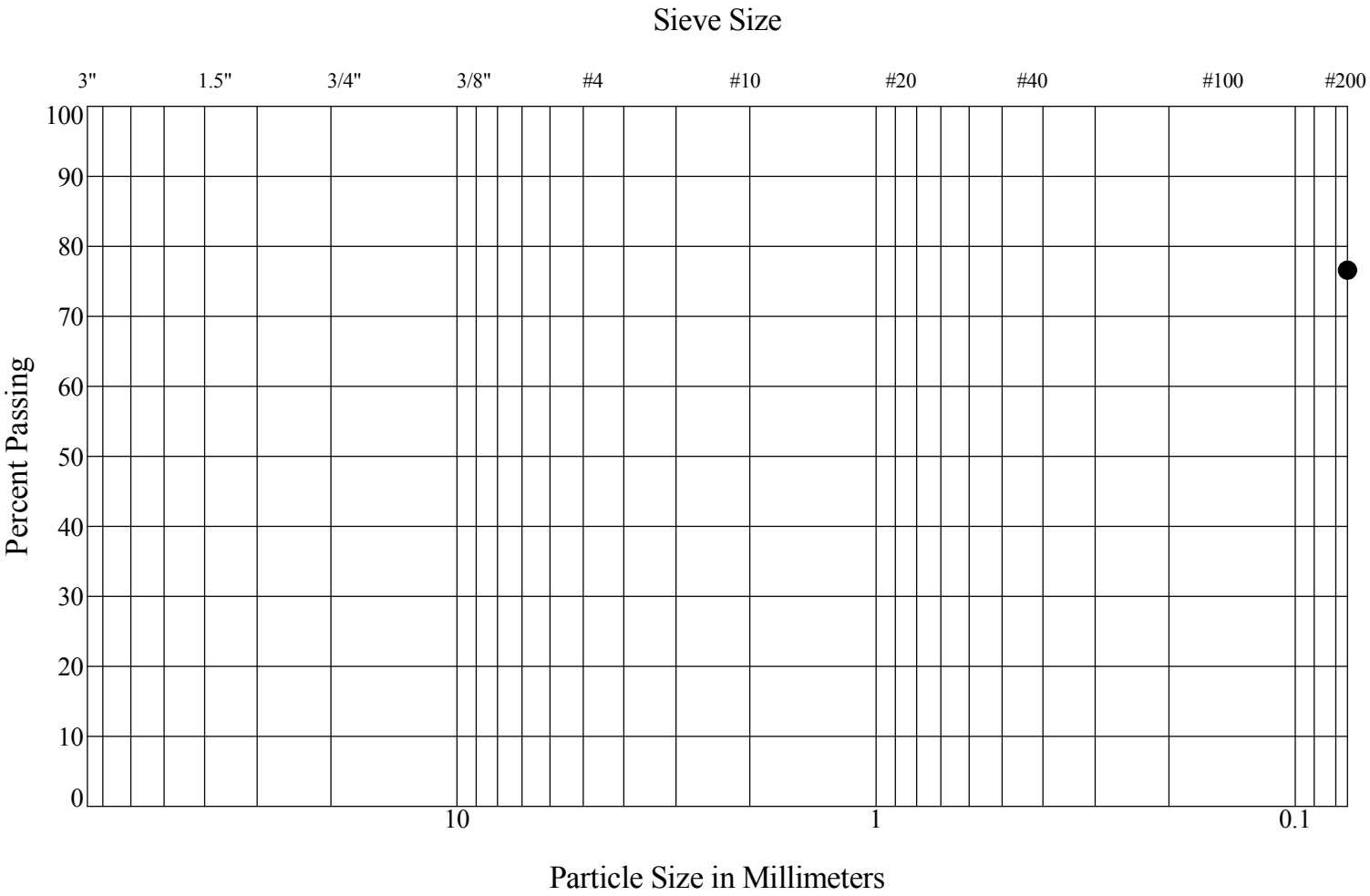
Percent Gravel: 0.0
Percent Sand: 10.0
Percent Silt + Clay: 90.0
ASTM Group Name: LEAN CLAY

SK GEOTECHNICAL
2511 Holman Avenue
P. O. Box 80190
Billings, MT 59108-0190
Phone: 406.652.3930
Fax: 406.652.3944

Sieve Analysis

Project Number: 15-3404L
Crystal Creek Capital
680 S. Cache

12/16/15



Gravel		Sand		
coarse	fine	coarse	medium	fine

Percent Passing U.S. Standard Sieve Size

3"	1 1/2"	3/4"	3/8"	#4	#10	#20	#40	#80	#100	#200
										77

Boring No.: BH15-4
Sample No.: U1
Depth: 20.0' to 20.5'

Date Received: 12/07/2015

Liquid Limit:	37
Plastic Limit:	21
Plasticity Index:	16
Classification:	CL
Moisture Content:	23.7%

Percent Gravel: 0.0
Percent Sand: 0.0
Percent Silt + Clay: 76.6
ASTM Group Name: LEAN CLAY with SAND

SK GEOTECHNICAL
2511 Holman Avenue
P. O. Box 80190
Billings, MT 59108-0190
Phone: 406.652.3930
Fax: 406.652.3944

Sieve Analysis

Project Number: 15-3404L
Crystal Creek Capital
680 S. Cache

12/16/15

2511 Holman Avenue
P. O. Box 80190
Billings, Montana 59108-0190
p: 406.652.3930; f: 406.652.3944
www.skgeotechnical.com

Corrosion Test Results

MDT MT 232 and DIPRA

Date: December 16, 2015

Project: **15-3404L Laboratory Testing**
Jorgensen Assoc #15427.31
Crystal Creek Capital 680 S. Cache

Client: Mr. Josh Fuller
Jorgensen Geotechnical, LLC
1315 Highway 89 S., Suite 201
Jackson, WY 83002

Date sampled: 11/17/2015
Sampled by: JF/JA

Date tested: 12/8/2015
Tested by: DF/SK

Boring	Depth (feet)	Resistivity (Ω•cm)	Conductivity (m.mhos/cm)	pH	Marble pH	Sulfate (wt %)	Sulfide (mg/kg)	Oxid-Reduc (mV)
BH15-2	4.0-5.5	2050	0.488	8.13	8.03	ND	NT	NT

Remarks: pH probe recalibrated @ 4 and 7 prior to testing.
Ω•cm and pH results are average of at least 2 readings.
Sulfate result is MT-232 HCl method from Energy Labs.
Sulfide result is SW846 Ch7 method from Energy Labs.
ND = non-detect
NT = not tested

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Liquid Limit, Plastic Limit, and Plasticity Index Determination

Project Name:	**680 Cache**	**Project No.:**	**15427**
Sample Of:	**Native Material**	**Sample No.:**	**BH-1 D3**
Where Sampled:	**Bore Hole**	**Sampled By:**	**CL**
Source:		**Date Sampled:**	11/17/2015
Quantity Rep.:		**Tested By:**	KS
Sample Description:		**Date Tested:**	**12/8/2015**

PLASTIC LIMIT

Container No.	25	4	
Mass Moist Soil + Container, M1(g)	15.75	15.03	
Mass Dry Soil + Container, M2(g)	15.7	14.95	
Mass Container, M3(g)	15.16	14.46	Average:
WATER CONTENT, w(%)	9.26%	16.33%	13%

LIQUID LIMIT

Container No.	3	50	E-E
Mass Moist Soil + Container, M1(g)	22.4	24.97	23.39
Mass Dry Soil + Container, M2(g)	20.64	22.55	21.14
Mass Container, M3(g)	14.55	14.55	14.2
WATER CONTENT, w(%)	28.90%	30.25%	32.42%
NUMBER OF BLOWS, N	38	27	20
$LL=(Wn)(N/25)^{0.121}$	30.40	30.53	31.56

AS RECEIVED WATER CONTENT, w (%)	21.8%
LIQUID LIMIT, LL	31
PLASTIC LIMIT, PL	13
PLASTICITY INDEX, PI	18
PLASTICITY CHART CLASSIFICATION	
SOIL TYPE	

TESTING EQUIPMENT USED		
Plastic Limit:	Hand Rolled	X
	Mechanical Rolling Device	
Liquid Limit:	Manual	X
Apparatus No. ( )	Mechanical	
Casagrande/ASTM Grooving Tool:	Metal	X
	Plastic	

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Sieve Analysis

Project:	**15427**	**Sample Of:**	**Cores from Bore Holes**
Sampled By:	**CL**	**Where Sampled:**	**23.5-25**
Date Sampled:	**11/7/2015**	**Source:**	
Tested By:	**KS**	**Quanity Rep.:**	
Date Tested:	**11/8/2015**	**Sample No.:**	**BH 1 D3**

Sieve Size				Calculated	+4 and -4 Combined			
U.S. Standard	S.I.	Weight Retained	Weight Retained	Weight Retained	Weight Retained	Weight Passing	Percent Passing	***Grading H***
1"	**25.00**		30.7	30.7	30.7	232.3	**88%**	***100%***
3/4"	**19.00**			0.0	0.0	232.3	**88%**	***90-100%***
1/2"	**12.50**			0.0	0.0	232.3	**88%**	***60-85%***
3/8"	**9.38**		1.6	1.6	1.6	230.7	88%	
1/4"	**6.25**		5.9	5.9	5.9	224.8	85%	
No. 4	**4.75**		3.7	3.7	3.7	221.1	**84%**	***45-65%***
8	**2.36**		6.7	6.7	6.7	214.4	**82%**	***33-53%***
30	**0.60**		8.6	8.6	8.6	205.8	78%	
70	**0.21**		5.9	5.9	5.9	199.9	76%	
140	**0.11**		7.6	7.6	7.6	192.4	73%	
200	**0.08**		4.6	4.6	4.6	187.8	**71%**	***3-12%***
Pan			1.4	1.4	1.4	0.0	0%	
Wash		0.0	186.4	186.4	186.4	0.0		
	Total:	**0.0**	**263.1**	**263.1**	263.1			

+4 Moisture		**- 4 Moisture**			
Pan No.:		Pan No.:	**t**	Total Wet Weight (+4):	0.0
Original Weight:		Original Weight:	28.3	Total Dry (Corrected) (+4):	0.0
Final Weight:		Final Weight:	23.2	Total Wet Weight (-4):	320.7
Loss:	0.0	Loss:	5.1	Total Dry (Corrected) (-4):	263.2
% Moisture:	**0.0%**	% Moisture:	**21.8%**	Total Dry Sample Weight:	263.2

+4 Wash Test		**- 4 Wash Test**		**(-4) Wash Test Factor (WTF)**	
Pan No.:		Pan No.:	**II**	Total Dry Weight (-4):	263.2
Original Weight:		Original Weight:	320.7	Dry Weight (-4) Wash:	263.2
Dry Weight:	0.0	Dry Weight:	263.2	**WTF =**	1.000
Final Weight:		Final Weight:	76.8		
Loss:	0.0	Loss:	186.4		
% Loss:	**0.0%**	% Loss:	**70.8%**		

All weights are in grams.

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Liquid Limit, Plastic Limit, and Plasticity Index Determination

Project Name:	**680 Cache**	**Project No.:**	**15427**
Sample Of:	**Native Material**	**Sample No.:**	**BH 15-2 D2**
Where Sampled:	**Bore Hole**	**Sampled By:**	**CL**
Source:		**Date Sampled:**	11/7/2015
Quantity Rep.:		**Tested By:**	KS
Sample Description:		**Date Tested:**	**12/9/2015**

PLASTIC LIMIT

Container No.	15	14	
Mass Moist Soil + Container, M1(g)	14.48	14.65	
Mass Dry Soil + Container, M2(g)	14.43	14.6	
Mass Container, M3(g)	14.09	14.3	Average:
WATER CONTENT, w(%)	14.71%	16.67%	16%

LIQUID LIMIT

Container No.	8	G-G	2
Mass Moist Soil + Container, M1(g)	18.9	21.44	23.5
Mass Dry Soil + Container, M2(g)	17.69	19.64	21.2
Mass Container, M3(g)	13.91	14.26	14.61
WATER CONTENT, w(%)	32.01%	33.46%	34.90%
NUMBER OF BLOWS, N	31	23	18
$LL=(Wn)(N/25)^{0.121}$	32.85	33.12	33.54

AS RECEIVED WATER CONTENT, w (%)	22.5%
LIQUID LIMIT, LL	33
PLASTIC LIMIT, PL	16
PLASTICITY INDEX, PI	17
PLASTICITY CHART CLASSIFICATION	
SOIL TYPE	

TESTING EQUIPMENT USED		
Plastic Limit:	Hand Rolled	X
	Mechanical Rolling Device	
Liquid Limit:	Manual	X
Apparatus No. ( )	Mechanical	
Casagrande/ASTM Grooving Tool:	Metal	X
	Plastic	

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Sieve Analysis

Project:	**15427**	**Sample Of:**	**Cores from Bore Holes**
Sampled By:	**CL**	**Where Sampled:**	**18-19.5'**
Date Sampled:	**11/7/2015**	**Source:**	
Tested By:	**KS**	**Quanity Rep.:**	
Date Tested:	**11/8/2015**	**Sample No.:**	**BH 15-2 D2**

Sieve Size				Calculated	+4 and -4 Combined			
U.S. Standard	S.I.	Weight Retained	Weight Retained	Weight Retained	Weight Retained	Weight Passing	Percent Passing	***Grading H***
1"	**25.00**			0.0	0.0	284.7	**100%**	***100%***
3/4"	**19.00**			0.0	0.0	284.7	**100%**	***90-100%***
1/2"	**12.50**			0.0	0.0	284.7	**100%**	***60-85%***
3/8"	**9.38**			0.0	0.0	284.7	100%	
1/4"	**6.25**			0.0	0.0	284.7	100%	
No. 4	**4.75**			0.0	0.0	284.7	**100%**	***45-65%***
8	**2.36**		0.3	0.3	0.3	284.5	**100%**	***33-53%***
30	**0.60**		1.8	1.8	1.8	282.6	99%	
70	**0.21**		3.0	3.0	3.0	279.6	98%	
140	**0.11**		7.6	7.6	7.6	272.0	96%	
200	**0.08**		9.9	9.9	9.9	262.1	**92%**	***3-12%***
Pan			9.4	9.4	9.4	0.0	0%	
Wash		0.0	252.7	252.7	252.7	0.0		
	Total:	**0.0**	**284.7**	**284.7**	284.7			

+4 Moisture	
Pan No.:	
Original Weight:	
Final Weight:	
Loss:	0.0
% Moisture:	**0.0%**

- 4 Moisture	
Pan No.:	**C-C**
Original Weight:	23.0
Final Weight:	18.8
Loss:	4.2
% Moisture:	**22.5%**

Total Wet Weight (+4):	0.0
Total Dry (Corrected) (+4):	0.0
Total Wet Weight (-4):	348.7
Total Dry (Corrected) (-4):	284.7
Total Dry Sample Weight:	284.7

+4 Wash Test	
Pan No.:	
Original Weight:	
Dry Weight:	0.0
Final Weight:	
Loss:	0.0
% Loss:	**0.0%**

- 4 Wash Test	
Pan No.:	**I**
Original Weight:	348.7
Dry Weight:	284.7
Final Weight:	32.0
Loss:	252.7
% Loss:	**88.8%**

(-4) Wash Test Factor (WTF)	
Total Dry Weight (-4):	284.7
Dry Weight (-4) Wash:	284.7
WTF =	1.000

All weights are in grams.

