

AGENDA

Planning and Zoning Commission

May 1, 2019 – REGULAR MEETING

5:30 PM

The New Business items have been placed on the agenda in the order they were received. Please note that at 9:00 p.m., the Commission will evaluate the remainder of the agenda to determine if time constraints will permit the full agenda to be heard at this meeting. All items not heard at this meeting will be postponed to the next regularly scheduled PC/BOA meeting of May 15, 2019 or to a special meeting scheduled by the Commission.

NOTICE: THE VIDEO AND AUDIO FOR THIS MEETING ARE STREAMED TO THE PUBLIC VIA THE INTERNET AND MOBILE DEVICES WITH VIEWS THAT ENCOMPASS ALL AREAS, PARTICIPANTS AND AUDIENCE MEMBERS

PLEASE SILENCE ALL ELECTRONIC DEVICES DURING THE MEETING

1. CALL TO ORDER
2. ROLL CALL
3. MATTERS FROM THE PUBLIC
4. APPROVAL OF MINUTES
 - I. April 17, 2019
 - II. March 20, 2019 - JOINT
5. OLD BUSINESS
6. NEW BUSINESS
7. BOARD OF ADJUSTMENT
8. PLANNING COMMISSION
 - I. Item P18-365: Request for approval of a Conditional Use Permit for a surface parking lot containing 24 spaces at 630 East Broadway for the Teton County Hospital District.
 - II. Item P19-041: Request for approval of Conditional Use Permit for a roof mounted wireless communications facility at the town parking garage located at 160 South Millward Street
9. MATTERS FROM THE COMMISSION
10. AGENDA FOLLOWUP
11. MATTERS FROM STAFF
12. ADJOURNMENT

**MINUTES
PLANNING AND ZONING COMMISSION
TOWN OF JACKSON, WYOMING
APRIL 17, 2019**

The meeting of the Planning and Zoning Commission was called to order at 5:30 p.m. on 4/17/19, in the Town Hall Council Chambers.

ROLL CALL:

 x Anne Schuler, David Vandenberg, x Katie Wilson, x Abby Petri, x Chris Beaulieu,
 x William Gale, Thomas Smits

STAFF:

MATTERS FROM THE PUBLIC:

APPROVAL OF MINUTES:

1. March 7, 2019 Joint Meeting

A motion was made by: Anne Schuler seconded by: William Gale

Motion approved by a 5 to 0 vote

2. March 20, 2019

A motion was made by: Anne Schuler seconded by: Abby Petri

Motion approved by a 5 to 0 vote

3. March 20, 2019 Joint Meeting – NO VOTE

A motion was made by: _____ seconded by:

Motion approved or denied by a to vote

4. April 3, 2019

A motion was made by: Anne Schuler seconded by: Chris Beaulieu

Motion approved by a 5 to 0 vote

OLD BUSINESS: None

PLANNING COMMISSION

1. **ITEM P19-041:** REQUEST FOR APPROVAL OF A CONDITIONAL USE PERMIT FOR A ROOF MOUNTED WIRELESS COMMUNICATIONS FACILITY AT THE TOWN PARKING GARAGE LOCATED AT 160 SOUTH MILLWARD STREET.

STAFF PRESENTATION: Brendan Conboy

APPLICANT PRESENTATION: N/A

PUBLIC COMMENT: N/A

PC DISCUSSION: N/A

MOTION:

I move to **continue** these items to the Planning Commission meeting scheduled for May 1, 2019.

A motion was made by: Anne Schuler seconded by: Chris Beaulieu
Motion approved by a _5_ to _0_ vote

2. **ITEM P19-039:** DEVELOPMENT PLAN FOR A LAND DIVISION AT 170 REDMOND STREET IN THE NEIGHBORHOOD MEDIUM DENSITY – 1 (NM-1) ZONE.

STAFF PRESENTATION: Brendan Conboy

APPLICANT PRESENTATION: Scott Shepard

PUBLIC COMMENT: None

PC DISCUSSION:

- Like new zoning with 0' lot line
- Better to get 2 units then 1

- Surprised that you can have that much on lot

MOTION:

Based upon the findings for a Development Plan as presented in the staff report and by the applicant related to 1) Consistency with the Comprehensive Plan; 2) Achieves purpose of NRO & SRO overlays; 3) Impact of public facilities & services; 4) Compliance with Town Design Guidelines; 5) Compliance with LDRs & Town Ordinances; 6) Conformance with past permits & approvals for Item P19-039, I move to make findings 1-6 as set forth in Section 8.3.2.C (Development Plan) of the Land Development Regulations to recommend approval to Town Council of an attached single family development (duplex) at 170 Redmond Street, subject to the department reviews attached hereto and the following two conditions of approval:

1. The applicant shall remove the existing detached single family home from the property prior to recording a plat with the County Clerk.
2. The applicant shall repair and reclaim the sidewalk frontage to match the existing sidewalk frontage where the existing curb cut is located as a result of relocating the two proposed curb cuts for the new development.

A motion was made by: Chris Beaulieu seconded by: Anne Schuler
Motion approved by a 5 to 0 vote

NEW BUSINESS:

MATTERS FROM COMMISSION:

AGENDA FOLLOWUP:

MATTERS FROM STAFF:

5G Cell Towers will not be presented at the Planning Commission because the towers can go in the Public Right of Way and Zoning does not include the Public Right of Way.

Hillside will be coming in the next couple of months.

A planner will present the Downtown Parking Study to the Planning Commission at an upcoming meeting.

Hog Island Comp Plan Amendment is still being discussed.

Police need some jurisdiction in the county.

ADJOURN:

A motion was made by: Anne Schuler seconded by: Chris Beaulieu

Motion approved by a _5_ to _0_ vote

MINUTES
JOINT TOWN OF JACKSON/TETON COUNTY, WY PLANNING COMMISSION
SPECIAL MEETING: March 20, 2019

This special meeting of the Joint Planning Commission was called to order at 6:00PM in the Town Council Chambers with Karen Rockey, County Chair, and David Vandenberg, Town Chair, presiding.

ROLL CALL:

TETON COUNTY:

Present Karen Rockey
Present Sue Lurie
Present Kasey Mateosky
Present Glen Esnard
Present Alex Muromcew

TOWN OF JACKSON:

Present William Gale
Present David Vandenberg
Present Katie Wilson
Present Anne Schuler
Present Chris Beaulieu
Present Abigail Petri
Present Thomas Smits

STAFF: Tyler Sinclair (Town Planning Director), Steve Westbay (County Planning Director)

APPROVAL OF MINUTES: n/a, no minutes have been provided since last meeting.

ADOPTION OF AGENDA - This was a Town-led Meeting for continuation of an item from the March 7, 2019 Joint Planning Commission meeting. No action on the agenda adoption occurred.

MATTERS FROM THE PUBLIC (not on the agenda): None.

OLD BUSINESS: Hog Island Comp Plan Amendment (AMD2019-0001/P19-043) continued from March 7, 2019 Joint Planning Commission meeting.

STAFF PRESENTATION: Completed last meeting but Tyler Sinclair gave a brief update. Mr. Sinclair summarized the March 15, 2016 staff memo with the recommendation options that may be considered by the respective commissions.

APPLICANT PRESENTATION: Completed last meeting but the applicant representative (Melissa Ruth) made a brief presentation on the proposed amendment.

PUBLIC COMMENT: Completed last meeting.

PC DISCUSSION:

County Planning Commission

Commissioner Meteosky: The location's character has changed (school & central Sewer service), warranting consideration of the application proposal.

Commissioner Rockey: Character has changed but reviewing Hog Island as part part of the Growth Management Program could help avoid unintended consequences resulting from an approval of the application.

Commissioner Lurie: Agrees with the staff recommendation (denial) and the site would be best discussed as part of a holistic review with the Growth Management Program.

Commissioner Muromcew: Is open to discussing the proposal as part of the FY 20 Work Plan.

Commissioner Esnard: Requested staff input regarding the Family Exempt Subdivision State legislation (WY HB 196) and its effect on land use considerations. County Attorney Keith Gingery provided an overview of the statute, noting that it applies to this site and all property. Commissioner Esnard stated that the character has changed with the highway expansion and the central sewer service extension, but is not in support of the amendment application.

Town Planning Commission

Commissioner Gale: The Growth Management Program review will be a long process; zoning amendments would also need to occur. The application supports affordable housing development and the amendment application is warranted.

Commissioner Wilson: Is open to supporting the amendment.

Commissioner Beaulieu: Agrees that this amendment application should be assessed as part of the FY 20 Work Plan.

Commissioner Vandenberg: Agrees with the staff recommendation of denial.

Commissioner Smits: Supports the proposed amendment application.

Commission Petri: Agrees that this amendment application should be assessed as part of the FY 20 Work Plan.

TOWN PLANNING COMMISSION:

MOTION: Commissioner Schuler motioned to approve the item.

SECONDED: Commissioner Smits

VOTE: The vote showed 3 in favor, 4 opposed. The motion failed.

COUNTY PLANNING COMMISSION:

MOTION: Commissioner Esnard motioned to approve the item.

SECONDED: Commissioner Muromcew

VOTE: The vote showed 1 in favor, 3 opposed, with Commissioner Muromcew abstained. The motion failed.

NEW BUSINESS: None

MATTERS FROM COMMISSION: None.

AGENDA FOLLOWUP: None

MATTERS FROM STAFF: None

At 6:36PM the County Planning Commission Closed their meeting.

Respectfully submitted: km

Karen Rockey, County Chair

ATTEST:

Susan Johnson, County Planning Manager

David Vandenberg, Town Chair

ATTEST:

Tyler Sinclair, Town Planning Director

- Digital recording on file-



TOWN OF JACKSON PLANNING COMMISSION AGENDA DOCUMENTATION

PREPARATION DATE: APRIL 26, 2019
MEETING DATE: MAY 1, 2019

SUBMITTING DEPARTMENT: PLANNING
DEPARTMENT DIRECTOR: TYLER SINCLAIR
PRESENTER: BRENDAN CONBOY

SUBJECT: **ITEM P18-365:** REQUEST FOR APPROVAL OF A CONDITIONAL USE PERMIT FOR A SURFACE PARKING LOT CONTAINING 24 SPACES AT 630 EAST BROADWAY FOR THE TETON COUNTY HOSPITAL DISTRICT.

APPLICANT: CTA ARCHITECTS / BRETT BENNETT

OWNER: TETON COUNTY HOSPITAL DISTRICT

REQUESTED ACTION

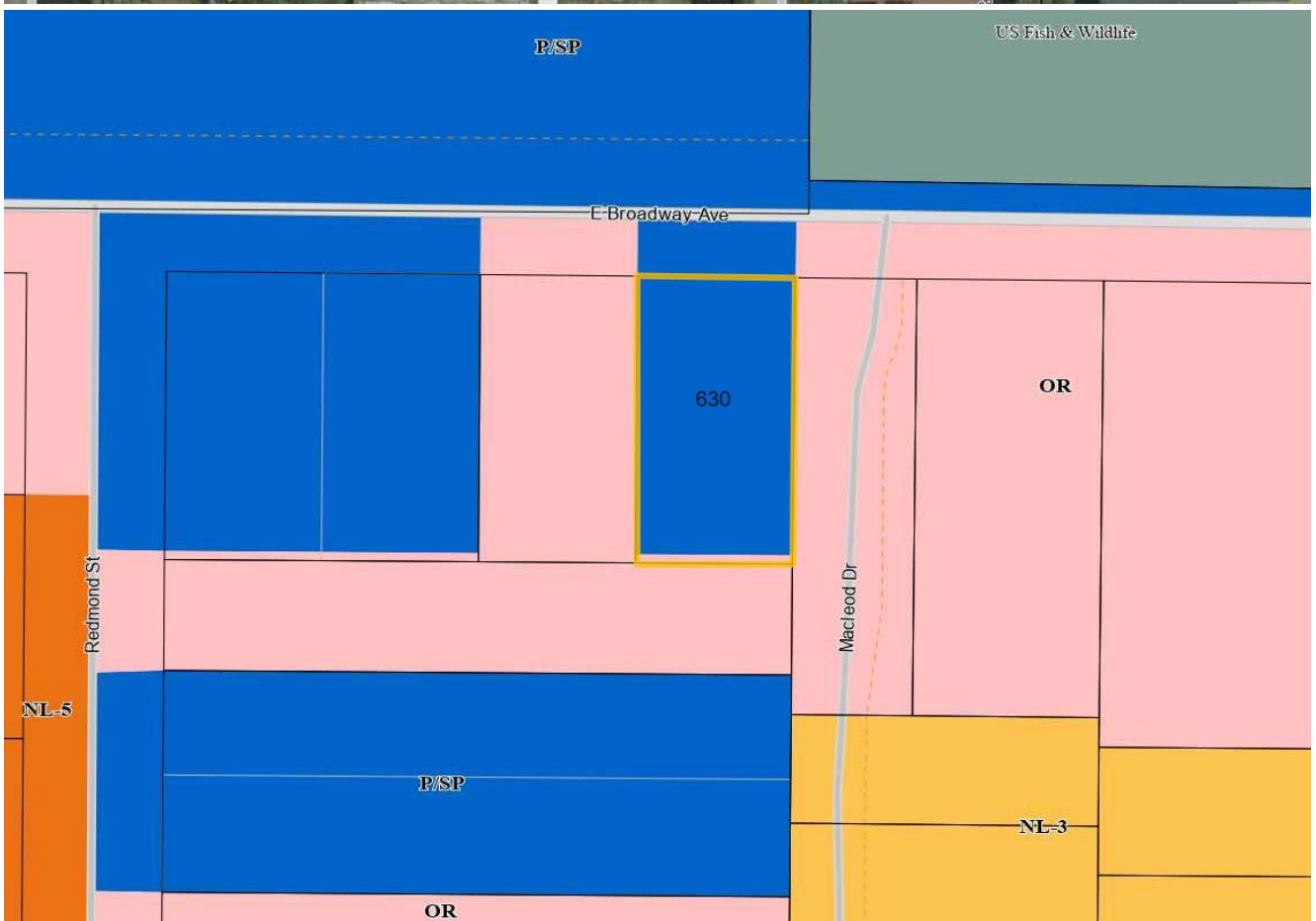
The applicants, CTA Architects and the Teton County Hospital District, are requesting approval of a Conditional Use Permit (CUP) at 630 East Broadway for a surface parking lot containing 24 spaces.

APPLICABLE REGULATIONS

Section 4.2.1 Public/Semi-Public – Town (P/SP-ToJ)
Section 8.4.2 Conditional Use Permit (CUP)

LOCATION

The subject property is addressed as 630 E. Broadway and legally described as LOT 4, BLK 1, REDMOND-2 (fka OJ-001604). An aerial photo and zoning map are shown on the following page showing the general location of the proposed site.



BACKGROUND

The subject site is approximately 0.2 acres in size, measuring 67.3' wide by 130' deep (8,739.6 SF). It is zoned Public/Semi-Public (P/SP) and is currently a vacant lot. To the north is the St. John's Medical Campus zoned P/SP, to the east across Macleod Drive is the Jackson Hole Community Counseling Center zoned Office Residential (OR), to the south are additional parking lots for the Jackson Hole Baptist Church and St. John's zoned OR and P/SP, and to the west is the Jackson Hole Baptist Church zoned OR.

- On June 16, 2003, the Jackson Town Council passed Ordinance 728, which amended the Town of Jackson Official Zoning District Map designation of the property described as Lots 1, 2 & 4, Block 1, 2nd Redmond Plat and Lots 6 & 7, Block 1, 2nd Redmond Plat to Public/Semi-Public (P/SP) zoning district. The subject parcel, Lot 4, was rezoned from the then Office Professional zone (OP) to P/SP.
- On November 15, 2004, the Jackson Town Council voted to approve Item #03-21.2 a request for a Conditional Use Permit and a Final (Intermediate) Development Plan to allow the construction of a 24 space parking lot at 630 E Broadway. This request was approved in conjunction with Item #03-21.3 a Conditional Use Permit to construct a 30,700 SF medical office building at 610 E Broadway. On November 16, 2005, the Town Council chose to table indefinitely a request for a six month extension so that the applicant could work with staff to identify possible alternatives. Approximately a year and half later on June 18, 2007, the Town Council voted to deny an additional 6 month extension after the applicant had determined that project would not move forward as originally approved. As a result the associated permits expired.
- On May 14, 2018, the applicant had a pre-application meeting with staff in regards to a surface parking lot at 30 Redmond Street, which was later approved as item P18-221, and a new maintenance shop and storage space at 630 E Broadway. The applicant has since determined that the 630 E Broadway site would be better utilized as parking. As a result, staff requested that the applicant provide a comprehensive parking analysis for the all of the Hospital properties in order to better determine the Hospital's parking needs and future land uses. A discussion regarding the parking analysis is included in this report under Staff Analysis.

PROJECT DESCRIPTION

The applicant is seeking a Conditional Use Permit to pave a vacant lot for surface parking in support of the St. John's Medical Center operations consisting of 24 spaces. While it remains to be determined whether this lot will serve hospital staff or be utilized for general parking, the hospital parking lots on Redmond are primarily used for staff parking though not designated so, and it is likely that this lot will also be utilized for staff parking. Staff has added a condition of approval requiring the hospital to develop a comprehensive Parking Management and Alternative Mobility Plan to be developed in conjunction with any future applications for the new Senior Living Center and/or additional surface parking at which point the designation of user groups to specific parking lots will be contemplated.

The improvements will include additional landscaping to the site as well as screening on the East Broadway frontage, and lighting improvements for security purposes. The parking lot is in compliance with the standards of the P/SP zone and the requirements of Div. 6.2. Parking and Loading Standards.

Below is the Physical Development Standards of the P/SP zone and Div 6.2 as they pertain to this project:

Two Rows of Parking - 90° Angle	Required	Proposed	Complies?
Disability Parking	1 per 25 spaces	1	Yes
Bicycle Parking	1 per 10 vehicle spaces	N/A	Yes, as conditioned*
Plant Units	1 per 8 spaces (3 Plant Units)	3	Yes
Landscape Surface Ratio	N/A	14% or 1,224 sf	Yes
Snow Storage	2.5%	220 SF - 2.5%	Yes**
Circulation	Two-Way	Two-Way	Yes
Drive Aisle Width	24'	24'	Yes
Parking Space Width	9'	9'	Yes
Parking Space Depth	20'	18' + 2' overhang	Yes
Total Module Width	64'	64'	Yes

* Bicycle parking to be provided off site at hospital campus. See discussion below in Bike Parking Analysis.

** See Snow Storage discussion below in Staff Analysis

STAFF REVIEW

Staff has reviewed the proposed use for the subject property and has found the request to be in compliance with the LDRs and consistent with the 2012 Comprehensive Plan. Parking is an allowed use requiring a conditional use permit in the P/SP zone. The P/SP zone is notable for the fact that it does not have predetermined dimensional standards. The zone is intended to provide locations for new and existing uses and facilities of a public or semi-public nature. In particular, the P/SP-ToJ zone is intended to allow flexibility for public and semi-public uses and facilities that often have unique functional needs. According to the LDRs, "*Land in the P/SP-ToJ zone and/or facilities operated therein may be under the control of federal, state, or local governments, or other governmental entities such as a school district or hospital district*". The Teton County Hospital District qualifies with this designation. The proposed use is in keeping with the intent of the P/SP zone as the parking area is intended to serve the St. John's Medical Center.

However, given the scale and uses of the entire hospital campus, staff required the applicant to provide a comprehensive parking analysis for the hospital as a requirement of determining sufficiency for this application which seeks to increase surface parking area associated with hospital operations. More specifically, staff required,

"The applicant shall provide a comprehensive parking analysis of all current and future parking supply and demand that encompasses all existing hospital owned properties and proposed additional properties, if known. In addition, the parking analysis should provide a breakdown of peak parking demand by time, user group, and location. Specifically, this analysis should contain information related to the proposed Living Center."

Comprehensive Parking Analysis

The applicant has submitted a comprehensive parking analysis as part of this application prepared by Jorgensen Associates which is attached to this staff report. Staff required the parking analysis in order to better understand the hospital's overall parking needs and thus the necessity of increasing surface parking on and off site for the hospital and how the proposed Living Center will affect overall parking. The parking methodology assessed fourteen existing parking lots (including this property, Lot 4) as well as on-street parking during the morning and afternoon on three mid-week days in late February and early March. During each time period the total number of occupied stalls was recorded as well as overflow parking.

The report concludes that over the 3 day period, two of which days Teton Pass was closed due to avalanche mitigation, parking at the hospital was 78.7% occupied. With the construction of the Living Center, the hospital will be losing 45 spaces reducing total parking to 531 stalls (including on-street parking) resulting in the hospital narrowly meeting total estimated parking need at 95.86% capacity. If only off-street parking is calculated the hospital does not meet total estimated parking need as the total number of off-street spaces available is 493 spaces, resulting in the hospital exceeding the available capacity of parking by 3.25%. The Planning Director agrees with the assessment that on-street parking should be taken into account as part of overall parking equation. While the P/SP zone does not address the use of on-street parking, the OR and CR-1 zones do allow for on-street parking to count towards total parking need. Given that the surrounding properties and character of the hospital uses closely resemble the character and allowed uses in the OR and CR-1 zones, it is appropriate to factor on-street parking into the total parking analysis for the St. John's Medical campus. The following tables drawn from page 10 of the attached parking study demonstrate the parking capacity challenges facing St. John's with on-street and off-street parking totals:

Study Projected Parking Demand	479 stalls
Projected Parking Demand for Senior Living Center	30 stalls
Total Projected Parking Demand	509 stalls

Total	Approximate Parking Demand	Parking Availability	Percentage of Parking Capacity
Without On-Street	509 stalls	493 stalls	103.25%
With On-Street	509 stalls	531 stalls	95.86%

Since this parking analysis includes Lot 4 in the hospital's overall calculation of parking availability it is clear that the hospital is strained in regards to available parking. Staff has determined that for the sake of this application, the comprehensive parking study is sufficient for demonstrating the need for parking improvements at this site now. Parking demand and supply for the hospital will be reviewed systematically as part of a future application for the Senior Living Center or additional surface parking. Staff has informed the applicant that the comprehensive parking analysis will need to be updated this summer to better reflect peak parking demand as a parking study conducted on days when Teton Pass was closed is not a sufficient representation as staff contends that mid-summer is a more representative example of peak parking demand, especially if on-street parking spaces on adjacent streets are counted towards total parking supply. Staff has informed the applicant that future applications for the Senior Living Center or for increased surface parking at the southwest corner of 625 E Broadway will require this updated information and that the hospital will need to formulate a comprehensive Parking Management and Alternative Mobility Plan to address parking demand as part of those applications moving forward.

Vehicular Access / Circulation

Vehicular access is taken from East Broadway and circulation within the parking area is two-way with a T-shape 'hammerhead' turnaround at the southern end of the lot. The applicant is proposing a new 24' curb cut along the central portion of the northern property line at East Broadway. An existing curb cut is located at the northeast edge of the property on East Broadway. Site development standards and access standards are not applicable in the P/SP zone, however neighboring OR zone standards allow a 24' maximum curb cut. As a result of the applicant relocating access centrally and providing a new curb cut, staff has included a condition of approval requiring the applicant to vacate the existing curb cut and replace the sidewalk to Town standards. The applicant has demonstrated their intent to complete this work on the submitted landscape plans already, however staff has added this condition of approval as the required improvements are in the Town owned right-of-way.

Affordable Workforce Housing

The proposal is exempt from Affordable Workforce Housing Standards. Per Sec. 6.3.2.C.13, employee generating development in the P/SP zone is exempt.

Lighting

Per Div 5.3.1 Exterior Lighting Standards, the P/SP zone allows 3 lumens per square foot of site development, and the maximum height of a light pole fixture is 18 feet. The applicant has proposed four, 16' tall, shielded light poles along the western and eastern property boundaries totaling 18,457 lumens, where 22,548 lumens are allowed. The LDRs state that organizations that primarily serve individuals with visual impairments (e.g. retirement communities, hospices, and hospitals) may use up to 4 times the illumination allowed by Sec. 5.3.1. The applicant has not proposed to take advantage of this additional lighting and is complying with the 3 lumens per sf of impervious surface standard.

The LDRs require that after 12:00 AM nonresidential sites shall extinguish or reduce their total exterior lighting by at least 30% with the exception of motion activated lighting and lighting governed by a Conditional Use Permit in which times of operation are specifically identified. As a condition of approval staff has required that the applicant submit lighting plans that demonstrate compliance with Sec. 5.3.1 Exterior Lighting of the LDRs that demonstrates compliance with light trespass, controls, and required lighting reduction.

Landscaping

The LDRs have no landscape surface ratio requirement for uses within the P/SP zoning district, however Div. 5.5. Landscape Standards requires plant units in parking lots in all zones, P/SP included. The applicant is required to provide 3 plant units and has proposed maple and ash trees, dogwood, spirea, and lilac shrubs, and native grass sod. The applicant has proposed roughly 1,224 square feet of landscaping which is an LSR of approximately 0.14. By comparison, the LSR requirement in the adjacent Office Residential zone is .20. It should be noted that the P/SP zone does not have a specific landscaping requirement. Given that the minimum parking module width is 64' for a two-way drive aisle with 45 degree parking spaces on both sides, and the lot is 67.3' wide there is little room left over to increase landscaping on site. Section 6.2.5.A.3 of the LDRs require that, *"Parking lots shall include landscaped islands to avoid large expanses of asphalt and shall be screened from off-site, or their view substantially filtered by vegetation"*, however, additional landscape islands would only fit by replacing proposed parking spaces with landscaping. Given the relatively small size of the parking lot staff does not recommend requiring landscape islands as the intent of the requirement in the LDRs appears to be for larger, multi drive-aisle surface parking lots.

In discussions with the applicant, staff has asked the applicant to relocate the proposed landscape strip abutting the Jackson Hole Baptist Church on the western edge of the lot line to the eastern edge lot line in order to better screen the parking lot from MacLeod Drive as the hospital intends to remove the existing fence currently on site which is in disrepair. The applicant has provided a revised landscape plan demonstrating the relocation of landscaping which is attached to this report. Staff notes that there is an existing landscaping buffer which is used for stormwater retention on the eastern lot line adjacent to MacLeod Drive which effectively increases the overall appearance of landscaping on site although this is not part of the 630 E Broadway property. Any additional landscaping in this buffer would require permission of the adjacent lot owner, the Broadway Park HOA.

Bicycle Parking / Snow Storage

The applicant is required to provide bicycle parking as part of Div. 6.2 Parking and Loading Standards, which requires 1 bicycle parking space 10 spots. As a result the applicant is required to provide 3 bicycle parking spaces, however they have not shown bicycle parking in their submitted plans with this application. When the applicant last appeared before Council for approval of a surface parking lot for item P18-221 it was noted that

requiring bicycle parking on-site for an off-site surface parking lot was counterintuitive and that required bicycle parking would be better suited at the hospital campus. Therefore, staff has determined that the location and total bicycle parking requirement for the entirety of the St. John's Medical Center campus should be determined as part of the comprehensive Parking Management and Alternative Mobility Plan that will be required as part of the Living Center application.

The applicant has addressed snow storage in their plans demonstrating 2.5% of impervious surface on site. The designated snow storage area has been revised on the landscape plan to accommodate snow storage by relocating proposed plantings. While the proposed snow storage area meets the minimum requirements of the LDRs, staff notes that, given the constraints of the site, the applicant may be required to haul snow from the site elsewhere and/or make use of parking stalls to store snow during above-average snowfall events/seasons.

Noise / Visual

Staff does not anticipate any increased noise or nuisance as a result of the proposal. The applicant has proposed landscaping and screening elements which will mitigate the visual impact of the parking lot.

Departmental Reviews

Parks and Recreation provided comments regarding the desirability of the Town and applicant working with the Jackson Hole Baptist Church to remedy the section of sidewalk in front of church that is attached and replace it with a consistent detached sidewalk like the rest of Broadway. Staff notes that the reason why the existing and proposed sidewalk jogs out from detached to attached sidewalk on the northwest corner of 630 E Broadway is that there is existing electrical equipment and a telephone pole where a detached sidewalk would be located. In response to Parks and Recreation's comments regarding the use of crab apple trees, the applicant has revised their landscape plan to replace crab apples with ash trees.

Public Works has approved the proposal and as a condition of approval requires that the proposed tree planted in the right-of-way require approval by the Urban Tree Council as well as installation of a root guard. In addition, all work within the Town's right-of-way will require a right-of-way permit.

STAFF FINDINGS

Pursuant to Section 8.4.2.C (Conditional Use Permit Standards) of the Land Development Regulations, the following findings shall be made for the approval of a Conditional Use Permit.

1. ***Compatibility with Future Character.*** *The proposed Conditional Use shall be compatible with the desired future character of the area.*

The proposed development is located within District 2 Town Commercial Core - Subarea 2.6 Mixed Office and Residential of the 2012 Comprehensive Plan which states:

This TRANSITIONAL Subarea is envisioned to be a pedestrian-oriented mixed use area comprised of mixed use office or multifamily residential structures. The subarea currently contains a variety of single family residential, multifamily residential, office and institutional uses such as St. John's Hospital, the National Elk Refuge Headquarters and Town and County administrative facilities. The future development pattern should locate buildings toward the street predominantly two stories in height. Parking should be minimized and screened from the view of the public right of way. Office, residential and local convenience commercial should be located on the first level with residential above and behind. Some limited local convenience commercial is desirable to serve the surrounding residential areas with the goal of reducing trips outside the neighborhood. The existing institutional uses shall remain as anchors to the local economy that provide many jobs and services to the community. The

bulk, scale and intensity of the St. John's campus has always been and will continue to be of a higher intensity than the surrounding mixed use and residential neighborhoods. Particular care and attention will be necessary to ensure a successful integration between this mixed use subarea and the adjacent Core Residential (Subarea 3.2). Particular attention will need to be given to the location of buildings, parking, types of uses, and intensity of uses to ensure a successful transition.

Staff finds the proposed project meets the intent and vision for this subarea as it improves a lot that is currently being used for parking, though unimproved. St. John's Hospital is explicitly listed as an institutional use in the sub-area that should remain as an anchor to the local economy. The sub-area states that particular attention will need to be given to the location of parking to ensure a successful transition. Staff has crafted conditions of approval and required a comprehensive parking analysis as part of this application. Should the lot change ownership in the future the P/SP zoning designation would be lost if the owner was not a public entity and the site will be subject to a zoning designation that is in keeping with the vision for the Subarea. In addition, staff has analyzed this application for consistency with the Policy Objectives for District 2 Town Commercial Core as follows:

Common Value 1: Ecosystem Stewardship

Not applicable.

Common Value 2: Growth Management

Policy 4.1.b: Emphasize a variety of housing types, including deed-restricted housing

Not applicable.

Policy 4.1.d: Maintain Jackson as the economic center of the region

Complies. St. John's Hospital is a key employer and service provider in Teton County. Ensuring that the site has adequate parking is integral to its ongoing operation.

Policy 4.2.c: Create vibrant walkable mixed use subareas

Not applicable.

Policy 4.2.d: Create a Downtown Retail Shopping District

Not applicable.

Policy 4.2.f: Maintain lodging as a key component in the downtown

Not applicable.

Policy 4.4.b: Enhance Jackson gateways

Not applicable.

Policy 4.4.d: Enhance natural features in the built environment

Complies. The site is currently an unimproved parking lot. The applicant will be enhancing the site with landscaping and screening.

Common Value 3: Quality of Life

Policy 5.2.d: Encourage deed-restricted rental units

Not applicable.

Policy 6.2.b: Support businesses located in the community because of our lifestyle

Complies. This application is in support of St. John's Hospital which is necessary for providing healthcare to residents and visitors alike.

Policy 6.2.c: Encourage local entrepreneurial opportunities

Not applicable.

Policy 6.3.a: Ensure year-round economic viability

Complies. Improvements to the parking lot help address parking demand at the hospital which affects hospital operations. A well-functioning hospital is necessary for year-round economic viability.

Policy 7.1.c: Increase the capacity for use of alternative transportation modes.

Complies as conditioned. An outcome of this and associated applications has been the production of a comprehensive parking analysis which will be periodically updated as new development takes place on the hospital campus. Staff has determined that the hospital will need to create a comprehensive Parking Management and Alternative Mobility Plan in order to address their strained parking situation and has added a condition of approval to this application requiring such a plan to be completed in conjunction with an application for the Senior Living Center or additional surface parking. As a result, increasing the use of alternative transportation modes will be integral to reducing parking demand at the hospital.

2. ***Use Standards.*** *The proposed Conditional Use shall comply with the use specific standards of Division 6.1.*

Complies. Staff finds that the proposal is compliant with the standards of Division 6.1. The proposed parking use is an allowed use within the Public/Semi-Public – (P/SP) zoning district with the approval of a Conditional Use Permit.

3. ***Visual Impacts.*** *The design, development, and operation of the proposed Conditional Use shall minimize the visual impact of the proposed use on adjacent lands.*

Complies as conditioned. Staff finds that the proposed operation will minimize the visual impact on adjacent lands through the provision of landscaping buffers and screening elements. While the addition of lighting to the site creates a visual impact to the area, it is in compliance as conditioned with the LDR standards and a condition of approval requires that proposed lighting demonstrate compliance with Section 5.6.1 Exterior Lighting of the LDRs.

4. ***Minimizes adverse environmental impact.*** *The development and operation of the proposed Conditional Use shall minimize adverse environmental impacts.*

Complies. Staff finds that the proposed use will not have an adverse environmental impact. The site is also not located within the NRO and SRO, and all proposed use and operations will be conducted within previously disturbed areas.

5. ***Minimizes adverse impacts from nuisances.*** *The development and operation of the proposed Conditional Use shall minimize adverse impacts from nuisances.*

Complies. Staff finds that the proposed use as conditioned minimizes adverse impacts on nuisances by providing a delineated parking area that is screened and buffered by landscaping.

6. ***Impact on Public Facilities.*** *The proposed Conditional Use shall not have a significant adverse impact on public facilities and services, including transportation, potable water and wastewater facilities, parks, schools, police, fire, and EMT facilities.*

Complies. Staff finds that the proposal as conditioned will have no significant adverse impact on public facilities.

7. ***Other Relevant Standards/LDRs.*** *The development and operation of the proposed Conditional Use shall comply with all standards imposed on it by all other applicable provisions of the LDRs and all other Town Ordinances.*

Complies. Staff finds that the proposed use complies with the provisions of the LDRs and with all other Town Ordinances.

8. ***Previous Approvals.*** *The proposed Conditional Use shall be in substantial conformance with all standards or conditions of any prior applicable permits or approvals*

Not applicable to this proposal.

ATTACHMENTS

Applicant Submittal
Departmental Reviews
Revised Landscape Plan
Parking Study

PUBLIC COMMENT

None.

FISCAL IMPACT

None.

STAFF IMPACT

There will be no significant impact to staff resources if the proposed project is approved.

LEGAL REVIEW

Complete.

RECOMMENDATIONS / CONDITIONS OF APPROVAL

The Planning Director recommends **approval** of a Conditional Use Permit (P18-356) for a surface parking lot for the property located at 630 E Broadway, subject to the departmental reviews and the following four conditions of approval:

1. Prior to issuance of a Grading Permit, the applicant shall provide a bond in the amount of 125% of the cost of all landscaping.
2. The applicant shall replace the existing and now abandoned curb cut to Town standards to match the grade of existing sidewalk.
3. The applicant shall submit lighting plans with Grading Permit submittal that demonstrate compliance with Sec. 5.3.1 Exterior Lighting of the LDRs that demonstrates compliance with light trespass, controls, total allowable lighting on site, and required lighting reduction times.
4. The applicant shall develop a comprehensive Parking Management and Alternative Mobility Plan to be reviewed and approved by Planning Staff and to be submitted in conjunction with any future applications related to the Senior Living Center or additional surface parking.

SUGGESTED MOTIONS

Based upon the findings as presented in the staff report and as made by the applicant for item P18-356, I move to make findings 1-8 as set forth in Section 8.4.2.C (Conditional Use Permit Standards) of the Land Development Regulations relating to 1) Compatibility with Future Character; 2) Use Standards; 3) Visual Impacts; 4) Minimizes adverse environmental impact; 5) Minimizes adverse impacts from nuisances; 6) Impact on Public Facilities; 7) Other Relevant Standards/LDRs; and 8) Previous Approvals and recommend **approval** to Town Council of a Conditional Use Permit for a surface parking lot for the property addressed at 630 East Broadway subject to the departmental reviews attached hereto and the following four conditions of approval:

1. Prior to issuance of a Grading Permit, the applicant shall provide a bond in the amount of 125% of the cost of all landscaping.
2. The applicant shall replace the existing and now abandoned curb cut to Town standards to match the grade of existing sidewalk.
3. The applicant shall submit lighting plans with Grading Permit submittal that demonstrate compliance with Sec. 5.3.1 Exterior Lighting of the LDRs that demonstrates compliance with light trespass, controls, total allowable lighting on site, and required lighting reduction times.
4. The applicant shall develop a comprehensive Parking Management and Alternative Mobility Plan to be reviewed and approved by Planning Staff and to be submitted in conjunction with any future applications related to the Senior Living Center or additional surface parking.

For Office Use Only

Fees Paid _____

Check # _____

Credit Card _____

Cash _____

Application #s _____

PROJECT.

Name/Description: Parking Improvements

Physical Address: 630 East Broadway

Lot, Subdivision: LOT 4, BLK 1, REDMOND-2

PIDN: 22-41-16-34-1-11-001

OWNER.

Name: Teton County Hospital District

Phone: 307-733-3636

Mailing Address: PO Box 428, Jackson, WY

ZIP: 83001

E-mail: Johnston, James <JJohnston@tetonhospital.org>

APPLICANT/AGENT.

Name: Brett Bennett (CTA Architects & Engineers)

Phone: 307-733-9955

Mailing Address: PO Box 7364, Jackson, WY

ZIP: 83002

E-mail: Brett Bennett <brettbennett@ctagroup.com>

DESIGNATED PRIMARY CONTACT.

_____ Owner ☒ _____ 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

_____ 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

_____ Other: _____

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 #:	<u>P18-218</u>	Environmental Analysis #:	<u>N/A</u>
Original Permit #:	<u>N/A</u>	Date of Neighborhood Meeting:	<u>N/A</u>

SUBMITTAL REQUIREMENTS. *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. Provide **one electronic copy** (via email or thumb drive), and **two hard copies** of the submittal packet.*

Have you attached the following?