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Liquid Limit, Plastic Limit, and Plasticity Index Determination

Project Name:	**680 Cache**	**Project No.:**	**15427**
Sample Of:	**Native Material**	**Sample No.:**	**BH 15-3 D4**
Where Sampled:	**Bore Hole**	**Sampled By:**	**CL**
Source:		**Date Sampled:**	11/7/2015
Quantity Rep.:		**Tested By:**	KS
Sample Description:		**Date Tested:**	**12/9/2015**

PLASTIC LIMIT

Container No.	C-C	6	
Mass Moist Soil + Container, M1(g)	14.8	14.81	
Mass Dry Soil + Container, M2(g)	14.68	14.7	
Mass Container, M3(g)	13.97	14.07	Average:
WATER CONTENT, w(%)	16.90%	17.46%	17%

LIQUID LIMIT

Container No.	1	TR	t
Mass Moist Soil + Container, M1(g)	20.48	24.74	24.33
Mass Dry Soil + Container, M2(g)	19.15	22.51	22.37
Mass Container, M3(g)	14.6	14.91	15.35
WATER CONTENT, w(%)	29.23%	29.34%	27.92%
NUMBER OF BLOWS, N	19	25	30
$LL=(Wn)(N/25)^{0.121}$	28.28	29.34	28.54

AS RECEIVED WATER CONTENT, w (%)	17.3%
LIQUID LIMIT, LL	29
PLASTIC LIMIT, PL	17
PLASTICITY INDEX, PI	12
PLASTICITY CHART CLASSIFICATION	
SOIL TYPE	

TESTING EQUIPMENT USED		
Plastic Limit:	Hand Rolled	X
	Mechanical Rolling Device	
Liquid Limit:	Manual	X
Apparatus No. ( )	Mechanical	
Casagrande/ASTM Grooving Tool:	Metal	X
	Plastic	

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Sieve Analysis

Project:	**15427**	**Sample Of:**	**Cores from Bore Holes**
Sampled By:	**CL**	**Where Sampled:**	
Date Sampled:	**11/7/2015**	**Source:**	**21.5-23**
Tested By:	**KS**	**Quanity Rep.:**	
Date Tested:	**11/8/2015**	**Sample No.:**	**BH15-3 D4**

Sieve Size				Calculated	+4 and -4 Combined			
U.S. Standard	S.I.	Weight Retained	Weight Retained	Weight Retained	Weight Retained	Weight Passing	Percent Passing	***Grading H***
1"	**25.00**			0.0	0.0	337.6	**100%**	***100%***
3/4"	**19.00**		18.5	18.5	18.5	319.1	**95%**	***90-100%***
1/2"	**12.50**		31.5	31.5	31.5	287.7	**85%**	***60-85%***
3/8"	**9.38**		6.9	6.9	6.9	280.7	83%	
1/4"	**6.25**		14.3	14.3	14.3	266.4	79%	
No. 4	**4.75**		7.7	7.7	7.7	258.7	**77%**	***45-65%***
8	**2.36**		14.7	14.7	14.7	244.1	**72%**	***33-53%***
30	**0.60**		17.2	17.2	17.2	226.8	67%	
70	**0.21**		12.2	12.2	12.2	214.7	64%	
140	**0.11**		16.3	16.3	16.3	198.4	59%	
200	**0.08**		9.7	9.7	9.7	188.7	**56%**	***3-12%***
Pan			7.8	7.8	7.8	0.0	0%	
Wash		0.0	180.9	180.9	180.9	0.0		
	Total:	**0.0**	**337.6**	**337.6**	337.6			

+4 Moisture		**- 4 Moisture**			
Pan No.:		Pan No.:	**tree**	Total Wet Weight (+4):	0.0
Original Weight:		Original Weight:	30.3	Total Dry (Corrected) (+4):	0.0
Final Weight:		Final Weight:	25.8	Total Wet Weight (-4):	396.1
Loss:	0.0	Loss:	4.5	Total Dry (Corrected) (-4):	337.7
% Moisture:	**0.0%**	% Moisture:	**17.3%**	Total Dry Sample Weight:	337.7

+4 Wash Test		**- 4 Wash Test**		**(-4) Wash Test Factor (WTF)**	
Pan No.:		Pan No.:	**K**	Total Dry Weight (-4):	337.7
Original Weight:		Original Weight:	396.1	Dry Weight (-4) Wash:	337.7
Dry Weight:	0.0	Dry Weight:	337.7	**WTF =**	1.000
Final Weight:		Final Weight:	156.8		
Loss:	0.0	Loss:	180.9		
% Loss:	**0.0%**	% Loss:	**53.6%**		

All weights are in grams.

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Liquid Limit, Plastic Limit, and Plasticity Index Determination

Project Name:	**680 Cache**	**Project No.:**	**15427**
Sample Of:	**Native Material**	**Sample No.:**	**BH 15-5 D2**
Where Sampled:	**Bore Hole**	**Sampled By:**	**CL**
Source:		**Date Sampled:**	11/7/2015
Quantity Rep.:		**Tested By:**	KS
Sample Description:		**Date Tested:**	**12/9/2015**

PLASTIC LIMIT

Container No.	S	115	
Mass Moist Soil + Container, M1(g)	16.06	14.89	
Mass Dry Soil + Container, M2(g)	16	14.77	
Mass Container, M3(g)	15.57	13.98	Average:
WATER CONTENT, w(%)	13.95%	15.19%	15%

LIQUID LIMIT

Container No.	7	13	2
Mass Moist Soil + Container, M1(g)	21.99	20.16	21.15
Mass Dry Soil + Container, M2(g)	19.86	18.5	19.33
Mass Container, M3(g)	13.73	13.82	14.3
WATER CONTENT, w(%)	34.75%	35.47%	36.18%
NUMBER OF BLOWS, N	36	26	19
$LL=(Wn)(N/25)^{0.121}$	36.31	35.64	35.00

AS RECEIVED WATER CONTENT, w (%)	26.8%
LIQUID LIMIT, LL	36
PLASTIC LIMIT, PL	15
PLASTICITY INDEX, PI	21
PLASTICITY CHART CLASSIFICATION	
SOIL TYPE	

TESTING EQUIPMENT USED		
Plastic Limit:	Hand Rolled	X
	Mechanical Rolling Device	
Liquid Limit:	Manual	X
Apparatus No. ( )	Mechanical	
Casagrande/ASTM Grooving Tool:	Metal	X
	Plastic	

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Sieve Analysis

Project:	**15427**	**Sample Of:**	**Cores from Bore Holes**
Sampled By:	**CL**	**Where Sampled:**	**20-21.5**
Date Sampled:	**11/7/2015**	**Source:**	
Tested By:	**KS**	**Quanity Rep.:**	
Date Tested:	**11/8/2015**	**Sample No.:**	**BH15-5 D2**

Sieve Size				Calculated	+4 and -4 Combined			
U.S. Standard	S.I.	Weight Retained	Weight Retained	Weight Retained	Weight Retained	Weight Passing	Percent Passing	***Grading H***
1"	**25.00**			0.0	0.0	444.7	**100%**	***100%***
3/4"	**19.00**			0.0	0.0	444.7	**100%**	***90-100%***
1/2"	**12.50**			0.0	0.0	444.7	**100%**	***60-85%***
3/8"	**9.38**			0.0	0.0	444.7	100%	
1/4"	**6.25**		0.5	0.5	0.5	444.2	100%	
No. 4	**4.75**		0.5	0.5	0.5	443.7	**100%**	***45-65%***
8	**2.36**		0.9	0.9	0.9	442.9	**100%**	***33-53%***
30	**0.60**		6.0	6.0	6.0	436.9	98%	
70	**0.21**		13.1	13.1	13.1	423.7	95%	
140	**0.11**		15.8	15.8	15.8	407.9	92%	
200	**0.08**		14.6	14.6	14.6	393.4	**88%**	***3-12%***
Pan			30.7	30.7	30.7	0.0	0%	
Wash		0.0	362.7	362.7	362.7	0.0		
	Total:	**0.0**	**444.7**	**444.7**	444.7			

+4 Moisture		**- 4 Moisture**			
Pan No.:		Pan No.:	**1**	Total Wet Weight (+4):	0.0
Original Weight:		Original Weight:	42.7	Total Dry (Corrected) (+4):	0.0
Final Weight:		Final Weight:	33.7	Total Wet Weight (-4):	544.6
Loss:	0.0	Loss:	9.0	Total Dry (Corrected) (-4):	429.6
% Moisture:	**0.0%**	% Moisture:	**26.8%**	Total Dry Sample Weight:	429.6

+4 Wash Test		**- 4 Wash Test**		**(-4) Wash Test Factor (WTF)**	
Pan No.:		Pan No.:	**L**	Total Dry Weight (-4):	429.6
Original Weight:		Original Weight:	544.6	Dry Weight (-4) Wash:	429.6
Dry Weight:	0.0	Dry Weight:	429.6	**WTF =**	1.000
Final Weight:		Final Weight:	66.9		
Loss:	0.0	Loss:	362.7		
% Loss:	**0.0%**	% Loss:	**84.4%**		

All weights are in grams.

Exhibit F

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Town Hill Lofts Traffic Impact Statement
Jackson, Wyoming

Prepared by: Jorgensen Associates, PC
Project No. 15103

I. INTRODUCTION

The proposed Town Hill Lofts development will be a residential development located on South Cache Street and the Snow King parking lot within the Jackson town limits. The proposed development is within an approved building envelope and part of the Snow King Resort Master Plan. The site will consist of thirty-eight residential units (34 free market one to three bedroom units with 4 employee housing units) and approximately 4,200 square feet of commercial office space. Access to the site will be provided from South Cache Street to three parking decks.

A Traffic Impact Study and Transportation Demand Management Plan were developed as part of the approved Snow King Master Plan. This statement focuses on comparing the traffic projections of the Traffic Impact Study with the projections for the Town Hill Lofts to ensure the traffic generations are within those anticipated within the Master Plan.

II. EXISTING LAND USE AND TRANSPORTATION SYSTEM

EXISTING LAND USE

The existing land of the Town Hill Loft development proposal consists of two single lots currently not occupied or developed. The previous use included a building with maintenance, an office, and the tube park ticket sales. It has three access points off of South Cache Street, one of which is aligned with Pine Drive. This property is surrounded by a variety of land uses including residential, commercial and federally owned lands.

EXISTING ROADWAYS AND PEDESTRIAN AND BICYCLE FACILITIES

The lots are located on South Cache Street near the intersecting streets of Aspen Drive and Pine Drive. There is a sidewalk on the west side of South Cache Street. There is a convenient bike lane on Snow King Avenue that is interconnected with a series of bike routes that navigate around the Town of Jackson including but not limited to downtown Jackson, multiple restaurants/bars, banks, a nearby Post Office, and various other local customer friendly businesses.

EXISTING TRAFFIC

The existing traffic for the Snow King Master Plan was evaluated as part of the traffic Impact study prepared for that plan. Physical counts of traffic were collected and analyzed in the traffic analysis.

III. PROPOSED CONDITIONS

The Town Hill Lofts development will be comprised of thirty-eight residential units in one building including an office space with 4,200 square feet of space. The building will contain 34 market units and 4 employee units.

The Master plan assumed a hotel with 60 units would be constructed on this site.

TRIP GENERATION COMPARISON

According to the ITE Trip Generation manual, 7th Edition, the generation rates for the uses are as follows;

Table 1 – Land Use

Proposed Land Use	ITE Land Use	Trip Generation
Town Hill Lofts	Residential Condominium/Townhouse	7.2/unit
Town Hill Emp. Housing	Apartment	6.7/unit
Office Space	General Office Building	36/sf
Snow King Master Plan	Hotel	8.17/room

The total trips generated by the original Master Plan assumed hotel are:

60 rooms X 8.17 trips per room = 491 trips per day

The total trips generated by the Town Hill Loft project:

34 market units X 7.2 trips per unit = 245 trips per day
4 employee units X 6.7 trips per unit = 27 trips per day
4200 sf of office space X 36 trips per 1000 sf = 152 trips per day
Total = 424 trips per day

IV. Conclusions

The proposed Town Hill Loft project is estimated to generate fewer trips than was estimated in the snow King Master Plan. Therefore, the traffic impact findings of the Master Plan are consistent with this development proposal.

Exhibit G

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BY: AJ
Date: 04/26/2016

Average Day Occupancy Rate	50%
Max Day Factor, MDF	2.72
Peak Hour Factor [2], PHF	6

WATER DEMAND						
	a		b	c=a*b	d=MDF*c	e=d/1440 * PHF
	Quantity[6]	Unit	Average gpd/unit	Average TOTAL, gpd	Maximum TOTAL, gpd	PEAK HOUR, gpm
Condo, 1 Bedroom	10	Bedroom	125	1250	3400	14.2
Condo, 2 Bedroom	12	Bedroom	125	3000	8160	34.0
Condo, 3 Bedroom	16	Bedroom	125	6000	16320	68.0
			Subtotal Housing	10,250	27,880	116.2
	Quantity	Unit	Average gpd/unit	Average TOTAL, gpd	Maximum TOTAL, gpd	PEAK HOUR, gpm
Commercial (2975 SF)[3]	25	Employee	30	375	1020	4.3
			Subtotal Commercial	375	1,020	4.3
	Quantity	Unit	Average inch/day	Average TOTAL, gpd	Maximum TOTAL, gpd	PEAK HOUR, gpm
Irrigation System	8,000	SF	0.25	1247	2493	10.4
			Subtotal Irrigation	1,247	2,493	10.4
			TOTALS	11,872	31,393	131

FIRE SUPPRESSION						
Total Building Size	Building Type	Required Pressure [4]	Required Duration [4]	Total Fire Flow [4]	Sprinkler Reduction [5]	Adjusted Fire Flow [5]
(SF)	(IBC)	(psi)	(hours)	(gpm)	(%)	(gpm)
56,620	III-B	20	4	5000	75%	1500

Note:

[1] Based on daily rates from the WYDEQ CH 12, Section 8

[2] Peak Hour Factor based on busiest hour occuring during the busiest quarter of the day.

[3] Number of Employees based on average 120 SF per work station

[4] IFC - Appendix B, Table B105.1, Type III-B

[5] IFC - Appendix B, Section B105.2, 75% reduction for automatic sprinkler systems, minimum 1500 gpm

[6] Unit count shown accounts for Employee Housing Requirements

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BY: AJ
Date: 04/26/2016

WATER DEMAND - M22 FIXTURE CALCULATION

	Fixture	Fixtures per Unit	No. of Units	Total Fixtures	Fixture Value	Total Fixture Value
Condo, 1 Bedroom	Lavatory Sink	1	**10**	10	1.5	15
	Bathtub	1		10	8	80
	Toilet	1		10	6	60
	Kitchen Sink	1		10	1.8	18
	Dishwasher	1		10	1.3	13
	Laundry Machine	1		10	3	30
Condo, 2 Bedroom	Lavatory Sink	3	**12**	36	1.5	54
	Bathtub	2		24	8	192
	Toilet	2		24	6	144
	Kitchen Sink	1		12	1.8	22
	Dishwasher	1		12	1.3	16
	Laundry Machine	1		12	3	36
Condo, 3 Bedroom, 2 Bath	Lavatory Sink	4	**13**	52	1.5	78
	Bathtub	2		26	8	208
	Toilet	2		26	6	156
	Kitchen Sink	1		13	1.8	23
	Dishwasher	1		13	1.3	17
	Laundry Machine	1		13	3	39
Condo, 3 Bedroom, 3 Bath	Lavatory Sink	5	**3**	15	1.5	23
	Bathtub	3		9	8	72
	Toilet	3		9	6	54
	Kitchen Sink	1		3	1.8	5
	Dishwasher	1		3	1.3	4
	Laundry Machine	1		3	3	9
					Subtotal Condo	**1,367**
Commercial	Lavatory Sink	2		2	1.5	3
(4152 SF, 4 Units)	Toilet	2		2	6	12
					Subtotal Commercial	**15**
					TOTAL FIXTURE VALUE	1,382

Probable Demand (AWWA M22 - Fig. 4.3)	70
Design Pressure Multipication Factor (AWWA M22 - Table 4.1 - 80 psi)	1.17
Adjusted Probable Demand (gpm)	**81.9**

Note: Bedroom count shown accounts for Employee Housing Requirements

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BY: AJ
Date: 04/26/2016

				Average Day Occupancy	50%
WASTEWATER SYSTEM					
	Quantity***	Units	Avg. gpd/unit*	Maximum Day Loading, gpd	Average Day Loading, gpd
Condo, 1 Bedroom	10	Bedroom	150	1500	750
Condo, 2 Bedroom	12	Bedroom	150	3600	1800
Condo, 3 Bedroom	16	Bedroom	150	7200	3600
			Subtotal Housing	**12,300**	**6,150**
	Quantity	Units	Avg. gpd/Emp*	Maximum Day Loading, gpd	Average Day Loading, gpd
Commercial (2975 SF)**	25	Employee	30	750	375
			Subtotal Commercial	**750**	**375**
			TOTAL PROJECT WASTEWATER	13,050	6,525
			Loading, gpm	10	gpm
		Peak Factor	3	30	gpm

Note:
**Based on daily flow rates from the WYDEQ CH 11, Part B, Table 1*
***Number of Employees based on average 120 SF per work station*
****Bedroom count shown accounts for Employee Housing Requirements*

Exhibit H

STORMWATER MANAGEMENT - ENTIRE SITE
RATIONAL METHOD FOR RUNOFF CALCULATIONS
POST-DEVELOPMENT - 100 YEAR EVENT

Design Storm Frequency = 100 years

Discharge Rate, d = 1.29 cfs

Surface Type	Area A (ft^2)	Area (acres)	Runoff Coefficient C	Frequency Factor C_f	C x C_f	Calculation Value C'	C' x A (acres)
Roofs	23,433	0.54	0.95	1.25	1.1875	1	0.54
Asphalt and Concrete	10,623	0.24	0.95	1.25	1.1875	1	0.24
Lawn, Heavy, Average, 2 to 7%	6,221	0.14	0.2	1.25	0.25	0.25	0.04
		0.00	0	1.25	0	0	0.00
		0.00	0	1.25	0	0	0.00
Totals	**40277**	**0.92**					**0.92**

Weighted Runoff Coefficient, $C_{wd} = \frac{\Sigma C_j A_j}{\Sigma A_j} = 0.83$

$C_{wd} \times C_f = 1.00$

$C_{wd} \times C_f \times \Sigma A_j = 0.92$

Time of Concentration = 5 minutes

Rainfall Duration, t (min)	Water Quantity Calculations: Rainfall Intensity, i (in/hr)	Runoff Volume (ft^3)	Discharge Volume (ft^3)	Site Detention (ft^3)	Peak Flow (ft^3/sec)
5	2.87	802.74	387.35	415.39	2.65
10	2.33	1303.41	774.70	528.70	2.15
15	1.9	1594.30	1162.06	432.24	1.76
20	1.65	1846.03	1549.41	296.62	1.53
30	1.3	2181.67	2324.11	-142.44	1.20
40	1.08	2416.62	3098.82	-682.20	1.00
50	0.95	2657.16	3873.52	-1216.36	0.88
60	0.82	2752.26	4648.23	-1895.97	0.76
70	0.74	2897.71	5422.93	-2525.23	0.68
80	0.65	2908.89	6197.64	-3288.74	0.60
90	0.61	3071.12	6972.34	-3901.22	0.56
100	0.56	3132.66	7747.05	-4614.39	0.52

Water Quantity Storage Required = 529 ft^3
= 3955 gallons

Peak Flow Rate = 2.65 cfs

STORMWATER MANAGEMENT - ENTIRE SITE
RATIONAL METHOD FOR RUNOFF CALCULATIONS
POST-DEVELOPMENT - 25 YEAR EVENT

Design Storm Frequency = 25 years

Discharge Rate, d = 0.85 cfs

Surface Type	Area A (ft^2)	Area (acres)	Runoff Coefficient C	Frequency Factor C_f	C x C_f	Calculation Value C'	C' x A (acres)
Roofs	23,433	0.54	0.95	1.1	1.045	1	0.54
Asphalt and Concrete	10,623	0.24	0.95	1.1	1.045	1	0.24
Lawn, Heavy, Average, 2 to 7%	6,221	0.14	0.2	1.1	0.22	0.22	0.03
		0.00	0	1.1	0	0	0.00
		0.00	0	1.1	0	0	0.00
Totals	**40277**	**0.92**					**0.85**

Weighted Runoff Coefficient, $C_{wd} = \frac{\Sigma C_j A_j}{\Sigma A_j} = 0.83$

$C_{wd} \times C_f = 0.92$

$C_{wd} \times C_f \times \Sigma A_j = 0.85$

Time of Concentration = 5 minutes

	Water Quantity Calculations				
Rainfall Duration, t (min)	**Rainfall Intensity, i (in/hr)**	**Runoff Volume (ft^3)**	**Discharge Volume (ft^3)**	**Site Detention (ft^3)**	**Peak Flow (ft^3/sec)**
5	2.15	551.79	255.36	296.43	1.82
10	1.7	872.60	510.71	361.89	1.44
15	1.41	1085.62	766.07	319.55	1.20
20	1.25	1283.23	1021.42	261.81	1.06
30	1.01	1555.28	1532.13	23.15	0.86
40	0.85	1745.20	2042.85	-297.65	0.72
50	0.73	1873.52	2553.56	-680.03	0.62
60	0.64	1971.05	3064.27	-1093.22	0.54
70	0.58	2083.97	3574.98	-1491.01	0.49
80	0.52	2135.30	4085.69	-1950.39	0.44
90	0.48	2217.43	4596.40	-2378.97	0.41
100	0.45	2309.82	5107.11	-2797.29	0.38

Water Quantity Storage Required = 362 ft^3
= 2707 gallons

Peak Flow Rate = 1.82 cfs

STORMWATER MANAGEMENT - ENTIRE SITE
RATIONAL METHOD FOR RUNOFF CALCULATIONS
POST-DEVELOPMENT - 10 YEAR EVENT

Design Storm Frequency = 10 years

Discharge Rate, d = 0.65 cfs

Surface Type	Area A (ft^2)	Area (acres)	Runoff Coefficient C	Frequency Factor C_f	C x C_f	Calculation Value C'	C' x A (acres)
Roofs	23,433	0.54	0.95	1	0.95	0.95	0.51
Asphalt and Concrete	10,623	0.24	0.95	1	0.95	0.95	0.23
Lawn, Sandy, Steep, 7%+	6,221	0.14	0.18	1	0.18	0.18	0.03
		0.00	0	1	0	0	0.00
		0.00	0	1	0	0	0.00
Totals	**40277**	**0.92**					**0.77**

Weighted Runoff Coefficient, $C_{wd} = \frac{\Sigma C_j A_j}{\Sigma A_j} = 0.83$

$C_{wd} \times C_f = 0.83$

$C_{wd} \times C_f \times \Sigma A_j = 0.77$

Time of Concentration = 5 minutes

Rainfall Duration, t (min)	Water Quantity Calculations: Rainfall Intensity, i (in/hr)	Runoff Volume (ft^3)	Discharge Volume (ft^3)	Site Detention (ft^3)	Peak Flow (ft^3/sec)
5	1.8	418.41	194.35	224.06	1.38
10	1.42	660.16	388.70	271.46	1.09
15	1.19	829.85	583.05	246.80	0.91
20	1.05	976.30	777.40	198.89	0.81
30	0.83	1157.61	1166.11	-8.50	0.64
40	0.68	1264.53	1554.81	-290.27	0.52
50	0.57	1324.97	1943.51	-618.54	0.44
60	0.51	1422.60	2332.21	-909.61	0.39
70	0.47	1529.53	2720.91	-1191.39	0.36
80	0.44	1636.46	3109.62	-1473.16	0.34
90	0.4	1673.65	3498.32	-1824.67	0.31
100	0.37	1720.14	3887.02	-2166.88	0.28

Water Quantity Storage Required = 271 ft^3
= 2031 gallons

Peak Flow Rate = 1.38 cfs

STORMWATER MANAGEMENT - ENTIRE SITE
RATIONAL METHOD FOR RUNOFF CALCULATIONS
PRE-DEVELOPED FLOW RATE - 100 YEAR

Design Storm Frequency = 100 years

Discharge Rate, d = 0.00 cfs

Surface Type	Area A (ft^2)	Area (acres)	Runoff Coefficient C	Frequency Factor C_f	C x C_f	Calculation Value C'	C' x A (acres)
Asphalt and Concrete	10,163	0.23	0.95	1.25	1.1875	1	0.23
Unimproved	30,114	0.69	0.2	1.25	0.25	0.25	0.17
		0.00	0	1.25	0	0	0.00
		0.00	0	1.25	0	0	0.00
		0.00	0	1.25	0	0	0.00
Totals	**40277**	**0.92**					**0.45**

Weighted Runoff Coefficient, $C_{wd} = \frac{\Sigma C_j A_j}{\Sigma A_j} = 0.39$

$C_{wd} \times C_f = 0.49$

$C_{wd} \times C_f \times \Sigma A_j = 0.45$

Time of Concentration = 5 minutes

	Water Quantity Calculations		
Rainfall Duration, t (min)	**Rainfall Intensity, i (in/hr)**	**Runoff Volume (ft^3)**	**Peak Flow (ft^3/sec)**
1	0	0.00	0.00
5	2.87	390.58	1.29
10	2.33	634.18	1.05
15	1.9	775.72	0.85
20	1.65	898.20	0.74
30	1.3	1061.51	0.58
40	1.08	1175.82	0.49
50	0.95	1292.86	0.43
60	0.82	1339.13	0.37
70	0.74	1409.90	0.33
80	0.65	1415.34	0.29
90	0.61	1494.28	0.27
100	0.56	1524.22	0.25

Peak Flow Rate = 1.29 cfs

STORMWATER MANAGEMENT - ENTIRE SITE
RATIONAL METHOD FOR RUNOFF CALCULATIONS
PRE-DEVELOPED FLOW RATE - 25 YEAR

Design Storm Frequency = 25 years

Discharge Rate, d = 0.00 cfs

Surface Type	Area A (ft^2)	Area (acres)	Runoff Coefficient C	Frequency Factor C_f	C x C_f	Calculation Value C'	C' x A (acres)
Asphalt and Concrete	10,163	0.23	0.95	1.1	1.045	1	0.23
Unimproved	30,114	0.69	0.2	1.1	0.22	0.22	0.15
		0.00	0	1.1	0	0	0.00
		0.00	0	1.1	0	0	0.00
		0.00	0	1.1	0	0	0.00
Totals	**40277**	**0.92**					**0.40**

Weighted Runoff Coefficient, $C_{wd} = \frac{\Sigma C_j A_j}{\Sigma A_j}$ = 0.39

$C_{wd} \times C_f$ = 0.43

$C_{wd} \times C_f \times \Sigma A_j$ = 0.40

Time of Concentration = 5 minutes

	Water Quantity Calculations		
Rainfall Duration, t (min)	**Rainfall Intensity, i (in/hr)**	**Runoff Volume (ft^3)**	**Peak Flow (ft^3/sec)**
1	0	0.00	0.00
5	2.15	257.48	0.85
10	1.7	407.18	0.67
15	1.41	506.58	0.56
20	1.25	598.80	0.49
30	1.01	725.74	0.40
40	0.85	814.37	0.34
50	0.73	874.25	0.29
60	0.64	919.76	0.25
70	0.58	972.45	0.23
80	0.52	996.40	0.21
90	0.48	1034.72	0.19
100	0.45	1077.84	0.18

Peak Flow Rate = 0.85 cfs

382 gpm

STORMWATER MANAGEMENT - ENTIRE SITE
RATIONAL METHOD FOR RUNOFF CALCULATIONS
PRE-DEVELOPED FLOW RATE - 10 YEAR

Design Storm Frequency 10 years

Discharge Rate, d = 0.00 cfs

Surface Type	Area A (ft^2)	Area (acres)	Runoff Coefficient C	Frequency Factor C_f	C x C_f	Calculation Value C'	C' x A (acres)
Asphalt and Concrete	10,163	0.23	0.95	1	0.95	0.95	0.22
Unimproved	30,114	0.69	0.2	1	0.2	0.2	0.14
		0.00	0	1	0	0	0.00
		0.00	0	1	0	0	0.00
		0.00	0	1	0	0	0.00
Totals	**40277**	**0.92**					**0.36**