- ☒ **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.
- ☒ **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.
- ☒ **Response to Submittal Requirements.** The submittal requirements can be found on the TOJ website for the specific application. If a pre-application conference is held, the submittal requirements will be reviewed at the conference followed by a written summary. The submittal requirements on the TOJ website are intended as a reference to assist you in submitting a sufficient application.

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.



Signature of Owner or Authorized Applicant/Agent

Brett Bennett (CTA Architects and Engineers)

Name Printed

12.21.2018

Date

Architect

Title

LETTER OF AUTHORIZATION

Teton County Hospital District

, "Owner" whose address is: _____

PO Box 428, Jackson, Wyoming, 83001

(NAME OF ALL INDIVIDUALS OR ENTITY OWNING THE PROPERTY)

Teton County Hospital District dda St. John's Medical Center

, as the owner of property

more specifically legally described as: Parcel: 22-41-16-34-1-11-001

StAddr: 630 E BROADWAY AVENUE Deed: 643 WD 673 Location: LOT 4, BLK 1, REDMOND-2

NW 1/4 NE 1/4 Section 34 T41N R116W 6th P.M.

(If too lengthy, attach description)

HEREBY AUTHORIZES Hoyt CTA Architects and Engineers, PO Box 7364, Jackson, Wyoming 83002 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:

(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 Johnston this 11 day of June, 20016.

WITNESS my hand and official seal.

(Notary Public)

My commission expires: 6/6/2020

(Seal)





WARRANTY DEED

Bud Harley, LLC, a Wyoming limited liability company, GRANTOR, of Teton County, Wyoming, for and in consideration of TEN DOLLARS (\$10.00) and other good and valuable consideration, in hand paid, receipt of which is hereby acknowledged, and pursuant to an IRC § 1031 tax deferred exchange on behalf of Grantor, CONVEYS and WARRANTS to Teton County Hospital District, dba St. John's Medical Center, a Public Wyoming Hospital District, GRANTEE, whose address is P.O. Box 428, Jackson, Wyoming 83001, all of its undivided interest in and to the following described real estate, situate in the County of Teton, State of Wyoming, hereby waiving and releasing all rights under and by virtue of the homestead exemption laws of the State of Wyoming, to wit:

Lots 1, 2, 4, 6 & 7 of the 2nd Redmond Plat, Teton County, Wyoming, according to that plat recorded in the Office of the Teton County Clerk on July 15, 1937 as Plat No. 122.

PIN #s 22-41-16-34-1-11-003 (Lots 1 & 2)
22-41-16-34-1-11-011 (Lot 4)
22-41-16-34-1-11-005 (Lots 6 & 7)

Grantor: BUD HARLEY LLC
Grantee: TETON COUNTY HOSPITAL*
Doc 0688884 bk 643 pg 673-673 Filed at 4:19 on 11/03/06
Sherry L Daigle, Teton County Clerk fees: 8.00
By MICHELE E. FAIRHURST Deputy

Together with and including all improvements thereon and all appurtenances and hereditaments thereunto belonging. Subject to all covenants, conditions, restrictions, easements, reservations, and rights-of-way of sight and/or record.

WITNESS our hands this 2ND day of ^{November} ~~October~~, 2006.

RELEASED	☒
INDEXED	☒
ABSTRACTED	☒
SCANNED	☒

Bud Harley, LLC, a Wyoming limited liability company:

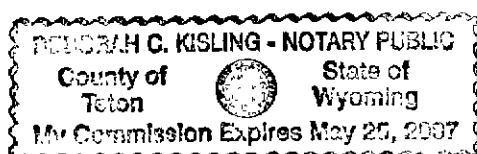
Roger M. Brecheen, M. D. Managing Member

Kathy L. Watkins, Managing Member

STATE OF WYOMING)
COUNTY OF TETON)

The foregoing instrument was acknowledged before me this ^{2ND} ~~day~~ of ^{November} ~~October~~, 2006 by Roger M. Brecheen, M.D. and Kathy L. Watkins who each do verify that the foregoing instrument is signed in the name of, on behalf of, and by authority of said limited liability company.

WITNESS my hand and official seal.



Notary Public
My Commission Expires:

This Summary will be prepared by Planning Staff. The applicant, or the applicant's agent, shall receive a copy of this summary for their reference in submitting a sufficient application.

Staff may request additional materials during review as needed to determine compliance with the LDRs.

PRE-APPLICATION MEETING GENERAL INFORMATION.

PAP#: P18-218

Date of Conference: 8/1/2018

Planning Staff: Brendan Conboy

PROJECT.

Name/Description: St. John's Hospital Parking Improvements

Physical Address: 630 E. Broadway

Lot, Subdivision Lot 4, Block 1, Redmond 2 PIDN: 22-41-16-34-1-11-001

Zoning District(s): P/SP

Overlay(s): N/A

STAKEHOLDERS.

Applicant: Brett Bennett – CTA

Owner: Teton County Hospital Dist DBA St John's Hospital and Nursing Home

Agent: _____

REQUIRED APPLICATIONS. *This project will require the following applications:*

Application	Reason	Fee
CUP	P/SP Zone – Parking Use	No Fee for Hospital Dist

MEETING ATTENDEES:

Name	Company	Phone/Email
Brett Bennett	CTA	
Jim Barlow	CTA	
Collin Smith & Jim Johnson	St. John's	

TIMELINES. This table is intended to provide general information regarding the review process and timing of decisions. See Article 8 for a complete explanation of the review process.

The following timelines are generally applicable:

Application Types:	Sufficiency	Decision-Maker	Timeline
CUP	2 weeks	Council	Up to 90 days for PC, up to 60 days after PC for TC
Grading Permit			

Checklist Key.

✓ **Required.** Applicant must demonstrate compliance with this requirement.

N/A **Not Applicable.** Review requirement is not applicable to this project.

General Information

Requirement

Notes

X **Planning Permit Application.** The application should list all pertinent permits (use, physical development, interpretation, relief from the LDRs, Development Option/Subdivisions, Amendments to the LDRs) for which you are applying.

X **Notarized Letter of Authorization.** See “Permit and Applications” section on Planning Department website for copy of form.

N/A **Application Fees.** 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.

Hospital District Exempt per agreement with Town – Ask Tiffany, Planning Dept. Office Manager

N/A **Review fees.** The applicant is responsible for paying any review fees and expenses from consulting services necessitated by the review of the application by the County Surveyor, Town Engineer, Title Company and any other required consultant. Such fees shall be paid prior to approval of the permit.

X **Mailed Notice fee.** See Section 8.2.14.C.2 for notice requirements. If mailed notices are required, the applicant is responsible for paying for any mailing in excess of 25 notices.

X **Digital Format.** All applications submitted to the Town Planning Department must be submitted in digital format.

<u>X</u>	Response to Submittal Checklist. All applications require response to applicable review standards. For applications where a pre-application conference is required, applicable standards are identified below. If a pre-application conference is optional, see the submittal checklist for the relevant application type, established in the Administrative Manual.	
<u>X</u>	Title Report. A title report, title certificate or record document guarantee prepared within the last six months that includes evidence of ownership and all encumbrances on the subject property. Copies of the documents referenced in the report should not be submitted unless requested by the planner during review.	
<u>X</u>	Narrative description of the proposed development. Describe in detail the existing condition of the property and the proposed development, use, or subdivision for which you are seeking approval.	
<u>X</u>	Findings for approval. Include in your narrative a response to the findings for approval found in LDR Div 8.5, as applicable.	
<u>X</u>	Proposed Development Program. Provide a table that summarizes the the projects compliance with the primary development standards (setbacks, heights, FAR, LSR, etc.). An example is found in the Administrative Manual.	
<u>X</u>	Site Plan. Provide a detailed site plan of the proposed project. A list of minimum standards for a site plan are established in the Administrative Manual.	
<u>N/A</u>	Floor Plans. Include floor plans for any existing buildings that will be occupied by a proposed use. If changes to existing buildings are proposed, indicate those on the floor plans.	
<u>X</u>	Neighborhood Meeting Summary. See Section 8.2.3 for Neighborhood Meeting requirements.	Neighborhood Meeting is Optional for CUP
	Posted Notice. See Section 8.2.14.C.4 for Posted Notice requirements for all public hearings.	Posted Notice on site at least 10 days prior to PC

ARTICLES 2 (COMPLETE NEIGHBORHOODS), 3 (RURAL AREA ZONES), and 4 (SPECIAL PURPOSE ZONES).

Applicable Zone:	<u>P/SP</u>
Applicable LDR Section:	<u>4.2.1</u>

PHYSICAL DEVELOPMENT. Please see Subsection B in applicable Zone District for specific standards.

Requirement	Notes
<u>X</u> Structure Location and Mass (setbacks, height, FAR, etc.)	
<u>N/A</u> Maximum Scale of Development (individual building size)	
<u>N/A</u> Design Review (Design Guidelines and Design Review Committee)	
<u>X</u> Site Development (Driveway and Access limits)	Parking does not need to be set back 30', however Planning would like to see some buffer landscaped between curb and streetscape. This is flexible but should be somewhat substantial, i.e. more than 5'

<u> X </u>	Landscaping (see Div. 5.5 for more information)	1 plant unit per 8 spaces, <u>landscape islands required</u> per Sec. 6.2.5.A.3
<u> N/A </u>	Fencing (see Sec. 5.1.2 for more information)	
<u> N/A </u>	Environmental Standards (see Div. 5.1 and 5.2 for more information)	
	• Natural Resource Buffers • Irrigation Ditch Setback • Wild Animal Feeding • Natural Resource Overlay Standards • Bear Conflict Area Standards	
<u> X </u>	Scenic Standards (see Div. 5.3 for more information)	3 lumens per sf of site development max in P/SP
	• Exterior Lighting • Scenic Resource Overlay (SRO) Standards	
<u> N/A </u>	Natural Hazards to Avoid (see Div. 5.4 for more information)	
	• Steep Slopes • Areas of Unstable Soils • Fault Areas • Floodplains • Wildland Urban Interface	
<u> N/A </u>	Signs (see Div. 5.6 for more information)	
<u> X </u>	Grading, Erosion Control, Stormwater (see Div. 5.7 for more information)	
	• Grading • Erosion Control • Stormwater Management	

USE STANDARDS. *Please see Subsection C in applicable Zone District for specific standards.*

Requirement	Notes
<u> X </u> Allowed Uses (see Div. 6.1 for more information)	
<u> X </u> Parking (see Div. 6.2 for more information)	all standards in Article 6 are applicable in the P/SP-ToJ zone, unless stated otherwise. 24' drive aisle width req'd ADA spaces w/ ground marking and signage. Compact parking spaces not allowed for <u>surface parking</u>. Town has allowed it in the past with underground or structured parking. Potentially could be done with an Admin Adjustment but unlikely.
<u> N/A </u> Employee Housing (see Div. 6.3 for more information)	P/SP exempt from Sec. 6.3
<u> N/A </u> Maximum Scale of Use	

X	Operational Standards (see Div. 6.4 for more information)
---	--

- Outside Storage
- Refuse and Recycling
- Noise
- Vibration
- Electrical Disturbances
- Fire and Explosive Hazards
- Heat and Humidity
- Radioactivity

DEVELOPMENT OPTIONS. *Please see Subsection D in applicable Zone District for specific standards.*

Requirement	Notes
<u>N/A</u> Allowed Subdivision and Development Options (see Div. 7.1 and 7.2 for more information)	
<u>N/A</u> Residential Subdivision Requirements (see Div. 7.4 and 7.5 for more information)	
	• Affordable Housing • School and Parks Exactions
<u>N/A</u> Infrastructure (see Div. 7.6 and 7.7 for more information)	
	• Transportation Facilities • Required Utilities

OTHER APPLICABLE LDR STANDARDS

Requirement	Notes:
<u>N/A</u> Division 1.9, Nonconformities	
1.9.2 Nonconforming Physical Development	
1.9.3 Nonconforming Uses	
1.9.4 Nonconforming Development Options and Subdivisions	
1.9.5 Nonconforming Signs	
<u>N/A</u> Division 7.3, Open Space Standards	
7.3.3 Configuration and Location of Required Open Space	
7.3.4 Use of Open Space	
7.3.5 Physical Development Permitted in Open Space	
7.3.6 Record of Restriction	
7.3.7 Ownership of Open Space	

ADDITIONAL COMMENTS

- Town may be interested in discussing additional crosswalk improvements

PLAN REVIEW COMMITTEE. *The Plan Review Committee consists of the following listed agencies. Planning Staff will transmit pertinent portions of the application to each agency. **Other agencies and individuals not checked off on this list may be added to the PRC if necessary.***

	Agency	Required for:
☐	Building Official	
☒	Town Attorney	
☒	Town Engineer	
☐	Title Company – for subdivision plat	
☐	County Surveyor – for subdivision plat	
☐	Jackson Hole Fire EMS	
☐	Housing Authority	
☐	Integrated Solid Waste & Recycling	
☐	National Park Service	
☐	Parks and Recreation Department	
☐	Pathways Coordinator	
☐	Public and Environmental Health	
☒	Police Department	
☐	Teton Conservation District	
☐	Teton County School District	
☐	Teton County (required when subdividing land within one mile of the Teton County)	
☐	U.S. Forest Service (if adjacent to or accessing through forest service lands)	
☐	Wyoming Department of Environmental Quality	
☐	Wyoming Department of Game & Fish	
☐	Other	

APPLICABILITY. *This checklist should be used when submitting an application for a **Conditional Use Permit**.*

When is a Conditional Use Permit required?

Section 6.1.1 of the LDRs contains the Use Schedule for all zones. Allowed uses that require a Conditional Use Permit are denoted with a “C.” You can also determine whether a Conditional Use Permit is required by referencing Subsection C of the applicable zone.

Do I need a Pre-Application Conference first?

Yes, a Pre-Application Conference is required.

FINDINGS FOR APPROVAL. *The application shall include a narrative statement addressing each of the applicable Findings for Approval, found in **Section 8.4.2, Conditional Use Permit**.*

A conditional use permit shall be approved upon finding the application:

1. Is compatible with the desired future character of the area; and
2. Complies with the use specific standards of Division 6.1: Allowed Uses and the zone; and
3. Minimizes adverse visual impacts, and;
4. Minimizes adverse environmental impacts; and
5. Minimizes adverse impacts from nuisances; and
6. Minimizes adverse impacts on public facilities; and
7. Complies with all other relevant standards of these LDRs and all other Town Ordinances; and
8. Is in substantial conformance with all standards or conditions of any prior applicable permits or approvals.

GENERAL INFORMATION.

Y

Response to Pre-Application Conference Summary Checklist. During the pre-application conference, you will be provided with a summary and checklist of applicable LDR standards and requirements that must be addressed for a sufficient application.



PROPOSED DEVELOPMENT PROGRAM

Planning & Building Department Planning Division

150 E Pearl Ave. | ph: (307) 733-0440
P.O. Box 1687 | fax: (307) 734-3563
Jackson, WY 83001 | www.townofjackson.com

PROPOSED DEVELOPMENT PROGRAM. *If a proposed development program is required as part of an application, it should be submitted as a table, in the following format.*

PROPOSED DEVELOPMENT PROGRAM 630 E BROADWAY LOT 4, REDMOND-2		
Area Calculations. <i>Please complete for each affected lot or parcel.</i>		
	Base Site Area	Adjusted Site Area
Gross Site Area	8,712 SQFT	8,712 SQFT
Land within road easements and rights-of-way	0 SQFT	
Land within existing vehicular access easements	0 SQFT	
Land between levees or banks of rivers and streams	0 SQFT	
Lakes or ponds > 1 acre	0 SQFT	
Land previously committed as open space in accordance with these or prior LDRs	0 SQFT	
50% of lands with slopes greater than 25%	0 SQFT	
Calculated Totals	8,712 SQFT	8,712 SQFT

Development Calculations. <i>Please complete for each structure or use.</i>				
	LDR Standard	Existing	Proposed	Gross
Number of units or density	N A			
Floor area (by use if applicable)	N A			
FAR or maximum floor area	N A			
Site Development	N A			
Landscape Surface Ratio	N A			
Setbacks	N A			
Front or street yard	N A			
Rear yard	N A			
Side yard	N A			
Side yard	N A			
Height	N A			



Date: December 21, 2018

Hoyt/CTA Architects
PO Box 7364
Jackson, WY 83002
Contact: Brett Bennett 307.733.9955 (brettbennett@ctagroup.com)

Conditional Use Permit Narrative
Location: 630 East Broadway Avenue (Lot 4, BLK 1, Redmond-2)
Project Description: Surface Parking Improvements

1. Existing Conditions

- a. Vicinity map: Refer to Permit Drawings
- b. Existing conditions: Site is vacant and currently used for St. John's Medical Center parking.

2. Property History

- a. Purchased in Nov 2006.
- b. Existing residence demolished in 2015. Site reclaimed to grade.

3. Use

- a. Parking facility to support Institutional assembly - Hospital use, Living Center, and Professional Office Building.

4. Zoning

- a. P/SP Public Semi/Public
- b. The purpose of the Public/Semi Public - Town (P/SP-ToJ) zone is to provide locations for new and existing uses and facilities of a public or semi-public nature. In particular, the P/SP-ToJ zone is intended to allow flexibility for public and semi-public uses and facilities that often have unique functional needs, such as for height, floor area, setbacks, and impervious surface, that cannot be accommodated in other zoning districts. Land in the P/SP-ToJ zone and/or facilities operated therein may be under the control of federal, state, or local governments, or other governmental entities such as a school district or **hospital district**. It is not the intent of these LDRs that property in the P/SP-ToJ zone retain that designation after the property is divested by the public entity. At the time P/SP-ToJ designated land is transferred, or is proposed to be transferred, into private ownership, the property shall be reclassified to an appropriate zoning district to allow private use pursuant to the Jackson/Teton County Comprehensive Plan.

5. Findings

a. Compatible with character

- i. Located in the District 2 commercial core of the comp plan
- ii. Sub 2.6 mixed use
- iii. St. John's campus
- iv. Vibrant pedestrian mixed use district with variety and strategic location for parking related to the Hospital institutional use within 500 feet of the campus

6. Complies with use standards

- a. P/SP zoning relating to the hospital institutional use as a support facility providing surface parking for the hospital and Living Center.
- b. Direction and standards from the LDRs relating to the adjoining zones and requirements for screening, pedestrian frontage, landscaping standards, off-street parking standards, and lighting standards.

7. Minimizes visual impacts

- a. Use of landscape design and plant materials to screen the surface parking

8. Minimizes environmental impacts

- a. Not in the Natural resource overlay. Storm water design and management to retain and filter runoff

9. Minimizes nuisances impacts

- a. Hardscape and landscape improvements will reduce dust and erosion.

10. Minimizes infrastructure impacts

- a. Utilizes existing streets, curb, gutters, sidewalks, water and sewer and power utilities.

11. Complies with LDRs

- a. Follows LDR standards for development, use, environmental and compatibility with comprehensive Town planning.

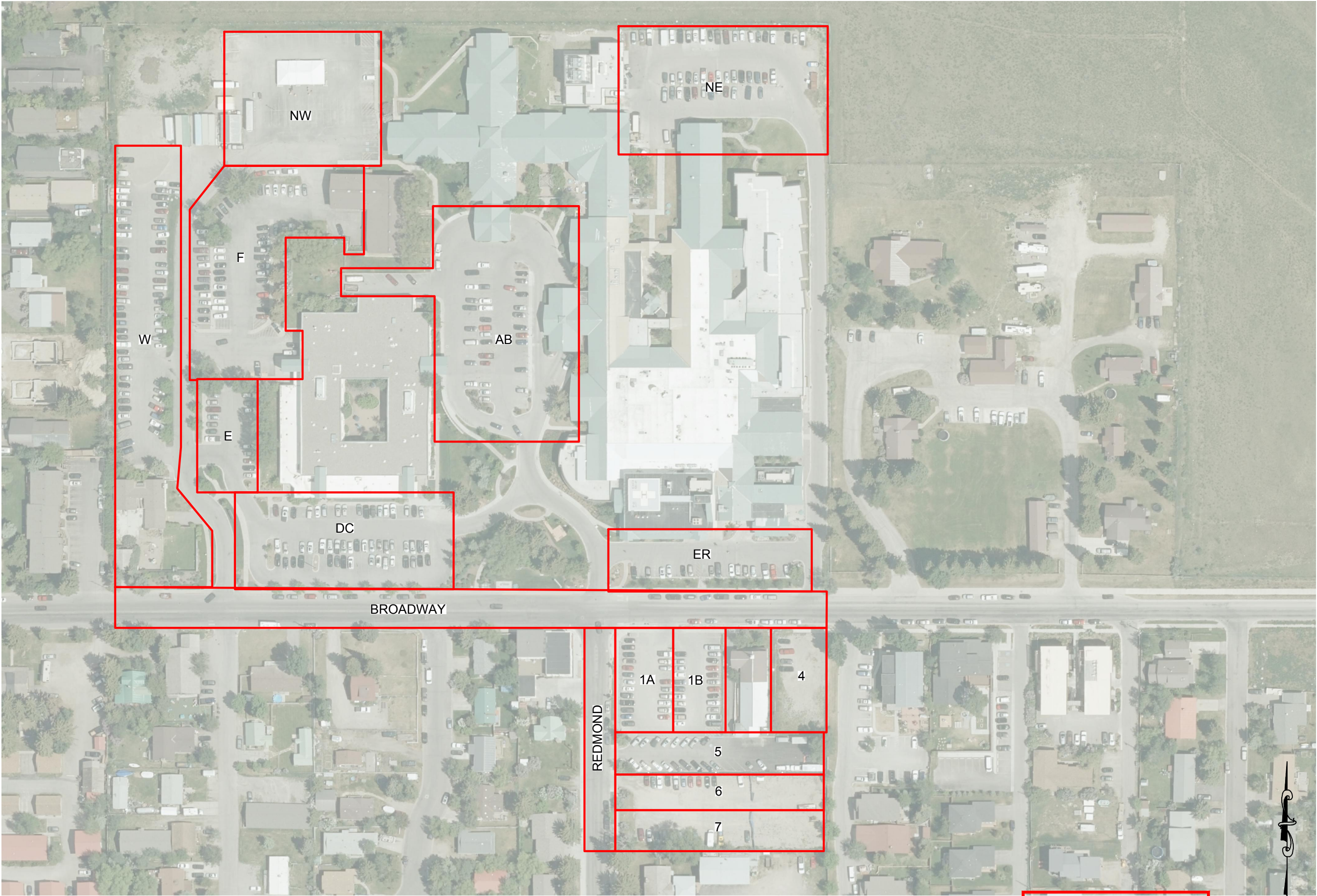
12. Conformance with prior permits

- a. No existing prior permits

13. Comments

- a. In order to offset a loss of parking spaces related to the future Living Center construction and growing parking demand, additional surface parking is required to meet the functional needs of St. John's Medical Center.

Ver: 18.0 Property: 8/10/11, 2019 - 1.13km JorgensenAssociates.com/Architectural/Word/M/Document/Drawings.dwg



- PRELIMINARY -
SUBJECT TO CORRECTION
AND APPROVAL

0 60 120
SCALE: 1" = 120'



PROJECT TITLE:
PARKING STUDY
SAINT JOHNS MEDICAL CENTER
625 E BROADWAY
JACKSON, WY 83001

SHEET TITLE:
FIGURE #1: PARKING LOT LEGEND

DRAFTED BY:	JK
REVIEWED BY:	RA
PLAN VERSION	DATE
VERSION 2	3/11/2019

PROJECT NUMBER	18056.13
SHEET	1



Date: January 03, 2019

Hoyt/CTA Architects
PO Box 7364
Jackson, WY 83002
Contact: Brett Bennett 307.733.9955 (brettbennett@ctagroup.com)

Conditional Use Permit Narrative: Addendum No. 1 - Affordable Housing Exemption
Location: 630 East Broadway Avenue (Lot 4, BLK 1, Redmond-2)
Project Description: Surface Parking Improvements

1. Existing Conditions

- a. Vicinity map: Refer to Permit Drawings
- b. Existing conditions: Site is vacant and currently used for St. John's Medical Center parking.

2. Property History

- a. Purchased in Nov 2006.
- b. Existing residence demolished in 2015. Site reclaimed to grade.

3. Use

- a. Parking facility to support Institutional assembly - Hospital use, Living Center, and Professional Office Building.

4. Zoning

- a. P/SP Public Semi/Public
- b. The purpose of the Public/Semi Public - Town (P/SP-ToJ) zone is to provide locations for new and existing uses and facilities of a public or semi-public nature. In particular, the P/SP-ToJ zone is intended to allow flexibility for public and semi-public uses and facilities that often have unique functional needs, such as for height, floor area, setbacks, and impervious surface, that cannot be accommodated in other zoning districts. Land in the P/SP-ToJ zone and/or facilities operated therein may be under the control of federal, state, or local governments, or other governmental entities such as a school district or **hospital district**. It is not the intent of these LDRs that property in the P/SP-ToJ zone retain that designation after the property is divested by the public entity. At the time P/SP-ToJ designated land is transferred, or is proposed to be transferred, into private ownership, the property shall be reclassified to an appropriate zoning district to allow private use pursuant to the Jackson/Teton County Comprehensive Plan.

5. Findings

a. Compatible with character

- i. Located in the District 2 commercial core of the comp plan
- ii. Sub 2.6 mixed use
- iii. St. John's campus
- iv. Vibrant pedestrian mixed use district with variety and strategic location for parking related to the Hospital institutional use within 500 feet of the campus

6. Complies with use standards

- a. P/SP zoning relating to the hospital institutional use as a support facility providing surface parking for the hospital and Living Center.
- b. Direction and standards from the LDRs relating to the adjoining zones and requirements for screening, pedestrian frontage, landscaping standards, off-street parking standards, and lighting standards.

7. Minimizes visual impacts

- a. Use of landscape design and plant materials to screen the surface parking

8. Minimizes environmental impacts

- a. Not in the Natural resource overlay. Storm water design and management to retain and filter runoff

9. Minimizes nuisances impacts

- a. Hardscape and landscape improvements will reduce dust and erosion.

10. Minimizes infrastructure impacts

- a. Utilizes existing streets, curb, gutters, sidewalks, water and sewer and power utilities.

11. Complies with LDRs

- a. Follows LDR standards for development, use, environmental and compatibility with comprehensive Town planning.

12. Conformance with prior permits

- a. No existing prior permits

13. Comments

- a. In order to offset a loss of parking spaces related to the future Living Center construction and growing parking demand, additional surface parking is required to meet the functional needs of St. John's Medical Center.

14. Affordable Housing

- a. Per Division 6.3 Employee Housing Requirements, Section 6.3.1-C10, P/SP Uses. Any use in the P/SP zone is exempt from the standards of this Division.

PLANNING

Project Number	P18-365	Applied	12/26/2018	STOL
Project Name	CUP - St. John's Parking	Approved		
Type	CUP	Closed		
Subtype	PARKING	Expired		
Status	TOWN COUNCIL	Status	3/25/2019	BC
Applicant	CTA Architects	Owner	TETON COUNTY HOSPITAL DIST.	
Site Address		City	State	Zip
630 E BROADWAY AVENUE		JACKSON	WY	83001
Subdivision		Parcel No	General Plan	
REDMOND-2ND		22411634111001		

Type of Review	Status	Dates			Remarks
		Sent	Due	Received	
Contact					
Notes					
Building	APPROVED	12/26/2018	1/16/2019	12/27/2018	
Kelly Sluder					

Fire		12/26/2018	1/16/2019		See notes
Kathy Clay					
"Applicant needs to provide fire department access" -Kathy Clay					

Legal	APPROVED	12/26/2018	1/16/2019	12/26/2018	
A Cohen-Davis					

Parks and Rec	APPROVED W/CONDITI	12/26/2018	1/16/2019	3/26/2019	see notes
Steve Ashworth					

-This is the only section of attached sidewalk from Redmond to the east on Broadway. It would make sense to work with the Baptist Church and the Town to go ahead and create detached sidewalk from the west side of the proposed entrance and link to the detached sidewalk on the west side of the Church lot, like the rest of Broadway. Especially if we ever pick this up plowing.

-The landscaping in front on either side of the entrance and on the south end of the property is acceptable with respect to plantings, no issues.

-On the west property line, between the lot and the church, they are proposing Crab apples in what appears to be a 3' strip. I don't have issues with the width of the planting strip but would not recommend them adjacent to a parking lot or that close to another property just from an encroachment and mess issue. Especially when mature and they over hang cars in the parking lot. Obviously doesn't affect us, health of the tree, but consider proximity to parked cars.

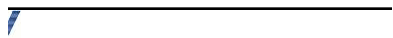
Andy Erskine
Parks Manager, Teton County/Jackson Parks & Recreation Department
300 W Snow King Avenue
PO Box 811
Jackson, WY 83001
Office: 307-732-5793

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Type of Review Contact Notes	Status	Dates			Remarks
		Sent	Due	Received	
Planning Brendan Conboy	APPROVED W/CONDITI	12/26/2018	1/16/2019	3/25/2019	see staff report

Public Works APPROVED 12/26/2018 1/16/2019 1/2/2019 see notes
 Rachelle Rhodes
 (1/2/2019 5:23 PM RR)
 Conditional Use Permit – APPROVED

P18-365
 CTA Architects, Brett Bennett for Teton County Hospital District
 630 East Broadway Avenue

January 2, 2019
 Rachelle Rhodes, 733-3079

*The following comments are being provided for use in preparation of future Development Plan submittals and are required for sufficiency.

In addition to the required Town of Jackson submittal requirements, The Engineering Department requires applicants to submit plans, documents, etc in electronic PDF format in addition to the standard paper submittal(s). Please submit these materials through Tiffany Stolte of the Planning Department (tstolte@jacksonwy.gov).

NOTES FOR APPROVAL:

1. Review the pre-application grading notes from the August 1, 2018 meeting with Brian Lenz and Brendan Conboy for inclusion in possible future applications.
2. Public works recommends using a commercial power service pedestal for security and aesthetics, instead of the proposed H-Frame.
3. Please include notes on the plan sheet calling-out 6-inch thick concrete per the details.
4. The proposed tree(s) planted in the public right-of-way shall be approved by the Urban Tree Council and a root guard installed along the sidewalk.
5. An encroachment permit shall be required for any work occurring within the Town's right-of-way.

TC Housing Authority NO COMMENT 12/26/2018 1/16/2019 1/16/2019
 Stacy Stoker

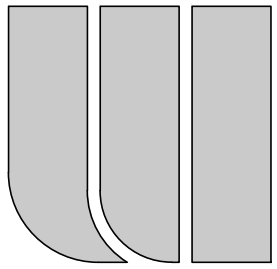
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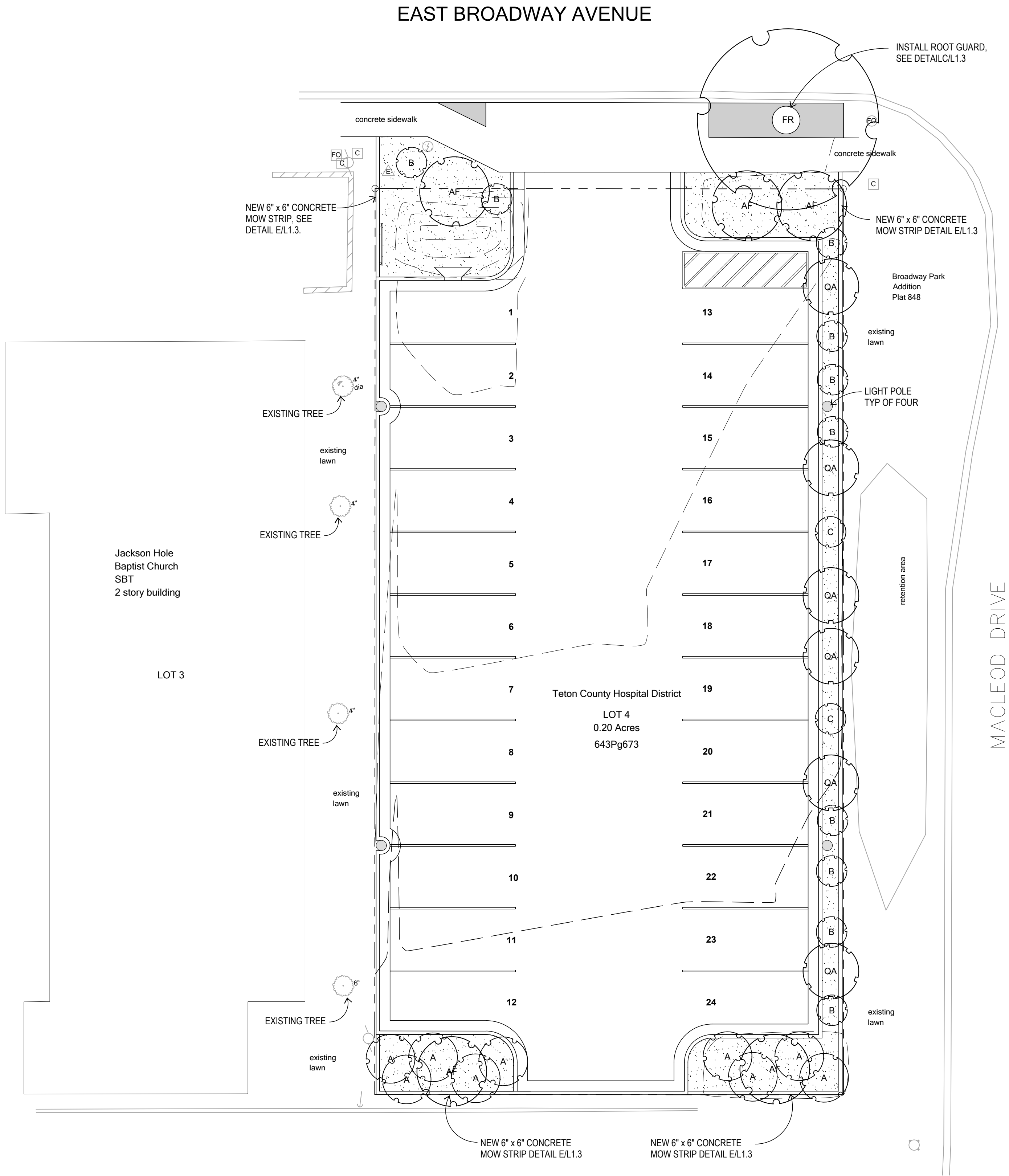
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WEAVER & ASSOCIATES PA
LANDSCAPE ARCHITECTURE - LAND PLANNING
1605 SOUTH WOODRUFF AVENUE
IDAHO FALLS, IDAHO 83404
(208) 529-9504



LEGEND

- AREA OF STONE TOPDRESSING MULCH AND PLANTINGS
- AREA OF NEW SODDED TURF GRASS LAWN

PLANT LIST

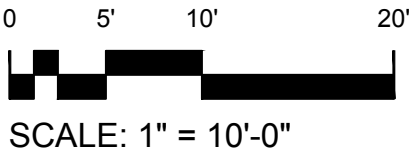
Quant	Key	Botanical Name	Common Name	Size
TREES				
5	AF	Acer ginnala 'Flame'	Amur Maple Flame	2" B&B
1	FR	Fraxinus pennsylvanica	Green Ash	3" B&B
6	QA	Populus tremuloides	Quaking Aspen	3" cal.
SHRUBS				
9	A	Cornus stolonifera	Red Twig Dogwood	6'-8" B&B
10	B	Spiraea bumalda 'Anthony Waterer'	Anthony Waterer Spiraea	5 gal. 12-18"
2	C	Spiraea bumalda 'Gold Flame'	Gold Flame Spiraea	5 gal. 12-18"

NOTES

- 3 PLANT UNITS ARE REQUIRED. THIS PLAN PROPOSES USING ALTERNATE "A" PLANT UNITS WITH THE FOLLOWING SUBSTITUTIONS:
- | | |
|---|---|
| 3 - 3" CAL. CANOPY TREES | 7 - 3" CAL. CANOPY TREES |
| 18 - 6'-8" LARGE SHRUBS OR MULTI-STEM TREES | 14 - 6'-8" LARGE SHRUBS OR MULTI-STEM TREES |
| 12 - #5 CONTAINER SHRUBS | 12 - #5 CONTAINER SHRUBS |
- REMOVE EXISTING RAIL ROAD TIE EDGE ALONG WEST PROPERTY LINE AND REPLACE WITH NEW 6" x 6" CONCRETE MOW STRIP, SEE DETAIL E/L1.3.
- REPAIR DAMAGE TO NEIGHBORING LAWNS THAT MAY BE DAMAGED BY DEMOLITION OR CONSTRUCTION. USE NEW TOPSOIL AND NEW SODDED LAWN TO REPAIR DAMAGE.
- STONE TOP DRESSING MULCH SHALL BE EQUAL TO BLACK AND TAN, AVAILABLE FROM WOLVERINE MULCH.

LANDSCAPE PLANTING PLAN

1" = 10'-0"



SCALE: 1" = 10'-0"



JORGENSEN

It's About People. Trust and Know How

307-733-5150
Jorgensen Associates, P.C.

- Jackson, WY 83001
- 1315 Highway 89 S-P.O. Box 9550



PARKING STUDY REPORT

PREPARED FOR:

Town of Jackson

150 E Pearl Avenue
P.O. Box 1687
Jackson, WY 83001
(307)-733-3932



*Saint John's Medical Center
Parking Study Report
610 East Broadway, Jackson, Wyoming*

Prepared by: Jorgensen Associates, P.C.
March 12, 2019
Project No. 18056.13

I. INTRODUCTION

This report presents the results of a comprehensive parking analysis of all current and future parking supply and demands for the Saint John's Medical Center (SJMC) owned properties in the vicinity of the SJMC campus. This analysis is in response to the January 9, 2019 Town of Jackson (TOJ) Determination of Sufficiency letter received for the Conditional Use Permit application (Item P18-365) submitted on December 26, 2018 for a surface parking lot at 630 East Broadway. This analysis includes the proposed development referred to as the Senior Living Center. This project consists of the construction of a new Senior Living Center in the north-west portion of the SJMC Lot, west of the current Senior Living Center. It is intended to replace the existing Living Center which will be decommissioned upon completion of the new facility. The letter requests that the parking analysis include all current and future parking supply and demand that encompasses all existing hospital owned properties and proposed additional properties, if known. In addition to the parking analysis TOJ asked to also provide a breakdown of peak parking demand by time, user group, and location. Jorgensen Associates, PC (Jorgensen) was retained to conduct the parking analysis and provide this report.

II. PROJECT DESCRIPTION

A. Project Limits

The area included in this analysis includes the existing SMJC campus located at 625 East Broadway and the parking lots located at 610 and 630 East Broadway, and 30 Redmond Street. The housing located at 460 East Broadway (Hitching Post) and the new SJMC Daycare located at 660 East Broadway are not included in this analysis, as these parcels park their uses on site, thus not effecting the referenced parcels included in this analysis.