Weighted Runoff Coefficient, $C_{wd} = \frac{\Sigma C_j A_j}{\Sigma A_j} = 0.39$

$C_{wd} \times C_f = 0.39$

$C_{wd} \times C_f \times \Sigma A_j = 0.36$

Time of Concentration = 5 minutes

	Water Quantity Calculations		
Rainfall Duration, t (min)	**Rainfall Intensity, i (in/hr)**	**Runoff Volume (ft^3)**	**Peak Flow (ft^3/sec)**
1	0	0.00	0.00
5	1.8	195.97	0.65
10	1.42	309.20	0.51
15	1.19	388.68	0.43
20	1.05	457.26	0.38
30	0.83	542.19	0.30
40	0.68	592.27	0.24
50	0.57	620.57	0.21
60	0.51	666.30	0.18
70	0.47	716.38	0.17
80	0.44	766.46	0.16
90	0.4	783.88	0.14
100	0.37	805.66	0.13

Peak Flow Rate = 0.65 cfs

291 gpm

STORMWATER MANAGEMENT - ENTIRE SITE
RATIONAL METHOD FOR RUNOFF CALCULATIONS
PRE-DEVELOPED FLOW RATE - 2 YEAR

Design Storm Frequency 2 years

Discharge Rate, d = 0.00 cfs

Surface Type	Area A (ft^2)	Area (acres)	Runoff Coefficient C	Frequency Factor C_f	C x C_f	Calculation Value C'	C' x A (acres)
Asphalt and Concrete	10,163	0.23	0.95	1	0.95	0.95	0.22
Unimproved	30,114	0.69	0.2	1	0.2	0.2	0.14
		0.00	0	1	0	0	0.00
		0.00	0	1	0	0	0.00
		0.00	0	1	0	0	0.00
Totals	**40277**	**0.92**					**0.36**

Weighted Runoff Coefficient, $C_{wd} = \frac{\Sigma C_j A_j}{\Sigma A_j} = 0.39$

$C_{wd} \times C_f = 0.39$

$C_{wd} \times C_f \times \Sigma A_j = 0.36$

Time of Concentration = 5 minutes

	Water Quantity Calculations		
Rainfall Duration, t (min)	**Rainfall Intensity, i (in/hr)**	**Runoff Volume (ft^3)**	**Peak Flow (ft^3/sec)**
1	0	0.00	0.00
5	1.07	116.49	0.39
10	0.89	193.79	0.32
15	0.73	238.43	0.26
20	0.64	278.71	0.23
30	0.5	326.62	0.18
40	0.4	348.39	0.14
50	0.34	370.17	0.12
60	0.3	391.94	0.11
70	0.29	442.02	0.10
80	0.26	452.91	0.09
90	0.24	470.33	0.09
100	0.23	500.81	0.08

Peak Flow Rate = 0.39 cfs

Exhibit I

GENERAL CONSTRUCTION NOTES

1. ALL SITE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF WYOMING PUBLIC WORKS STANDARD SPECIFICATIONS AND ARTICLE 4 OF THE TOWN OF JACKSON LAND DEVELOPMENT REGULATIONS.

2. EXISTING BASE MAPPING WAS PREPARED BY JORGENSEN ASSOCIATES, P.C. (FALL 2015).

3. BURIED UTILITIES
   - 3.1. CONTRACTOR SHALL VERIFY LOCATION OF ALL BURIED AND OVERHEAD UTILITIES PRIOR TO ANY EXCAVATION IN THE VICINITY. UTILITY LOCATIONS SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. ENGINEER DOES NOT WARRANT THE ACCURACY NOR COMPLETENESS OF THE INFORMATION SHOWN FOR EXISTING UTILITIES.
   - 3.2. CONTRACTOR SHALL COORDINATE WITH THE PROJECT REPRESENTATIVE TO LOCATE AND AVOID DAMAGE TO ANY FUEL PUMPING FACILITIES, IRRIGATION FACILITIES, WATER UTILITIES, AND STATE MONITORING WELLS AND PIPING.
   - 3.3. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES PRIOR TO INSTALLING IMPROVEMENTS.
   - 3.4. CONTRACTOR SHALL NOTIFY WYOMING ONE CALL, 1-800-348-1030, A MINIMUM OF 48 HOURS PRIOR TO EXCAVATION FOR UTILITY LOCATES.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY NPDES STORMWATER PERMIT PRIOR TO COMMENCING ANY LAND DISTURBING ACTIVITIES.

5. CONTRACTOR SHALL CONSTRUCT EROSION CONTROL STRUCTURES PRIOR TO ANY EARTHWORK OR CONSTRUCTION. EROSION CONTROL STRUCTURES SHALL BE CONSTRUCTED AND MAINTAINED BY CONTRACTOR UNTIL VEGETATION IS REESTABLISHED IN DISTURBED AREAS.

6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND SHALL PROMPTLY NOTIFY THE ENGINEER OF ANY VARIATIONS OR DISCREPANCIES.

7. ALL EXCAVATION ACTIVITIES SHALL COMPLY WITH PERMIT REQUIREMENTS ISSUED FOR THE PROJECT. CONTRACTOR SHALL REVIEW AND BE RESPONSIBLE FOR PERMIT COMPLIANCE.

8. CONTRACTOR TO CONFIRM STOCKPILE AND STAGING LOCATIONS WITH THE OWNER.

9. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

10. FILL MATERIAL SHALL BE SUITABLE ON-SITE OR IMPORTED MATERIAL WITH ROCKS NO LARGER THAN 6 INCHES IN DIAMETER. LARGER MATERIAL MAY BE PLACED ONLY WHEN AUTHORIZED BY THE ENGINEER.

11. CRUSHED GRAVEL BASE COURSE MATERIAL SHALL BE GRADING H. BASE COURSE SHALL BE MECHANICALLY COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 (AASHTO T-180 - MODIFIED PROCTOR DENSITY).

12. DESTRUCTION AND DAMAGE TO TREES AND OTHER NATURAL VEGETATION SHALL BE MINIMIZED AND ALL DISTURBED SURFACES SHALL BE RESEEDED AS SOON AS PRACTICABLE IN ACCORDANCE TO THE REVEGETATION SPECIFICATIONS.

13. STRIP AND SALVAGE TOPSOIL FROM ALL EXCAVATED AREAS.

14. WEEDS SHALL BE CONTROLLED BY SPRAYING, LIMITING DISTURBANCE AREA, OR OTHER MEANS PRIOR TO REVEGETATION AND AFTER REVEGETATION IS COMPLETE.

15. FUGITIVE DUST WILL BE CONTROLLED BY WATERING DURING DRY PERIODS OR AS REQUIRED BY ENGINEER.

16. ALL EXCAVATED MATERIALS SHALL BE STOCKPILED AND PROCESSED ON-SITE ONLY AT LOCATIONS AS DESIGNATED ON THE PLANS.

17. TOPS OF CUT AND FILL SLOPES SHALL BE ROUNDED TO AVOID RAVELING AND EROSION.

18. A FOUR INCH MINIMUM LAYER OF TOPSOIL SHALL BE PLACED ON ALL SLOPES AND AREAS STRIPPED FOR GRADING PRIOR TO REVEGETATION.

19. CUT AND FILL SLOPES SHALL NOT EXCEED 2:1.

WATER AND SEWER UTILITY NOTES

1. WATER AND SEWER INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY, WATER QUALITY DIVISION RULES AND REGULATIONS AND THE TOWN OF JACKSON STANDARDS FOR CONSTRUCTION.

2. CONTRACTOR SHALL NOTIFY THE TOWN OF JACKSON PUBLIC WORKS DEPARTMENT AT PHONE NUMBER (307) 733-3079, PRIOR TO START OF CONSTRUCTION AND PRIOR TO EACH WATER AND SEWER TEST.

3. CONTRACTOR SHALL MAINTAIN WATER AND SEWER SLOPES CONSISTENT WITH THE PLANS. ABRUPT ELEVATION CHANGES ARE NOT PERMITTED AND MAY REQUIRE ADDITIONAL AIR RELEASE VALVES OR BLOW-OFFS AT THE CONTRACTORS EXPENSE.

4. TYPE A TRENCH BACKFILL SHALL APPLY TO ALL PAVED SURFACES AND AROUND ALL APPURTENANCES INCLUDING VALVES, FIRE HYDRANTS AND MANHOLES. TYPE B TRENCH BACKFILL SHALL APPLY TO NON-TRAVELED AREAS. SEE SPECIFICATION WPWSS 02225.

5. CONTINUOUS RIGID TYPE B PIPELINE INSULATION SHALL BE PROVIDED AS SHOWN ON THE TYPICAL TRENCH DETAIL, UNDER ALL TRAVELED AREAS AND AT ALL LOCATIONS WHERE DEPTH OF COVER IS LESS THAN 5 FEET FOR SEWER MAINS AND SERVICES; LESS THAN 7 FEET FOR SEWER FORCE MAINS, WATER MAINS AND SERVICES OR AS SHOWN ON THE PLANS.

6. MAINTAIN A MINIMUM OF 10 FEET HORIZONTAL SEPARATION BETWEEN WATER PIPES AND SEWER PIPES/MANHOLES, MEASURED EDGE TO EDGE. MAINTAIN A MINIMUM OF 18 INCHES VERTICAL SEPARATION AT WATER-SEWER PIPE CROSSINGS. WHERE SEWER PIPE CROSSES ABOVE WATER PIPE, SPECIAL CONSTRUCTION IS REQUIRED. SEE TYPICAL DETAILS.

7. WATER SERVICE LINES 4" AND LARGER SHALL BE DUCTILE IRON PIPE, OR APPROVED EQUAL. FITTINGS FOR WATER MAINS SHALL BE DUCTILE IRON, CONFORMING TO AWWA C110 OR C153. MINIMUM DEPTH OF BURY FOR ALL WATER LINES SHALL BE 7'.

8. SANITARY SEWER LINES AND FITTINGS SHALL BE SCHEDULE 40 PVC AND CONFORM TO ASTM D-3034.

0 20 40 60
SCALE: 1 INCH = 20 FEET
THIS SCALE VALID ONLY FOR 30x42 PRINTS

– PRELIMINARY –
SUBJECT TO CORRECTION AND APPROVAL

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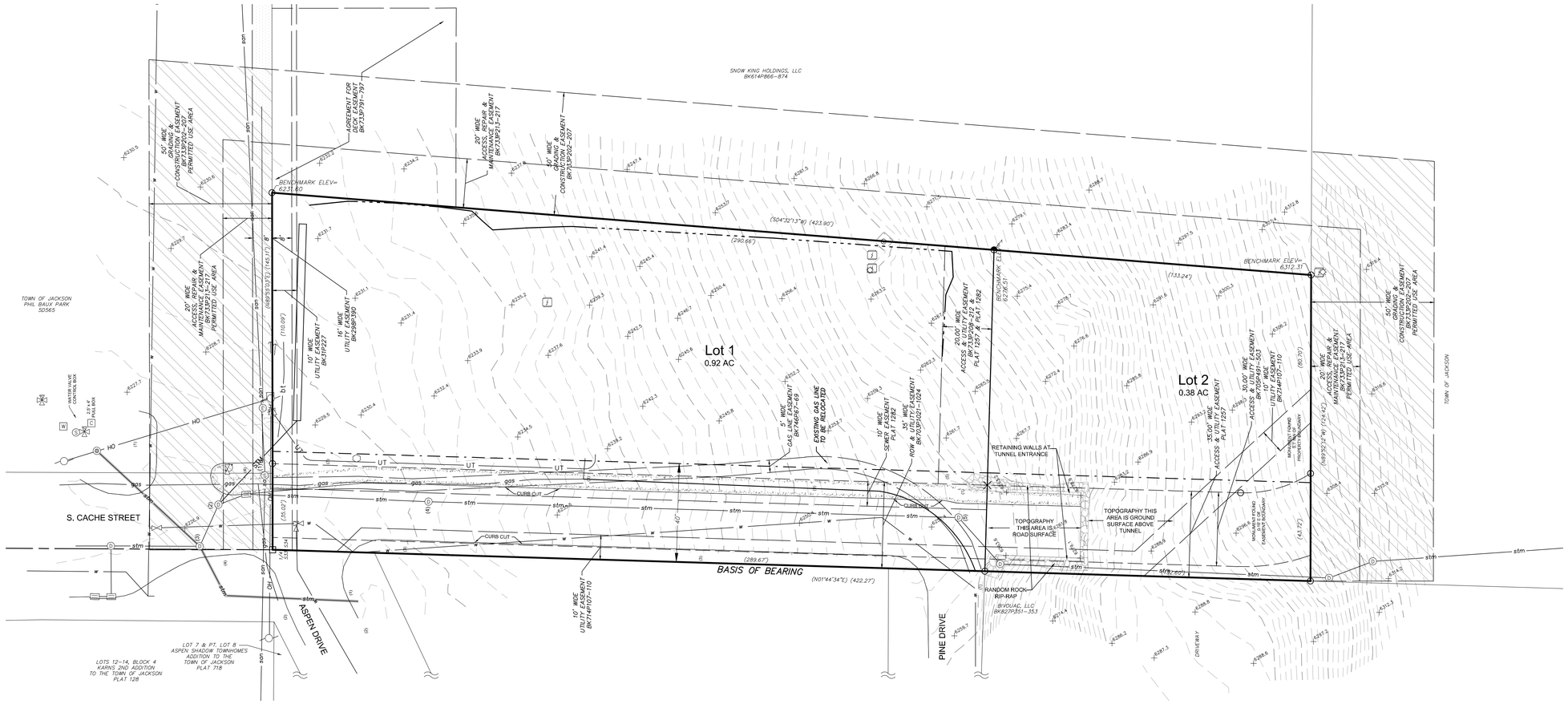
Date:
Final Development Plan
4.27.2016
Revisions:

C1.0
PROJECT OVERVIEW



LEGEND:

- IRON PIPE WITH BRASS CAP FOUND, CERTIFIED LAND CORNER OF RECORD
- 5/8 INCH DIAMETER STEEL REINFORCING BAR WITH 1-1/2 INCH DIAMETER ALUMINUM CAP INSCRIBED "PLS 4270", FOUND THIS SURVEY
- 5/8 INCH DIAMETER STEEL REINFORCING BAR WITH 2 INCH DIAMETER ALUMINUM CAP INSCRIBED "PLS 3831", FOUND THIS SURVEY
- PK NAIL INSCRIBED "PLS 3831" FOUND THIS SURVEY
- N89°54'57"E 145.15' — MEASURED BEARING AND DISTANCE
- (N89°55'03"E) (145.11') — RECORD BEARING AND DISTANCE (PLAT 1282)
- BOUNDARY, SUBJECT PROPERTY
- BOUNDARY, LOT WITHIN SUBJECT PROPERTY
- BOUNDARY, ADJOINING LOT
- BOUNDARY, BUILDING SETBACK
- BOUNDARY, ACCESS AND UTILITY EASEMENT, AS NOTED
- BOUNDARY, UTILITY EASEMENT, AS NOTED
- 6290 — INDEX CONTOUR (5' INTERVAL)
- INTERMEDIATE CONTOUR (1' INTERVAL)
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- CURB
- FLOWLINE
- GUARDRAIL
- C — COMMUNICATIONS PEDESTAL OR PULL-BOX VAULT
- bt — UNDERGROUND TELEPHONE LINE
- SPRINKLER CONTROL BOX
- gas — UNDERGROUND GAS LINE
- ELECTRIC JUNCTION BOX
- ELECTRIC TRANSFORMER
- E — ELECTRIC VAULT ACCESS
- UTILITY POLE
- GUY ANCHOR
- POLE-MOUNTED LIGHTS, SKI RUN
- OH — OVERHEAD UTILITY LINES
- S — SANITARY SEWER MANHOLE
- san — SANITARY SEWER LINE, RECORD TOWN OF JACKSON GIS
- STORM SEWER INLET
- D — STORM SEWER MANHOLE
- stm — STORM SEWER LINE, RECORD TOWN OF JACKSON GIS
- FIRE HYDRANT
- WATER SERVICE CURBSTOP
- W — WATER METER
- WATER VALVE
- w — WATER LINE, RECORD TOWN OF JACKSON GIS
- U — UTILITY MANHOLE
- SIGN, SEE SIGN LEGEND THIS SHEET
- ASPEN TREE, <6" CALIPER
- CONIFER TREE, ≥6" CALIPER / 12" CALIPER
- COTTONWOOD TREE, 3' CALIPER

SANITARY SEWER MANHOLE DETAILS

(1)
Rim Elevation = 6227.63'
Invert In Elevation = 6221.88' (8" Ø)
Invert Out Elevation = 6221.78' (8" or 10" Ø)

STORM SEWER MANHOLE DETAILS

(2)
Rim Elevation = 6226.65'
Invert In 1 Elevation = 6222.95' (1.0' Ø)
Invert In 2 Elevation = 6222.95' (1.5' Ø)
Invert Out Elevation = 6222.85' (1.0' Ø)

(3)
Rim Elevation = 6226.72'
Invert In 1 Elevation = 6222.72' (1.0' Ø)
Invert Out Elevation = 6222.62' (2.0' Ø)
indicates record from Town of Jackson GIS unconfirmed by survey

(4)
Rim Elevation = 6230.53'
Invert In Elevation = 6224.33' (1.5' Ø)
Invert Out Elevation = 6224.13' (1.5' Ø)

(5)
Rim Elevation = 6258.07'
Invert In Elevation = 6250.47' (1.5' Ø)
Invert Out Elevation = 6250.27' (1.5' Ø)

SURVEY NOTES:

1. **THIS SURVEY WAS CONDUCTED IN OCTOBER 2015 AND PREPARED UNDER THE DIRECTION OF KENNETH G. MAGRATH, WYOMING PLS 8469.**
2. **LOCATIONS OF UTILITIES DEPICTED HEREON ARE LIMITED TO VISIBLE STRUCTURES; UNDERGROUND LOCATION MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION ACTIVITY.**
3. **BUILDING ENVELOPES ARE BASED ON RECORD INFORMATION FROM THAT SUBDIVISION MAP OF RECORD AS PLAT 1282, THAT AGREEMENT OF RECORD IN BOOK 733 OF PHOTO, PAGES 189-196, AND THAT AFFIDAVIT AFFECTING TITLE RE: SNOW KING PLANNED RESORT DISTRICT MASTER PLAN OF RECORD IN BOOK 429 OF PHOTO, PAGES 1-211 IN THE OFFICE OF THE CLERK OF TETON COUNTY, WYOMING, COVENANTS, CONDITIONS AND RESTRICTIONS FOR THE SNOW KING PLANNED RESORT DISTRICT MAY FURTHER RESTRICT THE AREA OF ALLOWABLE DEVELOPMENT.**
4. **EASEMENTS SHOWN ARE BASED ON RECORD INFORMATION FROM PLAT 1282 AND THAT TITLE REPORT PREPARED BY FIRST AMERICAN TETON LAND TITLE COMPANY DATED SEPTEMBER 30, 2009 UNLESS OTHERWISE NOTED. OTHER EASEMENTS OR ENCUMBRANCES MAY EXIST ON THE SUBJECT PROPERTY. NO THOROUGH SEARCH OF PUBLIC RECORDS WAS CONDUCTED.**
5. **ELEVATIONS WERE DERIVED USING GPS RTK OBSERVATION METHODS REFERENCED TO A LOCAL COORDINATE SYSTEM.**
6. **RECORD DIMENSIONS SHOWN ARE FROM PLAT 1282.**
7. **BASIS OF BEARING FOR THIS SURVEY IS N01°43'38"E ON THE WEST LINE OF THE NW1/4SW1/4 OF SECTION 34, TOWNSHIP 41 NORTH, RANGE 116 WEST, 6TH P.M.**

0 20 40 60

SCALE: 1 INCH = 20 FEET
THIS SCALE VALID ONLY FOR 30x42 PRINTS

SIGN LEGEND:

(1) REGULATORY "STOP"

(2) REGULATORY "NO PARKING"

(3) REGULATORY--TWO SIGNS, SIGLE-POLE MOUNTED, "NO PARKING THIS SIDE OF STREET"

(4) REGULATORY/WARNING--TWO SIGNS, SINGLE-POLE MOUNTED "PEDESTRIAN CROSSING"

(5) INFORMATIONAL--TWO-POST, FRAMED "FOR SALE"

EASEMENT NOTES:

PORTIONS OF 20' WIDE AND 50' WIDE EASEMENTS OF RECORD IN BOOK 733 OF PHOTO, PAGES 213-217 AND BOOK 733 OF PHOTO, PAGES 202-207, RESPECTIVELY, WITHIN TOWN OF JACKSON PROPERTY MAY NOT BE ALLOWED UNDER THE TERMS OF THE LEASE FROM THE TOWN OF JACKSON TO THE SNOW KING RESORT. USE OF THIS AREA IS SUBJECT TO THE TERMS OF SAID LEASE.

PORTION OF 16' WIDE EASEMENT OF RECORD IN BOOK 298 OF PHOTO, PAGE 390 WITHIN TOWN OF JACKSON PROPERTY MAY BE INVALID AS TOWN OF JACKSON WAS NOT A GRANTOR OF THE EASEMENT.

– PRELIMINARY –
SUBJECT TO CORRECTION AND APPROVAL

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LANDSCAPE ARCHITECT:
Wheeler Art & Associates PA
208.529.9504

Date:
Final Development Plan
4.27.2016
Revisions:

C1.1

EXISTING CONDITIONS

SNOW KING RESORT

TOWN OF JACKSON
PHIL BAUX PARK

TOWN HILL

EXISTING COMMUNICATIONS PEDESTAL COORDINATE WITH SERVICE PROVIDER FOR CONNECTION

EXISTING LOWER VALLEY 3 PHASE SWITCH CABINET COORDINATE WITH LVE FOR CONNECTION

EXISTING TOJ SEWER MANHOLE CORE NEW PENETRATION 8" SDR 35 PVC PIPE EX RIM = 6227.63' EX INVERT = 6221.88' CONTRACTOR TO VERIFY ELEVATION

PROPOSED POWER AND UTILITY CONNECTION 150 LF 4" RIGID POWER CONDUIT TO MAIN HOUSE METER DISCONNECT LOCATE POWER VAULT AS REQUIRED BY LVE COORDINATE WITH LVE FOR FINAL LAYOUT SEPARATE CONDUIT FOR EACH UTILITY LINE

SANITARY SEWER CONNECTION NEW MANHOLE ON NEW LINE RIM = 6237.78', INVERT = 6230.76' 12 LF 4" SDR 35 PVC TO BUILDING SLOPE = 2.0% MINIMUM SEE MECHANICAL FOR CONTINUATION

EXTEND WATER SERVICE TO MECHANICAL ROOM LOCATE BACKFLOW DEVICES ACCORDING TO MECHANICAL PLANS

10 LF GAS SERVICE

SANITARY SEWER SERVICE TO COMMERCIAL OFFICE 24 LF 6" SDR 35 PVC SLOPE = 2% MINIMUM

SOUTH CACHE STREET

TUNNEL TO PINE GLADES TOWNHOMES

175 LF GAS LINE REALIGNMENT

PROPOSED DOMESTIC WATER SERVICE INSTALL 8"x8"X4" TEE 4" 90° BEND, 4" GATE VALVE 10 LF 4" DIP SERVICE TO BUILDING WALL SEE MECHANICAL FOR CONTINUATION

PROPOSED FIRE SYSTEM SERVICE CONNECTION TO EXISTING 8" MAIN 8" HOT TOP AND GATE VALVE BY TOJ 32 LF 8" DIP FIRE SERVICE TO BUILDING WALL SEE MECHANICAL FOR CONTINUATION

ASPEN DRIVE

PINE DRIVE

LIFT
RESTAURANT/BAR

SCALE: 1 INCH = 10 FEET
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208.522.9404

Date:
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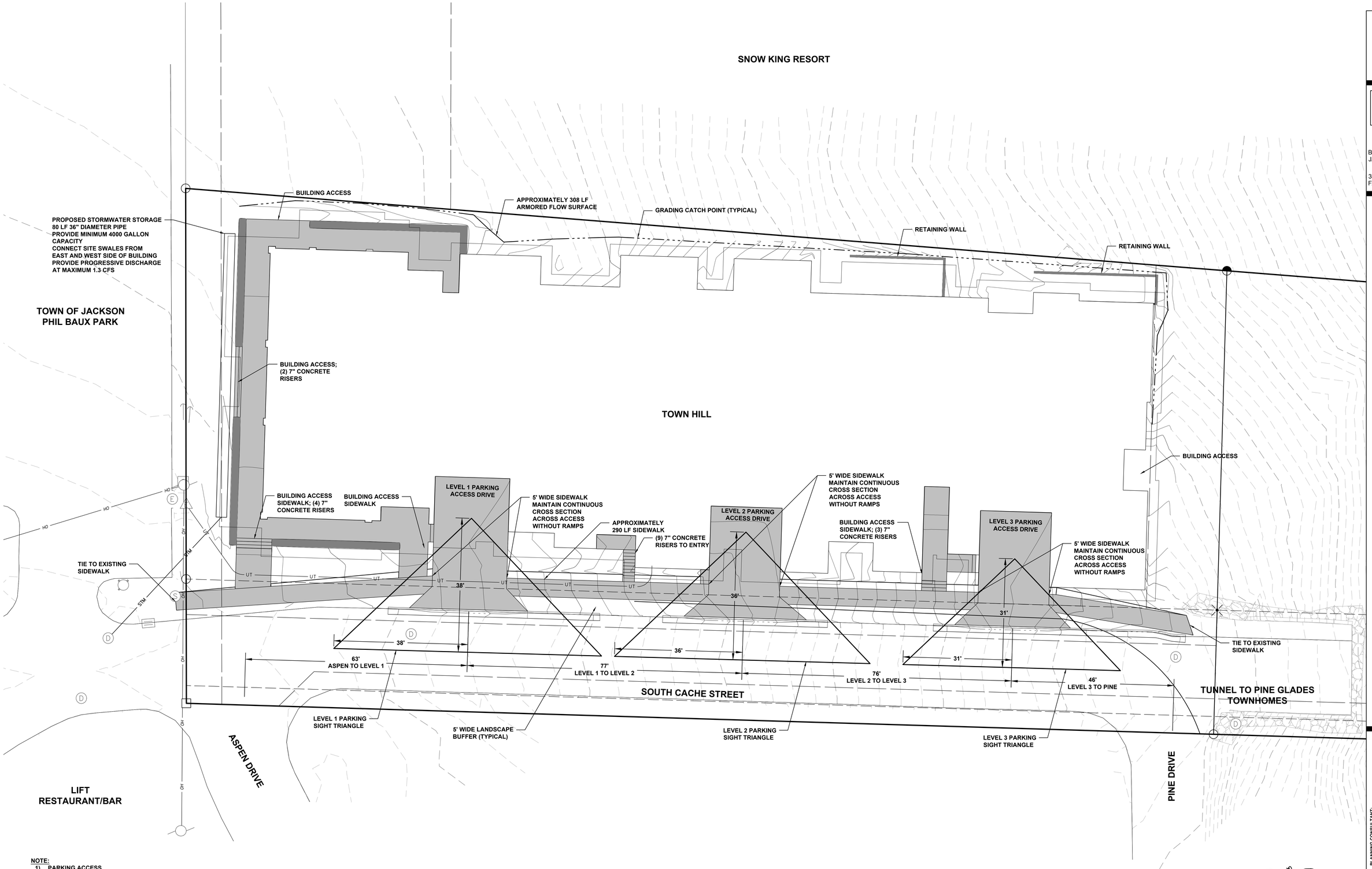
4.27.2016
Revisions:

C2.0

PROPOSED
UTILITY PLAN



NOTE:

1) PARKING ACCESS
   a. ACCESS DRIVES ARE 20' WIDE
   b. SAWCUT EXISTING CURB AND PAVEMENT. INSTALL LONGITUDINAL TAPER CURB
2) NO SIGNS OR OBSTRUCTIONS SHALL BE PERMITTED WITHIN THE CLEAR ZONE OF THE SIGHT TRIANGLE