B. Current Conditions- The current uses on the referenced parcels include:

- A full-service hospital
- The Physician's Office Building
- A private Professional Office with approximately 9 medical practices and 15 doctors with varying schedules
- The Living Center

- Parking lots on the 610 and 630 East Broadway and 30 Redmond Street parcels

Currently, SJMC has an estimated 538 parking spaces with varying use in its parking lots shown in **Figure 1: Parking Lot Legend**. The counts for these parking lots are shown below in **Figure 2: Existing Parking Lot Conditions** with each parking lot's designated use. **Figure 2: Existing Parking Lot Conditions** counts were derived from 2017 aerial imagery from Teton County GIS, Google Maps, and field checks of ADA, patient and staff parking. The parking space counts may be slightly affected by some spaces not being available due to winter conditions covering the parking lot stalls, as the analysis was done in late February and early March. The lot at 630 East Broadway, Lot 4, is currently not used in the winter as it is unpaved and difficult to maintain. Item P18-365 is proposing to pave the lot so it can be used year around.

Existing Parking Lot Conditions					
Parking Lot Name	Total Parking Stalls	Stall Designation			
		ADA	Patient	Staff	Non-Designated
ER	22	2	18	2	-
AB	69	4	4	-	61
NE	54	3	-	-	51
DC	68	6	-	-	62
E	22	3	19	-	-
F	63	3	-	2	58
NW	68	2	-	-	66
W	73	-	-	-	73
1A	24	-	-	24	-
1B	23	-	23	-	-
4	0	-	-	-	-
5	22	-	-	-	22
6	15	-	-	-	15
7	15	-	-	-	15
TOTAL	538	23	64	28	423

Figure 2: Existing Parking Lot Conditions

C. Proposed Conditions- The future uses known at this time includes:

- A full-service hospital
- The Physician's Office Building
- The New Living Center. **Figure 3: Senior Living Center Need** is below to show the additional parking needed to account for the expansion
- Additional parking in the southwest corner of 625 East Broadway (where the old daycare building was recently demolished)
- Parking lots on the 610 and 630 East Broadway, and 30 Redmond Street parcels.
- At this time, the future use of the existing Living Center is unknown. For purposes of this analysis, the assumed use is medical office space for those displaced by the demolition of the private Professional Office for the new Senior Living Center

Current					
	Residents	Patients	Visitors/Volunteers	Staff	Total
Skilled Nursing	44	2	20	28	94
Inpatient Rehab	-	-	-	-	0
				Total:	94
Proposed					
Skilled Nursing	56	-	28	54	138
Inpatient Rehab	-	6	12	26	44
Total	56	6	40	80	182

Δ (Proposed & Current)	12	4	20	52	88
Additional Parking Stalls Needed	0	1	3	26	30

Figure 3: Senior Living Center Need

Need was determined by visitors and patients over an 8-hour day, and the staff having split shifts. All visitors, patients, and employees will not be at the facility at one time.

SJMC is proposing the construction of the new Senior Living Center in the north-west portion of its lot shown in **Figure 4: Proposed Conditions**. The proposed construction will completely remove Lot NW and partially remove Lots F and W shown in **Figure 1: Parking Lot Legend**. Lots 4, 6 and 7 are planned to be paved, striped and used year around. The old daycare in the south-west portion of SJMC has been demolished to add additional parking spaces. SJMC is projected to lose a net 45 parking spaces with the proposed conditions shown below in **Figure 5: Proposed Parking Lot Conditions**. The proposed plans for Lot 4, 6, 7 and the expansion of W, with the demolition of the old daycare, are shown in the following figures: **Figure 6: Lot 4**, **Figure 7: Lots 6&7** and **Figure 8: Lot W Expansion**.

Proposed Parking Lot Conditions						Total Stall Difference
Parking Lot Name	Total Parking Stalls	Designated Use				
		ADA	Patient	Staff	Non-Designated	
ER	22	2	18	2	-	0
AB	69	4	4	-	61	0
NE	54	3	-	-	51	0
DC	68	6	-	-	62	0
E	22	3	19	-	-	0
F	34	3	-	2	29	-29
NW	0	-	-	-	-	-68
W	80	-	-	-	80	7
1A	24	-	-	24	-	0
1B	23	-	23	-	-	0
4	24	-	-	-	24	24
5	22	-	-	-	22	0
6	33	-	-	-	33	18
7	18	-	-	-	18	3
TOTAL	493	21	64	28	380	-45

Figure 5: Proposed Parking Lot Conditions

III. ANALYSIS METHODOLOGY

All fourteen parking lots were selected for the study as well as the on-street parking on streets, Redmond and Broadway. The boundaries of the parking lots and adjacent streets in the analysis are shown in detail on **Figure 1: Parking Lot Legend**.

SJMC is currently zoned Public/Semi-Public (P/SP) by the TOJ. The Land Development Regulations (LDRs) do not address on-street parking for this zone. However, the LDRs allows the surrounding lots zoned Office Residential (OR) to meet their parking need by using on-street parking. The LDRs also state the Commercial Residential-1 (CR-1) zoned properties can use on-street parking to meet their parking needs. The uses at SJMC are similar to and meet the intent of the CR-1 zone and therefore it is appropriate to use on-street parking to accommodate the parking need of SJMC. Other lots in the TOJ zoned P/SP, such as the Library, town parks, the old and new Post Offices, and the Center for the Arts use time designated on-street parking to meet their parking needs. Therefore, these spaces have been included in the analysis.

The study evaluated morning and afternoon peak hours, designated by SJMC, on a typical weekday for the medical center for data collection. The designated hours were 9 am-11am and 1pm-3pm. The goal of the analysis is to assess parking demand on a “representative day” during peak season. It is common industry standard to measure parking demand on a midweek day (Tuesday-Thursday). Jorgensen determined that late February and early March is representative of peak season due to flu season and the consequential injuries due to winter sports.

Jorgensen staff conducted counts on the following dates and time:

- Tuesday, February 26, 2019 9:55-10:20 am.
- Wednesday, February 27, 2019 2:30-2:50 pm.
- Tuesday, March 5, 2019 10:30-10:35 am.

During each time period, staff recorded the total number of occupied stalls, as well as the number of over-flow parking (vehicles not in a designated parking stall), by lot. License plates were not recorded, and a turnover analysis was not performed. Each window therefore represents a snapshot in time, documenting how demand changes over the course of the day.

IV. RESULTS SUMMARY

A. Tuesday, February 26, 2019 9:55-10:20 am.

Date	9:55-10:20 AM	2/26/2019	TUES
------	---------------	-----------	------

Parking Lot Name	Time	Parked Cars (w/ Over-flow)	Parking Stalls Studied	Percentage	Over-Flow (not in parking stall)
ER	10:03:00 AM	18	22	81.8%	-
AB	10:08:00 AM	57	69	82.6%	-
NE	10:02:00 AM	49	54	90.7%	4
DC	10:11:00 AM	59	68	86.8%	-
E	10:12:00 AM	15	22	68.2%	-
F	10:15:00 AM	58	63	92.1%	-
NW	10:17:00 AM	48	68	70.6%	-
W	10:18:00 AM	63	73	86.3%	-
1A	10:00:00 AM	24	24	100.0%	-
1B	10:00:00 AM	21	23	91.3%	-
4	9:55:00 AM	0	24	0.0%	-
5	10:55:00 AM	19	22	86.4%	-
6	10:55:00 AM	14	15	93.3%	-
7	9:52:00 AM	13	15	86.7%	-
W BROADWAY	10:20:00 AM	19	35	54.3%	-
REDMOND	9:57:00 AM	6	11	54.5%	-
Total:		483	608	79.4%	

0-55%
55-70%
70-85%
85%+

NOTES: WY-HWY-22 Teton Pass CLOSED and US-HWY-89 N Moose to Moran CLOSED

B. Wednesday, February 27, 2019 2:30-2:50 pm.

Date	2:30-2:50	2/27/2019	WED
------	-----------	-----------	-----

Parking Lot Name	Time	Parked Cars (w/ Over-flow)	Parking Stalls Studied	Percentage	Over-Flow (not in parking stall)
ER	2:25:00 PM	13	22	59.1%	1
AB	2:37:00 PM	57	69	82.6%	-
NE	2:33:00 PM	45	54	83.3%	1
DC	2:39:00 PM	51	68	75.0%	-
E	2:41:00 PM	16	22	72.7%	-
F	2:41:00 PM	53	63	84.1%	3
NW	2:45:00 PM	52	68	76.5%	1
W	2:46:00 PM	54	73	74.0%	1
1A	2:31:00 PM	21	24	87.5%	-
1B	2:32:00 PM	22	23	95.7%	-
4	2:33:00 PM	0	24	0.0%	-
5	2:30:00 PM	18	22	81.8%	-
6	2:30:00 PM	15	15	100.0%	-
7	2:29:00 PM	15	15	100.0%	-
W BROADWAY	2:49:00 PM	15	35	42.9%	-
REDMOND	2:47:00 PM	5	11	45.5%	-
Total:		452	608	74.3%	

0-55%
55-70%
70-85%
85%+

NOTES: WY-HWY-22 Teton Pass CLOSED (open in morning and closed one hour before study) and US-HWY-89 N Moose to Moran CLOSED

C. Tuesday, March 5, 2019 10:30-10:35 am.

Date	10:30-10:45	3/5/2019	TUES
------	-------------	----------	------

Parking Lot Name	Time	Parked Cars (w/ Over-flow)	Parking Stalls Studied	Percentage	Over-Flow (not in parking stall)
ER	10:38:00 AM	18	22	81.8%	1
AB	10:39:00 AM	69	69	100.0%	3
NE	10:37:00 AM	49	54	90.7%	2
DC	10:42:00 AM	62	68	91.2%	-
E	10:43:00 AM	16	22	72.7%	-
F	10:44:00 AM	54	63	85.7%	2
NW	10:45:00 AM	44	68	64.7%	-
W	10:45:00 AM	60	73	82.2%	1
1A	10:35:00 AM	21	24	87.5%	-
1B	10:36:00 AM	26	23	113.0%	-
4	10:36:00 AM	0	24	0.0%	-
5	10:35:00 AM	18	22	81.8%	-
6	10:34:00 AM	18	15	120.0%	3
7	10:33:00 AM	22	15	146.7%	7
W BROADWAY	10:33:00 AM	18	35	51.4%	-
REDMOND	10:33:00 AM	6	11	54.5%	-
Total:		501	608	82.4%	

0-55%
55-70%
70-85%
85%+

D. Averaged Results

Averaged Results Over 3-Day Study					
Parking Lot Name	Time	Parked Cars (w/ Over-flow)	Parking Stalls Studied	Percentage	Over-Flow (not in parking stall)
ER	10:03:00 AM	16	22	74.2%	1
AB	10:08:00 AM	61	69	88.4%	5
NE	10:02:00 AM	48	54	88.3%	2
DC	10:11:00 AM	57	68	84.3%	-
E	10:12:00 AM	16	22	71.2%	-
F	10:15:00 AM	55	63	87.3%	2
NW	10:17:00 AM	48	68	70.6%	-
W	10:18:00 AM	59	73	80.8%	1
1A	10:00:00 AM	22	24	91.7%	-
1B	10:00:00 AM	23	23	100.0%	-
4	9:55:00 AM	0	24	0.0%	-
5	10:55:00 AM	18	22	83.3%	-
6	10:55:00 AM	16	15	104.4%	1
7	9:52:00 AM	17	15	111.1%	2
W BROADWAY	10:20:00 AM	17	35	49.5%	-
REDMOND	9:57:00 AM	6	11	51.5%	-
Total:		479	608	78.7%	

0-55%
55-70%
70-85%
85%+

Figure 9: Averaged Results Over 3 Day Study

V. DISCUSSION & CONCLUSION

Over the three-day analysis it was determined by Jorgensen that the average need for SJMC is approximately 479 parking places, including the adjacent streets Broadway and Redmond, which is currently 78.7% capacity of the current conditions, shown above in **Figure 9: Averaged Results Over 3 Day Study**. The proposed conditions of SJMC is shown below in **Figure 10: Proposed Parking Lot Conditions with On-Street Parking**, with the construction of the Senior Living Center. It is projected that the SMJC campus will have 493 parking stalls or 531 parking stalls including the adjacent streets when the Senior Living Center and new parking lots are completed. Therefore, without the adjacent streets, SJMC would not meet the parking need, determined by the parking study, at 103.25% capacity. However, SJMC does meet the parking requirements with the adjacent streets at 95.86% capacity. The parking lots that had the most consistent use were Lots 1A, 1B, 6 and 7 with use 90% or greater. Lots 1A, 6 and 7 are predominately used for staff parking, therefore, this use should be fixed throughout the year. Lots 6 and 7 are not designated staff use, however, it was observed that the lots were mainly utilized for this usage. It should be noted that this report serves as a baseline analysis for SJMC at present and with the new Senior Living Center and parking lots. As new projects, expansions, or renovations are contemplated, this analysis should be updated to ensure an adequate parking supply is available and/or provided.

Proposed Parking Lot Conditions with On-Street Parking					
Parking Lot Name	Total Parking Stalls	Designated Use			
		ADA	Patient	Staff	Non-Designated
ER	22	2	18	2	-
AB	69	4	4	-	61
NE	54	3	-	-	51
DC	68	6	-	-	62
E	22	3	19	-	-
F	34	3	-	2	29
NW	0	-	-	-	-
W	80	-	-	-	80
1A	24	-	-	24	-
1B	23	-	23	-	-
4	24	-	-	-	24
5	22	-	-	-	22
6	33	-	-	-	33
7	18	-	-	-	18

TOTAL	493	21	64	28	380
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Broadway Zoned P/SP	29	-	-	-	29
Redmond Zoned P/SP	9	-	-	-	9

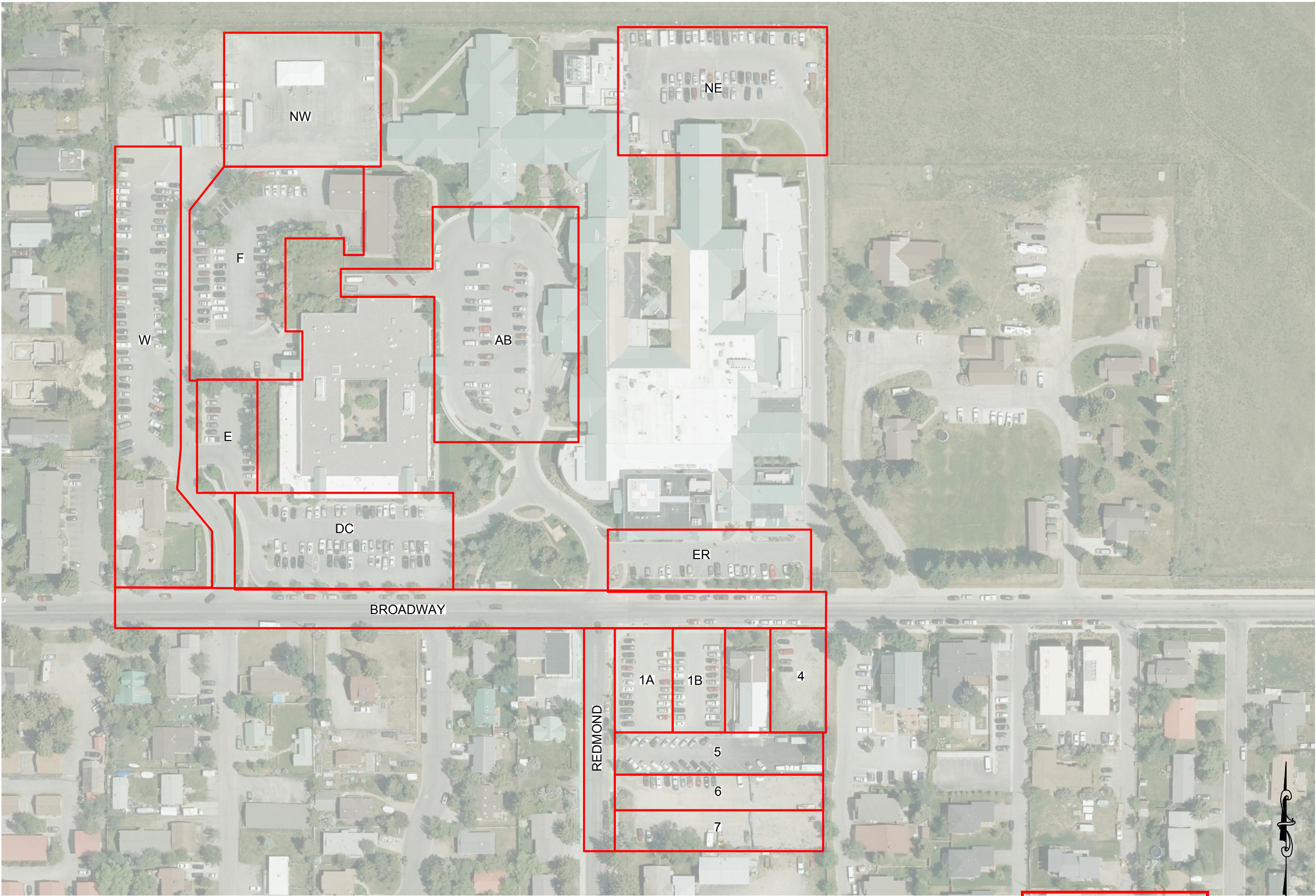
Total (with On-Street)	531	21	64	28	418
------------------------	-----	----	----	----	-----

Study Projected Parking Need	479
Projected Parking Need for Senior Living Center	30
Total Projected Parking Need	509

Total	Approximate Parking Need	Parking	Percentage
Without On-Street	509	493	103.25%
With On-Street	509	531	95.86%

Figure 10: Proposed Parking Lot Conditions with On-Street Parking

Ver: 18.0 Property: 8000 on Mar 11, 2019 - 1:13pm JorgensenAssociates.com\jorgensen\8000\8000.dwg



- PRELIMINARY -
SUBJECT TO CORRECTION
AND APPROVAL

0 60 120
SCALE: 1" = 120'



PROJECT TITLE:
PARKING STUDY
SAINT JOHNS MEDICAL CENTER
625 E BROADWAY
JACKSON, WY 83001

SHEET TITLE:
FIGURE #1: PARKING LOT LEGEND

DRAFTED BY:	JK
REVIEWED BY:	RA
PLAN VERSION	DATE
VERSION 2	3/11/2019

PROJECT NUMBER
18056.13
SHEET
1

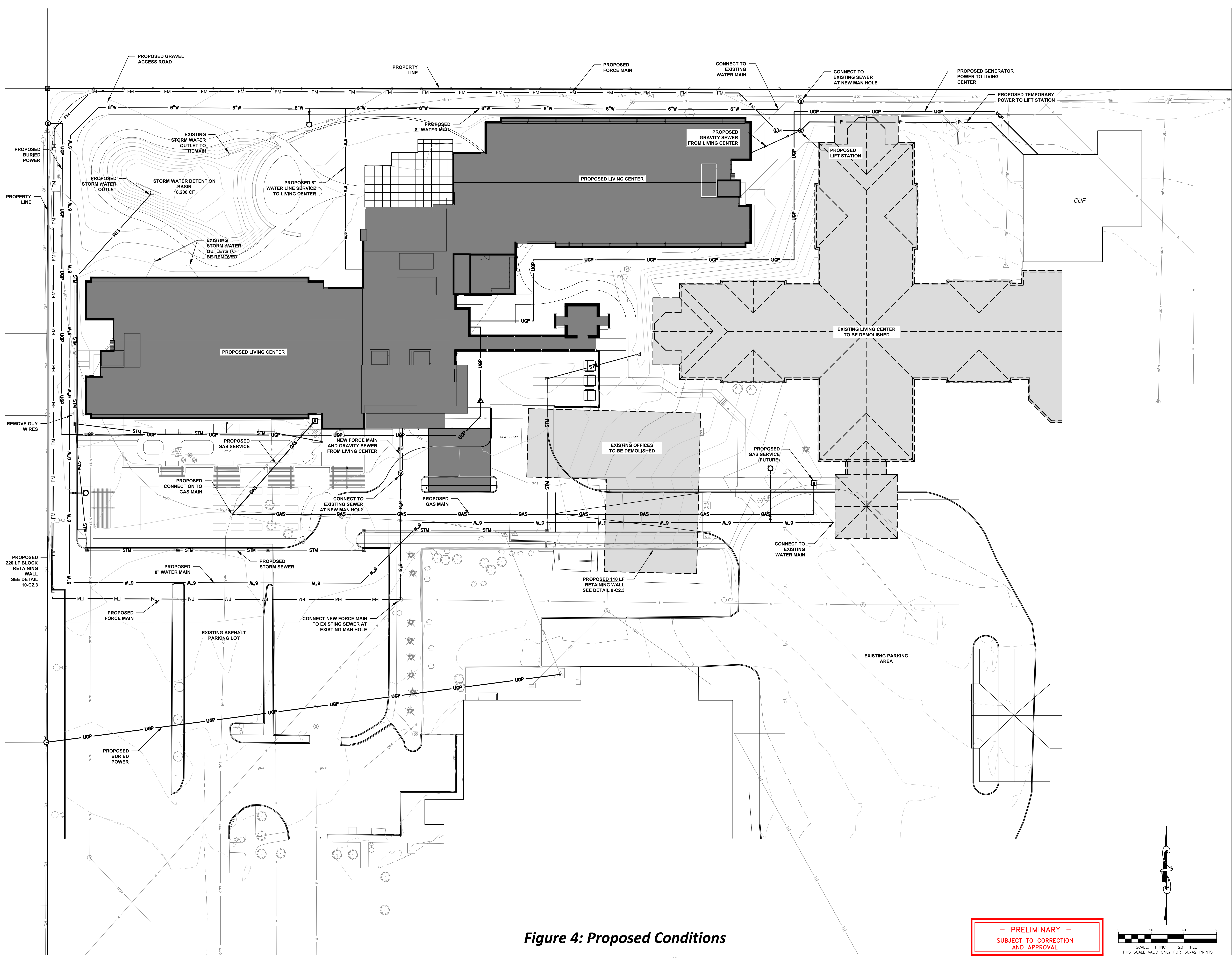
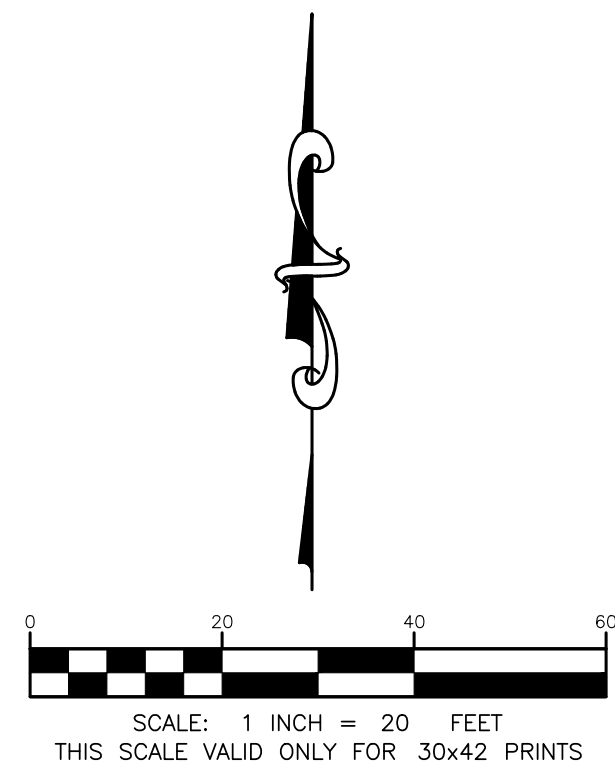


Figure 4: Proposed Conditions

— PRELIMINARY —
SUBJECT TO CORRECTION
AND APPROVAL



St. John's Senior
Living Center

625 E Broadway Ave
Jackson, WY 83001
00-000

St. John's Medical Center
625 E Broadway Ave
Jackson, WY 83001
Telephone: 307-413-5585
E-mail: JJohnson@stjohnshospital.org

Architect
AndersonMasonDale Architects, P.C.
3198 Speer Boulevard
Denver, CO 80211
Telephone: 303-294-9448
FAX: 303-294-0762
E-mail: JGraham@amdarchitects.com

Senior Living Specialist
William Brummett Architects
1110 Corona Street #323
Denver, Colorado 80218
Telephone: 720-570-2302
E-mail: Wba@brummettarchitects.com

General Contractor
GE Johnson Construction Company
1110 Maple Way, Suite E
Jackson, WY 83001
Telephone: (307) 734-2605
E-mail: FascianoA@GEJohnson.com

Structural Engineer
KL&A Engineers & Builders
150 S. Main Street
Buffalo, WY 82204
Telephone: (307) 621-7011
E-mail: Jhall@kl&a.com

Mechanical, Electrical
Plumbing Engineer
Cator, Ruma & Associates, Co.
420 W Lincoln way
Cheyenne, WY 82001
Telephone: (307) 274-3830
(303) 232-6200
E-mail: BWinter@catoruma.com

Civil Engineer
Jorgensen
PO Box 9550 - 1315 HWY 89 S., Suite 201
Jackson, WY 83002
Telephone: (307) 733-5150
E-mail: Rarnijo@jorgensenassociates.com

Landscape Architect
LimeGreen Design
900 E. Louisiana Ave., Suite 289,
Denver, CO 80210
Telephone: (303) 733-7558
E-mail: Evans@lgdnc.com

Food Facility Design
Jedrzewski Designs
1537 East Yale Avenue
Salt Lake City, Utah 84105
Telephone: (801) 585-2147
E-mail: Rici@JedrzewskiDesigns.com

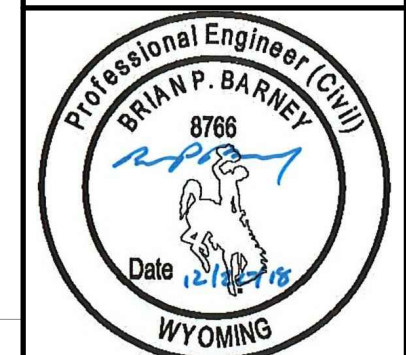
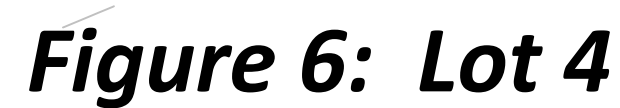
Code Consultant
Advanced Consulting Engineers, Inc.
3900 S. Wadsworth Blvd., Suite 595
Lakewood, CO 80235
Telephone: (720) 981-4150
E-mail: Masoud@acode.com

Issue	Date
50% DD	09 NOV 2018
100% DD	07 DEC 2018

Project Number:	18012
Drawn By:	PY
Reviewed By:	BB
Approved By:	BB

PROPOSED CONDITIONS

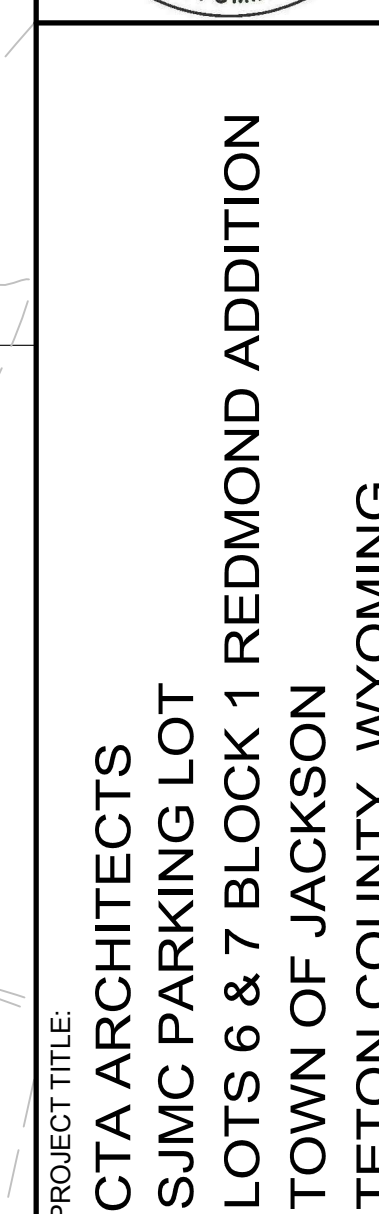
C1.3



PROJECT TITLE:
CTA ARCHITECTS
SJMC PARKING LOT
LOT 4 BLOCK 1 REDMOND ADDITION
TOWN OF JACKSON
TETON COUNTY, WYOMING

SHEET TITLE:
SITE GRADING PLAN

DRAFTED BY:		PY
REVIEWED BY:		BB
PLAN VERSION		DATE
GEC		12/20/2018
PROJECT NUMBER		
18056		
SHEET		
C2.1		

[illegible]

SHEET TITLE:
SITE GRADING PLAN

DRAFTED BY:	PY
REVIEWED BY:	BB
PLAN VERSION	DATE
DD SET	06/18/2
GEC	7/13/2

PROJECT NUMBER
18056
SHEET
C2.1

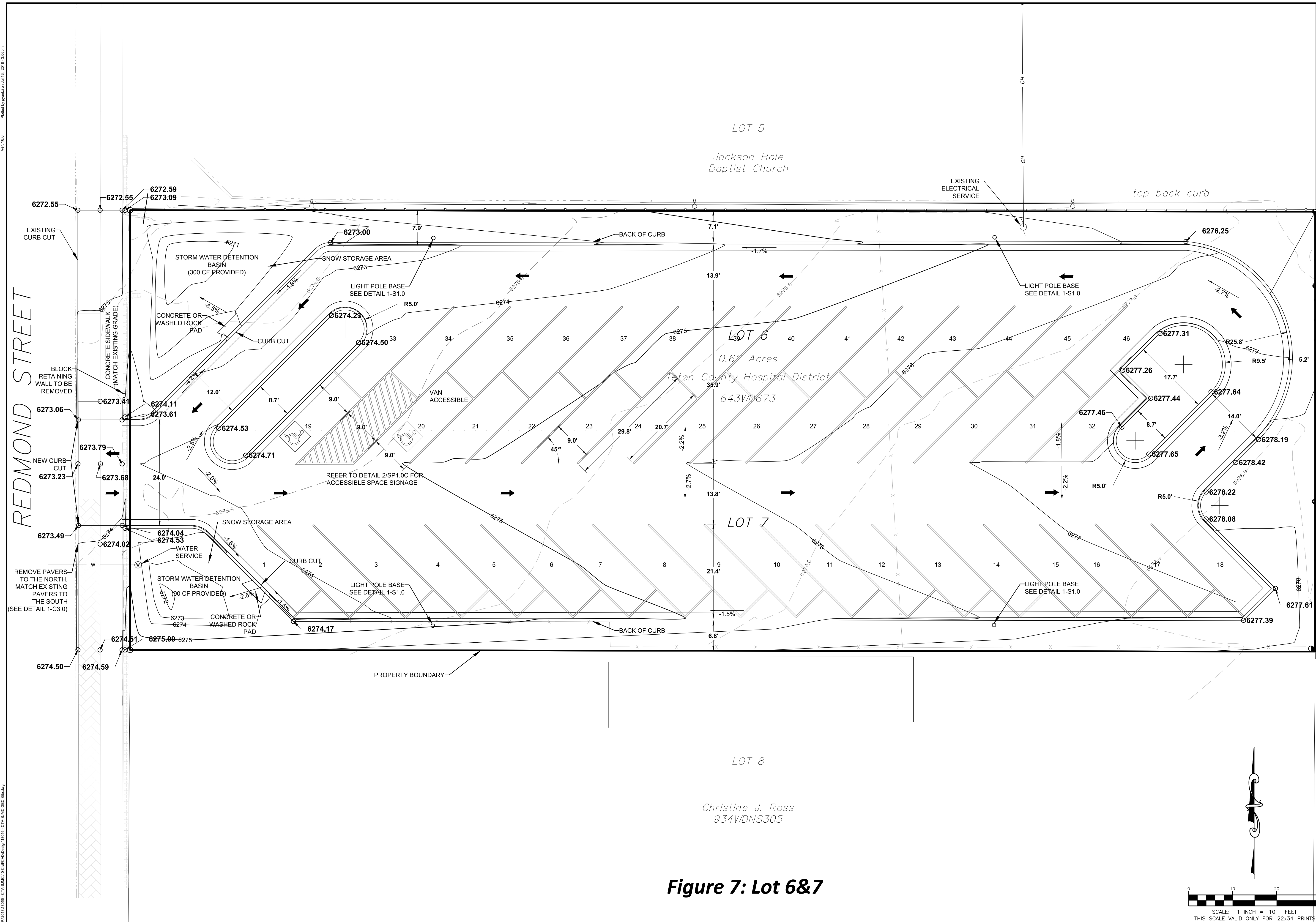


Figure 7: Lot 6&7

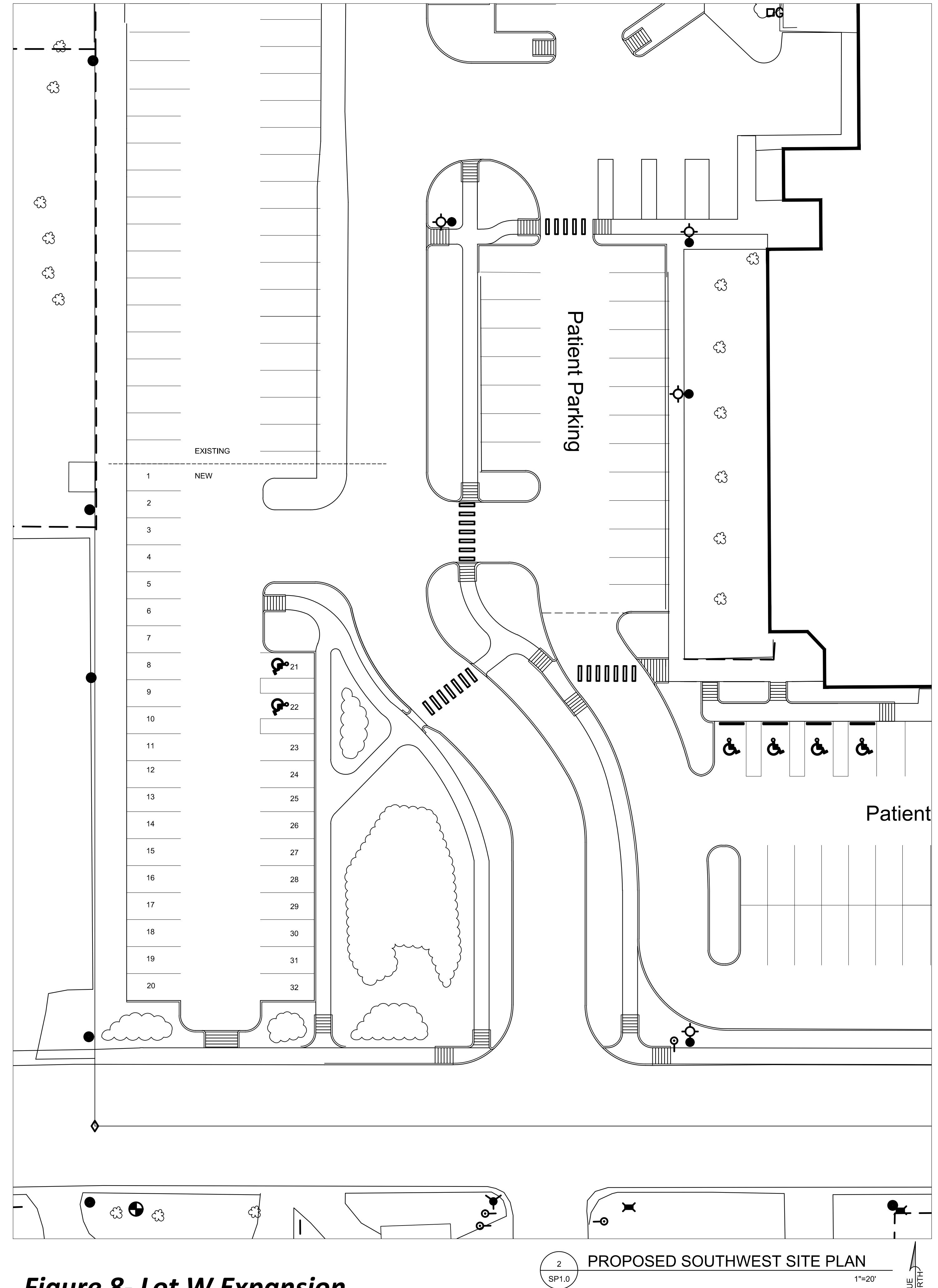
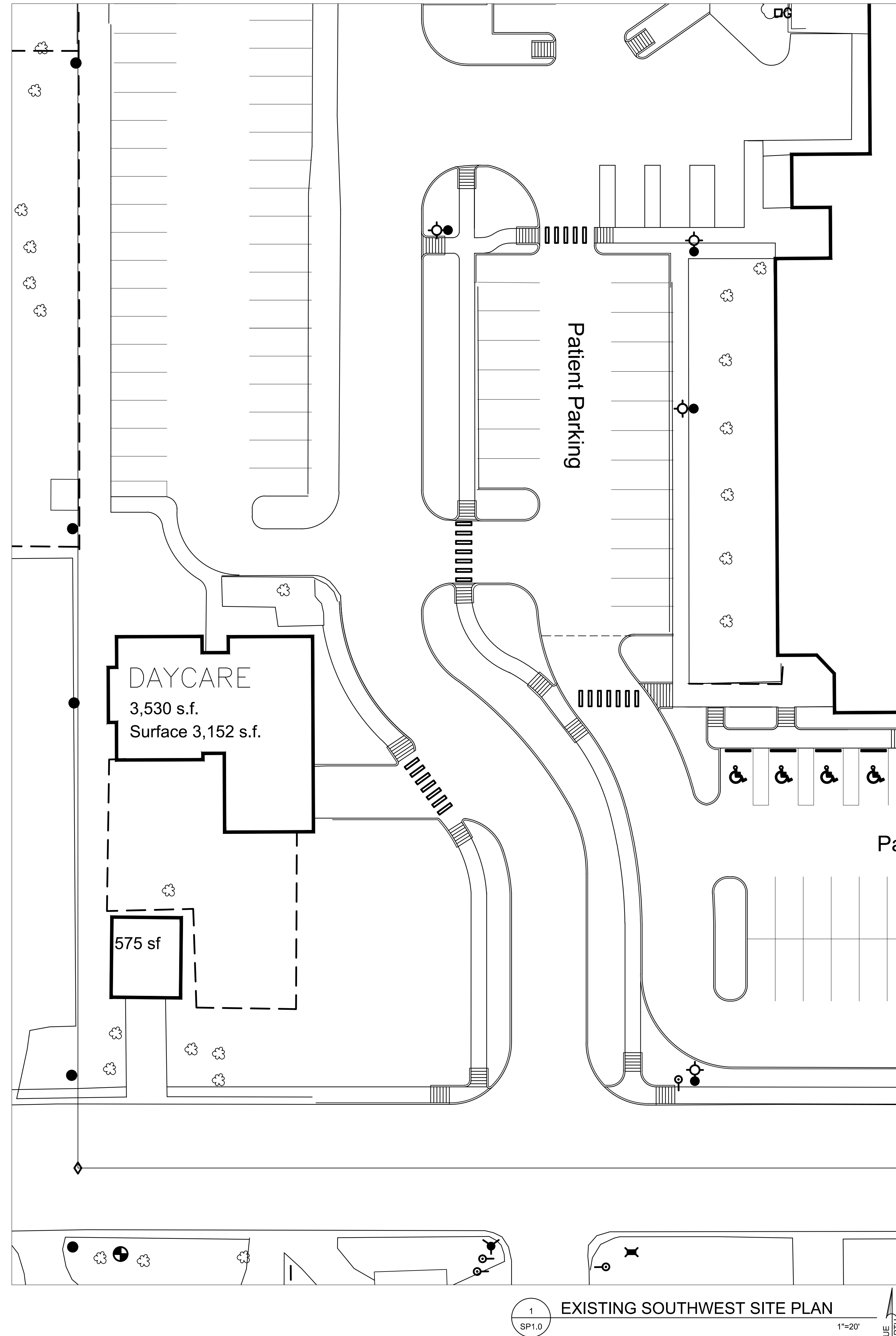


Figure 8- Lot W Expansion



TOWN OF JACKSON PLANNING COMMISSION AGENDA DOCUMENTATION

PREPARATION DATE: APRIL 26, 2019
MEETING DATE: MAY 1, 2019

SUBMITTING DEPARTMENT: PLANNING
DEPARTMENT DIRECTOR: TYLER SINCLAIR
PRESENTER: BRENDAN CONBOY

SUBJECT: **ITEM P19-041:** REQUEST FOR APPROVAL OF A CONDITIONAL USE PERMIT FOR A ROOF MOUNTED WIRELESS COMMUNICATIONS FACILITY AT THE TOWN PARKING GARAGE LOCATED AT 160 SOUTH MILLWARD STREET.