SCALE: 1 INCH = 10 FEET
THIS SCALE VALID ONLY FOR 30x42 PRINTS

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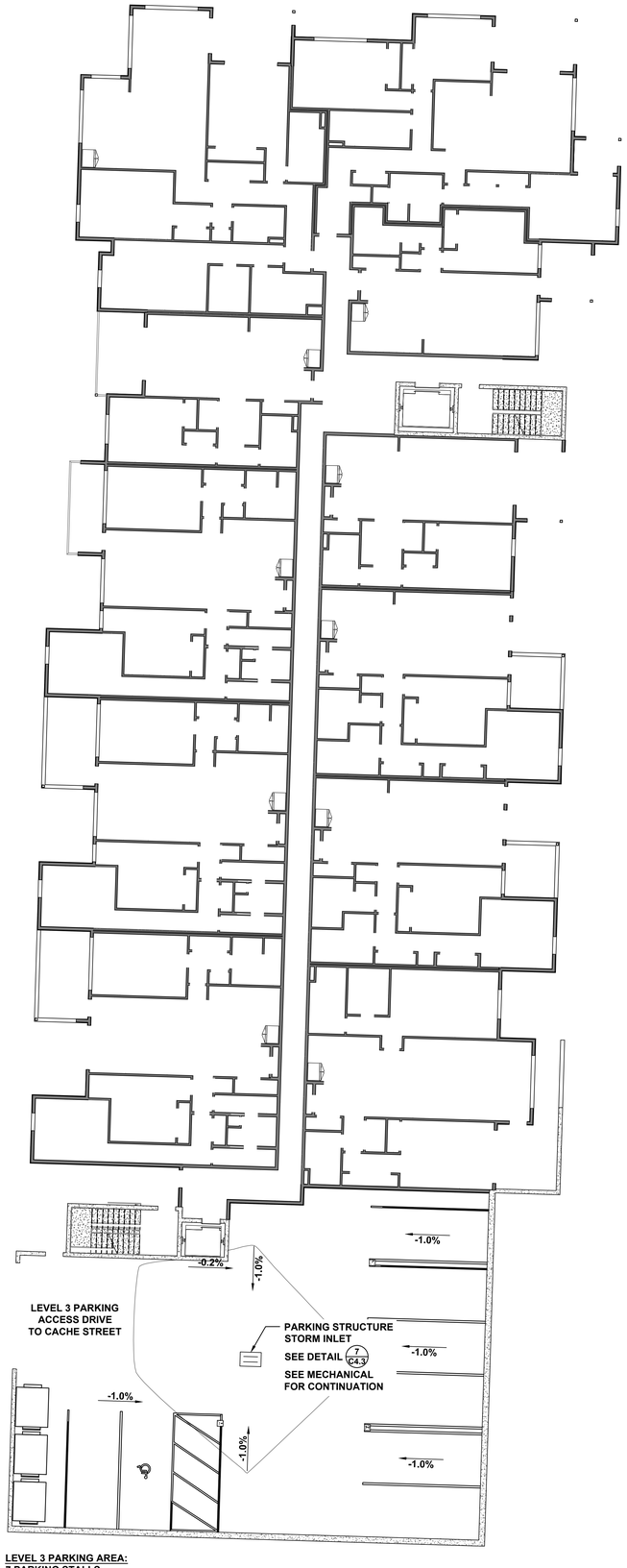
4.27.2016
Revisions:

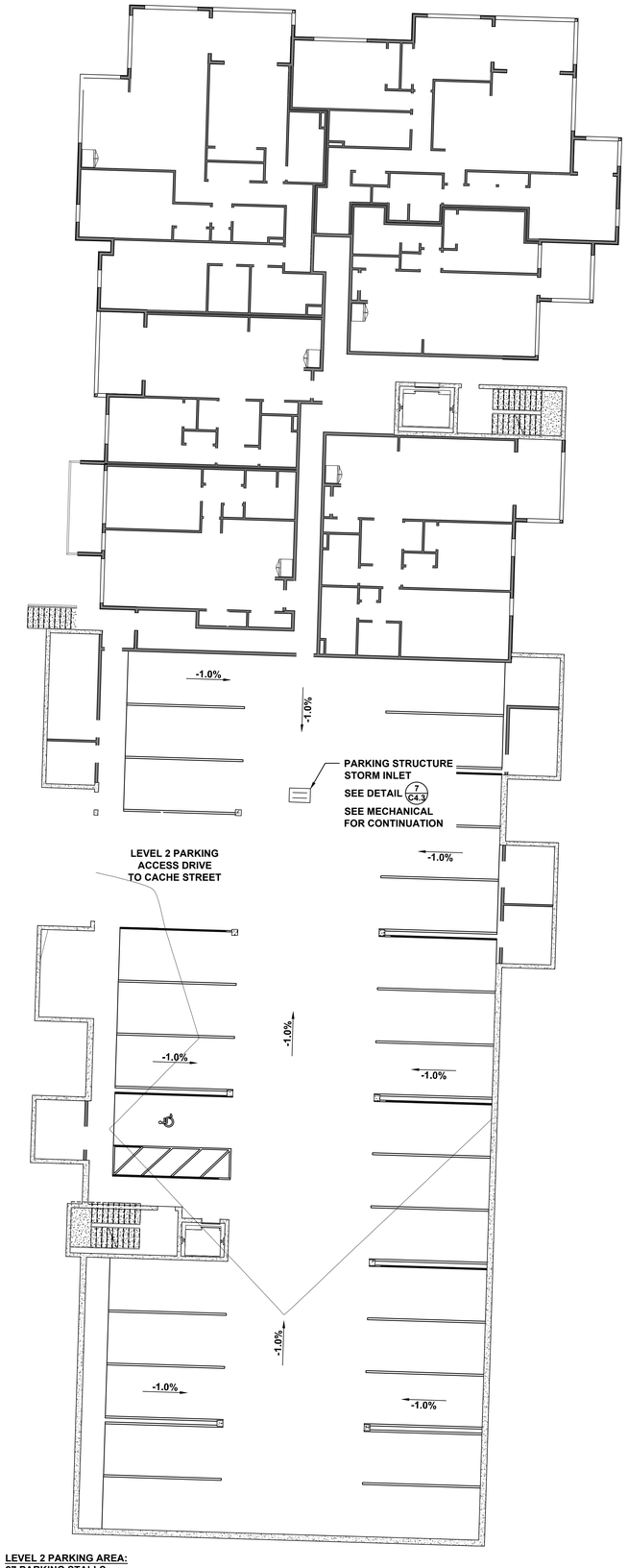
C3.0

PROPOSED SITE GRADING



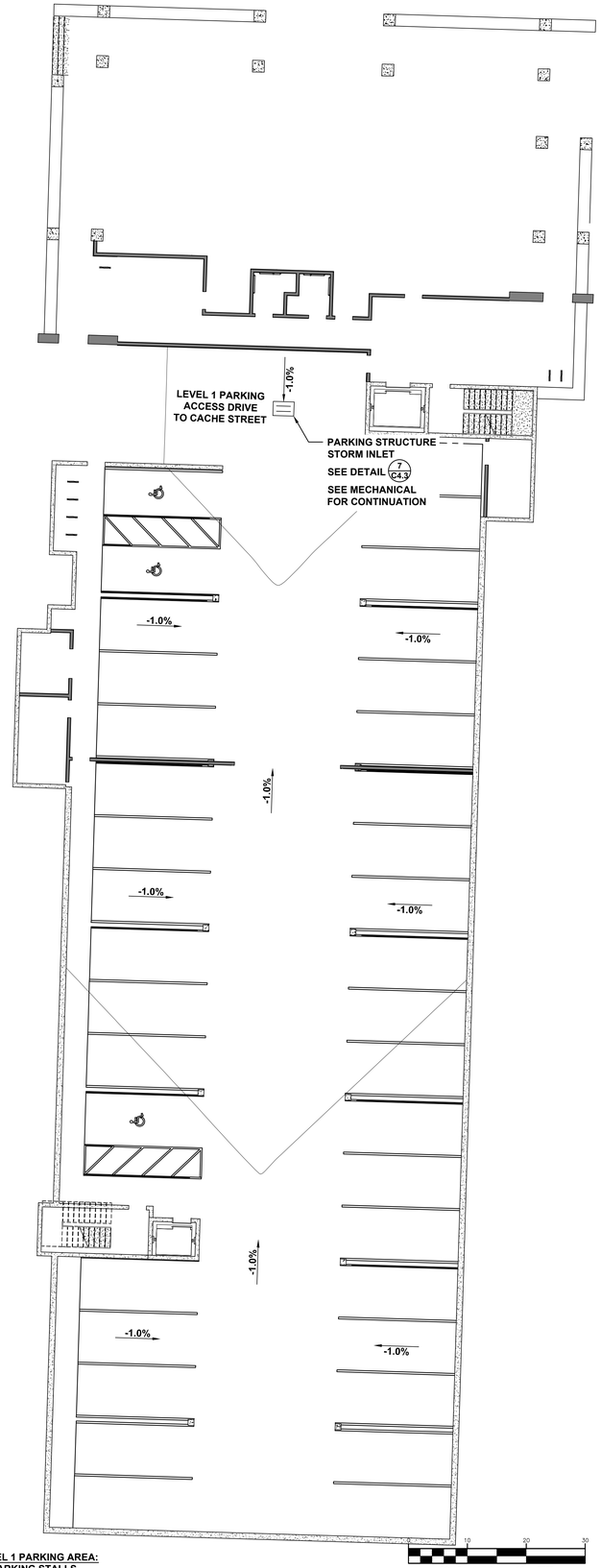
LEVEL 3 PARKING AREA:
7 PARKING STALLS
1 HANDICAPPED STALL
GARBAGE DUMPSTER AREA

LEVEL 3 PARKING PLAN



LEVEL 2 PARKING AREA:
27 PARKING STALLS
1 HANDICAPPED STALL

LEVEL 2 PARKING PLAN



LEVEL 1 PARKING AREA:
34 PARKING STALLS
3 HANDICAPPED STALL

LEVEL 1 PARKING PLAN

SCALE: 1 INCH = 10 FEET
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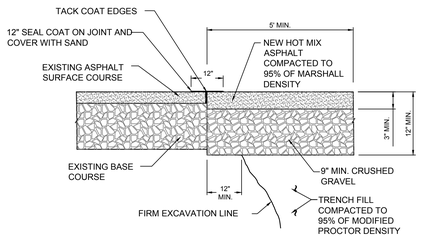
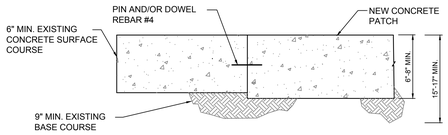
4.27.2016
Revisions:

C3.1
PROPOSED PARKING PLAN



BITUMINOUS MATERIAL SHALL MEET THE APPLICABLE REQUIREMENTS OF SECTION 02545 BITUMINOUS MATERIALS OF WYOMING PUBLIC WORKS STANDARDS AND SPECIFICATIONS

ASPHALT PATCH REPAIR DETAIL

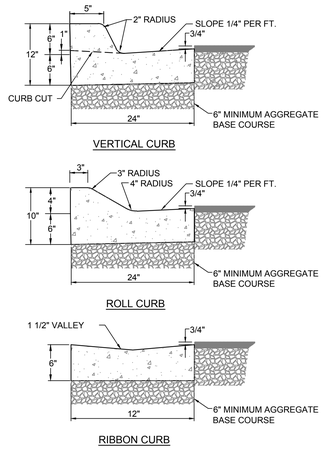


CONCRETE PATCH REPAIR DETAIL

NOTES:

1. REPLACEMENT ASPHALT THICKNESS SHALL BE 1" GREATER THAN EXISTING AND NO LESS THAN 3" MINIMUM.
2. ASPHALT SHALL BE PLACED IN TWO (2) LIFTS, EACH NO LESS THAN 1½" IN THICKNESS, AND COMPACTED TO 95% OF MARSHALL DENSITY.
3. PORTLAND CEMENT CONCRETE PAVEMENT SHALL MEET APPLICABLE REQUIREMENTS OF SECTION 02520, 02776 AND 03304 AS DIRECTED BY TOWN PUBLIC WORKS DEPARTMENT.

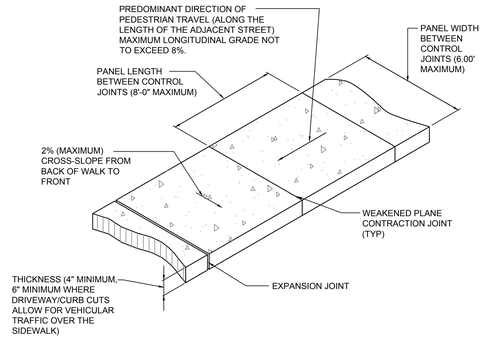
1 C4.1 PATCH REPAIR DETAIL
NTS



NOTES:

1. CURBS SHALL CONFORM TO WPWSS SECTION 02525, EXCEPT THAT PORTLAND CEMENT CONCRETE SHALL BE FIBERMESH-REINFORCED CLASS 4000 CONCRETE CONFORMING WITH WPWSS SECTION 03304, PART 2.07.
2. AGGREGATE BASE COURSE SHALL BE SIX INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.
3. REMOVAL AND REPLACEMENT OF CURB SHALL TAKE PLACE IN FULL PANELS.
4. VERTICAL CURB SHALL BE USED IN PREFERENCE TO ROLL CURB.

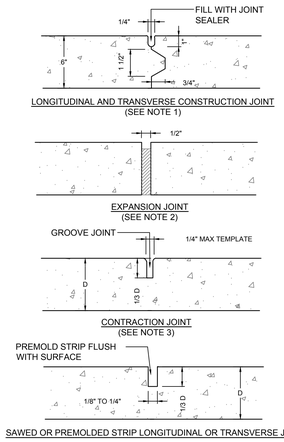
2 C4.1 CURB SECTION DETAIL
NTS



NOTES:

1. SIDEWALK SHALL CONFORM TO ALL APPLICABLE ADA STANDARD REQUIREMENTS SIDEWALKS SHALL CONFORM TO WPWSS SECTION 02776, EXCEPT THAT PORTLAND CEMENT CONCRETE SHALL BE FIBERMESH-REINFORCED CLASS 4000 CONCRETE CONFORMING WITH WPWSS SECTION 03304, PART 2.07.
2. EXPANSION JOINTS SHALL BE PLACED IN SIDEWALK AT THE SAME LOCATIONS AS THOSE IN CURB AND GUTTER WHEN SIDEWALK IS ADJACENT TO CURB. (PER WPWSS SECTION 03251, PART 3.04 SPACING SHALL NOT EXCEED 16'-0" ON CENTER.)
3. FOR SIDEWALKS GREATER THAN SIX FEET IN WIDTH, A LONGITUDINAL CONTROL JOINT SHALL BE INSTALLED AT THE CENTER OF THE WALK.
4. REMOVAL AND REPLACEMENT OF SIDEWALK SHALL TAKE PLACE IN FULL PANELS.
5. AGGREGATE BASE COURSE SHALL BE FOUR INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.

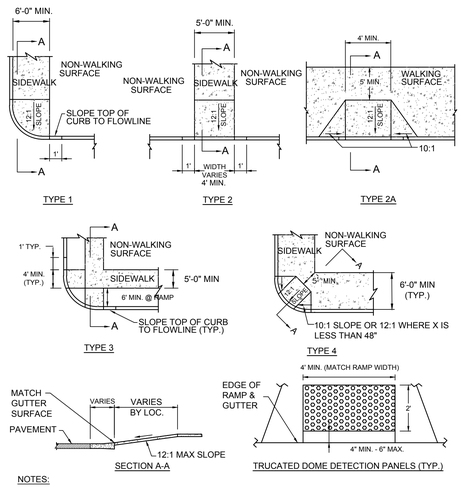
3 C4.1 CONCRETE SIDEWALK
NTS



NOTE:

1. KEYWAY FORMED BY FASTENING METAL KEY TO FORM.
2. ½" PREMOLDED NON-EXTRUDING EXPANSION JOINT MATERIAL TO MEET AASHTO M-59. EXPANSION MATERIAL SHALL BE INSTALLED WHEN ABUTTING EXISTING CONCRETE OR FIXED STRUCTURES SUCH AS INLETS AND DRIVEWAYS, AND EVERY 300' ON LONG STRAIGHT CONCRETE STRETCHES.
3. FORM WITH TEMPLATE OR SAWCUT JOINTS. IF SAWCUT JOINTS ARE USED, THEY SHALL BEGIN AS SOON AS CONCRETE IS HARDENED SUFFICIENTLY TO PERMIT SAWING WITHOUT EXCESSIVE RAVELING AND BEFORE UNCONTROLLED CRACKING OCCURS. MINIMUM DISTANCE BETWEEN JOINTS IS 5'.
4. JOINT LAYOUT FOR CONCRETE STREETS IS TO BE SUBMITTED TO THE TOWN ENGINEER FOR APPROVAL.

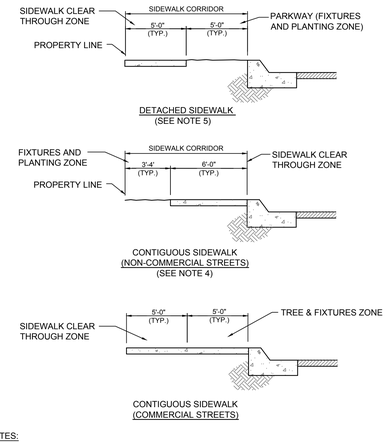
4 C4.1 PAVING & CONCRETE JOINT
NTS



NOTES:

1. SIDEWALKS SHALL CONFORM TO ALL APPLICABLE ADA STANDARD REQUIREMENTS.
2. LIP AT GUTTER TO BE NO MORE THAN ¼" HIGH.
3. CONCRETE TO BE A BROOM FINISH.
4. ALL PEDESTRIAN RAMPS SHALL INCLUDE PLACEMENT OF CAST IRON TRUNCATED DOME DETECTION PANELS IN A BRICK RED COLOR. (PANELS SHALL BE PROVIDED BY TOJ.)
5. DETECTION PANELS SHOWN IN ARC ARRANGEMENT SHALL BE MANUFACTURED IN A CONTINUOUS RADIAL GRID PATTERN WITH NO GAP BETWEEN PANELS

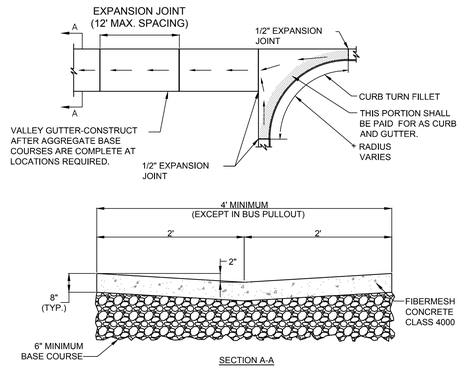
5 C4.1 PEDESTRIAN RAMP DETAILS
NTS



NOTES:

1. SIDEWALKS SHALL CONFORM TO ALL APPLICABLE ADA STANDARD REQUIREMENTS.
2. SIDEWALK CONSTRUCTION SHALL BE PER TOWN STANDARDS.
3. WITHIN THE TOWN'S BOARDWALK DISTRICT, BOARDWALK (RATHER THAN SIDEWALK) SHALL BE INSTALLED.
4. MINIMUM CLEARANCE AROUND ALL OBSTRUCTIONS SHALL BE 5'-0".
5. ON NON-COMMERCIAL STREETS DETACHED SIDEWALK SHALL BE THE PREFERRED OPTION.
6. IN ORDER TO MAINTAIN THE CLEAR THROUGH ZONE, THE FIXTURES ZONE SHALL BE WHERE FIRE HYDRANTS, UTILITY POLES, GUY WIRES, PULL BOXES, NEWSPAPER BOXES, PHONE BOOTHS, AND OTHER SUCH OBSTRUCTIONS ARE LOCATED.

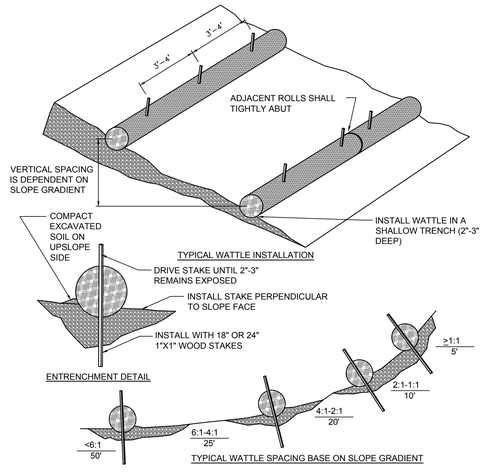
6 C4.1 SIDEWALK CORRIDOR
NTS



NOTES:

1. VALLEY GUTTERS AND CURB TURN FILLETS SHALL CONFORM TO WPWSS SECTION 02528, EXCEPT THAT PORTLAND CEMENT CONCRETE SHALL BE FIBERMESH CLASS 4000 CONCRETE CONFORMING WITH WPWSS SECTION 03304, PART 2.08.
2. AGGREGATE BASE COURSE SHALL BE SIX INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.
3. REMOVAL AND REPLACEMENT OF VALLEY GUTTER SHALL TAKE PLACE IN FULL PANELS.
4. CURB AND GUTTER SECTION SHALL BE POURED SEPARATE OF VALLEY PAN AS WELL AS PEDESTRIAN RAMP AND/OR SIDEWALK.

7 C4.1 VALLEY GUTTER & CURB TURN FILLET
NTS



NOTES:

1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2"-3" DEEP BY 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
3. SECURE THE WATTLE WITH 18"-24" STAKES EVERY 3'-4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2"-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.
4. EROSION CONTROL PLAN AND LOCATION OF STRAW WATTLES SHALL BE APPROVED BY THE TOJ PUBLIC WORKS DEPARTMENT.

8 C4.1 STRAW WATTLE DETAIL
NTS

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Date:
Final Development Plan
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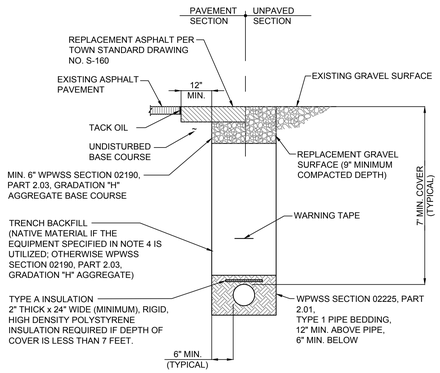
Revisions:

C4.1
ROAD & GRADING DETAILS

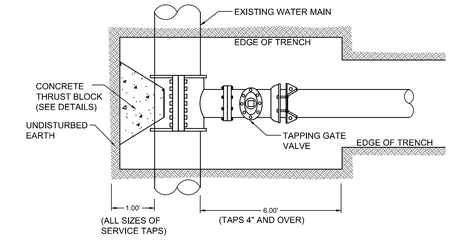


NOTES:

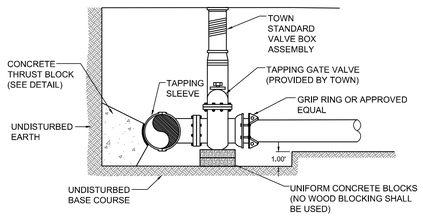
1. TRENCH BACKFILL BELOW THE SURFACE SHALL MEET THE FOLLOWING CRITERIA:
   - 95% MODIFIED PROCTOR DENSITY WITHIN STREET AND ALLEY RIGHTS-OF-WAY.
   - 90% MODIFIED PROCTOR DENSITY OUTSIDE STREET AND ALLEY RIGHTS-OF-WAY.
2. COMPACTION OF TRENCH BACKFILL SHALL BE CARRIED OUT WITH A HOE-PACK OR A SHEEPSFOOT ROLLER ON A BACK-HOE ARM.
3. PIPE BEDDING SHALL BE PLACED IN 6" LIFTS AND THOROUGHLY COMPACTED TO PROVIDE UNIFORM PIPE SUPPORT.
4. ALL TRENCH EXCAVATION SHALL CONFORM TO WYOMING OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (WYOSHA) REGULATIONS.
5. FOR WATER MAINS 8" OR LARGER IN DIAMETER, PIPE MATERIAL SHALL BE DUCTILE IRON, CLASS 50, OR APPROVED SUBSTITUTE.
6. FOR WATER MAINS 6" OR SMALLER IN DIAMETER, PIPE MATERIAL SHALL BE DUCTILE IRON, CLASS 52, OR APPROVED SUBSTITUTE.

1 / C4.2 WATER & SEWER TRENCH

NTS



PLAN



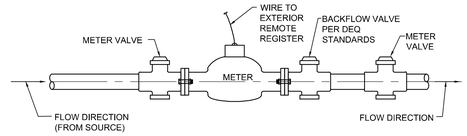
ELEVATION

NOTES:

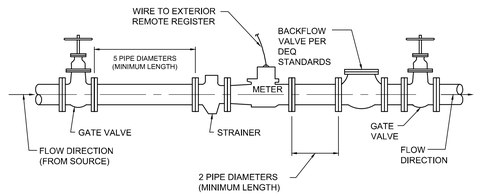
1. THE TOWN SHALL COMPLETE THE TAPPING OF THE MAIN. NO OTHER PERSONS SHALL COMPLETE TAP WITHOUT CONSENT OF TOWN. ALL OTHER WATER MAIN WORK SHALL BE THE RESPONSIBILITY OF THE OWNER.
2. TRENCH WILL BE EXCAVATED TO MEET ALL WYOSHA STANDARDS PRIOR TO TAPPING.

2 / C4.2 WATER MAIN TAPPING

NTS



1-1/2" AND 2" DIAMETER ASSEMBLY



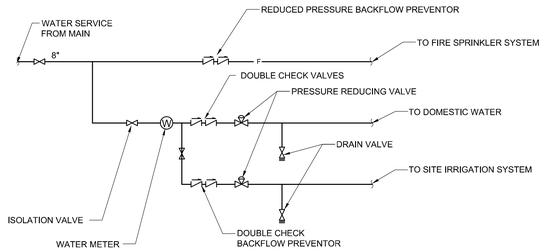
3" DIAMETER AND LARGER ASSEMBLY

NOTES:

1. SERVICE PIPE MATERIAL SHALL MEET ADOPTED PLUMBING CODE REQUIREMENTS.
2. METER SHALL BE INSTALLED IN HORIZONTAL ALIGNMENT ONLY.
3. CONNECTIONS WITHIN THE ASSEMBLY SHALL BE THREADED OR BOLTED FLANGED, AS APPROPRIATE.

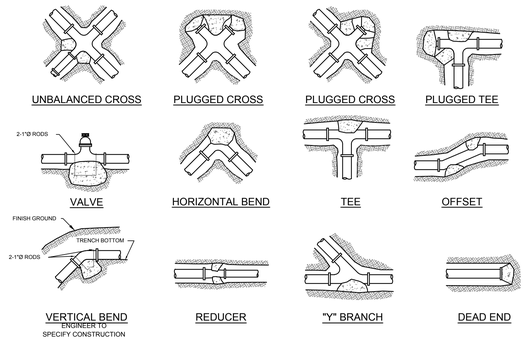
3 / C4.2 WATER METER INSTALLATION

NTS

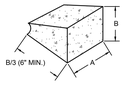


4 / C4.2 WATER SERVICE FIRE ENTRY DETAIL

NTS



MINIMUM DIMENSIONS FOR THRUST BLOCKING										
FITTING SIZE	TEES & PLUGS		90° BENDS		45° BENDS & WYES		REDUCERS & 22 1/2° BENDS		11 1/4° BENDS	
	A	B	A	B	A	B	A	B	A	B
4"	1'-7"	1'-2"	1'-9"	1'-6"	1'-8"	0'-10"	1'-7"	0'-6"	0'-6"	0'-6"
6"	2'-0"	1'-11"	2'-5"	2'-2"	1'-10"	1'-7"	1'-9"	0'-10"	1'-0"	0'-6"
8"	2'-8"	2'-6"	3'-2"	3'-0"	2'-5"	2'-1"	1'-9"	1'-6"	1'-0"	1'-0"
10"	3'-4"	3'-3"	4'-0"	3'-10"	3'-0"	2'-9"	2'-2"	1'-11"	1'-6"	1'-0"
12"	4'-0"	3'-10"	4'-8"	4'-8"	3'-8"	3'-3"	2'-7"	2'-3"	2'-0"	1'-0"
14"	5'-0"	3'-10"	6'-6"	4'-11"	4'-9"	3'-5"	3'-5"	2'-5"	2'-0"	1'-6"
20"	5'-0"	5'-0"	6'-0"	6'-0"	5'-0"	4'-0"	3'-6"	3'-0"	3'-0"	2'-0"
24"	6'-0"	6'-0"	7'-0"	7'-0"	5'-0"	5'-0"	4'-6"	3'-0"	3'-0"	3'-0"
30"	7'-6"	7'-6"	8'-0"	8'-0"	6'-3"	6'-3"	4'-9"	4'-6"	3'-3"	3'-3"

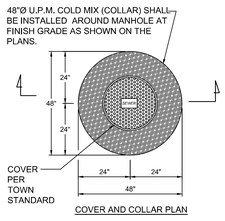


NOTES:

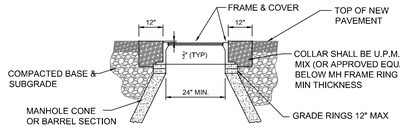
1. SIZE OF BLOCK SHALL BE A MINIMUM OF 6" THICK.
2. ALL BLOCKING SHALL BEAR AGAINST UNDISTURBED MATERIAL.
3. FITTINGS SHALL BE SEPARATED FROM THRUST BLOCK WITH AN APPROVED BOND BREAKER.
4. DESIGN IS BASED ON 150 PSI MAIN PRESSURE AND 200O PSF SOIL BEARING CAPACITY.

5 / C4.2 THRUST BLOCK DETAIL

NTS



COVER AND COLLAR PLAN



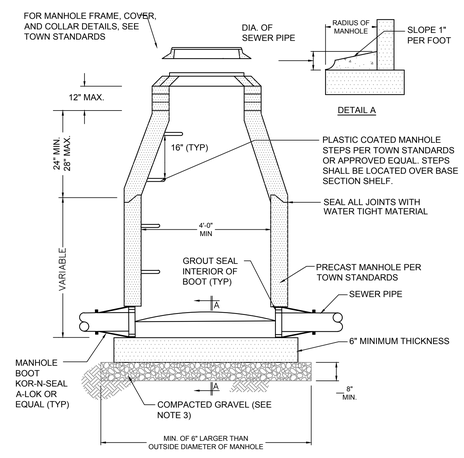
ADJUSTMENT DETAIL

NOTES:

1. ADJUST MANHOLE UPWARD WITH ADJUSTING RINGS UNDER FRAME. ADJUST MANHOLE DOWNWARD BY REMOVING A PORTION OF THE MANHOLE RISER AND REBUILDING TO PROPER HEIGHT. SLOPE MANHOLE RING AS REQUIRED TO MATCH STREET GRADE AND CROSS SLOPE. MAKE FINAL MANHOLE ADJUSTMENT AFTER PAVING AND BEFORE SEAL COATING.
2. IF MANHOLE IS WITHIN UNPAVED AREA USE TAPERED COLLAR. SEE TOWN SANIATRY SEWER DETAIL SS-110.