APPLICANT/OWNER: TAMARA SHIVELEY, SHIVELEY AND ASSOCIATES, FOR AT&T

REQUESTED ACTION

The applicant is requesting approval of a Conditional Use Permit to collocate a stealth wireless communications facility in an existing stealth facility on the southeast corner of the roof and to place associated equipment within the Town Parking Garage at 160 South Millward Street.

APPLICABLE REGULATIONS

Section 4.2.1 Public/Semi-Public – Town (P/SP-ToJ)
Section 6.1.10.D Wireless Communications Facilities
Section 8.4.2 Conditional Use Permit (CUP)

LOCATION

The subject property is addressed as 160 South Millward Street and legally described as LOTS 7, 8, 9, 10 WORT-2 (PARKING GARAGE). Aerial photos and a zoning map are shown on the following page showing the general location of the proposed site:



BACKGROUND

The subject parcel is 0.69 acres (30,000 SF) and located in the Public/Semi-Public (P/SP-ToJ) zone. The parcel is bordered by the Downtown Core (DC) zoned properties to the north, and Commercial Residential – 1 (CR-1) zoned properties to the east, west, and south.

On January 4, 2017, the Jackson Town Council adopted amendments in the Land Development Regulations (LDRs) to modify the requirements for wireless communications facilities. The amendments were necessitated by changes in federal law that limited and defined the authority of local governments to regulate the permitting of wireless communications facilities. Through the amendments the Town set up two types of permits for all new proposed wireless facilities: 1) a Basic Use Permit for any facility that was an expansion of an existing approved wireless facility provided that it is not a “substantial change” over current conditions; and 2) a Conditional Use Permit for any proposed facility that is a new facility at a new location. For the purposes of this application, a CUP is required as it would be an expansion of an existing wireless communications facility outside of the lease area as approved under P17-071 and is therefore a substantial change.

Wireless facilities are allowed only in the Public/Semi Public (P/SP); Business Park (BP), Park and Open Space (P), and Planned Resort (PR) zones. This application is for a parcel in the Public/Semi-Public zone. The practical effect of allowing wireless facilities in these limited zones is that the Town government has taken on the responsibility of needing to approve a certain number of these facilities in order to provide the public the level of wireless service required by federal law.

On June 19, 2017, Town Council approved Conditional Use Permit P17-071 for a Wireless Facility for Verizon Wireless at the Town Parking Garage on top of the elevator tower at the southeast corner of the structure. The facility which is currently in operation anticipated the collocation of at least one additional wireless provider at the facility. However, AT&T determined that the lease area for associated equipment provided by Verizon on the fourth floor of the garage is insufficient to accommodate AT&T’s equipment. AT&T has therefore submitted an application for an additional CUP to create a new equipment lease area located on the third floor in the existing elevator lobby area and will collocate antennae in the existing rooftop facility in the vacant space originally intended for collocation on the rooftop.

PROJECT DESCRIPTION

The applicant is requesting a Conditional Use Permit to collocate a stealth wireless communications facility consisting of three sectors of antennas within the existing stealth wireless enclosure on the roof of the southeastern corner of the Town Parking Garage. The existing stealth structure has already been approved and reviewed by Town Council and the DRC and consists of fiberglass radio-frequency transparent material which conceals roof-top antennae. In addition, the applicant proposes partitioning off a 6’4” x 10’ lease area enclosure in the third floor elevator lobby area within the parking garage to locate associated equipment for the wireless facility as well as installing HVAC units measuring 37.1” x 44.5” x 17.1” in the pre-cast web in the ceiling of the third floor parking garage above the drive aisle (see Fig. 3 and 4 below). The location of the HVAC units was chosen by the Public Works Department.

The primary purpose of the project is provide better 4G-LTE capacity in the downtown area of Jackson, especially during summer months when existing capacity is strained, and to provide FirstNet, a dedicated communication network for first responders. AT&T has a current wireless facility located on the roof of a structure at 50 E Broadway but which is too small to accommodate additional antennae. Therefore AT&T has sought an alternate location to maintain service in this area and the facility at the Town’s parking garage meets this need.

Typically, an application to collocate a new wireless facility at an existing wireless facility would only require a Basic Use Permit and would be handled administratively. However as noted previously, the space provided on site by Verizon for additional carriers’ equipment was deemed insufficient by AT&T for their equipment space needs. Therefore, AT&T is requesting through a Conditional Use Permit a new lease area by partitioning off a 6’4” x 10’ space on the third floor of the parking garage in the elevator lobby area, essentially doing the same thing that Verizon did on the 4th floor. The partitioned space will also contain an additional 6’4” x 8’2” space for an additional third carrier to collocate on site. The future carrier area previously approved for Verizon as part of P17-071 together with the additional equipment space created by AT&T for additional carriers as

part of this application will provide sufficient equipment area for a third carrier to apply for colocation in the future through the BUP process.



Fig.1 The existing stealth enclosure as approved by the DRC and Town Council for item P17-071.

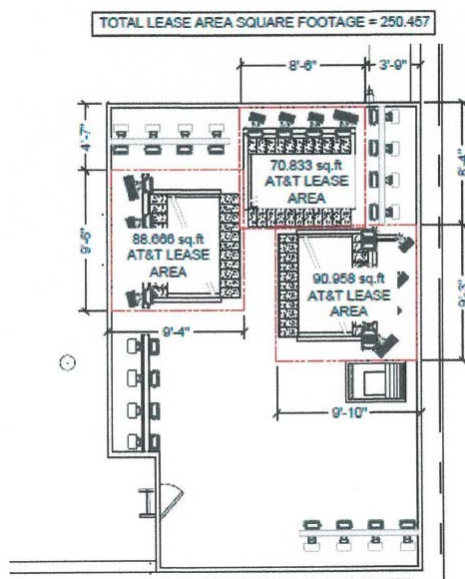


Fig 2. Location of AT&T antenna within existing stealth structure.

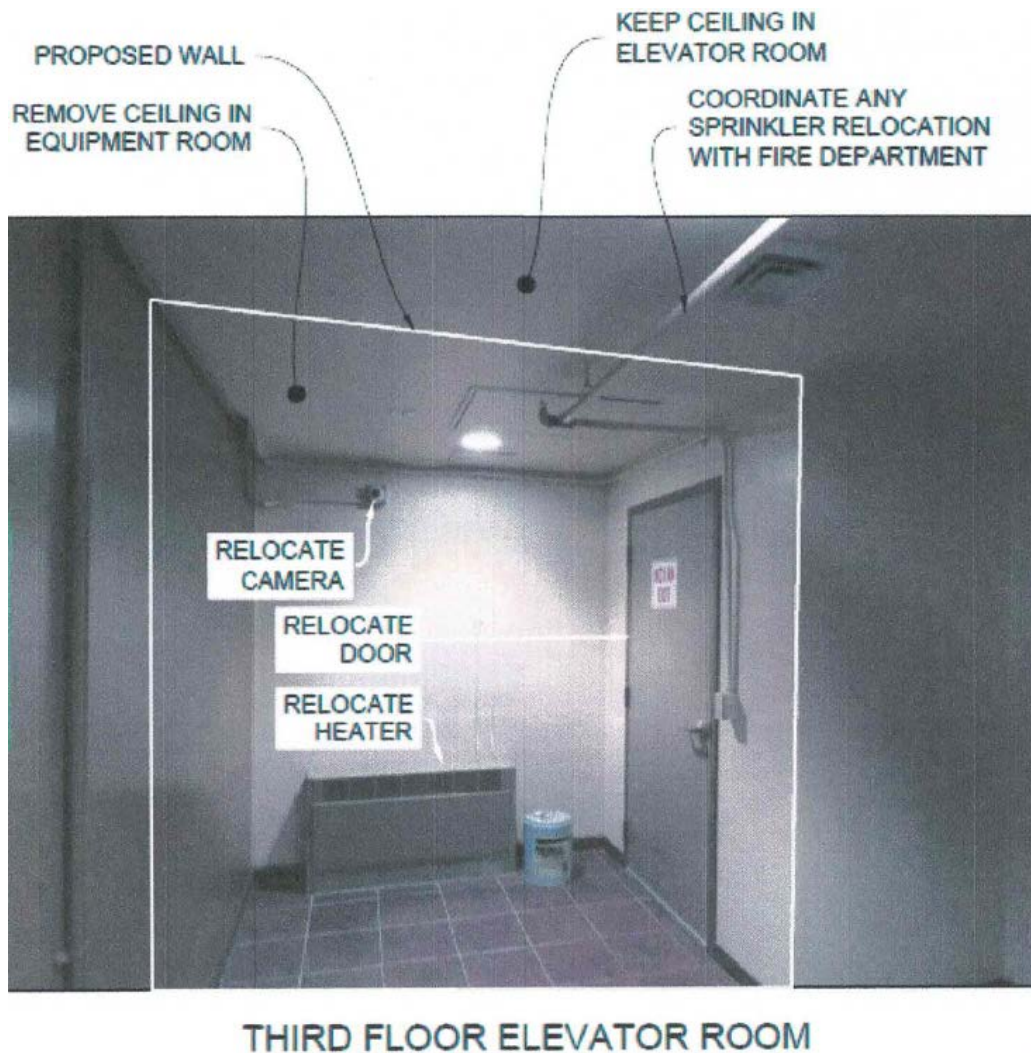


Fig 3. Proposed location for AT&T's electronic equipment



Figure 4: Proposed location for AT&T's HVAC equipment

STAFF ANALYSIS

The primary development standards that apply to CUP wireless communications facility are found in Sec. 6.1.10.D of the LDRs. Below staff has provided analysis of the primary standards.

Determination of Need (Sec. 6.1.10.D.3.f.ii.a))

The applicant is required to demonstrate that no existing facility or tower can accommodate the proposed use without causing impacts greater than the impacts caused by the proposed facility.

Complies: The applicant has provided a detailed explanation of the need for the proposed wireless facility. In summary, the applicant states that they must find an alternate location for their equipment currently located at 50 E Broadway that will support FirstNet capabilities while maintaining and coverage needs and increasing capacity for demands within this part of Jackson. The applicant maintains that the proposed site is the best available location to serve the coverage area. Existing capacity for 4G-LTE is inadequate in downtown Jackson, especially during the busy summer months when the number of users on their network increases dramatically and the use of tablets and smartphones for data is a particular problem. The applicant further states that they have looked at other locations but that this was the least invasive choice given the existing stealth facility and ability to collocate on site.

Stealth Requirement (Sec. 6.1.10.D.3.f.i)

All wireless facilities are required to be stealth. This means that the facility must be integrated into an existing structure that it is not visible or that it is designed so “that the purpose and nature of the Wireless facility is not readily apparent to the reasonable observer.” The one exception is that a non-stealth facility (e.g., whip antenna) is allowed if it can be demonstrated that it would be less visually impactful than a stealth facility.

Complies. The proposed facility meets the standards for a stealth facility. Please see the discussion below in the DRC section for more detail on this issue.

Design Review Committee (Sec. 6.1.10.D.3.d.ii)

All Wireless Communications Facility – Major uses shall be subject to review by the Design Review Committee (DRC) prior to submission of the Planning Commission. The DRC shall review such facilities for consistency with the stealth requirements in 6.1.10.D.3.f.

Complies. The stealth facility went before the DRC on April 12, 2017 and May 10, 2017 as part of the original Verizon application for Item P17-071 and received approval for the facility as it is built today. Since AT&T is not proposing any changes to the exterior of the stealth facility they were not required to reappear before the DRC as part of this application.

Height (Sec. 6.1.10.D.3.f.ii.c)2))

The maximum height of a stand-alone tower for a Wireless Communications Facility is 30 feet, or 5’ above the existing roof line for a roof-mounted facility

Complies. Because this is a roof-mounted facility that is shown as no more than 5’ above the existing roof line of the garage, the proposed facility meets the 5’ height limit.

Collocation (Sec. 6.1.10.D.3.f.ii.l)3)

New towers shall be constructed to allow collocation of as many antenna arrays as feasible without causing interference, complying with height limits, and not defeating stealth elements.

Complies: The proposed facility is collocating at an existing stealth wireless facility. In addition the applicant is proposing to create equipment space to allow an additional wireless carrier to use the proposed stealth facility.

All major equipment would be located inside the proposed facility so there would be no significant visual impacts from the additional carriers and the stealth elements of the proposed facility would be maintained.

Noise (Sec. 6.1.10.D.3.f.ii.k))

All noise coming from a Wireless facility must comply with the standards in Sec. 6.4.3 Noise, that provides limits on allowed decibels (DBA) in different zones. The P/SP zone has a maximum noise level of 65 DBA as measured from the property line. Emergency generators are exempt from this standard.

Complies. The applicant's submittal states that there is very little noise expected from the proposed electrical equipment. Regardless, the Town reserves it right to enforce the noise limitations in the LDRs in the event that the proposed facility is proven to be in violation.

All other standards in Sec. 6.1.10.D

There are a number of additional standards in Sec. 6.1.10.D that address requirements for application submittal, landscaping, setbacks, signage, lighting, access, visibility, and security. These standard are either met as part of this application (e.g., application submittal, access, security), will be met in the future at the building permit stage (e.g., signage, lighting), or do not apply to this particular application (landscaping, setbacks, visibility). The proposed application, therefore, complies with each of these standards, as applicable to this project.

Facilities Department Review

Staff received comments from Facilities Manager, Kevin Meagher, on April 5, 2019 which raised concerns about the proposal relating to structural impacts from the proposed equipment on the roof. The comments were forwarded to the applicant who has provided revised structural plans that addressed each comment as well as a structural evaluation of the equipment room. The Facilities Manager has reviewed the revised plans and structural evaluation and has approved the revisions, stating that the applicant may proceed "as noted" (attached).

STAFF FINDINGS

Pursuant to Section 8.4.2.C (Conditional Use Permit Standards) of the Land Development Regulations, the following findings shall be made for the approval of a Conditional Use Permit.

1. ***Compatibility with Future Character.*** *The proposed Conditional Use shall be compatible with the desired future character of the area.*

Sub-area 2.3 Downtown Commercial Core: *his large, mixed use, TRANSITIONAL Subarea currently consists of a variety of retail, restaurant, office and other commercial activities, along with long-term residences and lodging in a variety of building sizes and forms. Downtown is the center of civic, cultural, economic, and social activity in the community as well as the center of the visitor experience, as a significant amount of lodging is located here. The existing character and built form is varied and inconsistent. The goal of this subarea is to create a vibrant mixed use area by accommodating a variety of uses and amenities. The subarea will be the starting point for the development of a refined Lodging Overlay boundary and future discussion of the type and size of lodging desired. A key challenge will be to provide a balance between lodging and long-term residential housing. Future structures will be predominantly mixed use, while multifamily structures will be allowed if it properly addresses the street. Commercial uses that create an active and engaging pedestrian experience will be predominantly located on the first and second floors of buildings. Examples of these uses include restaurants, bars, a variety of retail shops and commercial amusement. Furthermore, as portions of the subarea will be located within a future Downtown Retail Shopping District, uses such as office, residential and lodging will be predominantly located on upper floors. A goal of this subarea will be to create a consistent*

building size and form. In the future, a variety of two to three story buildings are desired. Buildings should be located to create an attractive street wall and take advantage of good urban design principles including massing, articulation and the provision of public space. The pedestrian realm will be of great importance in this mixed use subarea, and emphasis should be placed on adding improvements focusing on the pedestrian experience. Parking should continue to be provided predominately in public lots and on street to create a vibrant, walkable area that is oriented to the pedestrian. On-site parking should be predominantly underground or screened from view. Future redevelopment should enhance the Flat Creek corridor for recreational and ecological purposes. Buildings should front onto the creek to provide opportunities for interaction and enjoyment of this community resource.

Complies. Staff finds that the project is consistent with the above described visions for Subareas 2.3 because it will increase the level of cellular service in the heart of downtown Jackson where tourists need access to internet service to make travel plans, find businesses, and safely visit Jackson. Local businesses and residents also share the need for reliable internet service.

In addition, staff has analyzed this application for consistency with the Policy Objectives for District 2. Town Commercial Core as follows:

Common Value 1: Ecosystem Stewardship

Not applicable.

Common Value 2: Growth Management

Policy 4.1.b: Emphasize a variety of housing types, including deed-restricted housing (District 2)

Not applicable.

4.1.d: Maintain Jackson as the economic center of the region

Complies. The proposed project will provide improved cellular service to visitors, businesses, residents, and emergency services in the heart of downtown Jackson. Doing so will help to increase the vitality of downtown Jackson and maintain it as the economic center of the region.

4.2.c: Create vibrant walkable mixed use subareas

Complies. The provision of increased mobile cellular services will increase the availability of wireless services to more parts of downtown Jackson and make our outdoor spaces, such as sidewalks, more vibrant places. This will also reduce dependency on connections to private servers that are usually located inside businesses and other buildings.

4.2.d: Create a Downtown Retail Shopping District

Complies: While not part of a formal Retail Shopping District, the increased availability of cellular communications capacity will facilitate the ability of visitors (and locals) to find local businesses, book reservations, and make necessary travel plans, all of which will enhance the retail shopping environment in downtown.

4.2.f: Maintain lodging as a key component in the downtown

Not applicable.

4.4.b: Enhance Jackson gateways

Not applicable.

Policy 4.4.d: Enhance natural features in the built environment

Not applicable.

Common Value 3: Quality of Life

Policy 5.2.d: Encourage deed-restricted rental units

Not applicable.

6.2.b: Support businesses located in the community because of our lifestyle

Complies. The availability of high-quality wireless communications in a geographically remote location like Jackson will enable many residents to pursue business opportunities based on our area's many unique natural and cultural amenities.

6.2.c: Encourage local entrepreneurial opportunities

Complies. The availability of high-quality wireless communications in a geographically remote location like Jackson will enable many residents to pursue business opportunities based on our area's many unique natural and cultural amenities.

6.3.a: Ensure year-round economic viability

Complies. The proposed project will help resolve a current deficit in summer-time wireless capacity that will help make the summer season a better experience for visitors and enable them to maximize their participation in the local economy while they are here.

7.1.c: Increase the capacity for use of alternative transportation modes

Not applicable.

2. ***Use Standards.*** *The proposed Conditional Use shall comply with the use specific standards of Division 6.1.*

Complies. The proposed request complies with all the standards in Sec. 6.1.10.D, as demonstrated in the Staff Analysis above in this staff report.

3. ***Visual Impacts.*** *The design, development, and operation of the proposed Conditional Use shall minimize the visual impact of the proposed use on adjacent lands.*

Complies. Staff finds that the proposed project will have minimal visual impacts on adjacent lands due to the stealth design of the wireless facility.

4. ***Minimizes adverse environmental impacts.*** *The development and operation of the proposed Conditional Use shall minimize adverse environmental impacts.*

Complies. Staff finds that the proposed wireless facility will not have any significant adverse impacts to wildlife habitat, water or air quality, or any other environmental resources.

5. ***Minimizes adverse impacts from nuisances.*** *The development and operation of the proposed Conditional Use shall minimize adverse impacts from nuisances.*

Complies. Staff finds that the proposed wireless facility will not have any significant adverse impacts from nuisances, such as noise, light, vibration, dust, etc.

6. ***Impact on Public Facilities.*** *The proposed Conditional Use shall not have a significant adverse impact on public facilities and services, including transportation, potable water and wastewater facilities, parks, schools, police, fire, and EMT facilities.*

Complies. Staff finds that the proposal will have no significant adverse impact on public facilities, such as the operation of the parking garage.

7. ***Other Relevant Standards/LDRs.*** *The development and operation of the proposed Conditional Use shall comply with all standards imposed on it by all other applicable provisions of the LDRs and all other Town Ordinances.*

Complies. Staff finds that the proposed use, as conditioned, complies with other provisions of the LDRs and with all other Town Ordinances.

8. ***Previous Approvals.*** *The proposed Conditional Use shall be in substantial conformance with all standards or conditions of any prior applicable permits or approvals.*

Complies. The proposed Conditional Use is in conformance with item P17-071.

PUBLIC COMMENT

None.

LEGAL REVIEW

Ongoing. The Legal Department reviewed the CUP application for regulatory purposes and is in the process of finalizing the lease agreement. Staff has added a condition of approval that the lease shall be signed prior to approval of a Building Permit for the facility.

ATTACHMENTS

Applicant Submittal
Departmental Reviews
Revised Structural Plans by Applicant (including Facilities Manager Review Comments)
Structural Review of Equipment Room

RECOMMENDATIONS / CONDITIONS OF APPROVAL

The Planning Director recommends **approval** of a request for a Conditional Use Permit (CUP) P19-041 to locate a wireless communications facility within an existing stealth structure on the roof of the Town Parking Garage and associated equipment as described in the lease to be executed with the Town within the Town Parking Garage located at 160 South Millward Street, subject to the department reviews attached hereto and the following condition of approval:

1. The applicant shall sign a lease with the Town prior to approval of a Building Permit for the facility.

SUGGESTED MOTIONS

Based upon the findings as presented in the staff report and as made by the applicant for Item P19-041, I move to make findings 1-8 as set forth in Section 8.4.2.C (Conditional Use Permit Standards) of the Land Development Regulations relating to 1) Compatibility with Future Character; 2) Use Standards; 3) Visual Impacts; 4) Minimizes adverse environmental impact; 5) Minimizes adverse impacts from nuisances; 6) Impact on Public Facilities; 7) Other Relevant Standards/LDRs; and 8) Previous Approvals for a Conditional Use Permit to recommend **approval** to Town Council of locating a wireless communications facility within an existing stealth structure on the roof of the Town Parking Garage and associated equipment as described in the lease to be executed with the Town within the Town Parking Garage located at 160 South Millward Street, subject to the department reviews attached hereto and the following condition of approval:

1. The applicant shall sign a lease with the Town prior to approval of a Building Permit for the facility.

FACILITIES DEPARTMENT REDLINE COMMENTS

TRANSMITTAL MEMO

Town of Jackson

- ☒ Public Works/Engineering
- ☒ Building
- ☐ Title Company
- ☒ Town Attorney
- ☒ Police

Joint Town/County

- ☒ Parks and Recreation
- ☒ Pathways
- ☒ Joint Housing Dept

Teton County

- ☐ Planning Division

- ☐ Engineer
- ☐ Surveyor- *Nelson*
- ☐ Assessor
- ☐ Clerk and Recorder
- ☐ Road and Levee

State of Wyoming

- ☐ Teton Conservation
- ☐ WYDOT
- ☐ TC School District #1
- ☐ Game and Fish
- ☐ DEQ

Federal Agencies

- ☐ Army Corp of Engineers

Utility Providers

- ☐ Qwest
- ☐ Lower Valley Energy
- ☐ Bresnan Communications

Special Districts

- ☒ START
- ☒ Jackson Hole Fire/EMS
- ☐ Irrigation Company

Date: February 22, 2019 Item #: P19-041 Planner: Brendan Conboy Phone: 733-0440 ext. 1302 Fax: 734-3563 Email: bconboy@jacksonwy.gov Owner Town of Jackson PO Box 1687 Jackson, WY 83001 Applicant: AT&T Wireless – Tamara Shiveley 1152 W. 2400 S. Suite C West Valley City, UT 84119	REQUESTS: The applicant is submitting a request for a Conditional Use Permit for an antenna for the property located at 160 S. Millward St., legally known as Lots 7, 8, 9, 10 WORT-2. (parking garage) For questions, please call Tyler Brendan Conboy at 733-0440, x1302 or email to the address shown below. Thank you.
Please respond by: March 8, 2019 (Sufficiency) March 15, 2019 (with Comments)	

RESPONSE: For Departments not using Trak-it, please send responses via email to:
tstolte@jacksonwy.gov



PLANNING PERMIT APPLICATION
Planning & Building Department

150 E Pearl Ave. | ph: (307) 733-0440
P.O. Box 1687 | www.townofjackson.com
Jackson, WY 83001

For Office Use Only

Fees Paid _____ Date & Time Received _____
Application #s _____

Please note: Applications received after 3 PM will be processed the next business day.

PROJECT.

IDL04511 FA 14284658
Name/Description: Town of Jackson Parking Garage
Physical Address: 160 South Millward Street
Lot, Subdivision: Lots 7, 8, 9, 10 WORT-2 (Parking Garage) PIDN: _____

PROPERTY OWNER.

Name: Town of Jackson Phone: 307.733.3932
Mailing Address: PO Box 1687 Jackson, WY ZIP: 83001
E-mail: _____

APPLICANT/AGENT.

Name: AT&T Wireless - Tamara Shiveley Phone: 801.230.4871
Mailing Address: 1152 W. 2400 S. Suite C West Valley City UT ZIP: 84119
E-mail: tamaras@shiveassoc.com

DESIGNATED PRIMARY CONTACT.

____ Property Owner ☒ Applicant/Agent

TYPE OF APPLICATION. Please check all that apply; review the type of application at www.townofjackson/200/Planning

Use Permit

____ Basic Use
☒ Conditional Use
____ Special Use

Relief from the LDRs

____ Administrative Adjustment
____ Variance
____ Beneficial Use Determination
____ Appeal of an Admin. Decision

Physical Development

____ Sketch Plan
____ Development Plan
____ Design Review

Subdivision/Development Option

____ Subdivision Plat
____ Boundary Adjustment (replat)
____ Boundary Adjustment (no plat)
____ Development Option Plan

Interpretations

____ Formal Interpretation
____ Zoning Compliance Verification

Amendments to the LDRs

____ LDR Text Amendment
____ Map Amendment

Miscellaneous

____ Other: _____
____ Environmental Analysis

PRE-SUBMITTAL STEPS. To see if pre-submittal steps apply to you, go to www.townofjackson.com/200/Planning and select the relevant application type for requirements. Please submit all required pre-submittal steps with application.

Pre-application Conference #: P18-324 Environmental Analysis #: _____
Original Permit #: _____ Date of Neighborhood Meeting: _____

SUBMITTAL REQUIREMENTS. 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. Go to www.townofjackson.com/200/Planning and select the relevant application type for submittal requirements.

Have you attached the following?

- ☒ **Application Fee.** Fees are cumulative. Go to www.townofjackson.com/200/Planning and select the relevant application type for the fees.
- ☒ **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. Please see the Letter of Authorization template at www.townofjackson.com/DocumentCenter/View/102/Town-Fee-Schedule-PDF.
- ☒ **Response to Submittal Requirements.** The submittal requirements can be found on the TOJ website for the specific application. If a pre-application conference is required, the submittal requirements will be provided to applicant at the conference. The submittal requirements are at www.townofjackson.com/200/Planning under the relevant application type.

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.

Signature of Property Owner or Authorized Applicant/Agent

Tamara Shiveley

Name Printed

2.15.19
Date

site acquisition
Title

CONDITIONAL USE PERMIT APPLICATION FOR WIRELESS COMMUNICATION FACILITY

Submitted to Town of Jackson
Planning Division
February 18, 2019

1. GENERAL INFORMATION

Applicant: New Cingular Wireless, PCS LLC ("AT&T" or the "Applicant")
4393 Riverboat Road, Ste. 400
Taylorsville, UT 84123

Representative: Tamara Shiveley
tamaras@shiveassoc.com 801-230-4877

Property Owner: Town of Jackson

Site Address: 160 South Millward Ave. Jackson, WY 83001

APN:

Name of Project: Town of Jackson Parking Garage IDL04511 RELO FA 14284658

Zoning: Public/Semi-Public (PSP)

2. PROJECT DESCRIPTION

Request and Justification: AT&T is upgrading equipment all over the Jackson area and throughout the State of Wyoming in order to support the federal directive to build FirstNet capable sites. FirstNet is a dedicated communication network for first responders. After 9/11, the 9/11 Commission recommended the establishment of a single, interoperable network for public safety and FirstNet was created as a result. FirstNet's mission is to build and deploy the first-ever high-speed nationwide wireless broadband network dedicated to first responders. FirstNet helps first responders respond effectively and efficiently and stay safe while helping others during day-to-day operations and disaster response and recover and when managing large events. In order to deploy FirstNet service, wireless infrastructure is required. The proposed facility will include FirstNet antennas and broadcast FirstNet service.

In addition to the FirstNet directive, AT&T is attempting to improve the coverage and capacity in the Town of Jackson to meet the increase in demand. As you know, Jackson is a desirable vacation destination and each summer large amounts of tourists visit the area bringing with them their wireless devices. These devices require large amounts of data to transmit videos, photos, emails and downloads. This increased demand for data requires wireless carriers to upgrade wireless equipment to meet the ever changing technology.

New Cingular Wireless, PCS LLC ("AT&T") currently has a wireless communication facility located in this area on the rooftop at 50 Broadway. Based on changes to the Land Development Regulations, this site is in a zone no longer allowed for wireless communications sites. AT&T had previously expanded the equipment at this location without obtaining permitting from the Town of Jackson and therefore was deprived of its legal status to remain. AT&T needs to now relocate this site to an allowable zone.

The only allowable zone for wireless communication near this site suitable for a replacement is the Public/Semi-Public (P/SP) zone. Verizon has recently built a co-locatable site on the Town of Jackson Parking Garage. AT&T is working with Verizon to move our equipment to this location and seeking permitting from the Town of Jackson. Whereas Verizon was approved for a co-locatable wireless communication site with an equipment area for two carriers, (Verizon and one other), this co-location approval would normally be a Basic Use Process per Town of Jackson Land Development Regulations; however the area Verizon left for a second carrier in the equipment room is not suitable for AT&T's equipment given the door placement, clearances and equipment space needs. AT&T is therefore requesting through this Conditional Use Permit, and a lease with the Town of Jackson, approval for a 6'4" x 10" equipment space located in an existing storage area in the Third Floor Elevator lobby. A partition wall would be added with the metal door, heater and security camera relocated, to create an additional 6'4" x 8' 2" space to mirror the space on the fourth floor approved by Verizon, for a future carrier. The future carrier area previously approved by Verizon and the future carrier area created with AT&T's application would provide sufficient equipment area should a third carrier apply for co-location.

This relocation will meet AT&T coverage needs in this area of town. Coverage Maps are attached to this application as Exhibit 1.

Alternate Sites Considered: AT&T has identified the Verizon site on the Town of Jackson Parking Garage as the only suitable existing facility that will provide the coverage objectives being met by AT&T's current site at 50 E Broadway. AT&T believes this site will meet the Town of Jackson's desire to minimize the number of new sites by co-locating onto an existing site. In addition, the co-location will be onto a stealth site where all antennas will be behind a stealth screen that has already been approved by the Town of Jackson and the electronic equipment will be located in an existing storage room that will not be visible to the general public.

Determination of Need: As noted above, AT&T must find an alternative location for the current site at 50 E Broadway that will support FirstNet capabilities and replace the coverage and capacity demands within this section of the Town of Jackson. The proposed site at 160 Millward Street is the best available location to serve this coverage area.

3. ANALYSIS OF LAWS APPLICABLE TO THIS APPLICATION

Federal, state, and local laws apply to this application.

While the federal Telecommunications Act acknowledges a local jurisdiction's zoning authority over wireless facilities, it limits the exercise of that authority in several important ways.

- A local regulation may not prohibit, or have the effect of prohibiting, the provision of wireless services. 47 U.S.C. §332(c)(7)(A) and (B)(i)(II).
- A jurisdiction is prohibited from considering the environmental effects of radio frequency emissions (including health effects) of the WCF site if the site will operate in compliance with

federal regulations. 47 U.S.C. §332(c)(7)(B)(iv).

- A jurisdiction may not discriminate among providers of functionally equivalent services. A jurisdiction must be able to provide plausible reasons for disparate treatment of different providers' applications for similarly situated facilities. 47 U.S.C. §332(c)(7)(B)(i)(I).
- The Telecommunications Act requires local jurisdictions to act upon applications for wireless communications sites within a "reasonable" period of time. The shot clock applicable to this application is 150 days.¹

The Facility will operate in accordance with the Federal Communications Commission's Radio Frequency emissions regulations. Therefore, issues regarding environmental effects are preempted under federal law.

This application is also subject to and complies with the Town of Jackson Land Development Regulations, including Article 6, Division 6.1.10.D Wireless Communication Facilities.

4. PROPOSED DEVELOPMENT PROGRAM

Existing Condition: The existing building is used as the Town of Jackson public parking garage. Verizon has a previously approved Conditional Use Permit for a stealth wireless communication facility that has been built on the top of the Parking Garage on the elevator penthouse. This stealth façade has been constructed to appear to be an extension of the existing elevator penthouse. (See Figure 1)

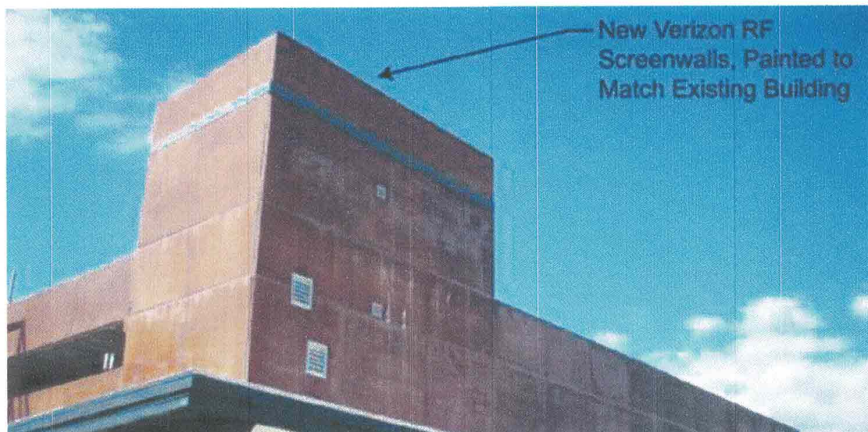
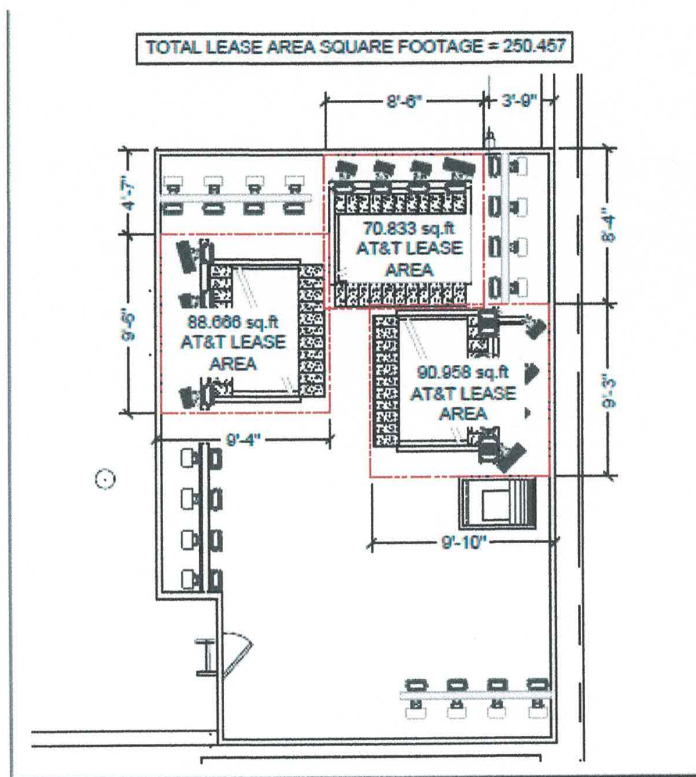


Figure 1: Photo simulation of Verizon's stealth wireless facility. AT&T is proposing to co-locate antennas behind this stealth screening.

¹The FCC rules clarify that the shot clock begins to run when the application is submitted and further state that "[a] determination of incompleteness tolls the clock only if the local government provides notice to the applicant within 30 days that the application is incomplete and while specifically delineating all missing information, and specifying the code provision, ordinance or application instruction or other publically-stated procedure requiring that the information be submitted. Following a resubmission the clock can be tolled again only if the local government notifies the applicant within 10 days that the supplemental submission did not provide the information identified in the original notice." See *FCC Report and Order, FCC 14-153. Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies. October 17, 2014.*

Proposed Use: The proposed wireless communication site will be co-located onto the existing Verizon Wireless communication site located at the Town Parking Garage at 160 Millward Ave. No changes will be made to the existing structure. AT&T will co-locate their antennas behind the stealth screen wall as depicted in Figure 2.



This 250.457sqft is not what the Town desires on our new roof and it will not work with the existing cable trays that Verizon installed. We would like AT&T to install steel posts thru the roof to the roof deck not concrete ballasted sleds as shown. Also, AT&T needs to have a structural engineer review the the existing structure to ensure what they are proposing is feasible.

All new penetrations thru the new roof will not change roof warranty. All penetrations thru structure will be reviewed and approved by Public Works and structural engineer.

AT&T will add three sectors of antennas behind this existing 5 ft. stealth screen wall. This is in compliance with Sec. 6.D.3.f.2.iii, which limits the height of any roof-mounted wireless facility to 5 ft. above the roof on which it is affixed. The "stealth" structure is constructed of fiberglass, radio frequency-transparent material which will conceal the roof-top antennas while allowing the antenna signal to transmit. Again, this stealth facility is existing and previously approved by the Town of Jackson. AT&T is proposing to co-locate here.

AT&T is requesting CUP approval by the Town of Jackson to locate its electronic equipment within a 6'4" x 10' section of the existing storage area in the elevator lobby on the third floor of the garage (See Figure 3 as well as page A-2 of the attached construction drawings). AT&T is proposing to add a partition wall and relocate the existing metal door, heater, and security camera in order to create space for an additional future carrier in this room as described above. The electronic equipment will be secured behind the locked door and not accessible to the general public. AT&T is also proposing to locate the HVAC equipment within the pre-cast web of the parking garage (see Figure 4). The HVAC units measure

37.1"x44.5"x17.1" and will fit entirely within the pre-cast web in the ceiling of the third floor of the parking garage. This location was chosen by the public works department.

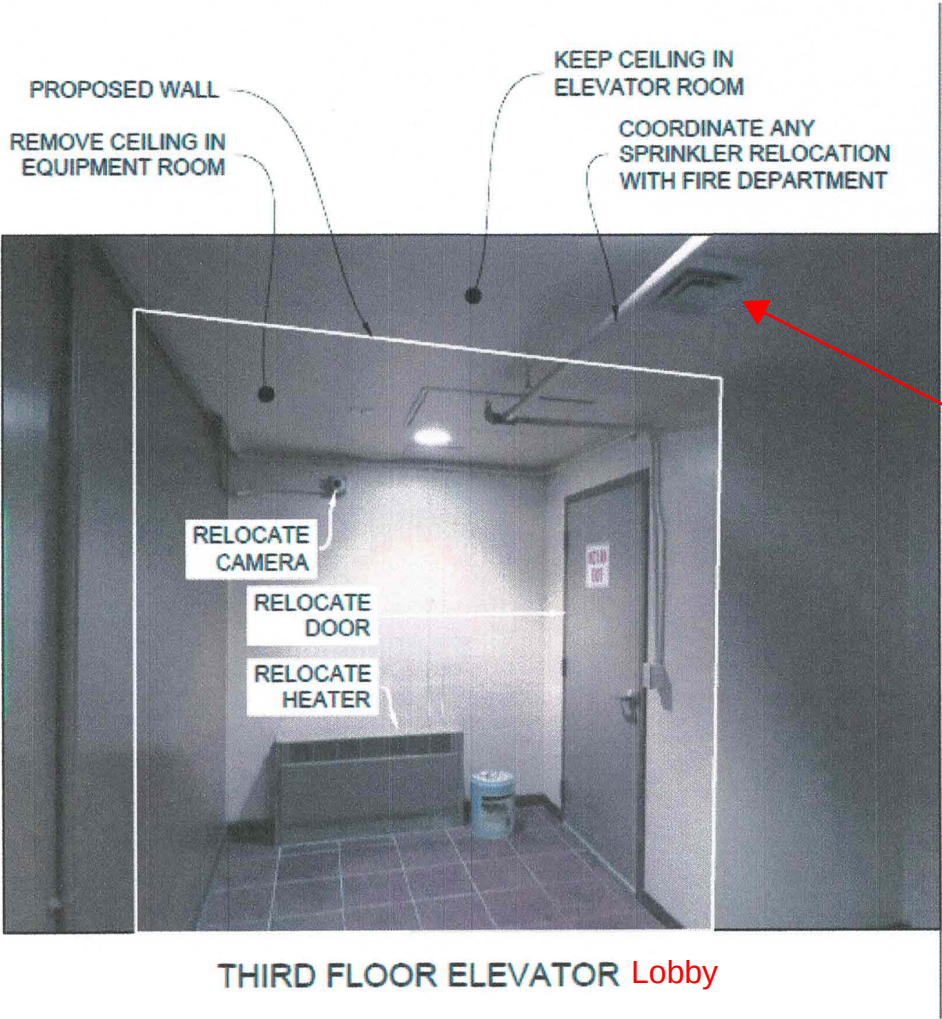


Figure 3: Proposed location for AT&T's electronic equipment.

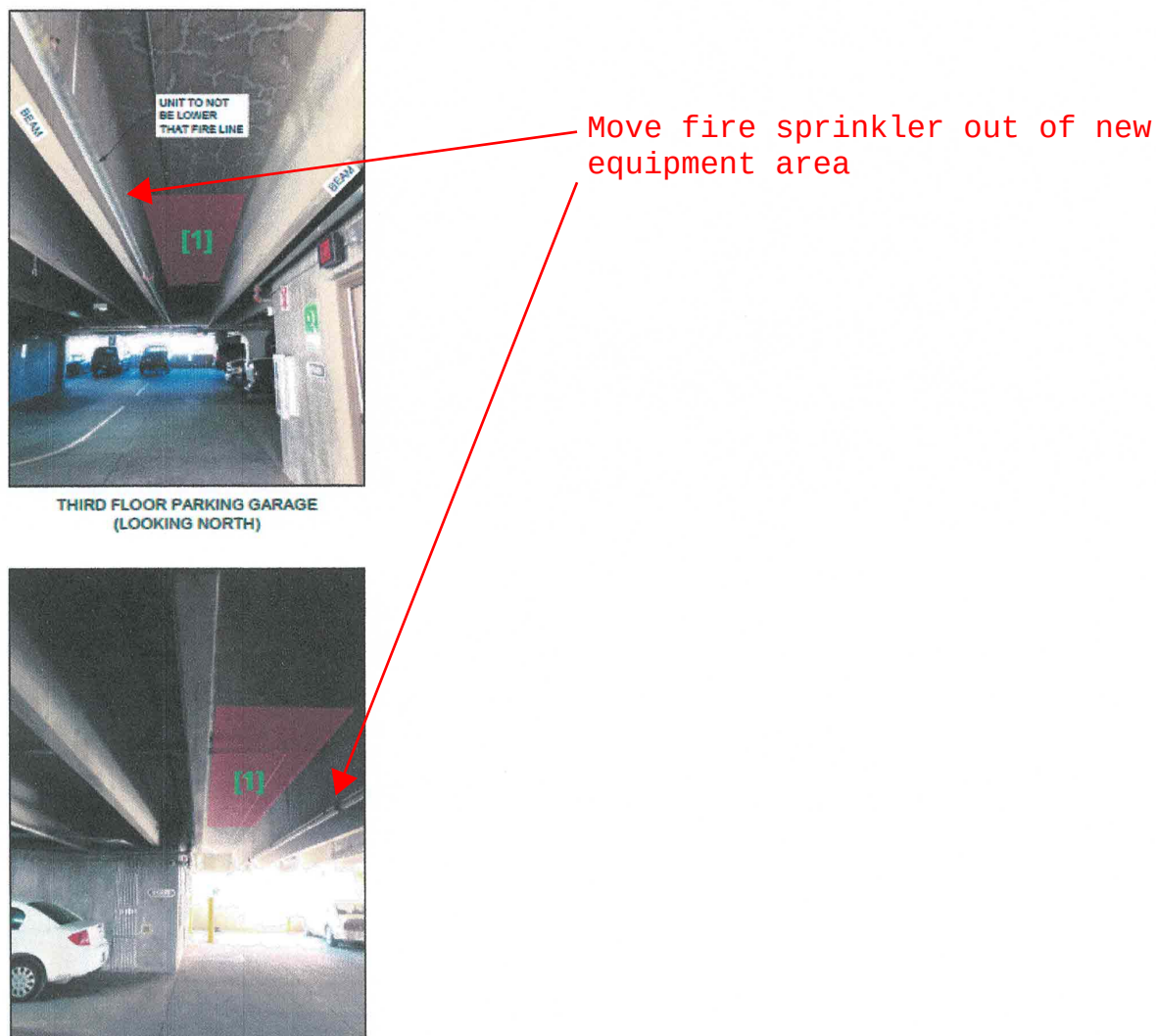


Figure 4: Proposed location for AT&T's HVAC equipment.

Height and floor area: Described above

Setbacks: There are no setbacks applicable to the roof mounted antennas as they are being proposed within the confines of the existing building and the existing stealth wireless communication site built by Verizon. Additionally there are no setbacks applicable for the proposed equipment room area as it is also being located within the walls of the existing building.

Utilities:

AT&T will be utilizing existing utilities. AT&T will swap Verizon's single meter pack with a multiple electric meter stack as required by Lower Valley Energy. AT&T will follow the same conduit route placed

by Verizon to our equipment area and antenna area and paint to match existing structure. AT&T will utilize a step down transformer (See page A-5 of construction drawings).

5. SITE AND FLOOR PLANS

The enclosed site plans meet the minimum standards established in the Administrative Manual. Sheet T-1 includes project data;

- GN-1 – GN-6 include General Notes
- SV-1 includes a professional land survey of the subject property;
- A-1 includes an overall site plan;
- A-2 includes an equipment plan for the proposed wireless facility;
- A-2.1 includes an HVAC ducting plan;
- A-3 and A-4 includes proposed antenna elevations and antenna plans;
- A-4 includes utility routing;
- R-1 includes equipment details;
- R-2 includes HVAC details
- G-1 includes grounding details;

The only changes to the floor plan will be to add a partition wall and relocate the existing metal door in the third floor elevator lobby to accommodate AT&T's equipment and provide an area for a future carrier. Layouts for the antenna and equipment area are included within the site plans.

5. POSTED NOTICE

When hearing dates are scheduled, Applicant will prepare required signs and post notice as required by Sec. 8.2.14.C.4.

6. REVIEW CRITERIA

Pursuant to the requirements outlined in the Pre-Application Conference Summary, the following items are addressed below.

GENERAL INFORMATION

Planning Permit Application has been provided.

Notarized Letter of Authorization has been provided.

Application Fees have been paid by enclosed Check No. 303 in the amount of \$2,500.00.

Review Fees Applicant acknowledges responsibility for payment of review fees necessitated by the review of the application.

Mailed Notice Fee Applicant acknowledges responsibility for payment of mailed notices in excess of 25 notices.

Digital Format Applicant has submitted all application materials in digital format on the enclosed CD.

Response to Submittal Checklist Applicant has provided responses to the comments identified in the Pre-Application Conference Summary in the text of this narrative.

Title Report per the Pre-Application Meeting, this is not required.

Narrative description of the proposed development This has been provided herein (see "Project Description," above).

Proposed Development Program This has been provided herein (see "Proposed Development Program," above).

Site Plan The enclosed site plan set is based on revisions discussed at the Pre-Application Conference

Floor Plans The only proposed changes to the floor plan of the existing building are the partition wall and relocations of door, heater and security camera as described above.

Neighborhood Meeting Summary per the Pre-Application Meeting, this is not required.

Posted Notice Addressed above

SUBMITTAL CHECKLIST: Subsection B, Physical Development:

The following items are required to be addressed:

Structure Mass and Location and Maximum Scale of Development: The existing building is used as the Town of Jackson public parking garage. Verizon has a previously approved Conditional Use Permit for a stealth wireless communication facility that has been built on the top of the Parking Garage on the elevator penthouse. This stealth screen wall has been constructed to appear to be an extension of the existing elevator penthouse. AT&T's project will not visibly change the stealth screen wall in any way. AT&T will be co-locating onto the existing structure and installing antennas behind the existing stealth screen wall. There will be no visible change to the general public.

Building Design: The existing parking garage is a contemporary design with concrete facade. A portion of the south façade is obscured by the multi-story glass and metal structure which encloses the hydroponics facility, "Vertical Harvest." The Verizon screen wall addition mimics the design of the existing elevator penthouse and is intended to appear as a logical extension of the penthouse. AT&T's co-location will not make any changes to the building design other than the partition wall addition and door, heater and camera relocations in the third floor elevator room as described above.

Site Development: No new driveways or access points are proposed. The site will be accessed from Simpson Street, in the existing driveway access to the Parking Garage. No new easements are proposed. It is possible that during construction a crane will be needed to transport building materials to the roof; however this will be determined at a pre-construction meeting with Town building officials. Construction of this site is estimated to take approximately 60 to 90 days. Staging for construction materials will be coordinated with the Town of Jackson and will not obstruct or impact the general public or Town of Jackson Operations.

Fencing: No fencing will be necessary at this project as the electronic equipment will be enclosed inside the third floor elevator room. This area will be secured with a lock. With no fencing, no setbacks associated with fencing apply.

Wildlife Friendly Fencing: Not applicable, per Pre-Application Conference Summary

Environmental Standards: Not applicable, per Pre-Application Conference Summary

SUBMITTAL CHECKLIST: Subsection D, Development Options: Not applicable, per Pre-Application Conference Summary

SUBMITTAL CHECKLIST: Subsection E, Additional Zone-Specific Standards: Not applicable, per Pre-Application Conference Summary

SUBMITTAL CHECKLIST: Article 4, Special Purpose Zones: Not applicable, per Pre-Application Conference Summary

SUBMITTAL CHECKLIST: Article 5, Physical Development Standards Applicable in all Zones:

The following items are required to be addressed:

Division 5.1, General Environmental Standards: Not applicable, per Pre-Application Conference Summary

Division 5.2, Environmental Standards Applicable in Specific Areas: Not applicable, per Pre-Application Conference Summary

Division 5.3, Scenic Standards: This site will not include exterior lighting per Div. 5.3.1 and is not in a Scenic Resources Overlay per Div. 5.3.2.

Division 5.4, Natural Hazard Protection Standards: Not applicable, per Pre-Application Conference Summary

Division 5.5, Landscaping Standards: All antennas will be located behind “stealth” screens on the existing building. The electronic equipment will be concealed inside the third floor elevator room remodeled for the use of AT&T as an electronic equipment room and space for an additional carrier’s electronic equipment. No landscaping will be removed or required as the project is within the confines of the public parking garage.

Division 5.6, Sign Standards: Not applicable, per Pre-Application Conference Summary

Division 5.7, Grading, Erosion Control and Stormwater Management: Not applicable, per Pre-Application Conference Summary

Division 5.8, Design Guidelines: No new materials are being proposed as the co-location will be behind the existing stealth screen previously approved by the Town of Jackson and installed by Verizon. The materials used for the partition wall addition will match the existing walls inside the parking garage. The existing metal door and heater will be relocated. In summary, the proposed site plans are in compliance with Design Guidelines set forth by the Town of Jackson.

SUBMITTAL CHECKLIST: Article 6, Use Standards Applicable in all Zones:

The following items are required to be addressed:

Division 6.1, Allowed Uses: The proposed site is located in the (P/SP) zone district and wireless communication sites are an allowed use.

Division 6.2, Parking and Loading Standards: The parking, loading and maintenance requirements of this section do not apply because the proposed site will be an unmanned, unoccupied space. The site will be visited only occasionally by one technician in one vehicle for a short period of time for monitoring and maintenance of the electronic equipment.

Division 6.3, Employee Housing Requirements: Not applicable, per Pre-Application Conference Summary.

Division 6.4, Operational Standards: There will be no outside storage; all equipment and materials associated with the site will be kept in the designated equipment area shown on Sheet A-2 of the site plans. The unoccupied site will generate no refuse or recycling; it will be visited only occasionally by an AT&T technician to monitor and maintain equipment. The site will not generate any significant noise and no vibration. All AT&T facilities are monitored remotely 24/7; therefore the likelihood of fire, explosive hazards or electrical disturbances is minimal. There will be no generator on site.

SUBMITTAL CHECKLIST: Article 7, Development option and Subdivision Standards Applicable in all Zones:

The following items are required to be addressed:

Division 7.1, Development Option Standards: Not applicable, per Pre-Application Conference Summary

Division 7.2, Subdivision Standards: Not applicable, per Pre-Application Conference Summary

Division 7.3, Open Space Standards: Not applicable, per Pre-Application Conference Summary

Division 7.4, Affordable Housing Standards: Per the Pre-Application Conference Summary notes, "Applicant shall provide a Housing Mitigation Plan consistent with the Housing Department Guidelines. It is likely that no requirement exists, but the paperwork must be filled out and provided with the CUP application." Enclosed with application.

Division 7.5, Development Exaction Standards: Not applicable, per Pre-Application Conference Summary

Division 7.6, Transportation Facility Standards: Not applicable, per Pre-Application Conference Summary

Division 7.7, Required Utilities: The proposed site is an unmanned, unoccupied facility which requires only electric power and fiber optic connection for operation. No water, sewer, or irrigation will be required. There will be no generator on site.

Additional Comments: Town of Jackson requested that a draft of all lease agreements with the Town shall be submitted with the Conditional Use Permit. The final leases shall be signed prior to approval of the associated building and electrical permits. AT&T provided a lease draft to the Town of Jackson which was redlined by Town of Jackson Legal Department. The lease draft is currently with AT&T legal to respond to the redlines presented by the Town of Jackson.

GENERAL STANDARDS AND DESIGN REQUIREMENTS:

The following standards are required pursuant to Sec.6.1.10.D.3.f:

- i) **Must be Stealth:** The application meets this requirement with all antennas and equipment concealed from public view. The proposed project will be a co-location behind an existing stealth screen wall. Antennas and equipment will not be visible from the street. The "stealth" addition has been previously approved by the Town of Jackson and installed by Verizon. It will not be obvious that a wireless communication site is located there, i.e., the presence, purpose, or nature of the facility is not readily apparent to a reasonable observer.
- ii) **Standards to be applied include the following:**

- a. **Determination of Need** – Please see “Alternatives Sites Considered” and “Determination of Need” sections of this report.
- b. **Concealment Element** – The proposed project uses an existing stealth screen wall co-location opportunity with no new design elements.
- c. **Height** – The project is proposed behind an existing 5 ft. screen wall with no changes to the height.
- d. **Setbacks** – No setbacks are applicable as the proposed facility is within the confines of the existing Town of Jackson Parking Garage and Verizon wireless communications facility. No fencing will be necessary as the electronic equipment will be located inside the third floor elevator room.
- e. **Other conditions** – The proposed facility is existing and will be maintained by Verizon per their CUP approval to be visually compatible with adjoining terrain and structures. The proposed site will not be used for the storage of excess equipment and there will be no outdoor storage. All equipment associated with the site will be contained in the designated equipment area as previously discussed.
- f. **Landscaping** – there is no landscaping required as the project is completely within the confines of the Town of Jackson Parking Garage.
- g. **Signage** – No commercial signage will be displayed at the proposed facility. Signage will be limited to that required by federal regulatory agencies.
- h. **Lighting** – No additional lighting is proposed for this facility.
- i. **Quantity limit** – There is a limit of one (1) tower per legally created parcel of property per Town of Jackson LDRs. There will be no towers on this parcel only co-location onto an existing roof mounted wireless communication facility. Co-location onto existing wireless communication sites is encouraged by the Town of Jackson.
- j. **Emergency generator** - AT&T will not have a generator on site.
- k. **Noise level** – The site will not generate any significant noise and no vibration.
- l. **Visibility** – Antennas will be completely concealed behind the existing stealth screen wall. As noted above, all electronic equipment will be concealed within the third floor elevator room. The only visible element will be the 37.1”x44.5”x17.1” HVAC units concealed between the deck beams on the third floor ceiling of the parking garage.
- m. **Notice** – The facility will be in compliance with all requirements for public hearings. When dates for the required public hearings are scheduled, Applicant will order notice signs to be posted at designated locations on the property.
- n. **Access** - No part of the facility will obstruct access or cause the existing building to fail to comply with the American Disabilities Act.
- o. **Security** – Opportunities for unauthorized access will be minimized with entrance to the electronic equipment area locked. In addition, AT&T facilities are monitored remotely 24/7, providing additional security for the site.
- p. **Building Design** – There are no proposed changes to the existing “stealth” wall structure. As noted above, it will not be obvious that a wireless communication site is located on the roof, i.e. the presence, purpose or nature of the facility is not readily apparent to a reasonable observer.

7. CONDITIONAL USE PERMIT REQUIREMENTS:

The following findings must be made prior to approval of a conditional use permit:

- **The application is compatible with the desired future character of the area:** As demonstrated in the project description and determination of need sections of this application, this wireless site is necessary to provide FirstNet capabilities and maintain user demands for coverage and capability in this area. The design of the previously approved and installed stealth screen walled wireless facility onto the existing building blends well with and does not change the character of the surrounding area.
- **The application complies with the use specific standards of Division 6.1:** Jackson Land Development Regulations allow wireless communication sites in the P/SP zone district.
- **The application minimizes adverse visual impacts:** As described throughout the application, this site was previously approved and designed to be within Town of Jackson LDRs and to replicate the exterior finishes of the existing building as well as architecturally appear to be a logical extension of the building. AT&T will only be co-locating behind the existing stealth screen wall and utilizing existing space in the storage area of the third floor elevator lobby
- **The application minimizes adverse environmental impacts:** There will be no adverse environmental impacts associated with this development. The proposed site will be unoccupied and requires only minimal electric utility service for operation. There will be no ground disturbance associated with the construction of this site.
- **The application minimizes adverse impacts from nuisances:** The proposed site will not generate any significant noise, no dust, odor or other impacts that could be considered a nuisance.
- **The application minimizes adverse effects on public facilities:** There will be minimal impact on public facilities. This site requires only minimal electrical service. The site will be unoccupied and requires no water, sewer, trash collection or other public services. The site will generate no traffic; it will be visited only occasionally by a sole technician to monitor and maintain the equipment. AT&T facilities are monitored remotely 24/7 and standard operating procedures minimize security risks.
- **The application complies with all other relevant standards of these LDRs and all other Town Ordinances:** The proposed development will comply with all Land Development Regulations, building code requirements and other ordinances.
- **The application is in substantial conformance with all standards or conditions of any prior applicable permits or approvals:** Applicant believes the proposed plans meet or exceed all requirements of applicable permits and required approvals.

In summary, the application satisfies the criteria established for Conditional Use Permit findings.

"FCC SHOT CLOCK"

AT&T requests that the Town of Jackson issue a written decision granting AT&T's request within (150) days of the date this application is submitted pursuant to *Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7) to Ensure Timely Siting Review*, Declaratory Ruling, 24 FCC Rcd 13994, para. 46 (2009 Declaratory Ruling). If applicable, within fourteen (14) days of the date the application is submitted, AT&T requests the Town to inform AT&T in writing of the specific reasons why the application is incomplete and does not meet the submittal requirements; and in doing so, to please specifically identify the code provision, ordinance, instruction or public procedure that requires the information be submitted.

7. CONCLUSION

AT&T respectfully requests the Town of Jackson to grant conditional use permit approval for the above described project. The proposed site will be part of the FirstNet directive by the federal government as well as the more comprehensive AT&T wireless network and approval of this application will allow AT&T to meet its federally mandated obligations under the license granted by the Federal Communications Commission (FCC) pursuant to the Telecommunications Act of 1996.

LETTER OF AUTHORIZATION

Cellular Inc Network Corp dba Verizon Wireless, "Owner" whose address is: One Verizon Way, Mail Stop 4AW100 Basking Ridge New Jersey 07920

(NAME OF ALL INDIVIDUALS OR ENTITY OWNING THE PROPERTY)

Cellular Inc Network Corp dba Verizon Wireless, as the owner of property

more specifically legally described as: a portion of the building located at 160 S Milward Street Jackson WY leased from the Town of Jackson for the purpose of constructing a

Wireless Communication Facility

(If too lengthy, attach description)

HEREBY AUTHORIZES Tamara Shiveley in behalf of AT&T Wireless to obtain its own Basic Use Permit for wireless co-location 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:

Maren Crohan for Verizon Wireless 6-28-18
(SIGNATURE) (SIGNATURE OF CO-OWNER)

Title: Sr. Manager - Network Real Estate

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

STATE OF Kansas)

COUNTY OF Johnson)

)SS.

The foregoing instrument was acknowledged before me by Lisa M. Rogers this 28 day of JUNE, 2018.

WITNESS my hand and official seal.

Lisa M. Rogers
(Notary Public)

My commission expires: 2/12/2021

(Seal)





AT&T Mobility
2890 South 25th East
Idaho Falls, ID 83404
www.att.com

November 13, 2018

Whom It May Concern at the Town of Jackson, WY, Planning Department,

AT&T's proposed wireless facility at 160 South Millward, Jackson, WY 83001 (AT&T site FA Code 14284658) will comply with all Federal Communications Commission ("FCC") Radio Frequency ("RF") exposure rules.

The FCC rules set the maximum permissible exposure allowable from RF transmissions for the general population. The FCC has determined that a person may be exposed to RF emissions below those exposure limits with no harmful effects. The FCC's OET Bulletin 65 (Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields) provides guidance in determining RF exposure levels.

Additionally, the FCC has written OET Bulletin 56 (Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields), an excellent document on RF safety which can be downloaded from <http://www.fcc.gov/encyclopedia/radio-frequency-safety>

If I can be of further assistance in this matter, please do not hesitate to contact me by phone at (208)317-0011 or by email, jr129e@att.com.

Best regards,

A handwritten signature in cursive script, appearing to read "J. Shad Rydalch".

J. Shad Rydalch
AT&T Senior Specialist Radio Access Network Engineer
RF Safety for Rocky Mountain Region
2890 S 25th East, Idaho Falls, Idaho 83404
m 208.317.0011 | jr129e@att.com



AT&T Mobility
2890 South 25th East
Idaho Falls, ID 83404
www.att.com

November 13, 2018

Whom It May Concern at the Town of Jackson, WY, Planning Department,

AT&T's proposed wireless facility at 160 South Millward, Jackson, WY 83001 (AT&T site FA Code 14284658) will comply with all American National Standards Institute (ANSI) standards for electromagnetic radiation adopted by the Federal Communications Commission (FCC) for wireless telecommunications facilities.

The proposed AT&T wireless telecommunication facility will comply at all times with FCC regulations prohibiting localized interference with reception of television and radio broadcasts.

The proposed AT&T wireless telecommunication facility will not interfere with public safety frequencies servicing the town and its residents.

If I can be of further assistance in this matter, please do not hesitate to contact me by phone at (208)317-0011 or by email, jr129e@att.com.

Best regards,

J. Shad Rydalch
AT&T Senior Specialist Radio Access Network Engineer
RF Safety for Rocky Mountain Region
2890 S 25th East, Idaho Falls, Idaho 83404
m 208.317.0011 | jr129e@att.com

GENERAL DYNAMICS
Wireless Services

Contracted to  AT&T Mobility

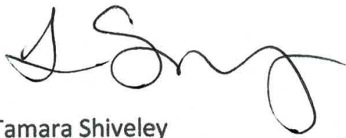
Town of Jackson Planning Department
150 E. Pearl Avenue
Jackson, WY 83001

February 18, 2019

RE: Compliance with Applicable Codes - AT&T project Town of Jackson Parking Garage IDL04511 FA 14284658 located at 160 South Millward Ave., Jackson, WY 83001

This letter is submitted in accordance with Sec. 6.1.10.D.3.d.vii of the Town of Jackson Land Development Regulations. AT&T affirms that the proposed Base Station known as "Town of Jackson Parking Garage IDL04511 FA 14284658", to be co-located on the rooftop of the existing building at 160 South Millward Avenue, will be constructed and maintained in compliance with all applicable non-discretionary structural, electrical, energy, building and safety codes.

Respectfully Submitted,



Tamara Shiveley
Real Estate Specialist
Shiveley and Associates, Inc.
Consultant to AT&T
801-230-4877
tamaras@shiveassoc.com

HOUSING MITIGATION PLAN

For CUP Application for Wireless Telecommunications Site at 160 S. Millward Ave.

AT&T is proposing to co-locate onto an existing unmanned wireless communication site at 160 S. Millward Ave. in Jackson. The antennas will be placed in the Verizon stealth addition on the existing Town of Jackson parking garage. There will be no square footage related to this project.

.000246 X 0 sq. ft. = 0

AT&T believes it does not qualify to provide housing given that there is no square footage and the site is unmanned.

Exhibit 1

Coverage Maps

Relocation of AT&T facilities to Town of Jackson Parking Garage

IDL04511

FA 14284658

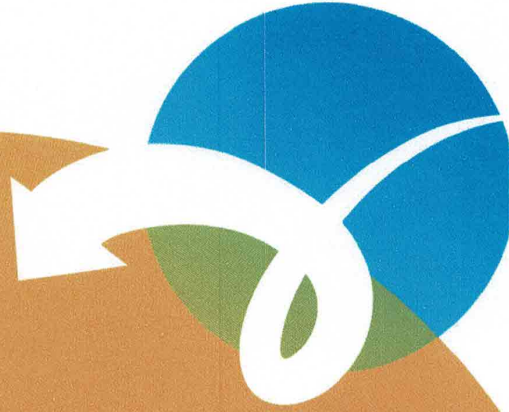
Prepared by J. Shad Rydalch

AT&T Senior Specialist Radio Access Network Engineer

11/13/2018

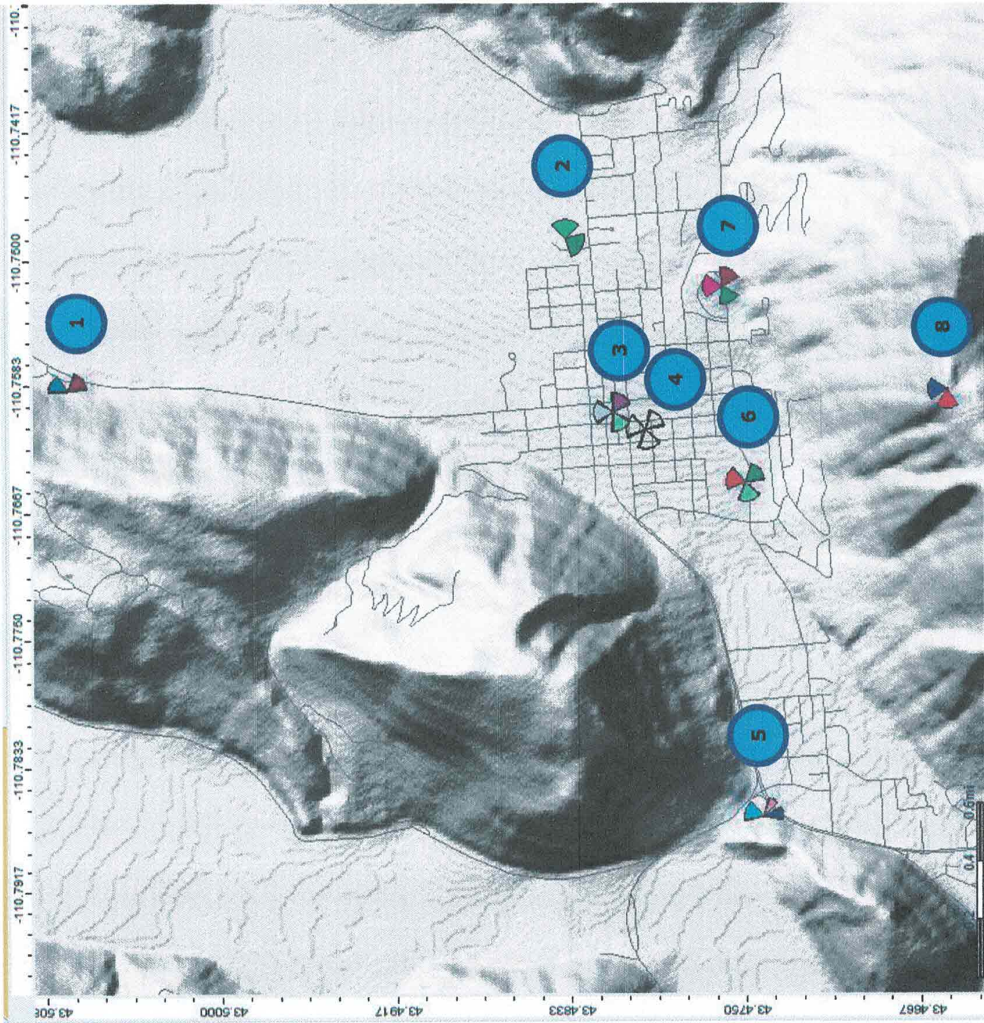


Rethink Possible



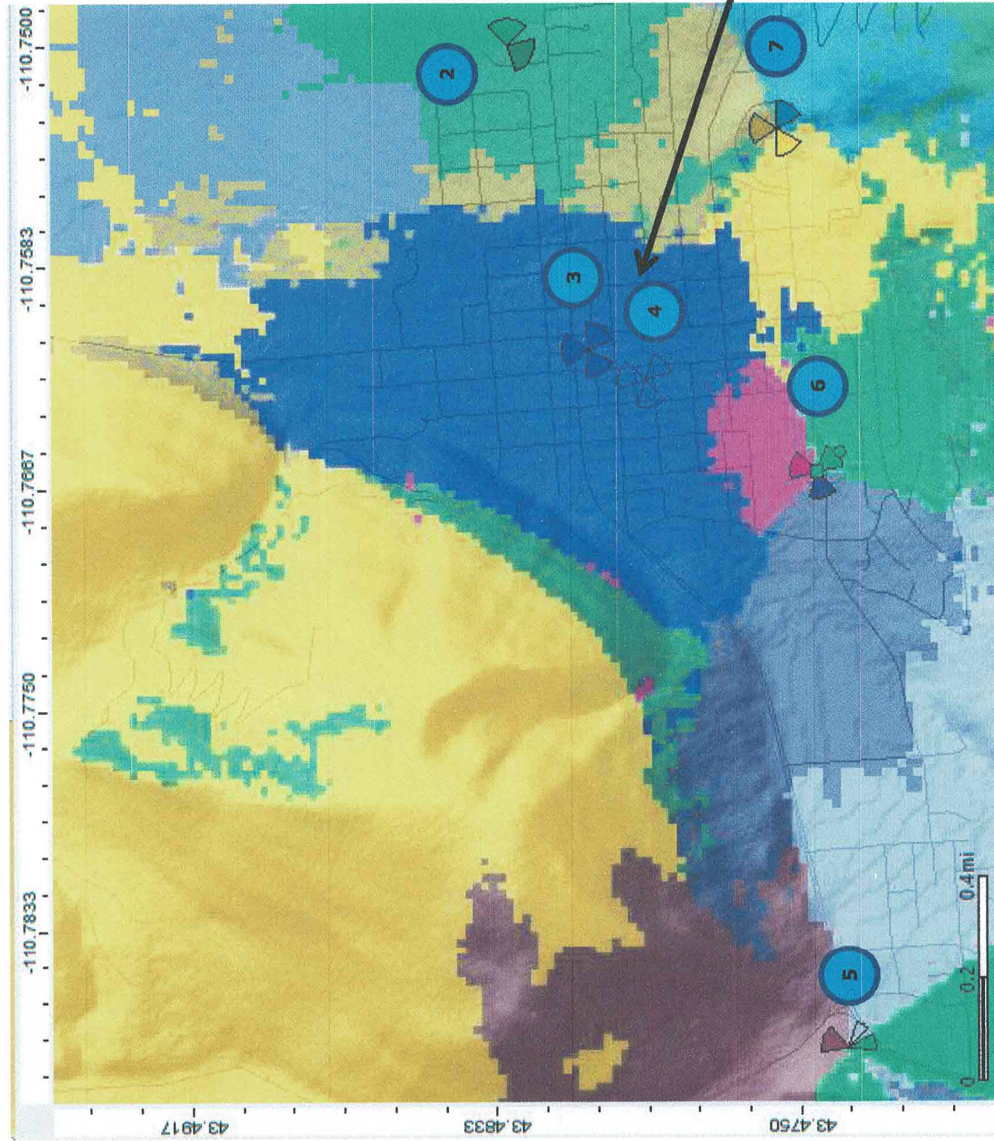
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AT&T Facility Locations



- 1) Flat Creek
- 2) Hospital
- 3) Theater
- 4) Parking Garage
- 5) Storage Units
- 6) Fairgrounds
- 7) Snow King Lodge
- 8) Snow King Mtn

Coverage offered by current sites



- 1) Flat Creek (off map)
- 2) Hospital
- 3) Theater
- 4) Parking Garage
- 5) Storage Units
- 6) Fairgrounds
- 7) Snow King Lodge
- 8) Snow King Mtn (off map)

Blue shows Coverage footprint of existing facility on theater roof top



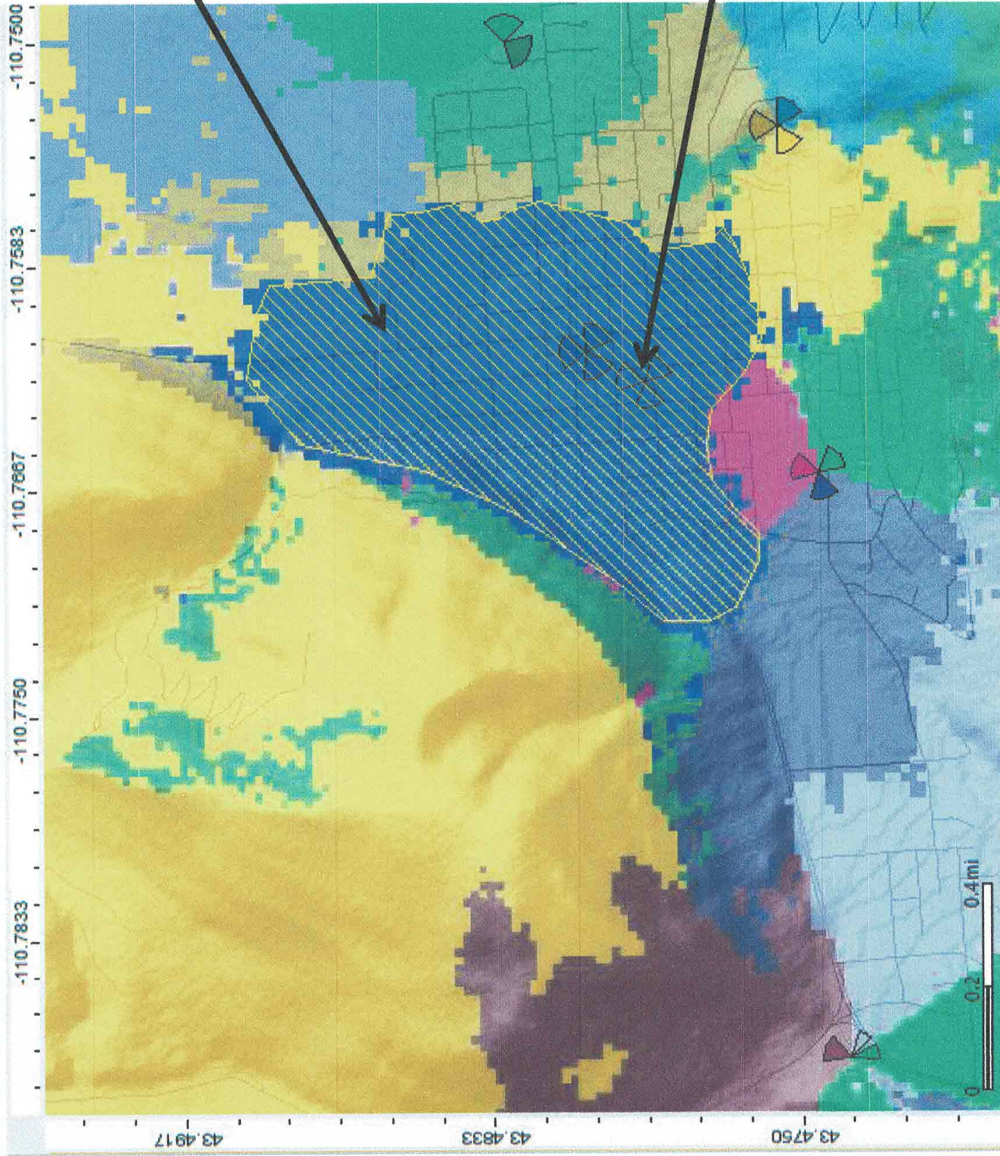
AT&T Proprietary (Internal Use Only)