6 / C4.2 MANHOLE ADJUSTMENT DETAIL

NTS



NOTES:

1. DROP ACROSS INVERT SHALL BE GREATER THAN OR EQUAL TO SLOPE OF ADJACENT SEWER PIPE.
2. BASE SHALL BE REINFORCED WHEN THE DISTANCE FROM INVERT TO TOP OF COVER EXCEEDS 15'. REINFORCEMENT TO BE APPROVED BY ENGINEER.
3. GRAVEL SHALL BE EIGHT INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.
4. ALL PIPES GOING INTO MANHOLE SHALL BE INSTALLED TO MATCH TOP OF PIPE CROWNS.
5. TROUGH DEPTH AT CENTER TO BE HALF THE DIAMETER OF THE PIPE.

7 / C4.2 MANHOLE INSTALLATION DETAIL

NTS

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Kuhlmann Associates, PC
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LANDSCAPE ARCHITECT:
Weaver & Associates PA
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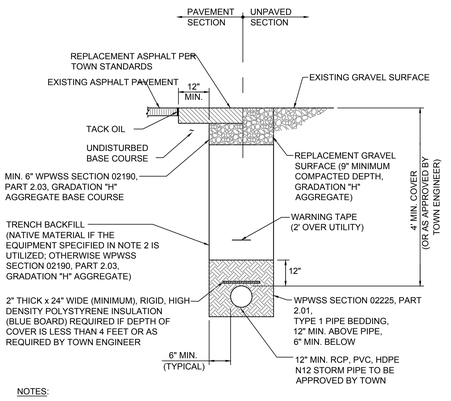
Date:
Final Development Plan
4.27.2016
Revisions:

C4.2

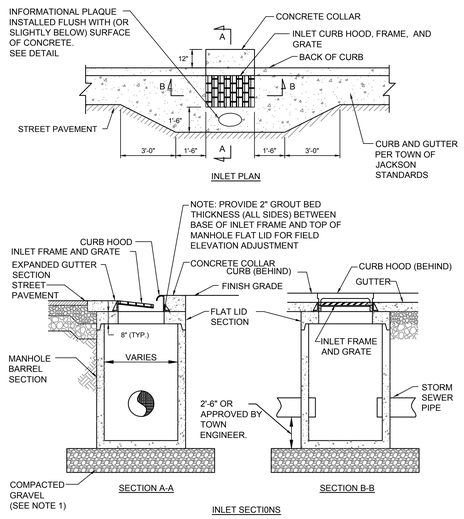
WATER & SEWER DETAILS



NOTES:

1. TRENCH BACKFILL BELOW THE SURFACE SHALL MEET THE FOLLOWING CRITERIA:
   - 95% MODIFIED PROCTOR DENSITY WITHIN STREET AND ALLEY RIGHTS-OF-WAY.
   - 90% MODIFIED PROCTOR DENSITY OUTSIDE STREET AND ALLEY RIGHTS-OF-WAY.
2. COMPACTION OF NATIVE TRENCH BACKFILL, WITH ALL ROCK LARGER THAN 6" REMOVED, SHALL BE CARRIED OUT IN 2' LIFTS WITH A HOE-PACK OR A VIBRATORY SHEEPS FOOT ROLLER (COMPACTION METHOD AND EQUIPMENT SHALL BE REVIEWED AND APPROVED BY TOWN ENGINEER PRIOR TO BACKFILLING).
3. PIPE BEDDING SHALL BE PLACED IN 6" LIFTS AND THOROUGHLY COMPACTED WITH A JUMPING JACK TO PROVIDE UNIFORM PIPE SUPPORT.
4. UNLESS OTHERWISE DIRECTED, ALL BASE COURSE AND GRAVEL SURFACE REPLACEMENT SHALL BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.
5. ALL TRENCH EXCAVATION SHALL CONFORM TO WYOMING OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (WOSHA) REGULATIONS.

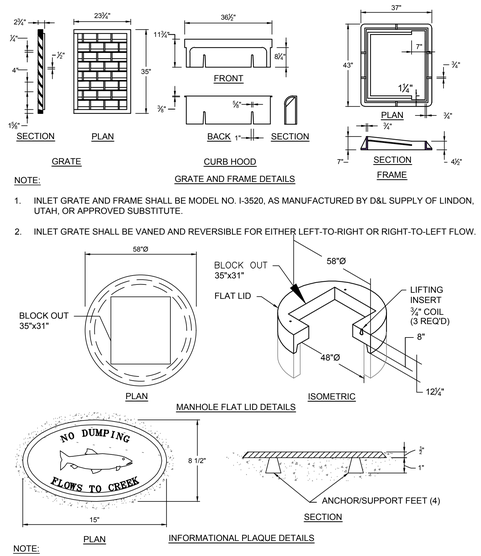
1 / C4.3 STORM SEWER TRENCH
NTS



NOTES:

1. GRAVEL SHALL BE EIGHT INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.

2 / C4.3 CURB INLET DETAIL
NTS 1 OF 2



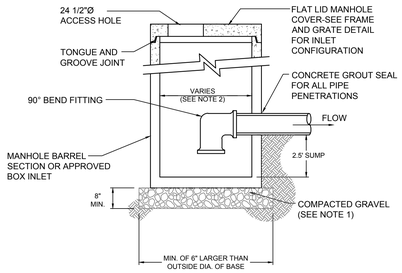
NOTE:

1. INLET GRATE AND FRAME SHALL BE MODEL NO. I-3520, AS MANUFACTURED BY D&L SUPPLY OF LINDON, UTAH, OR APPROVED SUBSTITUTE.
2. INLET GRATE SHALL BE VANED AND REVERSIBLE FOR EITHER LEFT-TO-RIGHT OR RIGHT-TO-LEFT FLOW.

NOTE:

1. PLAQUE SHALL BE SUBSTANTIALLY AS SHOWN, AS SUPPLIED BY D&L SUPPLY OF LINDON, UTAH, OR APPROVED SUBSTITUTE.

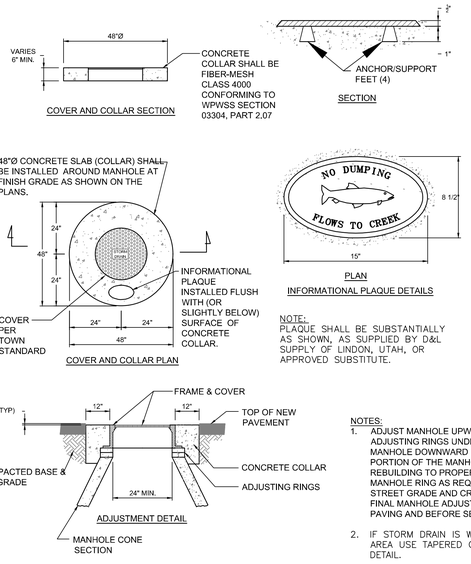
3 / C4.3 CURB INLET DETAIL
NTS 2 OF 2



NOTES:

1. GRAVEL SHALL BE EIGHT INCH MINIMUM THICKNESS, CONFORM TO WPWSS SECTION 02190, PART 2.03, GRADING H, AND BE INSTALLED PER WPWSS SECTION 02231, PART 3.03.
2. ALL DIMENSIONS TO BE APPROVED BY THE TOWN PUBLIC WORKS DEPARTMENT.
3. MANHOLE COVER SHALL BE DESIGNED FOR H20S LOADING.
4. SEE DETAIL FOR CAST IRON FRAME AND COVER.
5. SEE ADJUSTMENT AND COLLAR DETAIL.

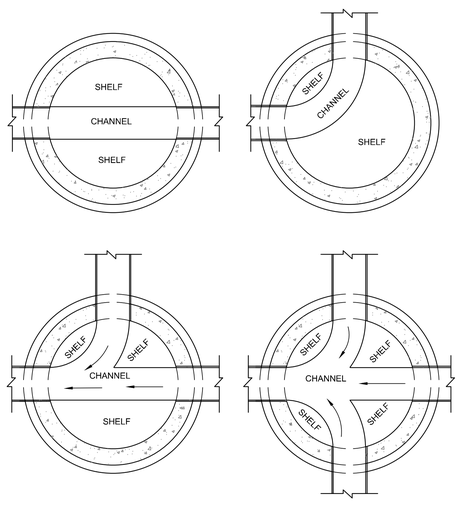
4 / C4.3 CATCH BASIN INLET DETAIL
NTS



NOTES:

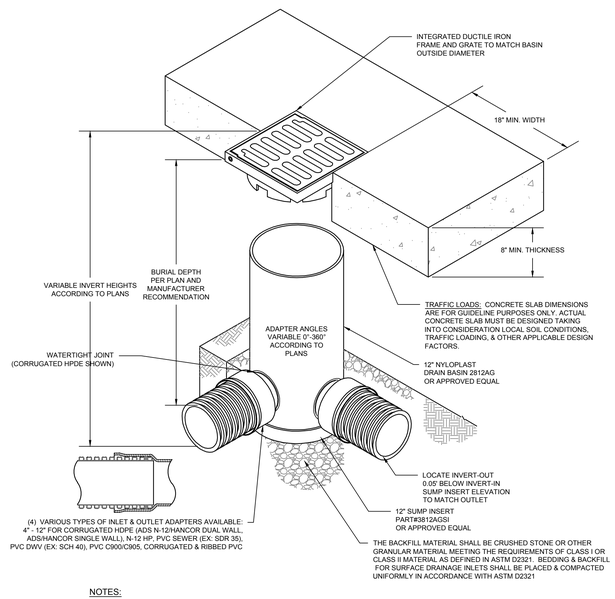
1. ADJUST MANHOLE UPWARD WITH ADJUSTING RINGS UNDER FRAME. ADJUST MANHOLE DOWNWARD BY REMOVING A PORTION OF THE MANHOLE RISER AND REBUILDING TO PROPER HEIGHT. SLOPE MANHOLE RING AS REQUIRED TO MATCH STREET GRADE AND CROSS SLOPE. MAKE FINAL MANHOLE ADJUSTMENT AFTER PAVING AND BEFORE SEAL COATING.
2. IF STORM DRAIN IS WITHIN UNPAVED AREA USE TAPERED COLLAR. SEE TOWN DETAIL.

5 / C4.3 STORM DRAIN MANHOLE COLLAR AND PLAQUE DETAILS
NTS



NOTES:
1. SLOPE ALL SHELVES TO CHANNEL AT 1" PER FOOT.
2. SEE PLAN-PROFILE SHEETS FOR SLOPE OF CHANNEL.

6 / C4.3 MANHOLE CHANNEL DETAILS
NTS



NOTES:

1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
2. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
3. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING FOR SPECIFIC CONFIGURATION.

7 / C4.3 PARKING STRUCTURE STORM INLET DETAIL
NTS

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Date:
Final Development Plan
4.27.2016
Revisions:

C4.3
STORMWATER DETAILS

Exhibit J

Parking Calculation

The proposed parking was determined by providing two parking spaces per 3-bedroom unit, two parking spaces per 2-bedroom unit, and one parking space per 1-bedroom unit. This is inclusive of the employee housing units.

(16) 3 bedroom units x 2 spaces per unit = 36 spaces

(12) 2 bedroom units x 2 spaces per unit = 24 spaces

(10) 1 bedroom units x 1 space per unit = 10 spaces

Total of 70 spaces

There is 3,672 square feet of commercial space associated with the project. Using the Town's standard of 3.3 spaces per 1,000 sf (section 6.2.2.A of LDRs – office space) the commercial space generates 12.1 or 12 parking spaces. Overall, we are providing 73 underground parking spaces on site. We are proposing to use shared parking between the 12 commercial spaces and the 73 provided spaces. Within these 73 parking spaces, there will be five handicap spaces. This was determined using the LDRs (section 6.2.2.C.1) which requires three handicap spaces plus one handicap space for each accessible unit, for an additional two spaces. Of these five handicap spaces, one is van accessible.

The parking is distributed throughout the building as follows:

First floor: 37 spaces total, inclusive of two handicap spaces near the commercial space and the buildings main entrance, plus one handicap space near the southern elevator.

- 17 of these spaces are open to the general public / shared parking for commercial
- 20 spaces are secured for building tenants
- Access drive on north side of the property

Second floor: 28 spaces total, inclusive of one handicap stall near the southern elevator

- All parking is secured for building tenants
- Access drive central to property

Third floor: 8 spaces total, inclusive of one handicap van accessible space

- All parking secured for building tenants
- Access drive located on south side of the property

Exhibit K

Employee Housing Calculation

Employee housing was calculated based off the number of APOs utilized, at two per bedroom (page 75 of the master plan). This sum was multiplied by 0.065. The following summarizes:

74 market bedrooms x 2 x .065 = 9.62 employees required

The commercial area is being considered office space, which requires housing 0.03 employees per 1,000 square feet. The following summarizes:

3,672 sf / 1000 x .03 = .11 employees required

The total employee-housing requirement for this development totals of 9.73. The following unit mix will provide restricted housing to meet this employee-housing requirement:

- Three units will be located at the southern end of the building on the fourth and fifth floor:
    - Two 3-bedroom units = 6 employees
    - Two 1-bedrooms units – 3.5 employees

Combined, the units total 4,255 square feet and will house 9.5 employees. The additional 0.23 employees will be paid as a fee-in-lieu.

Exhibit L

Bike Storage Calculation

Town of Jackson requires one bike parking space for every 10 parking spaces (LDR section 6.2.2.D.1). Based off the parking space calculation found in Exhibit J, this development requires nine bike parking spaces. The building will incorporate seven inverted-U bike racks capable of storing 14 bikes, intended for short-term bike storage. One will be located on the first floor immediately adjacent to the building entrance on the west side. An additional four bike racks will be located inside the parking garage on the first floor near the building entrance on the west side. Lastly, there are two bike racks located on the first floor near the building entrance on the east side.

In addition to the short-term bike storage, long-term bike storage has been planned for the tenants of the building. In the basement of the building, below the commercial space, each unit will have access to an individual storage locker (38 lockers total). These storage lockers are approximatly 7'x9'. These lockers will provide long-term bike storage, up to two bikes per locker, for the tenants. Additional space will provide storage for other belongings. In summary, 38 storage units x 2 bikes per unit =76 long-term bike storage.

In total, between the long-term and short-term bike storage, the development will accommodate 90 bikes.