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We are interested in maintaining coverage

Yellow Diagonal Lines: We are interested in maintaining coverage offered by existing facility at theater

Blue shows coverage footprint of existing facility at theater

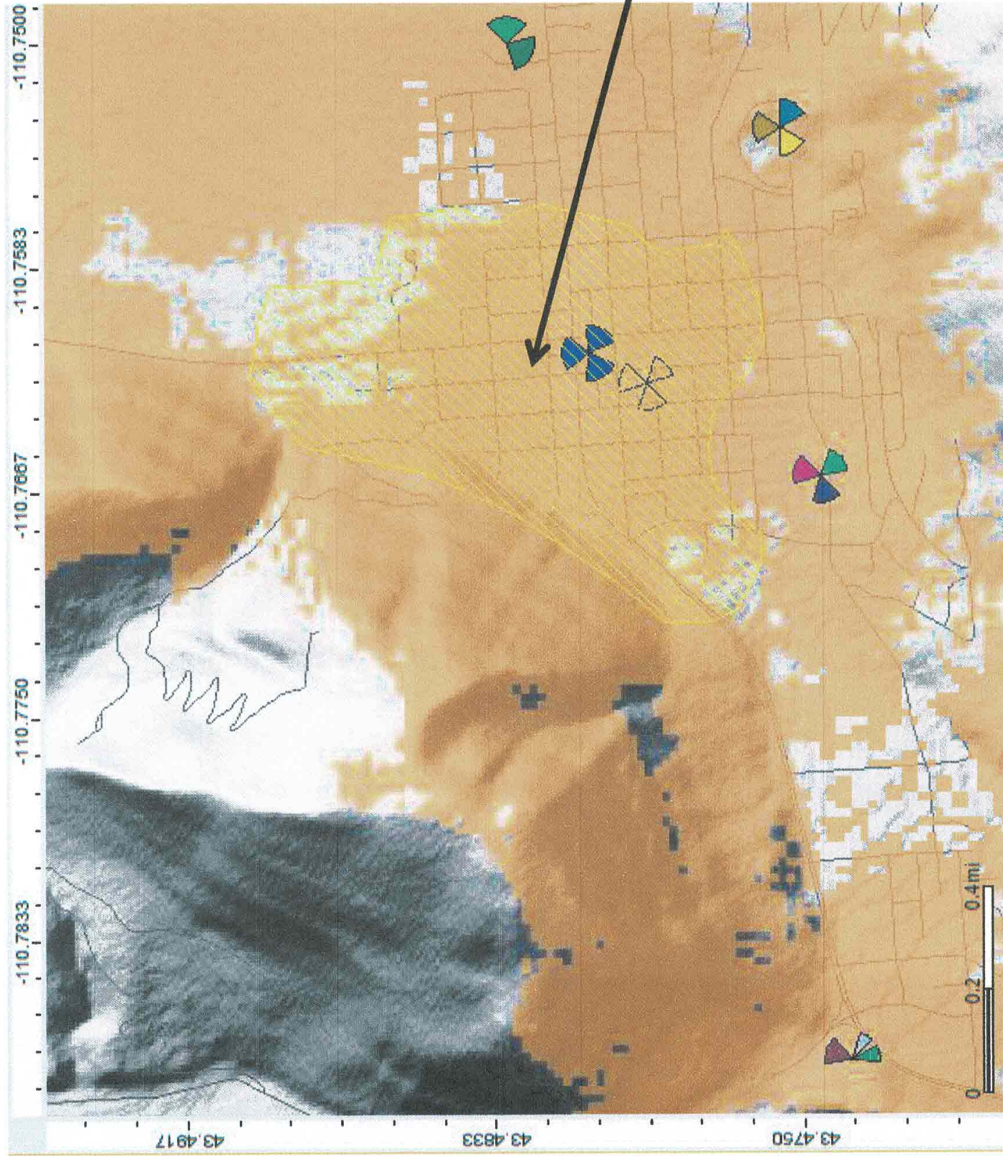


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Current good indoor coverage



Orange:
Identifies where
prediction
models show we
have acceptable
indoor coverage

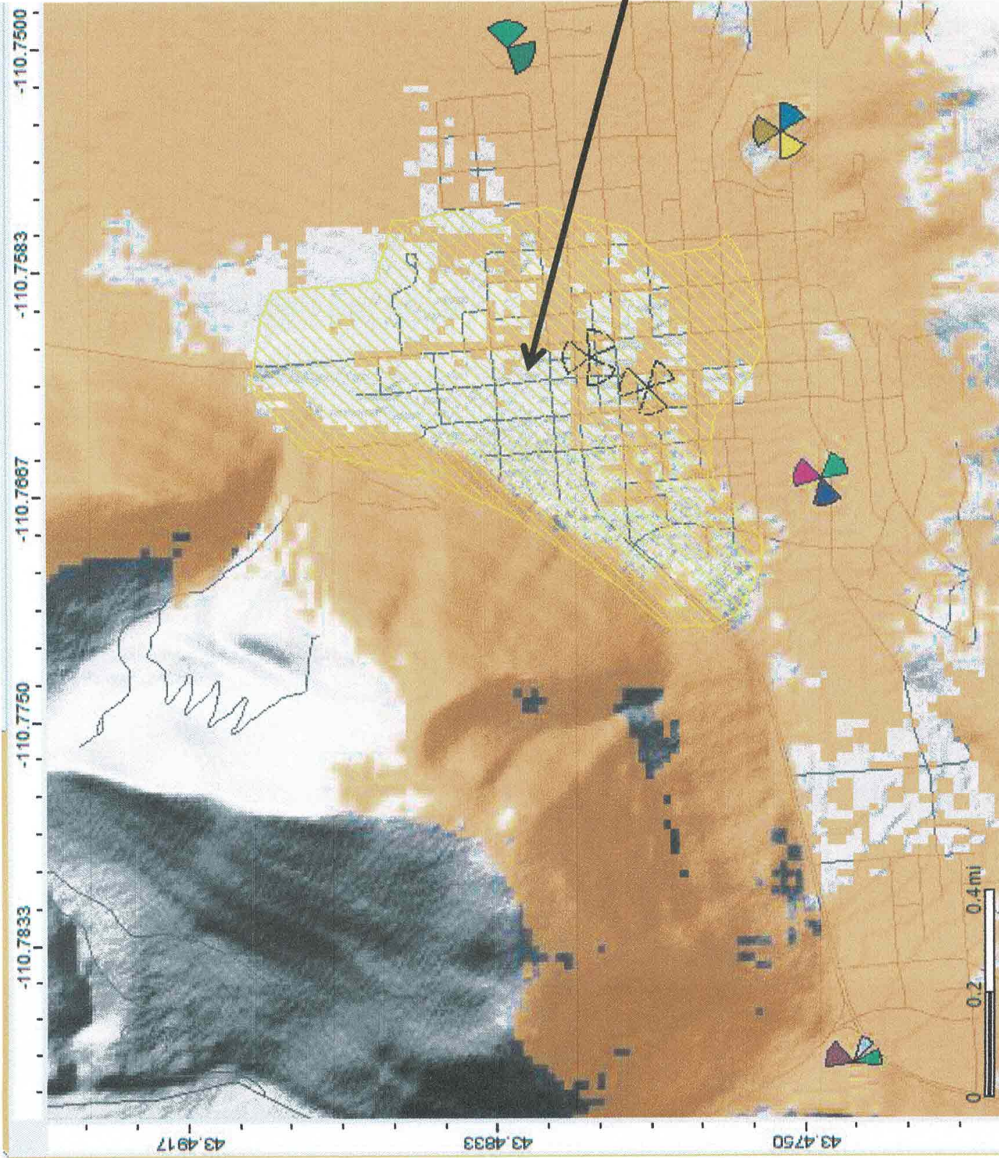
Yellow Diagonal
Lines: current
coverage footprint
offered by facility
at theater

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Without replacement facility



Orange:
Identifies where
prediction
models show we
have acceptable
indoor coverage.

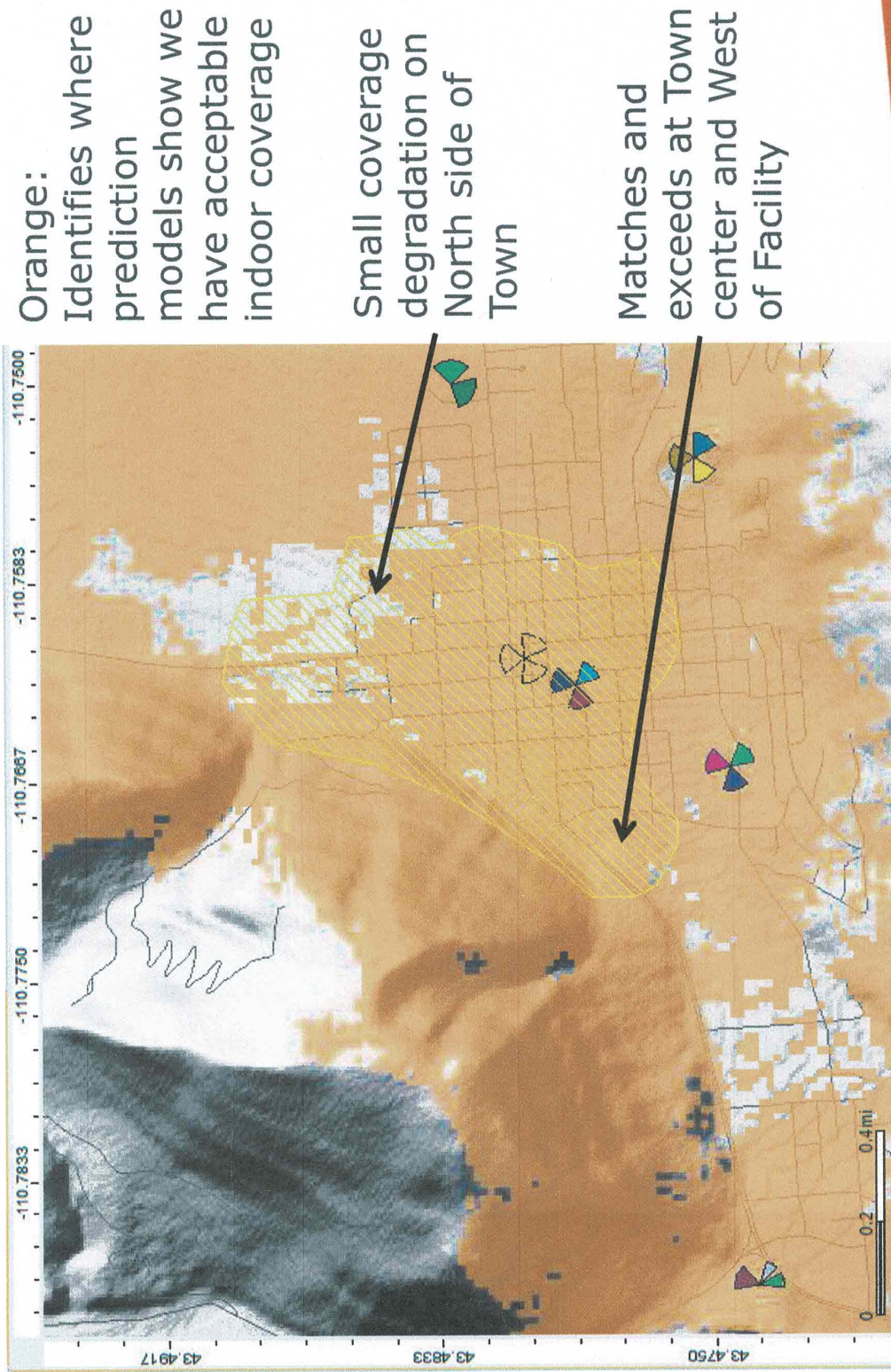
Yellow Diagonal
Lines: current
coverage footprint
offered by facility
at theater



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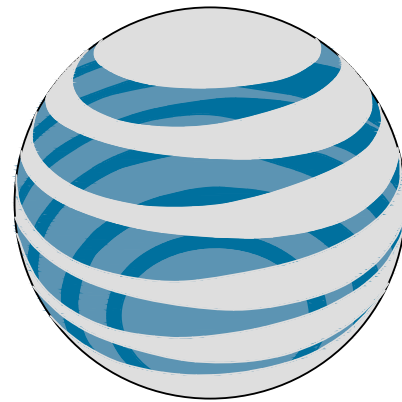
Parking Garage good indoor coverage



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at&t

IDL04511 RELO
TOWN OF JACKSON PARKING GARAGE
FA#: 14284658

56.5' ROOFTOP

PTN# 3770A0FQYD
NEW SITE BUILD

SITE INFORMATION	
SITE ADDRESS:	160 S MILLWARD STREET JACKSON, WY 83001
COUNTY:	TETON
COORDINATES:	43.4776580° / -110.7642330° (FOR NAVIGATION ONLY)
PROPERTY LANDLORD OR OWNER:	TOWN OF JACKSON
JURISDICTION:	TOWN OF JACKSON
OCCUPANCY GROUP	UNMANNED
CONSTRUCTION TYPE	II-B
POWER COMPANY:	LOWER VALLEY ENERGY
TELCO COMPANY:	CENTURY LINK
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

CONTACT INFORMATION	
APPLICANT:	AT&T 4393 RIVERBOAT ROAD, SUITE 400 TAYLORSVILLE, UTAH 84123 PHONE: 801.458.8888 CONTACT: BYRON BOSSHARDT
PROJECT MANAGER:	GENERAL DYNAMICS WIRELESS SERVICES, LLC. 1152 W. 2400 S., SUITE C SALT LAKE CITY, UT 84119 PHONE: 801.201.0566 CONTACT: ROCKY MATTISON
ARCHITECTURE & ENGINEERING:	GEOSTRUCTURAL, LLC. PO BOX 2621 BOISE, ID 83701 PHONE: 530.539.4787 CONTACT: DON GEORGE

VICINITY MAP



DRIVING DIRECTIONS

From Jackson Airport:
Turn right at the 1st cross street onto US-191 S/US-26 W/US-89 S (8.8 mi)
Turn right onto W Broadway (0.1 mi)
Turn left onto S Milward St (0.1 mi)
Enter parking garage and go to the top level
Site is in the elevator room door on right

APPROVALS	
RF MANAGER	_____
CONSTRUCTION MANAGER	_____
SITE ACQ. MANAGER	_____
PROPERTY OWNER	_____
OPERATIONS MANAGER	_____

SCOPE OF WORK

PROPOSED:

5' SCREEN WALL (BY VERIZON)

(9) SBNHH-1D65A 4.6' TALL ANTENNAS
(3) NNHH-65A-R4 4.6' TALL ANTENNAS
(3) B25 RRH4x30-4R
(3) RRH4x25-WCS-4R
(6) AIRSCALE DUAL RRH 4T4R B25/60 320W AHFIB
(3) DC/FIBER DISTRIBUTION BOXS

EQUIPMENT IN EXISTING BUILDING

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR THE SAME.

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF ALL GOVERNING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. WORK PERFORMED IN VIOLATION OF THESE CODES IS NOT ALLOWED.

FCC COMPLIANCE

RADIATION FROM THIS FACILITY WILL NOT INTERFERE WITH OPERATION OF OTHER COMMUNICATION DEVICES.

DIG LINE





SHEET INDEX	
SHEET	DESCRIPTION
T-1	TITLE SHEET
GN-1 - GN-6	GENERAL NOTES
SV-1	SITE SURVEY
A-1	SITE PLAN
A-2	EQUIPMENT PLAN
A-2.1	HVAC DUCTING PLAN
A-3	ANTENNA ELEVATIONS
A-4	ANTENNA PLANS
A-4	UTILITY ROUTING
R-1	EQUIPMENT DETAILS
R-2	HVAC DETAILS
G-1	GROUNDING DETAILS



GENERAL DYNAMICS
Information Technology



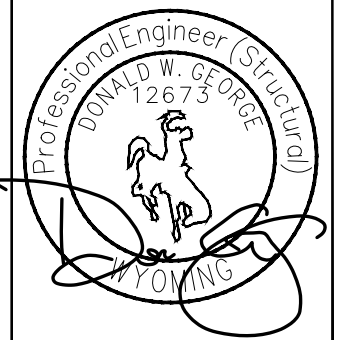
GEOSTRUCTURAL

PO BOX 2621, BOISE, ID 83701
P: 530.539.4787
E: CONTACT@GEOSTRUCTURAL.COM
WWW.GEOSTRUCTURAL.COM

REVISIONS			
REV	DATE	DESCRIPTION	INT
2	01/31/19	REVISED PER PUBLIC WORKS	GGD
1	01/22/19	REVISED PER ZONING	GGD
0	11/12/18	ISSUED FOR ZONING	GGD
B	11/06/18	EQUIPMENT TO 3rd FLOOR	GGD
A	09/19/18	ISSUED FOR REVIEW	GGD

CHECKED BY: GGD

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT NAMES IS STRICTLY PROHIBITED.



SITE INFORMATION:

TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO

NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

CONSTRUCTION NOTES:

1.

FOR THE PURPOSE OF CONSTRUCTION DRAWINGS THE FOLLOWING DEFINITIONS SHALL APPLY:

GENERAL CONTRACTOR: GENERAL DYNAMICS
SUBCONTRACTOR: ASSIGNED CONTRACTOR
2.

ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
3.

GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4.

ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
5.

ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
6.

UNLESS OTHER WISE, THE WORK SHALL INCLUDE FURNISHING, MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7.

PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO BE FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ARCHITECT/ENGINEERPRIOR TO PROCEEDING WITH WORK.
8.

THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9.

IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE SPACE FOR APPROVAL BY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
10.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS AND LOCAL JURISDICTION.
11.

GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLES.
12.

ERECTION SHALL BE DONE IN A WORK MANLIKE MANNER BY COMPETENT EXPERIENCED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
13.

SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. SUB CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
14.

WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. SUB CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEViate FROM THE DRAWING PRIOR TO THE BEGINNING CONSTRUCTION.
15.

SUBCONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO THE COMMENCEMENT OF WORK.
16.

THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTORS EXPENSE TO THE SATISFACTION OF THE OWNER.
17.

THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18.

GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND SUBCONTRACTORS TO THE SITE AND/OR BUILDING.
19.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
20.

THE GENERAL CONTRACTOR SHALL MAINTAIN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISION, ADDENDA, AND CHANGES ORDERS ON THE PREMISES AT ALL TIMES.
21.

THE GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.

22.

NO TOWN OF JACKSON OPERATED UTILITIES SHALL BE IMPACTED WITHOUT A PUBLIC RIGHT-OF-WAY PERMIT, COORDINATION AND APPROVAL BY THE TOWN OF JACKSON
23.

ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES. AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ARCHITECT/ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO, A)FALL PROTECTION, B)CONFINED SPACE, C)ELECTRICAL SAFETY, D)TRENCHING & EXCAVATION.
24.

ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ARCHITECT/ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
25.

THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OF DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
26.

SUB CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION, EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
27.

NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING, FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACE IN ANY FILL OR EMBANKMENT.
28.

THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH GRADE AND COMPACTED TO 95 PERCENT STANCE PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE, ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL, PRE-APPROVED BY THE LOCAL JURISDICTION.
29.

ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
30.

ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER THE THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
31.

SUBCONTRACTOR SHALL SUBMIT A COMPLETE SET OS AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
32.

SUBCONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
33.

THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
34.

OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
35.

NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
36.

ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPGPRS WIRELESS SITES." INCASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
37.

SUBCONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF SUBCONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
38.

SUBCONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
39.

INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OF PROCEEDING WITH CONSTRUCTION.
40.

NO WHITE STROBIC LIGHTS ARE PERMITTED. LIGHTING IF REQUIRE, WILL MEET FAA STANDARDS AND REQUIREMENTS.
41.

ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
42.

NO NOISE, SMOKE, DUST, OR VIBRATION WILL RESULT FROM THIS FACILITY. (DISREGARD THIS NOTE IF THIS SITE HAS A GENERATOR)
43.

NO ADDITIONAL PARKING TO BE PROPOSED. EXISTING ACCESS AND PARKING TO REMAIN, UNLESS NOTED OTHERWISE.
44.

NO LANDSCAPING IS PROPOSED AT THIS SITE, UNLESS NOTED OTHERWISE.

SITE WORK & DRAINAGE:

PART 1 - GENERAL

CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN IN THESE PLANS.

- 1.1 REFERENCES:

A.

DOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION-CURRENT EDITION)

B.

ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)

C.

OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION)
- 1.2 INSPECTION AND TESTING:

A.

FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY SUBCONTRACTORS INDEPENDENT TESTING LAB. THIS WORK TO BE COORDINATE BY THE SUBCONTRACTOR.

B.

ALL WORK SHALL BE INSPECTED AND RELEASED BY THE GENERAL CONTRACTOR WHO PROPER PERFORMANCE OF THE WORK AS SPECIFIED AND/OR CALLED FOR ON THE DRAWINGS. IT IS THE SUBCONTRACTOR RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS WORK INACCESSIBLE OR DIFFICULT TO INSPECT.
- 1.3 SITE MAINTENANCE AND PROTECTION:

A.

PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OR WORK UNTIL COMPLETION OF THE SUBCONTRACT.

B.

AVOID DAMAGE TO THE SITE AND TO EXISTING FACILITIES, STRUCTURES, TREES, AND SCRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACILITIES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.

C.

KEEP SITE FREE OF ALL PONDING WATER.

D.

PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT AND EPA REQUIREMENTS.

E.

PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.

F.

EXISTING UTILITIES: DO NOT INTERRUPT EXISTING SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE ENGINEER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.

G.

PROVIDE A MINIMUM 48-HOUR NOTICE TO THE ENGINEER AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.

PART 2 - PRODUCTS

- 2.1

SUITABLE BACKFILL: ASTM D2321 (CLASS I, II, II OR IVA) FREE FROM FROZEN LUMPS, REFUSE, STONES, OR ROCKS LARGER THAT 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.2

NON-POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS III, IVA ORIVB) COARSE AGGREGATE. FREE FROM FROZEN LIMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.3

POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM 52321 (CLASS IA, IB OR II) COARSE AGGREGATE FREE FROM FROZEN LUMPS, REFUSE STONES OR ROCS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL
- 2.4

SELECT STRUCTURAL FILL: GRANULAR FILL MATERIAL MEETING THE REQUIREMENTS OF ASTM E850-95. FOR USE AROUND UNDER STRUCTURES WHERE STRUCTURAL FILL MATERIAL ARE REQUIRED.
- 2.5

GRANULAR BEDDING AND TRENCH BACKFILL: WELL-GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2467 (SE OR SW-SM)
- 2.6

COARSE AGGREGATE FOR ACCESS ROAD SUBBASE COURSE SHALL CONFORM ASTM D2940.
- 2.7

UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTIC SILTS AND CLAYS (LL>45) MATERIAL CONTAINING REFUSE, FROZEN LIMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES IN ANY DIMENSION AND SOILS CLASSIFIED BY ASTM AS PT, MH, CH, OH, ML, AND DL.
- 2.8

GEOTEXTILE FABRIC: MIRAFI 500X OR APPROVED EQUAL.
- 2.9

PLASTIC MARKING TAPE: SHALL BE ACID AND ALKALI RESISTANT POLYETHYLENE FILM SPECIFICALLY MANUFACTURED FOR MARKING THE LOCATING UNDERGROUND UTILITIES 6 INCHES WIDE WITH A MINIMUM THICKNESS OF 0.004 INCHES, TAPE SHALL HAVE A MINIMUM STRENGTH OF 1500 PSI IN BOTH DIRECTIONS AND MANUFACTURED WITH INTEGRAL CONDUCTORS. FOIL BACKING OR OTHER MEANS TO PROTECT IT FROM CORROSION. TAPE COLOR SHALL BE RED FOR ELECTRIC UTILITIES AND ORANGE FOR TELECOMMUNICATION UTILITIES.



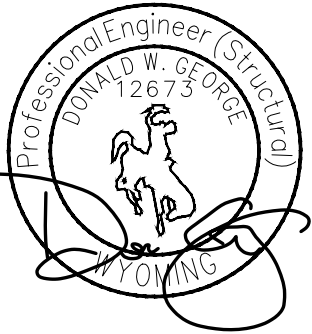
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REVISIONS			
REV	DATE	DESCRIPTION	INT
2	01/31/19	REVISED PER PUBLIC WORKS	GGD
1	01/22/19	REVISED PER ZONING	GGD
0	11/12/18	ISSUED FOR ZONING	GGD
B	11/06/18	EQUIPMENT TO 3rd FLOOR	GGD
A	09/19/18	ISSUED FOR REVIEW	GGD

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THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT NAMES IS STRICTLY PROHIBITED.



SITE INFORMATION:

TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO

NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-1

SITE WORK & DRAINAGE (CONT.)

PART 3 - EXECUTION

3.1 GENERAL:

- A.

BEFORE START GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ANY TIME.
- B.

BEFORE ALL SURVEY, LAYOUT, STAKING, AND MARKING, ESTABLISH AND MAINTAIN ALL LINE, GRADES, ELEVATIONS AND BENCHMARKS NEED FOR EXECUTION OF THE WORK.
- C.

CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED.

1.

REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS, AND OTHER DEBRIS. BRUSH AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE, RAKE, DISK OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6 INCHES, AND REMOVE TO A DEPTH OR 12 INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.

2.

REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS.

3.

EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED TILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION WORK COMPLETELY WITH SUITABLE FILL.

D.

REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS BURNING WILL NOT BE PERMITTED.

E.

PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES ON THE DRAWINGS AND TO ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, OR OTHER ITEM THAT MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION. NOTIFY THE CONSTRUCTION MANAGER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.

F.

SEPARATE AND STOCK PILE ALL EXCAVATED MATERIALS SUITABLE FOR BACKFILL, ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.
- 3.2 BACKFILL:
- A.

AS SOON AS PRACTICAL, AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST-IN-PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.

1.

PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS AND UNSUITABLE MATERIALS.

2.

BACKFILL BY PLACING AND COMPACTING SUITABLE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAT 8-INCHES LOOSE THICKNESS AND COMPACTED. WHERE HAND OPERATED COMPACTORS ARE USED, THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 4 INCHES IN LOOSE DEPTH AND COMPACTED.

3.

WHENEVER THE DENSITY TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DISKING AND DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE MINIMUM COMPACTION REQUIREMENTS.

B.

THOROUGHLY COMPACT EACH LAYER OF BACKFILL TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.
- 3.3 TRENCH EXCAVATION:
- A.

UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE GENERAL CONTRACTOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS.

B.

EXTEND THE TRENCH WIDTH A MINIMUM OF 7 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.

C.

WHEN SOIL YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED. BACKFILL AT THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION AND BACKFILL WITH GRANULAR BEDDING MATERIAL.
- 3.4 TRENCH BACKFILL:
- A.

PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE DRAWING AND THE UTILITY REQUIREMENTS.

B.

NOTIFY THE GENERAL CONTRACTOR 24 HOURS IN ADVANCE OF BACKFILLING.

C.

CONDUCT UTILITY CHECK TESTS BEFORE BACKFILLING, BACKFILL AND COMPACT TRENCH BEFORE ACCEPTANCE TESTING.

D.

PLACE GRANULAR TRENCH BACKFILL UNIFORMLY ON BOTH SIDES OF THE CONDUITS IN 6-INCH UNCOMPACTED LIFTS UNTIL 12 INCHES OVER THE CONDUITS. SOLIDLY RAM AND TRAMP BACKFILL INTO SPACE AROUND CONDUITS.
- E.

PROTECT CONDUIT FROM LATERAL MOVEMENT, IMPACT DAMAGE OR UNBALANCED LOADING.

F.

ABOVE THE CONDUIT EMBEDMENT ZONE, PLACE AND COMPACT SATISFACTORY BACKFILL MATERIAL IN 8 INCH MAXIMUM LOOSE THICKNESS LIFTS TO RESTORE THE REQUIRED FINISHED SURFACE GRADE.

G.

COMPACT FINAL TRENCH BACKFILL TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY ADJACENT TO THE TRENCH BUT NO LESS THAN A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.
- 3.5 AGGREGATE ACCESS ROAD:
- A.

CLEAR GRUB, STRIP AND EXCAVATE FOR THE ACCESS ROAD TO THE LINES AND GRADES INDICATED ON THE DRAWINGS. SCARIFY TO A DEPTH OF 6INCHES AND PROOF-ROLL. ALL HOLES, RUTS , SOFT PLACES AND OTHER DEFECTS SHALL BE CORRECTED.

B.

THE ENTIRE SUBGRADE SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 1557.

C.

AFTER PREPARATION OF THE SUBGRADE IS COMPLETE THE GEOTEXTILE FABRIC (MIRAFI 500XI) SHALL BE INSTALLED TO THE LIMITS INDICATED ON THE DRAWINGS BY ROLLING THE FABRIC OUT LONGITUDINALLY ALONG THE ROADWAY THE FABRIC SHALL NOT BE DRAGGED ACROSS THE SUBGRADE. PLACE THE ENTIRE ROLL IN A SINGE OPERATION, ROLLING OUT AS SMOOTHLY AS POSSIBLE.

1.

OVERLAPS PARALLEL TO THE ROADWAY WILL BE PERMITTED AT THE CENTERLINE AND AT LOCATIONS BEYOND THE ROADWAY SURFACE WIDTH (I.E. WITHIN THE SHOULDER WIDTH) ONLY. NO LONGITUDINAL OVERLAPS SHALL BE LOCATED BETWEEN THE CENTERLINE AND THE SHOULDER. PARALLEL OVERLAPS SHALL BE A MINIMUM OF 3 FEET WIDE.

2.

TRANSVERSE (PERPENDICULAR TO THE ROADWAY) OVERLAPS AT THE END OF A ROLL, SHALL OVERLAPS IN THE DIRECTION OF THE AGGREGATE PLACEMENT (PREVIOUS ROLL ON TOP) AND SHALL HAVE A MINIMUM LENGTH OF 3 FEET .

3.

ALL OVERLAPS SHALL BE PINNED WITH STAPLES OF NAILS A MINIMUM O 10 INCHES LONG TO INSURE POSITIONING DURING PLACEMENT OF AGGREGATE. PIN LONGITUDINAL SEAMS AT 25 FOOT CENTERS AND TRANSVERSE SEAMS EVERY 5 FEET .

D.

THE AGGREGATE BASE AND SURFACE COURSES SHALL BE CONSTRUCTED IN LAYERS NOT GEOTEXTILE FABRIC SHALL BE END-DUMPED ON THE FABRIC FROM THE FREE END OF THE FABRIC OR OVER PREVIOUSLY PLACED AGGREGATE. THE FIRST LIFT SHALL BE BLADED DOWN TO A THICKNESS OF 8 INCHES PRIOR TO COMPACTION. AT NO TIME SHALL EQUIPMENT EITHER TRANSPORTING THE AGGREGATE OR GRADING THE AGGREGATE BE PERMITTED ON THE ROADWAY WITH LESS THAN 4 INCHES OF MATERIAL COVERING THE FABRIC.

E.

THE AGGREGATE SHALL BE IMMEDIATELY COMPACTED TO NOT LESS THAT 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE PROCTOR TEST, ASTM D 1557 WITH A TAMPING ROLLER, OR WITH A PNEUMATIC-TIRED ROLLER, OR WITH A VIBRATORY MACHINE OR ANY COMBINATION OF THE ABOVE. THE TOP LAYER SHALL BE GIVEN A FINAL ROLLING WITH A THREE-WHELL OR TANDEM ROLLER.
- 3.6 FINISH GRADING:
- A.

PERFORM ALL GRADING TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND SMOOTH, EVEN SURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION, GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.

B.

UTILIZE SATISFACTORY FILL MATERIAL, RESULTING FROM THE EXCAVATION WORK IN THE CONSTRUCTION OF FILLS, EMBANKMENTS AND FOR REPLACEMENTS OF REMOVED UNSUITABLE MATERIALS.

C.

ACHIEVE FINISHED GRADE BY PLACING A MINIMUM OF 4 INCHES OF 1/2"-3/4" CRUSHED STONE ON TOP SOIL STABILIZER FABRIC.

D.

REPAIR ALL ACCESS ROADS AND SURROUND AREAS USED DURING THE COURSE OF THIS WORK TO THEIR ORIGINAL CONDITION.
- 3.7 ASPHALT PAVING ROAD:
- A.

DIVISION 600-KDOT FLEXIBLE PAVEMENT (UPDATE PER LOCAL DOT)

B.

SECTION 403-MODOT ASPHALT CONCRETE PAVEMENT.
-
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| 2 | 01/31/19 | REVISED PER PUBLIC WORKS | GGD |
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- SITE INFORMATION:
- TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO
- NEW SITE BUILD
- 160 S MILLWARD STREET
JACKSON, WY 83001
- SHEET TITLE:
- GENERAL NOTES
- SHEET NUMBER:
- GN-2
- 43

ELECTRICAL NOTES:

PART 1 - GENERAL

1.1 CONTRACTOR RESPONSIBILITIES

- A. CONTRACTOR SHALL INSPECT THE EXISTING SITE CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE SUBCONTRACTORS FUNCTIONS. THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
- B. THE SUBCONTRACTOR SHALL OBTAIN PERMITS, LICENSES, MAKE ALL DEPOSITS, AND PAY ALL FEES REQUIRED FOR THE CONSTRUCTION PERFORMANCE FOR THE WORK UNDER THIS SECTION.
- C. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. THE SUBCONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWINGS SHALL NOT BE SCALED TO DETERMINED DIMENSIONS.

1.2 LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES:

- A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, AND ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUES AND CODES. CONDUIT BENDS SHALL BE THE RADIUS BEND FOR THE TRADE SIZE OF CONDUIT IN COMPLIANCE WITH THE LATEST EDITIONS OF NEC.

1.3 REFERENCES:

- A. THE PUBLICATIONS LISTED BELOW ARE PART OF THIS SPECIFICATION. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE. THIS SPECIFICATION IS ISSUED FOR THE CONSTRUCTION UNLESS OTHER WISE NOTED. EXCEPT AS MODIFIED BY THE REQUIREMENT SPECIFIED HEREIN OR THE DETAILS OF THE DRAWINGS. WORK INCLUDED IN THIS SPECIFICATION SHALL CONFORM TO THE APPLICABLE PROVISION OF THESE PUBLICATIONS.
- ANSI/IEEE (AMERICAN NATION STANDARDS INSTITUTE)
 - ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)
 - ICE (INSULATED CABLE ENGINEERS ASSOCIATION)
 - NEMA (NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION)
 - NEPA (NATIONAL ENVIRONMENTAL PROTECTION ASSOCIATION)
 - NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)
 - OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
 - UL (UNDERWRITERS LABORATORIES, INC.)
 - AT&T MOBILITY GROUNDING STANDARD ND-00071
 - IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS)

1.4 SCOPE OF WORK:

- A. WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL, AND ASSOCIATED SERVICES REQUIRED TO COMPLETE REQUIRED CONSTRUCTION AND BE OPERATIONAL.
- B. ALL ELECTRICAL EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY TESTED, ADJUSTED, AND ALIGNED BY THE SUBCONTRACTOR.
- C. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATING, DRAINING, TRENCHES, BACKFILLING, AND REMOVAL OF EXCESS DIRT.
- D. THE SUBCONTRACTOR SHALL FURNISH TO THE OWNER WITH CERTIFICATES OF FINAL INSPECTION AND APPROVAL FROM THE INSPECTION AUTHORITIES HAVING JURISDICTION.
- E. THE SUBCONTRACTOR SHALL PREPARE A COMPLETE SET OF AS-BUILT DRAWINGS, DOCUMENT ALL WIRING EQUIPMENT CONDITIONS, AND CHANCES WHILE COMPLETING THIS CONTRACT. THE AS-BUILT DRAWINGS SHALL BE SUBMITTED AT THE COMPLETION OF THE PROJECT.

PART 2 - PRODUCTS

2.1 GENERAL:

- A. ALL MATERIALS AND EQUIPMENT SHALL BE UL LISTED, NEW AND FREE FROM DEFECTS.
- B. AII ITEMS OF MATERIALS AND EQUIPMENT SHALL BE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED.
- C. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OR APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- D. ALL OVER CURRENT DEVICES HAVE AN INTERRUPTING CURRENT RATING EQUAL TO OR GREATER THAT THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED. 10000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT.

2.2 MATERIALS AND EQUIPMENT:

- A. CONDUIT:

- RIGID METAL CONDUIT (RMC) SHALL BE HOTT-DIPPED GALVANIZED INSIDE AND OUTSIDE INCLUDING ENDS AND THREADS AND ENAMELED OR LACQUERED IN ADDITION TO GALVANIZING.
 - LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL BE UL LISTED.
 - CONDUIT CLAMPS, STRAPS AND SUPPORTS SHALL BE STEEL OR MALLEABLE IRON. ALL FITTINGS SHALL BE COMPRESSION AND CONCRETE TIGHT TYPE. GROUNDING BUSHINGS WITH INSULATED THROATS SHALL BE INSTALLED ON ALL CONDUIT TERMINATIONS.
 - NONMETALLIC CONDUIT AND FITTINGS SHALL BE SCHEDULE 40 PVC. INSTALL USING SOLVENT-CEMENT-TYPE JOINTS AS RECOMMENDED BY THE MANUFACTURER.
- B. CONDUCTORS AND CABLE:
- CONDUCTORS AND CABLE SHALL BE FLAME-RETARDANT, MOISTURE AND HEAT RESISTANT THERMOPLASTIC, SINGLE CONDUCTOR, COPPER, TYPE THHN/THWN-2, 600 VOLT, SIZE AS INDICATED, 12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR USED.
 - 10 AWG AND SMALLER CONDUCTOR SHALL BE SOLID OR STRANDED AND 6 AWG AND LARGER CONDUCTOR SHALL BE STRANDED.
 - SOLDERLESS, COMPRESSION-TYPE CONNECTORS SHALL BE USED FOR TERMINATION OF ALL STRANDED CONDUCTORS.
 - STRAIN-RELIEF SUPPORTS GRIPS SHALL BE HUBBELL KELLEMS OR APPROVED EQUAL. CABLES SHALL BE SUPPORTED IN ACCORDANCE WITH THE NEC AND CABLE MANUFACTURERS RECOMMENDATIONS.
 - ALL CONDUCTORS SHALL BE TAGGED AT BOTH ENDS OF THE CONDUCTOR, AT ALL PULL BOXES, J-BOXES, EQUIPMENT AND CABINETS AND SHALL BE IDENTIFIED WITH APPROVED PLASTIC TAGS (ACTION CRAFT, BRADY, OR APPROVED EQUAL).
- C. DISCONNECT SWITCHES:
- DISCONNECT SWITCHES SHALL BE HEAVY DUTY, DEAD-FRONT, QUICK-MAKE, QUICK-BREAK, EXTERNALLY OPERABLE, HANDLE LOCKABLE AND INTERLOCK WITH COVER IN CLOSED POSITION RATING AS INDICATED, UL LABELED FURNISHED IN NEMA 3R ENCLOSURE, SQUARE-D OR APPROVED EQUAL.
- D. CHEMICAL ELECTROLYTIC GROUNDING SYSTEM:
- INSTALL CHEMICAL GROUND AS REQUIRED. THE SYSTEM SHALL BE ELECTROLYTIC MAINTENANCE FREE ELECTRODE CONSISTING OF RODS WITH A MINIMUM OF 2 AWG CU EXOTHERMALLY WELDED PIGTAIL, PROTECTIVE BOXES, AND BACKFILL MATERIAL. MANUFACTURER SHALL BE LYNCOLE XIT GROUND ROD TYPES K2-(*) CS OR K2L-(*) CS (*) LENGTH AS REQUIRED.
 - GROUND ACCESS BOX SHALL BE A POLY-PLASTIC BOX FOR NON-TRAFFIC APPLICATIONS. INCLUDING BOLT DOWN FLUSH COVER WITH "BREATHERR" HOLES, XIT MODEL #XB-22. ALL DISCONNECT SWITCHES AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS ID NUMBERING, AND THE ELECTRICAL POWER SOURCE.
 - BACKFILL MATERIAL SHALL BE LYNCONITE AND LYNCOLE GROUNDING GRAVEL.
- E. SYSTEM GROUNDING:
- ALL GROUNDING COMPONENTS SHALL BE TINNED AND GROUNDING CONDUCTOR SHALL BE 2 AWG BARE, SOLID, TINNED, COPPER, ABOVE GRADE GROUNDING CONDUCTORS SHALL BE INSULATED WHERE NOTED.
 - GROUNDING BUSES SHALL BE BARE, TINNED, ANNEALED COPPER BARS OF RECTANGULAR CROSS SECTION. STANDARD BUS BARS MGB, SHALL BE FURNISHED AND INSTALLED BY THE SUBCONTRACTOR, THEY SHALL NOT BE FABRICATED OR MODIFIED IN THE FIELD. ALL GROUNDING BUSSES SHALL BE IDENTIFIED WITH MINIMUM 3/4" LETTERS BY WAY OF STENCILING OR DESIGNATION PLATE.
 - CONNECTORS SHALL BE HIGH-CONDUCTIVITY, HEAVY DUTY, LISTED AND LABELED AS GROUNDED CONNECTORS FOR THE MATERIALS USED. USE TWO-HOLD COMPRESSION LUGS WITH HEAT SHRINK FOR MECHANICAL CONNECTIONS.
 - EXOTHERMIC WELDED CONNECTIONS SHALL BE PROVIDED IN KIT FORM AND SELECTED FOR THE SPECIFIC TYPES, SIZES AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS TO BE CONNECTED.
 - GROUND RODS SHALL BE COPPER-CLAD STEEL WITH HIGH-STRENGTH STEEL CORE AND ELECTROLYTIC-GRADE COPPER OUTER SHEATH, MOLTEN WELDED TO CORE, 5/8"X10'-0". ALL GROUNDING RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES.
 - INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS IN COMPLIANCE WITH THE SPECIFICATIONS AND NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, DISCONNECT SWITCHES, STARTERS AND EQUIPMENT CABINETS.
- F. OTHER MATERIALS:
- THE SUBCONTRACTOR SHALL PROVIDE OTHER MATERIALS, THOUGH NOT SPECIFICALLY DESCRIBED, WHICH ARE REQUIRED FOR A COMPLETELY OPERATIONAL SYSTEM AND PROPER INSTALLATION OF THE WORK.
 - PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.

G. PANELS AND LOAD CENTERS:

- ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN.

PART 3 - EXECUTION

3.1 GENERAL:

- A. ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- B. EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT OR WATER, AND AGAINST CHEMICAL OR MECHANICAL INJURY DURING INSTALLATION AND CONSTRUCTION PERIODS.

3.2 LABOR AND WORKMANSHIP:

- A. ALL LABOR FOR THE INSTALLATION OF MATERIALS AND EQUIPMENT FURNISHED FOR THE ELECTRICAL SYSTEM SHALL BE INSTALLED BY EXPERIENCED WIREMEN, IN A NEAT AND WORKMAN-LIKE MANNER.
- B. ALL ELECTRICAL EQUIPMENT SHALL BE ADJUSTED, ALIGNED AND TESTED BY THE SUBCONTRACTOR AS REQUIRED TO PRODUCE THE INTENDED PERFORMANCE.
- C. UPON COMPLETION OF WORK, THE SUBCONTRACTOR SHALL THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, REMOVE ALL LABELS AND ANY DEBRIS, CRATING OR CARTONS AND LEAVE THE INSTALLATION FINISHED AND READY FOR OPERATION.

3.3 COORDINATION:

- A. THE SUBCONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRICAL ITEMS WITH THE OWNER-FURNISHED EQUIPMENT DELIVERY SCHEDULE TO PREVENT UNNECESSARY DELAYS IN THE TOTAL WORK.

3.4 INSTALLATION:

- A. CONDUIT:
- ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT AS SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4 INCH TRADE SIZE.
 - PROVIDE RIGID PVC SCHEDULE 80 CONDUITS FOR ALL RISERS, RMC OTHERWISE NOTED. EMT MAY BE INSTALLED FOR EXTERIOR CONDUITS WHERE NOT SUBJECT TO PHYSICAL DAMAGE.
 - THE INSTALLATION OF SCHEDULE 40 PVC AND RMC CONDUITS SHALL BE 24 INCHES MINIMUM DEPTH. ALL 90 DEGREE BENDS SHALL BE RMS. EXPANSION JOINTS ARE REQUIRED ON ALL CONDUIT RISERS.
 - USE GALVANIZED FLEXIBLE STEEL CONDUIT WHERE DIRECT CONNECTION TO EQUIPMENT WITH MOVEMENT, VIBRATION, OR FOR ESE OF MAINTENANCE. USE LIQUID TIGHT, FLEXIBLE METAL CONDUIT FOR OUTDOOR APPLICATIONS. INSTALL GALVANIZED FLEXIBLE STEEL CONDUIT AT ALL POINTS OF CONNECTION TO EQUIPMENT MOUNTED ON SUPPORT TO ALLOW FOR EXPANSION AND CONTRACTION.
 - A RUN OF CONDUIT BETWEEN BOXES OR EQUIPMENT SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF THREE QUARTER-BENDS. CONDUIT BEND SHALL BE MADE WITH THE UL LISTED BENDER OR FACTOR 90 DEGREE ELBOWS MAY BE USED.
 - FIELD FABRICATED CONDUITS SHALL BE CUT SQUARE WITH A CONDUIT CUTTING TOOL AND REAMED TO PROVIDE A SMOOTH INSIDE SURFACE.
 - PROVIDE INSULATED GROUNDING BUSHING FOR ALL CONDUITS.
 - SUBCONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL CONDUITS DURING CONSTRUCTION. TEMPORARY OPENING IN THE CONDUIT SYSTEM SHALL BE PLUGGED OR CAPPED TO PREVENT ENTRANCE OF MOISTURE OR FOREIGN MATTER. SUBCONTRACTOR SHALL REPLACE ANY CONDUITS CONTAINING FOREIGN MATERIALS THAT CANNOT BE REMOVED.
 - ALL CONDUITS SHALL BE SWABBED CLEAN BY PULLING AN APPROPRIATE SIZE MANDREL THROUGH THE CONDUIT BEFORE INSTALLATION OF CONDUCTORS AR CABLES. CONDUIT SHALL BE FREE OF DIRT AND DEBRIS.
 - INSTALL PULL STRINGS IN ALL CLEAN EMPTY CONDUITS. IDENTIFY PULL STRINGS AT EACH END.
 - INSTALL 2" HIGHLY VISIBLE AND DETECTABLE TAPE 12" ABOVE ALL UNDERGROUND CONDUITS AND CONDUCTORS.
 - CONDUITS SHALL BE INSTALLED IN SUCH A MANNER AS TO INSURE AGAINST COLLECTION OF TRAPPED CONDENSATION.
 - PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS TO ALLOW FOR RACEWAYS AND CABLES TO BE ROUTED THROUGH THE BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS. SLEEVES AND/OR PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE EFFECTIVELY SEALED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATING OF THE WALL OR STRUCTURE. FIRE STOPS AT FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE, AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.



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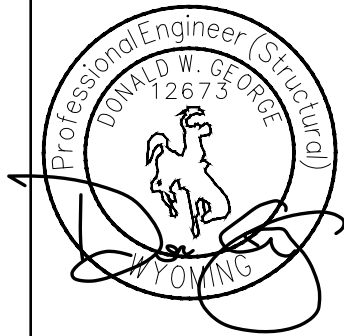
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REVISIONS

REV	DATE	DESCRIPTION	INT
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SITE INFORMATION:

TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO

NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-3

ELECTRICAL NOTES (CONT.):

B. CONDUCTORS AND CABLE:

1. ALL POWER WIRING SHALL BE COLOR CODED AS FOLLOWS:

DESCRIPTION	208/240/120 VOLT SYSTEMS
PHASE A	BLACK
PHASE B	RED
PHASE C	BLUE
NEUTRAL	WHITE
GROUNDING	GREEN

2. SPLICES SHALL BE MADE ONLY AT OUTLETS, JUNCTION BOXES, OR ACCESSIBLE RACEWAY CONDULETS APPROVED FOR THIS PURPOSE.
3. PULLING LUBRICANTS SHALL BE UL APPROVED, SHALL USE NYLON OR HEMP ROPE FOR PULLING CONDUCTOR OR CABLES INTO THE CONDUIT.
4. CABLES SHALL BE NEATLY TRAINED, WITHOUT INTERLACING, AND BE OF SUFFICIENT LENGTH IN ALL BOXES & EQUIPMENT TO PERMIT MAKING A NEAT ARRANGEMENT. CABLES SHALL BE SECURED IN A MANNER TO AVOID TENSION ON CONDUCTORS OF TERMINALS. CONDUCTORS SHALL BE PROTECTED FROM MECHANICAL INJURY AND MOISTURE. SHARP BENDS OVER CONDUIT BUSHINGS ARE PROHIBITED. DAMAGED CABLES SHALL BE REMOVED AND REPLACED AT THE SUBCONTRACTORS EXPENSE.

C. DISCONNECT SWITCHES:

1. INSTALL DISCONNECT SWITCHES LEVEL AND PLUMB. CONNECT TO WIRING SYSTEM AND GROUNDING SYSTEM AS INDICATED.

D. GROUNDING:

1. ALL METALLIC PARTS OF ELECTRICAL EQUIPMENT WHICH DO NOT CARRY CURRENT SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING MANUFACTURER, AT&T MOBILITY GROUNDING STANDARD ND-0071, ND-00135, AND THE NATIONAL ELECTRICAL CODE.
2. PROVIDE ELECTRIC GROUNDING AND BONDING SYSTEM INDICATED WITH ASSEMBLY OF MATERIALS, INCLUDING GROUNDING ELECTRODES, BONDING JUMPERS AND ADDITIONAL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
3. ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUNDING CONDUCTORS SHALL NOT BE LOOPED OR SHARPLY BENT. ROUTE GROUNDING CONNECTIONS AND CONDUCTORS TO GROUND IN THE SHORTEST AND STRAIGHTEST PATHS POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES.
4. BUILDINGS AND/OR NEW TOWERS GREATER THAN 75 FEET IN HEIGHT AND WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE. THE SUBCONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM. THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 AWG COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM. THE BUILDING STEEL COLUMNS LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATERLINE (FERROUS OR NONFERROUS METAL PIPING ONLY.)
5. TIGHTEN GROUNDING AND BONDING CONNECTORS. INCLUDING SCREWS, BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BOLTS, WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT AVAILABLE, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUES SPECIFIED IN UL TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
6. SUBCONTRACTOR SHALL VERIFY THE LOCATIONS OF GROUNDING TIE-IN-POINTS TO THE EXISTING GROUNDING SYSTEM. ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. ALL GROUNDING CONNECTIONS SHALL BE INSPECTED FOR TIGHTNESS, EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BY THE INSPECTOR HAVING JURISDICTION BEFORE BEING PERMANENTLY CONCEALED.
8. APPLY CORROSION-RESISTANCE FINISH TO FIELD CONNECTIONS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATINGS HAVE BEEN DESTROYED. USED KOPR-SHIELD ANIT-OXIDATION COMPOUND O ALL COMPRESSION GROUNDING CONNECTIONS.
9. A SEPARATE, CONTINUOUS, INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS.
10. BOND ALL INSULATED GROUNDING BUSHING WITH A BARE 6 AWG GROUNDING CONDUCTOR TO A GROUND BAR.
11. DIRECT BURIED GROUNDING CONDUCTORS SHALL BE INSTALLED AT A NOMINAL DEPTH OF 36" MINIMUM BELOW GRADE, OR 6" BELOW THE FROST LINE, USE GREATER OF THE TWO DISTANCES.
12. ALL GROUNDING CONDUCTORS EMBEDDED IN OR PENETRATING CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT.
13. THE INSTALLATION OF CHEMICAL ELECTROLYTIC GROUNDING SYSTEM IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMOVE SEALING TAPE FROM LEACHING AND BREATHER HOLES. INSTALL PROTECTIVE BOX FLUSH WITH GRADE.
14. DRIVE GROUND RODS UNTIL TOPS ARE A MINIMUM DISTANCE OF 36" DEPTH OR 6" BELOW FROST LINE, USING THE GREATER OF THE TWO DISTANCES.

15. IF COAX ON THE ICE BRIDGE IS MORE THAN 6 FT. FROM THE GROUNDING BAR AT THE BASE OF THE TOWER, A SECOND GROUNDING BAR WILL BE NEEDED AT THE END OF THE ICE BRIDGE, TO GROUND THE COAX CABLE GROUNDING KITS AND IN-LIN ARRESTERS.
16. SUB CONTRACTORS SHALL REPAIR, AND/OR REPLACE EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE SUBCONTRACTORS EXPENSE.

3.5 ACCEPTANCE TESTING:

- A. CERTIFIED PERSONNEL USING CERTIFIED EQUIPMENT SHALL PERFORM REQUIRED TESTS AND SUBMIT WRITTEN TEST REPORTS UPON COMPLETION.
- B. WHEN MATERIAL AND/OR WORKMANSHIP IS FOUND NOT TO COMPLY WITH THE SPECIFIED REQUIREMENTS, THE NON COMPLYING ITEMS SHALL BE REMOVED FROM THE PROJECT SITE AND REPLACED WITH ITEMS COMPLYING WITH THE SPECIFIED REQUIREMENTS PROMPTLY AFTER RECEIPT OF NOTICE FOR NON-COMPLIANCE.
- C. TEST PROCEDURES:
1. ALL FEEDERS SHALL HAVE INSULATION TESTED AFTER INSTALLATION, BEFORE CONNECTION TO DEVICES. THE CONDUCTORS SHALL TEST FREE FROM SHORT CIRCUITS AND GROUNDS. TESTING SHALL BE FOR ONE MINUTE USING 1000V DC. PROVIDE WRITTEN DOCUMENTATION FOR ALL TEST LISTED TO SUBCONTRACTOR.
2. PRIOR TO ENERGIZING CIRCUITRY, TEST WIRING DEVICES FOR ELECTRICAL CONTINUITY AND PROPER POLARITY CONNECTIONS.
3. MEASURE AND RECORD VOLTAGES BETWEEN PHASES AND BETWEEN PHASE CONDUCTORS AND NEUTRALS. SUBMIT A REPORT OF MAXIMUM AND MINIMUM VOLTAGES.
4. PERFORM GROUNDING TEST TO MEASURE GROUNDING RESISTANCE OF GROUNDING SYSTEM USING THE IEEE STANDARD 3-POINT :FALL-OF-POTENTIAL" METHOD. PROVIDE PLOTTED TEST VALUES AND LOCATION SKETCH. NOTIFY THE ENGINEER IMMEDIATELY IF MEASURE VALUE IS OVER 5 OHMS.



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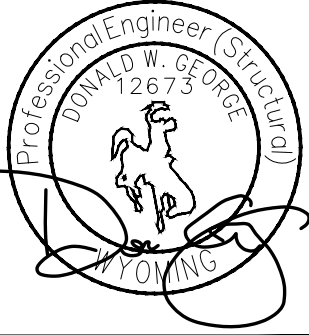
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NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-4

GENERAL NOTES: 1. THIS FACILITY IS EXEMPT FROM HANDICAP REQUIREMENTS PER 2010 CBC SECTION 1105B.3.4 EXCEPTION #1. THIS FACILITY IS NON-OCCUPIABLE SPACE AND ENTERED ONLY BY SERVICE PERSONNEL. THIS SPACE IS NOT FOR HUMAN OCCUPANCY. 2. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES, CONFLICTS OR OMISSIONS SHALL BE REPORTED TO THE ENGINEER PRIOR TO SUBMITTING BIDS, AND PROCEEDING WITH ANY WORK. 3. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES AS THEY MAY BE DISCOVERED IN THE PLANS, SPECIFICATIONS, & NOTES PRIOR TO STARTING CONSTRUCTION. INCLUDING BUT NOT LIMITED BY DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ERRORS, OMISSION, OR INCONSISTENCY AFTER THE START OF CONSTRUCTION WHICH HAS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER AND SHALL INCUR ANY EXPENSES TO RECTIFY THE SITUATION. THE METHOD OF CORRECTION SHALL BE APPROVED BY THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT. 4. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR HAS THE RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR OR SUBCONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGE TO THE UTILITIES CAUSED DURING THE EXECUTION OF THE WORK. CONTACT USA DIG ALERT @ 800-227-2600. 5. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW OR EXISTING SURFACES, STRUCTURES OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGED AREAS. 6. A COPY OF THE APPROVED PLANS SHALL BE KEPT IN PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL CONSTRUCTION SETS REFLECT THE SAME INFORMATION AS THE APPROVED PLANS. THE CONTRACTOR SHALL ALSO MAINTAIN ONE SET OF PLANS AT THE SITE FOR THE PURPOSE OF DOCUMENTING ALL AS-BUILT CHANGES, REVISIONS, ADDENDA, OR CHANGE ORDERS. THE CONTRACTOR SHALL FORWARD THE AS-BUILT/HIRED DRAWINGS TO THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT AT THE CONCLUSION OF THE PROJECT. 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE WORK IS IN PROGRESS UNTIL THE JOB IS COMPLETE. 8. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY POWER, WATER, AND TOILET FACILITIES AS REQUIRED BY THE PROPERTY OWNER OR GOVERNING AGENCY. 9. ALL CONSTRUCTION THROUGH THE PROJECT SHALL CONFORM TO THE LATEST C.B.C, AND ALL OTHER GOVERNING CODES, INCLUDING THE CALIFORNIA ADMINISTRATIVE CODES TITLE 8, 19, AND 24. THE MOST RESTRICTIVE CODE SHALL GOVERN. 10. THE CONTRACTOR AND SUB CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE REGULATIONS INCLUDING ALL OSHA REQUIREMENTS. 11. WHEN REQUIRED STORAGE OF MATERIALS OCCURS, THEY SHALL BE EVENLY DISTRIBUTED OVER THE FLOOR OR ROOF SO AS NOT TO EXCEED THE DESIGNED LIVE LOADS FOR THE STRUCTURE. TEMPORARY SHORTING OR BRACING SHALL BE PROVIDED WHERE THE STRUCTURE OR SOIL HAS NOT ATTAINED THE DESIGN STRENGTH FOR THE CONDITIONS PRESENT. 12. THE CONTRACTOR SHALL SUPERVISE AND COORDINATE ALL WORK, USING HIS PROFESSIONAL KNOWLEDGE AND SKILLS, HE IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES, AND SEQUENCING AND COORDINATING ALL PORTIONS OF THE WORK UNDER THE PROJECT. 13. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS WITH RESPECT TO THE WORK TO COMPLETE THE PROJECT, BUILDING PERMIT APPLICATIONS SHALL BE FILED BY THE OWNER OR AUTHORIZED AGENT. CONTRACTOR SHALL OBTAIN THE PERMIT AND MAKE FINAL PAYMENT OF SAID DOCUMENT. 14. ALL DIMENSIONS TAKE PRECEDENCE OVER SCALE. DRAWINGS ARE NOT TO BE SCALED UNDER ANY CIRCUMSTANCES. 15. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BRACING, FRAMING, HANGERS OR SUPPORTS FOR THE INSTALLATION OF ITEMS INDICATED ON THE DRAWINGS. 16. THE CONTRACTOR SHALL PROVIDE THE FIRE MARSHAL OR UL APPROVED MATERIALS TO FILL/SEAL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. 17. NEW CONSTRUCTION ADDED TO EXISTING CONSTRUCTION SHALL BE MATCHED IN FORM, TEXTURE, MATERIAL, AND PAINT COLOR EXCEPT AS NOTED IN THE PLANS. 18. THE CONTRACTOR IS TO PROVIDE PORTABLE FIRE EXTINGUISHERS HAVING A MINIMUM 28: 10-B:C RATING WITHIN 75 FT. OF TRAVEL TO ALL PORTIONS OF THE CONSTRUCTION AREA. (2010 CC SECTION 906-1-1 & 7 AND SECTION 906.3.1) 19. MATERIALS TESTING SHALL BE TO THE LATEST STANDARDS AVAILABLE AS REQUIRED BY THE LOCAL GOVERNING AGENCY RESPONSIBLE FOR APPROVING THE RESULTS. 20. ALL GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENTS TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OTHERWISE. 21. ALL DEBRIS AND REFUSE IS TO BE REMOVED FROM THE PROJECT. PREMISES SHALL BE LEFT N A CLEAN BROOM FINISHED CONDITION AT ALL TIMES. 22. BUILDING INSPECTORS AND/OR OTHER BUILDING OFFICIALS ARE TO BE NOTIFIED PRIOR TO ANY GRADING AND CONSTRUCTION EFFORT AS MANDATED BY THE GOVERNING AGENCY. 23. ALL SYMBOLS AND ABBREVIATIONS ARE CONSIDERED CONSTRUCTION INDUSTRY STANDARDS, IF A CONTRACTOR HAS A QUESTION REGARDING THEIR EXACT MEANING THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT SHALL BE NOTIFIED FOR CLARIFICATIONS. GENERAL FIRE NOTES: 1. BUILDINGS UNDERGOING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL BE IN ACCORDANCE WITH 2010 CFC SECTION 1401 AND ALL GOVERNING CODES. 2. ADDRESS SHALL BE PROVIDED FOR ALL NEW AND EXISTING BUILDINGS IN A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.(2010 CFC SECTION 505.1) 3. DECORATIVE MATERIALS SHALL BE MAINTAINED IN A FLAME-RETARDANT CONDITION.(2010 CFC SECTION 807-1.2) 4. PORTABLE FIRE EXTINGUISHERS: AT LEAST ONE FIRE EXTINGUISHER WITH A MINIMUM RATING OF 2-A-10B:C SHALL BE PROVIDED WITHIN 75 FEET MAXIMUM TRAVEL DISTANCE FOR EACH 6000 SQUARE FEET OR PORTION THEREOF ON EACH FLOOR.(2010 CFC SECTION 906.1.1 & 7 AND SECTION 906.3.1)	3	ABBR. DEFINITION A.B. ABV. ACCA ADDL A.F.F. A.F.G. ALUM. ALT. ANT. APRX. ARCH. AWG. BLDG. BLK. BLKG. BM. B.N. BCRW. B.O.F. B/U CAB. CANT. C.I.P. CLG. CLR. COL. CONC. CONN. CONST. CONT. d DBL. DEPT. D.F. DIA. DIAG. DIM. DWG. DWL. EA. EL. ELEC. ELEV. EMT. E.N. ENG. EQ. ANCHOR BOLT ABOVE ANTENNA CABLE COVER ASSEMBLY ADDITIONAL ABOVE FINISHED FLOOR ABOVE FINISHED GRADE ALUMINUM ALTERNATE ANTENNA APPROXIMATE(LY) ARCHITECT(URAL) AMERICAN WIRE GAUGE BUILDING BLOCK BLICKING BEAM BOUNDARY NAILING BARE TINNED COPPER WIRE BOTTOM OF FOOTING BACK-UP CABINET CABINET CANTILEVER(ED) CAST IN PLACE CEILING CLEAR COLUMN CONCRETE CONNECTION(OR) CONSTRUCTION CONTINUOUS PENNY (NAILS) DOUBLE DEPARTMENT DOUGLAS FIR DIAMETER DIAGONAL DIMENSION DRAWING(S) DOWEL(S) EACH ELEVATION ELECTRICAL ELEVATOR ELECTRICAL METALLIC TUBING EDGE NAIL ENGINEER EQUAL ABBR. DEFINITION EXP. EXST.(E)EXISTING EXT. FAB. F.F. F.G. FIN. FLR. FDN. F.O.C. F.O.M. F.O.S. F.O.W. F.S. FT.(') FTG. G. GA. GI. G.F.I. GLB.(GLU-LAM) GPS GRND. HDR. HGR. HT. ICGB. IN.(") INT. LB.(#) L.B. L.F. L. MAS. MAX. M.B. MECH. MFR. MIN. MISC. MTL. (N) NO.(#) N.T.S. O.C. EXPANSION EXTERIOR FABRICATION(OR) FINISH FLOOR FINISH GRADE FINISH(ED) FLOOR FOUNDATION FACE OF CONCRETE FACE OF MASONRY FACE OF STUD FACE OF WALL FINISH SURFACE FOOT (FEET) FOOTING GROWTH (CABINET) GAUGE GALVANIZED GROUND FAULT CIRCUIT INTERRUPTER GLUE LAMINATED BEAM GLOBAL POSITIONING SYSTEM GROUND HEADER HANGER HEIGHT ISOLATED COPPER GROUND BUS INCH(ES) INTERIOR POUND(S) LAG BOLTS LINEAR FEET (FOOT) LONG(ITUDINAL) MASONRY MAXIMUM MACHINE BOLT MECHANICAL MANUFACTURER MINIMUM MISCELLANEOUS METAL NEW NUMBER NOT TO SCALE ON CENTER ABBR. DEFINITION OPNG. P/C. PCS PLY. PPC PRC P.S.F. P.S.I. P.T. PWR. QTY. RAD.(R) REF. REINF. REQD. RGS. RRH. SCH. SHT. SIM. SPEC. SQ. S.S. STD. STL. STRUC. TEMP. THK. TMA T.N. T.O.A. T.O.C. T.O.F. T.O.P. T.O.S. T.O.W. TYP. U.G. U.L. U.N.O. V.I.F. W W/ W.P. WT. ⌘ ⌘ OPENING PRECAST CONCRETE PERSONAL COMM SERVICES PLYWOOD POWER PROTECTION CABINET PRIMARY RADIO CABINET POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH PRESSURE TREATED POWER (CABINET) QUANTITY RADIUS REFERENCE REINFORCEMENT(ING) REQUIRED RIGID GALVANIZED STELL REMOTE RADIO HEAD SCHEDULE SHEET SIMILAR SPECIFICATION(S) SQUARE STAINLESS STEEL STANDARD STEEL STRUCTURAL TEMPORARY THICK(NESS) TOWER MOUNTED AMPLIFIER TOE NAIL TOP OF ANTENNA TOP OF CURB TOP OF FOUNDATION TOP OF PLATE (PARAPET) TOP OF STEEL TOP OF WALL TYPICAL UNDERGROUND UNDERWRITERS LABORATORY UNLESS NOTED OTHERWISE VERIFY IN FIELD WIDE (WIDTH) WITH WEATHERPROOF WEIGHT CENTERLINE PLATE	2	ABBREVIATIONS NEW ANTENNA EXISTING ANTENNA GROUND ROD GROUND BUS BAR MECHANICAL GRND. CONN. CAD WELD GROUND ACCESS WELL E ELECTRIC BOX T TELEPHONE BOX ⚙ LIGHT POLE ⦿ FND. MONUMENT ⬤ SPOT ELEVATION ▲ SET POINT ⚠ REVISION CENTERLINE PROPERTY/LEASE LINE ◐ MATCH LINE ◑ WORK POINT GROUND CONDUCTOR TELEPHONE CONDUIT ELECTRICAL CONDUIT (POWER) COAXIAL CABLE OVERHEAD SERVICE CONDUCTORS ⊗ GRID REFERENCE ⊗ DETAIL REFERENCE ⊗ ELEVATION REFERENCE ⊗ SECTION REFERENCE GROUT OR PLASTER (E) BRICK (E) WOOD FRAME CONCRETE EARTH GRAVEL PLYWOOD SAND ⊠ WOOD CONT. ⊠ WOOD BLOCKING STEEL	1	LEGEND	1
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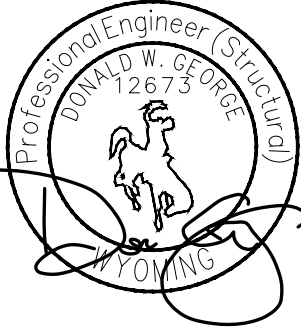
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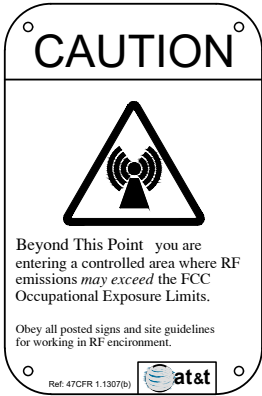
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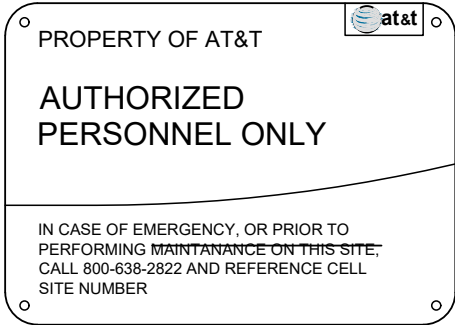
ALERTING SIGNS



ALERTING SIGNS



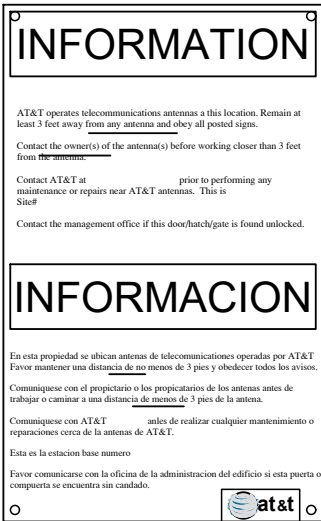
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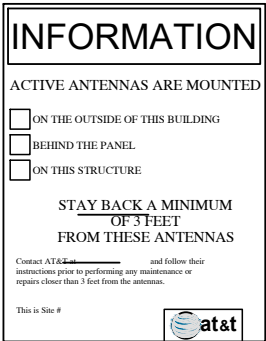
INFO SIGN #5



INFO SIGN #3



INFO SIGN #1



INFO SIGN #2

STAY BACK 3 FEET FROM ANTENNA

GENERAL SIGNAGE GUIDELINES								
STRUCTURE TYPE	INFO SIGN #1	INFO SIGN #2	INFO SIGN #3	INFO SIGN #4	INFO SIGN #5	STRIPING	NOTICE SIGN	CAUTION SIGN
TOWERS								
MONOPOLE/MONOPINE/MONOPALM	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING SIDE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			AT THE HEIGHT OF THE FIRST CLIMBING STEP, MIN. 9FT ABOVE GROUND
SCE TOWERS/TOWERS WITH HIGH VOLTAGE	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING SIDE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			AT THE HEIGHT OF THE FIRST CLIMBING STEP, MIN. 9FT ABOVE GROUND
LIGHT POLES/FLAG POLES	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			
UTILITY WOOD POLES (JPA)	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET		IF GP MAX VALUE OF MPE AT ANTENNA LEVEL IS: 0-99%: NOTICE SIGN; OVER 99%: CAUTION SIGN AT NO LESS THAN 3FT BELOW ANTENNA AND 9FT ABOVE GROUND	
MICROCELLS MOUNTED ON NON-JPA POLES	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET		NOTICE OR CAUTION SIGN AT NO LESS THAN 9FT ABOVE GROUND: ONLY IF THE EXPOSURE EXCEEDS 90% OF THE GENERAL PUBLIC EXPOSURE AT 6FT ABOVE GROUND	
ROOF TOPS								
AT ALL ACCESS POINTS TO THE ROOF	X							
ON ANTENNAS	X		X	X				
CONCEALED ANTENNAS	X	X						
ANTENNA MOUNTED FACING OUTSIDE BUILDING	X	X						
ANTENNAS ON SUPPORT STRUCTURE	X	X						
ROOFTOP GRAPH:								
RADIATION AREA IS WITHIN 3FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA					DIAGONAL YELLOW STRIPING AS TO ROOF VIEW GRAPH	EITHER NOTICE OR CAUTION SIGN (BASED ON ROOFVIEW RESULTS) AT ANTENNAS/BARRIER
RADIATION IS BEYOND 3FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA						
CHURCH STEEPLES	ACESS TO STEEPLE	ADJACENT TO EACH ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			CAUTION SIGN AT THE ANTENNAS
WATER STATIONS	ACESS TO STEEPLE	ADJACENT TO EACH ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			CAUTION SIGN AT THE ANTENNAS
NOTES FOR ROOFTOP SITES: 1. EITHER NOTICE OR CAUTION SIGNS NEED TO BE POSTED AT EACH SECTOR AS CLOSE AS POSSIBLE TO: THE OUTER EDGE OF THE STRIPED OFF AREA OR THE OUTER ANTENNAS OF THE SECTOR. 2. IF ROOF VIEW SHOWS: ONLY BLUE = NOTICE SIGN, BLUE AND YELLOW = CAUTION SIGN, ONLY YELLOW = CAUTION SIGN TO BE INSTALLED. 3. SHOULD THE REQUIRED STRIPING AREA INTERFERE WITH ANY STRUCTURES OR EQUIPMENT (A/C VENTS, ROOF HATCH, DOORS, OTHER ANTENNAS, DISHES, ETC.) 4. PLEASE NOTIFY AT&T TO MODIFY THE STRIPING AREA, PRIOR TO STARTING THE WORK.								



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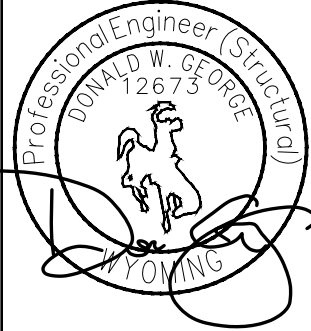
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B	11/06/18	EQUIPMENT TO 3rd FLOOR	GGD
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TOWN OF JACKSON
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IDL04511 RELO
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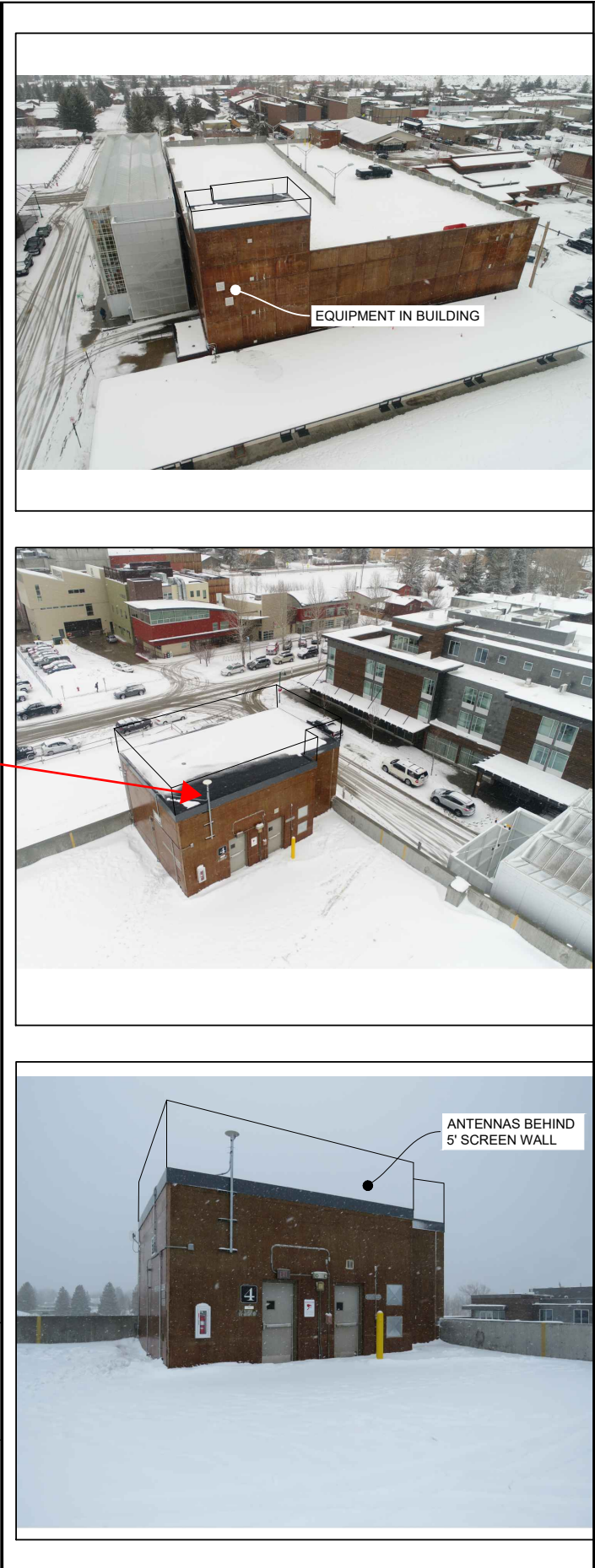
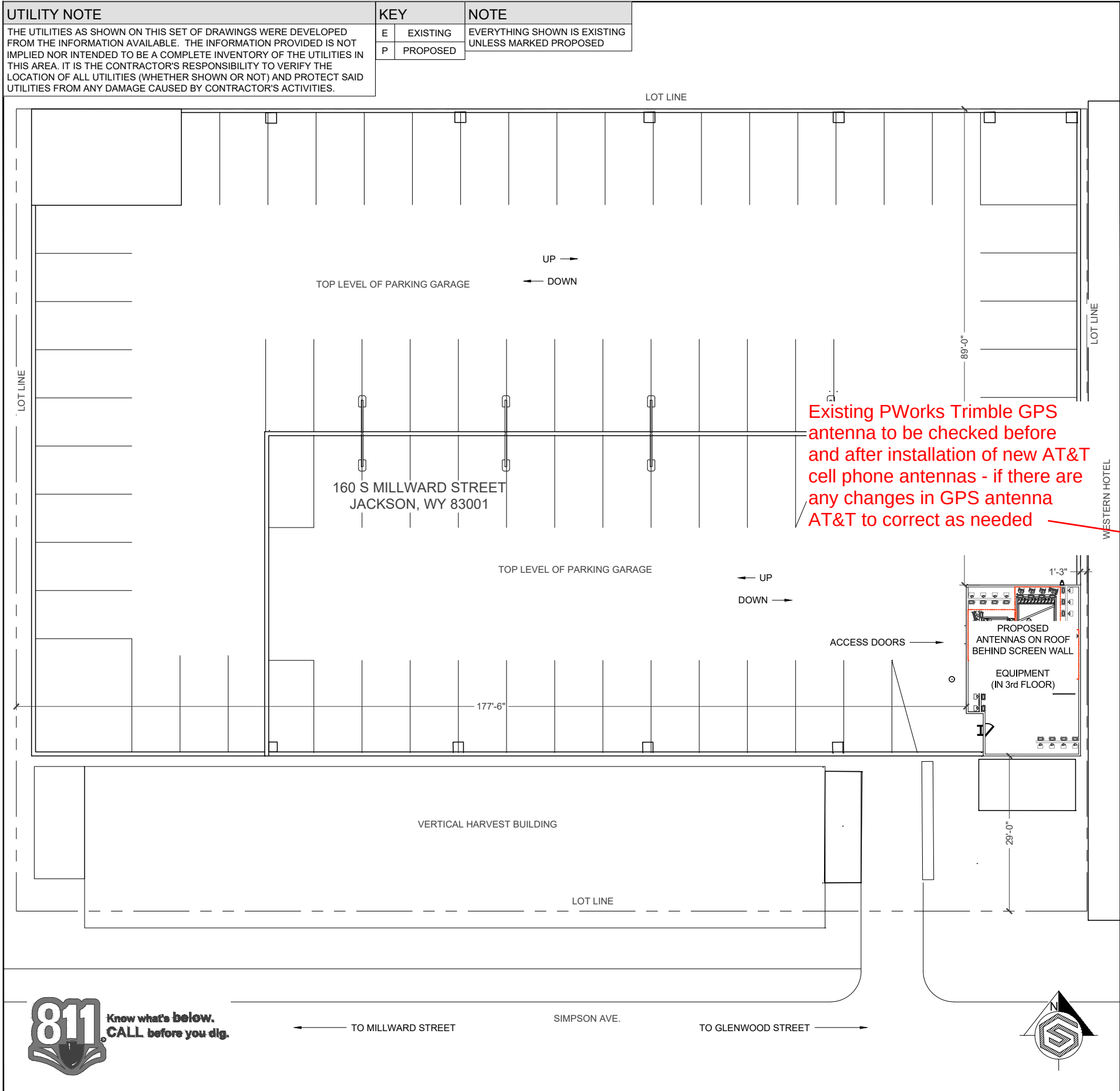
160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-6





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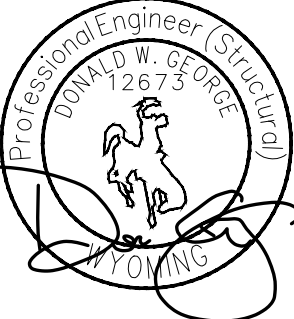
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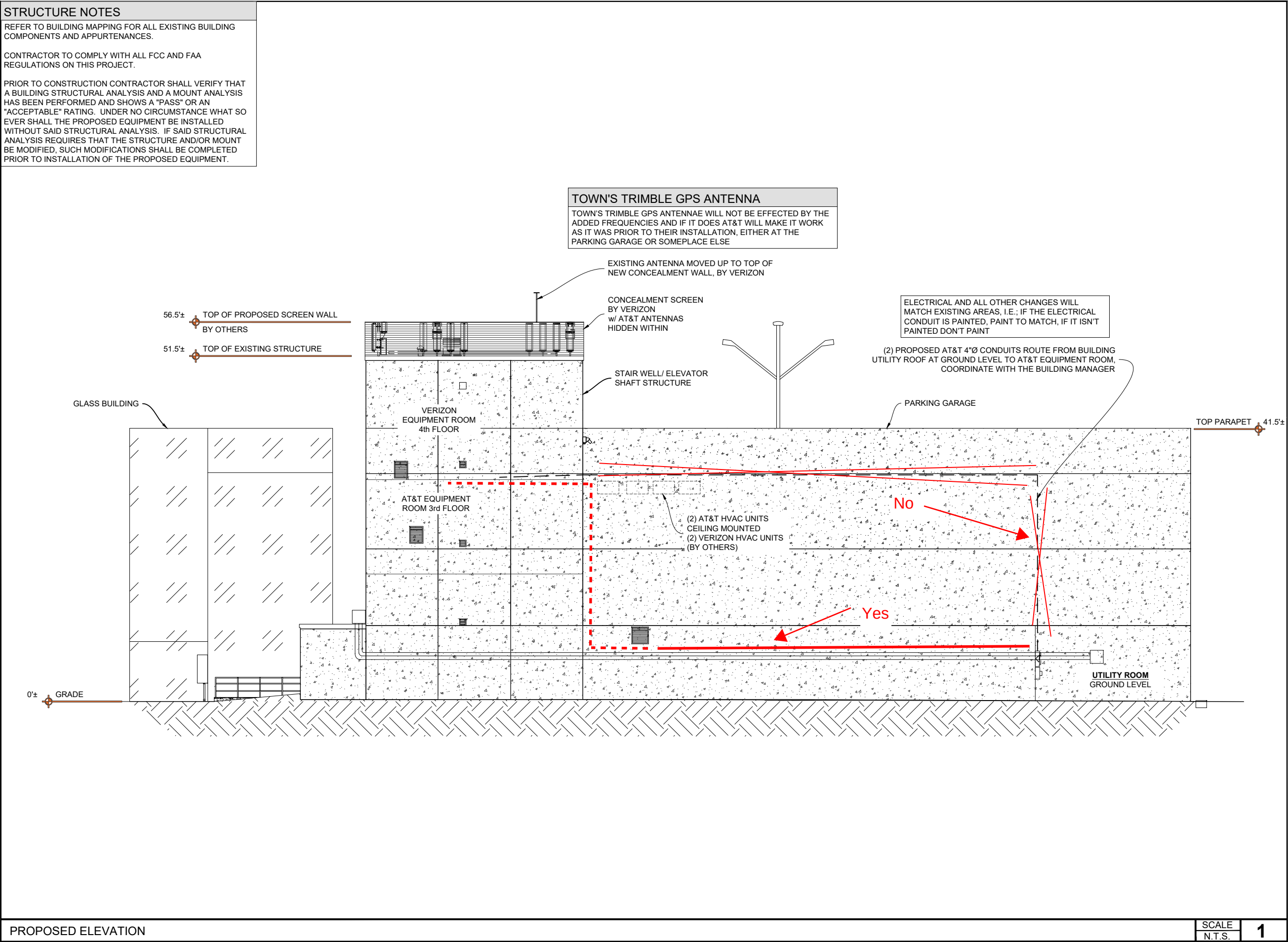
160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

A-1



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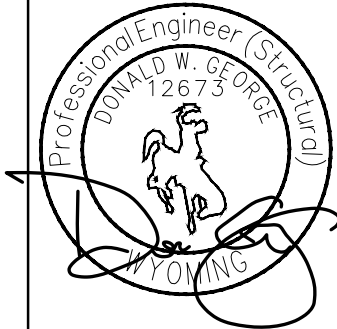
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NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

ANTENNA
ELEVATIONS

SHEET NUMBER:

A-3

INSTALLATION NOTES

1. ANTENNA CLEARANCE AND MOUNTING TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION WITH FINAL ANTENNA SPECIFICATIONS, MOUNTING HARDWARE AND RF DESIGN. ANTENNA PIPE MOUNT MODIFICATION MAY BE REQUIRED PER STRUCTURAL.
2. CONTRACTOR TO VERIFY FINAL ANTENNA CONFIGURATION FROM LATEST APPROVED RFDS.
3. CONTRACTOR SHALL OBTAIN A MINIMUM 4' SEPARATION BETWEEN ALL ANTENNAS UNLESS APPROVED BY RF.
4. STRUCTURAL ANALYSIS MUST BE PERFORMED PRIOR TO THE INSTALLATION OF ANY NEW EQUIPMENT.

EXISTING CONDITIONS

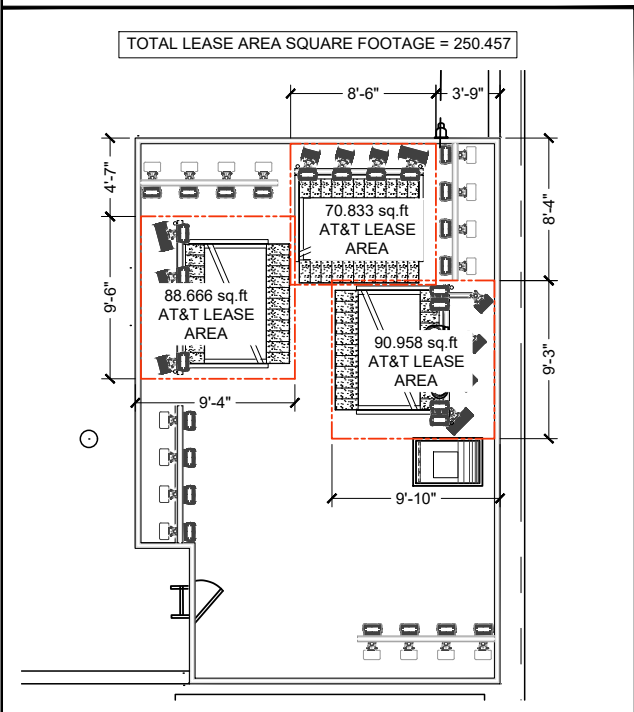
THESE DRAWINGS WERE PRODUCED WITH INFORMATION PROVIDED BY THE CLIENT. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO INSTALLATION.

ANTENNAS

ANTENNA AND EQUIPMENT CALLOUTS SHOWN ARE TYPICAL OF ALL SECTORS UNLESS SPECIFICALLY NOTED OTHERWISE.

These ballasted antenna sleds are not what the Town desires on our new roof and it will not work with the existing cable trays that Verizon installed. We would like AT&T to install steel posts thru the roof to the roof deck not concrete ballasted sleds as shown. Also, AT&T needs to have a structural engineer review the the existing structure to verify what they are proposing is feasible.

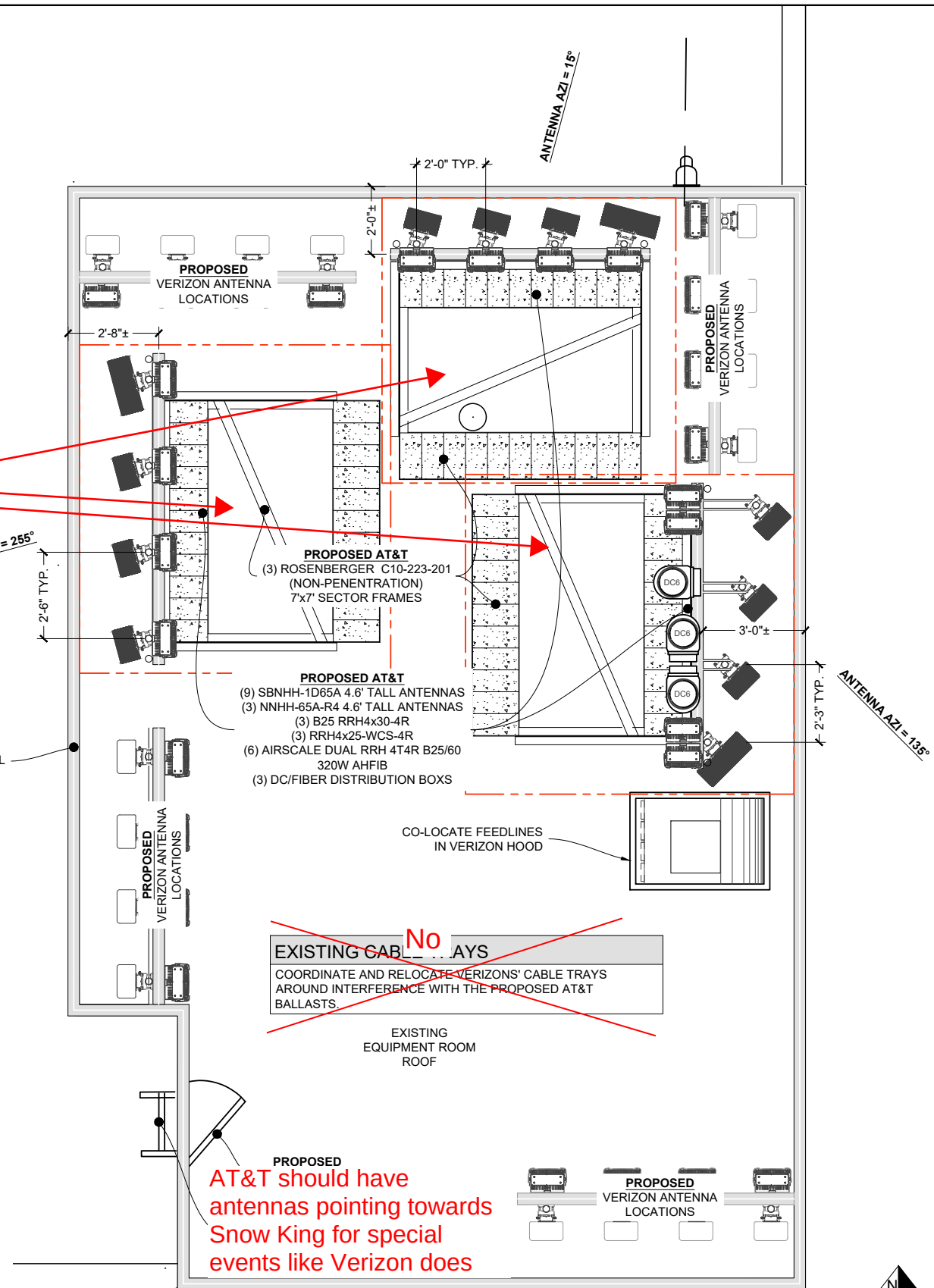
All new penetrations thru the new roof will not change roof warranty. All penetrations thru structure will be reviewed and approved by Public Works and structural engineer.



PROPOSED LEASE AREAS

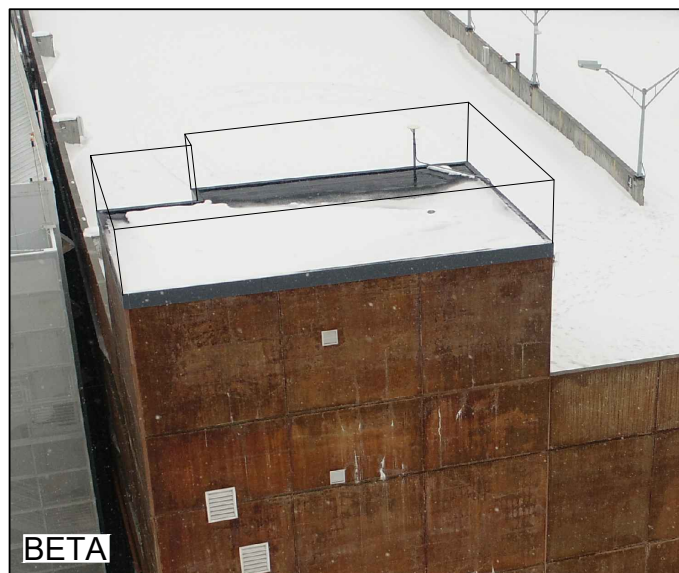
N.T.S.

PROPOSED ANTENNA PLAN



SCALE: 1/4" = 1'-0" (11x17)
SCALE: 1/2" = 1'-0" (24x36)

2



PHOTOS

N.T.S.

1



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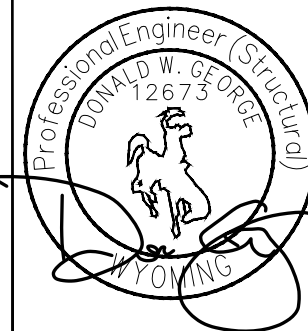
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PARKING GARAGE
IDL04511 RELO

NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

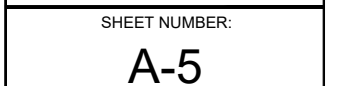
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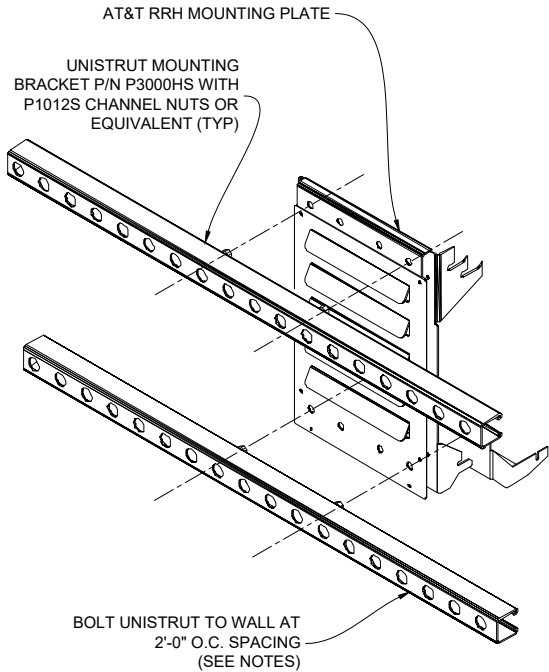
ANTENNA PLANS

SHEET NUMBER:

A-4

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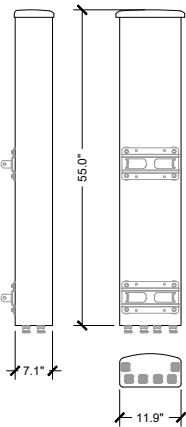


NOTES:

- CONCRETE ANCHOR:** HILTI HIT HY 150 ADHESIVE ANCHOR
SIZE: Ø = 3/8"
EMBEDMENT: 1 3/4"
SPACING: S = 24" (MAX)
* IF THE WALL THICKNESS IS LESS THAN 2", THE 1/2"Ø A325 BOLT SHALL BE USED TO GO THROUGH THE WALL WITH A 3/8" BACK PLATE INSIDE OF THE WALL.
- FULLY-GROUTED CMU WALL ANCHOR:** HILTI HIT HY 150 ADHESIVE ANCHOR
SIZE: Ø = 3/8"
EMBEDMENT: 1 3/4"
SPACING: ONE (1) ANCHOR PER CELL (MAX) AND 8" (MIN)
- SOLID BRICK WALL ANCHOR:** HILTI HIT HY 20 ADHESIVE ANCHOR
SIZE: Ø = 3/8"
EMBEDMENT: 2"
SPACING: S = 24" (MAX)
- HOLLOW, UNGROUTED CMU WALL & BRICK WALL WITH HOLES ANCHOR:** HILTI HIT HY 20 ADHESIVE ANCHOR
SIZE: Ø = 3/8"
EMBEDMENT: THROUGH FACE OF HOLLOW BASE > 6" (MIN)
SPACING: S = (2) COMPLETE BRICKS IN ANY DIRECTION
(1) ANCHOR PER BLOCK CELL (CMU)
- STEEL BOLT:** A325
BOLT SIZE: Ø = 1/2"
BOLT HOLE SIZE: Ø = 9/16"
- IF THE WALL MATERIAL IS DIFFERENT FROM ABOVE, CONTRACTOR SHALL INFORM DESIGN ENGINEER IMMEDIATELY.
- ALL HARDWARE AND PARTS SHALL BE HOT-DIPPED GALVANIZED WITH LOCK WASHERS AND HEAVY HEX NUTS.
- ALL BOLT HOLES SHALL BE 7/16"Ø UNLESS NOTED OTHERWISE.
- THE MAX LOAD BETWEEN ANCHORS SHALL BE LESS THAN 400 POUNDS.

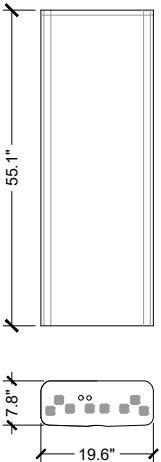
ANDREW SBNHH-1D65A

DIMENSION (H x W x D) 55" x 11.9" x 7.1"
WEIGHT 40.9 lbs



COMMSCOPE NNHH-65A-R4

DIMENSION (H x W x D) 55.1" x 19.6" x 7.8"
WEIGHT 68.3 lbs



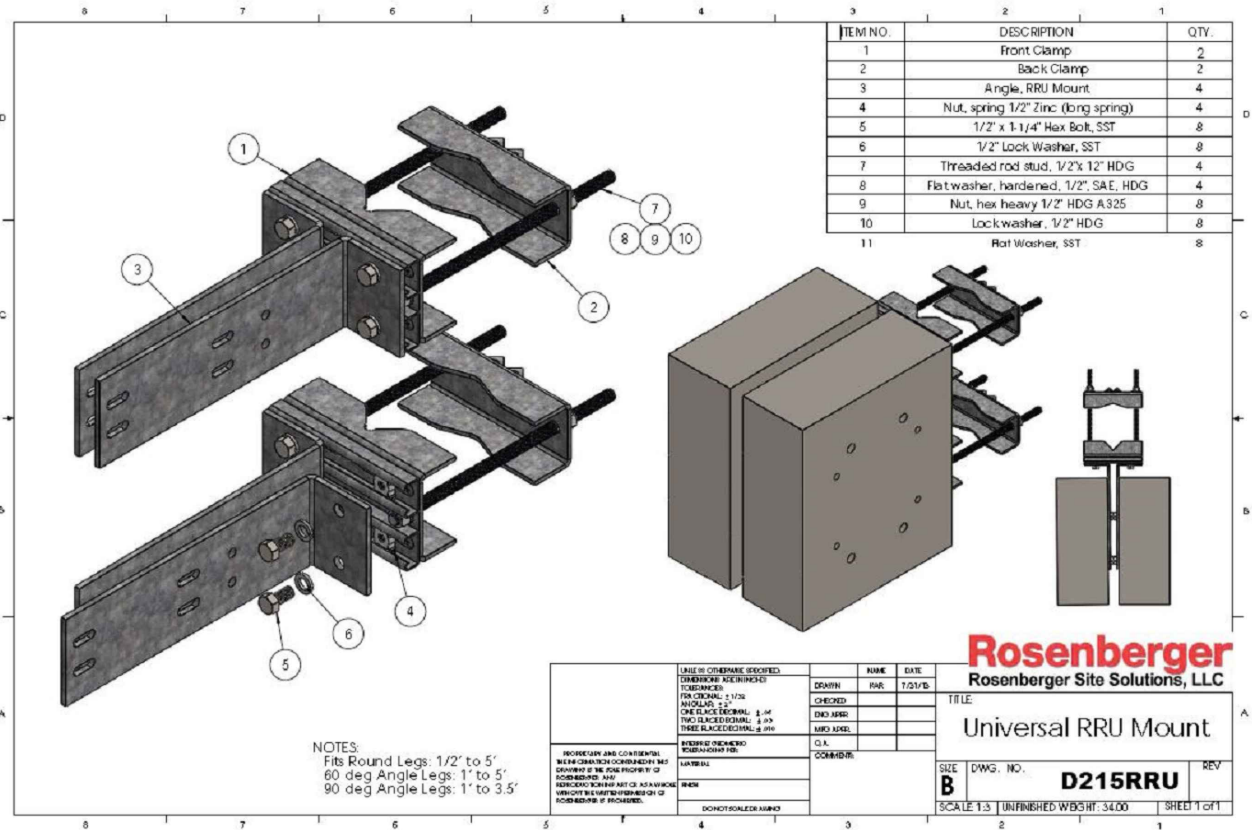
ALCATEL-LUCENT B25 RRH4X30 (4-WAY RECEIVE)

DIMENSION (H x W x D) 21.2" x 12.0" x 7.2"
WEIGHT 53 lbs



ALCATEL-LUCENT RRH4x25-WCS-4R (4-WAY RECEIVE)

DIMENSION (H x W x D) 31.5" x 11.8" x 8.7"
WEIGHT 70 lbs



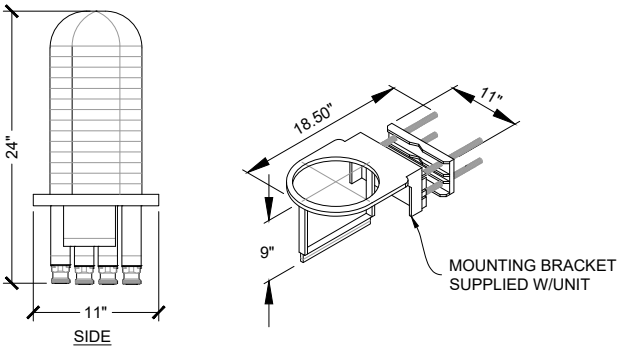
NOKIA

AHFIB Dimensions



RAYCAP DC6 DC/FIBER DISTRIBUTION BOX

DIMENSION (H x W x D) 24" x 11" x 11"
WEIGHT 32.8 lbs



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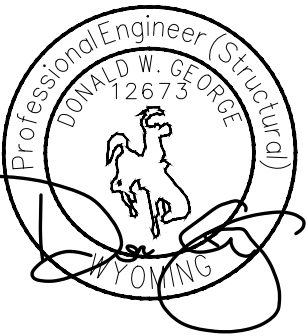
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SITE INFORMATION:

TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO
NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

EQUIPMENT
DETAILS

SHEET NUMBER:

R-1

DIMENSIONS - OUTDOOR

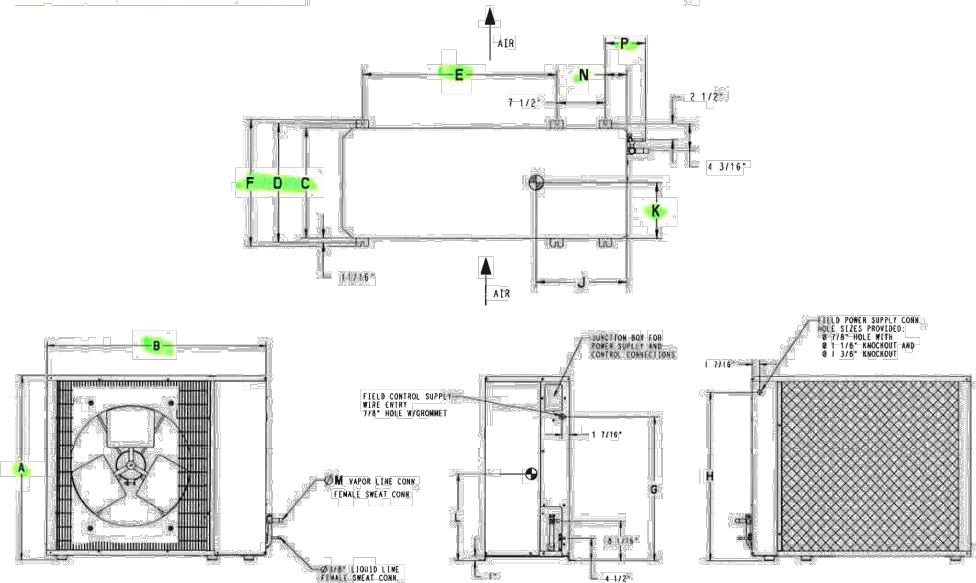


Fig. 4 - Outdoor Unit Dimensions

Table 4—Dimensions Indoor

	UNIT	DIMENSIONS In (mm)														OPERATING WEIGHT lbs (kg)
		A	B	C	D	E	F	G	H	J	K	L	M	N	P	
Cooling Only	18	31.1 (791)	36.9 (938)	14.6 (370)	16 (406)	23.4 (595)	17.2 (437)	23.1 (587)	28.1 (713)	13 (330)	6.6 (168)	11.3 (286)	0.6 (16)	2.9 (73)	5.8 (148)	146 (66)
	24	31.1 (791)	36.9 (938)	14.6 (370)	16 (406)	23.4 (595)	17.2 (437)	23.1 (587)	28.1 (713)	14 (356)	6.8 (171)	11.6 (295)	0.8 (19)	2.9 (73)	5.8 (148)	148 (67)
	30	37.1 (943)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	29.1 (740)	34.1 (865)	13.7 (348)	8.1 (206)	15.9 (403)	0.8 (19)	3.4 (86)	6.4 (162)	183 (83)
	36	37.1 (943)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	29.1 (740)	34.1 (865)	13.7 (348)	8.1 (206)	15.9 (403)	0.9 (22)	3.4 (86)	6.4 (162)	184 (83)
	48	37.1 (943)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	29.1 (740)	34.1 (865)	14.5 (368)	8.5 (216)	18.9 (479)	0.9 (22)	3.4 (86)	6.4 (162)	213 (97)
	60	43.1 (1095)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	35.1 (892)	40.1 (1018)	14.5 (368)	8.5 (216)	18.9 (479)	0.9 (22)	3.4 (86)	6.4 (162)	245 (111)
Heat Pump	30	37.1 (943)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	29.1 (740)	34.1 (865)	13.7 (348)	8.1 (206)	15.9 (403)	0.8 (19)	3.4 (86)	5.5 (140)	196 (89)
	36	37.1 (943)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	29.1 (740)	34.1 (865)	13.7 (348)	8.1 (206)	15.9 (403)	0.9 (22)	3.4 (86)	5.5 (140)	197 (89)
	48	43.1 (1095)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	35.1 (892)	40.1 (1018)	14.5 (368)	8.5 (216)	18.9 (479)	0.9 (22)	3.4 (86)	5.5 (140)	246 (112)

NOTE: Dimensions shown in feet-inches. Dimensions in () are millimeters.

DIMENSIONS - INDOOR

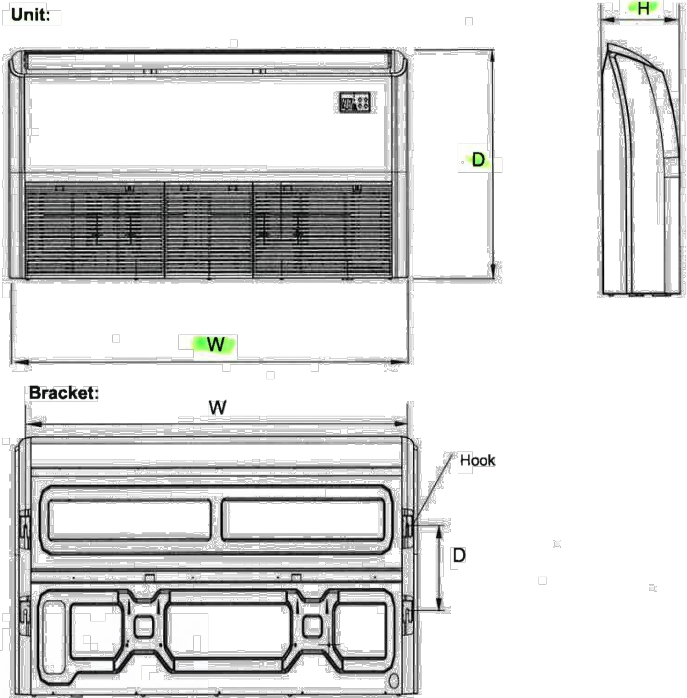


Fig. 3 - 40MKCB**F, 40MKQB**F Unit and Bracket Dimensions

Table 3—Dimensions Indoor

INDOOR UNIT SIZE BTU/Hr	HEIGHT (H) in (mm)	WIDTH (W) in (mm)	DEPTH (D) in (mm)	OPERATING WEIGHT lb (kg)
AC				
18K	9.3 (235)	42.0 (1068)	26.6 (675)	59.7 (27.1)
24K - 34K	9.3 (235)	65.0 (1650)	26.6 (675)	91.9 (41.7)
48K - 54K	9.3 (235)	65.0 (1650)	26.6 (675)	98.8 (44.8)
HP				
30K - 48K	9.3 (235)	65.0 (1650)	26.6 (675)	98.8 (44.8)
Bracket				
18K AC		38.7 (983)	8.7 (220)	
24K - 54K AC/HP		61.6 (1565)	8.7 (220)	

Table 9 - 25HHA4/224ANS Electrical Data

UNIT SIZE - voltage, series	V/PH	OPER VOLTS*		COMPR		FAN	MCA	MAX FUSE** or CKT BRK AMPS
		MAX	MIN	LRA	RLA	FLA		
30--3	208/230/1	253	197	64	12.8	1.2	17.2	30
36--3				77	14.2	1.2	19	30
48--3				117	21.8	1.45	28.8	50
36--5	208/230/3	253	197	71	9.3	1.2	12.8	20
48--5				83.1	13.7	1.45	18.6	30
36--6				38	5.6	0.6	7.6	15
48--6	480/3	506	414	41	6.2	0.8	8.6	15

Table 10 - 40MKCB**F Electrical Data

INDOOR UNIT SIZE BTU/Hr	V-Ph-Hz	VOLTAGE RANGE		FAN	POWER	
		Min (V)	Max (V)		FLA (A)	Max Fuse CB Amp (A)
18K	208-230-1-60	187	253		0.71	15
24K - 34K	208-230-1-60	187	253		0.7 x 2	15
54K	208-230-1-60	187	253		0.95 x 2	15

Table 11 - 40MKQB**F Electrical Data

INDOOR UNIT SIZE BTU/Hr	V-Ph-Hz	VOLTAGE RANGE		FAN	POWER	
		Min (V)	Max (V)		FLA (A)	Max Fuse CB Amp (A)
30K - 48K	208-230-1-60	187	253		0.95 x 2	15

LEGEND
FLA - Full Load Amps
HACR - Heating, Air Conditioning, Refrigeration
LRA - Locked Rotor Amps
NEC - National Electrical Code
RLA - Rated Load Amps (compressor)
*Permissible limits of the voltage range at which the unit will operate satisfactorily
**Time-Delay fuse.
Complies with 2007 requirements of ASHRAE Standards 90.1

Fig. 6 - Outdoor Unit Clearance

UNIT	Outdoor Clearances	
	COIL FACING WALL - In. (mm)	FAN FACING WALL - In. (mm)
A	24 (610)	24 (610)
B	24 (610)	24 (610)
C	20 (508)	6 (152)
D	6 (152)	8 (203)
E	6 (152)	20 (508)

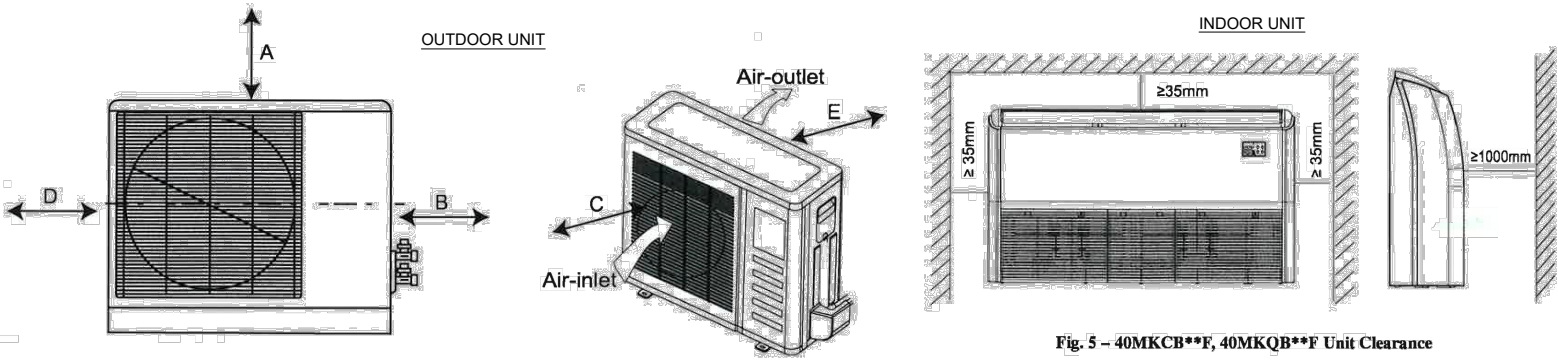


Fig. 5 - 40MKCB**F, 40MKQB**F Unit Clearance



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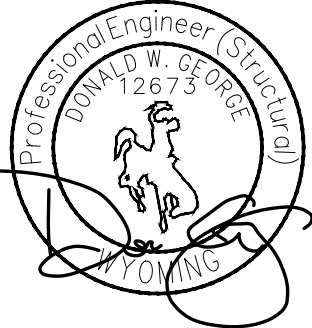
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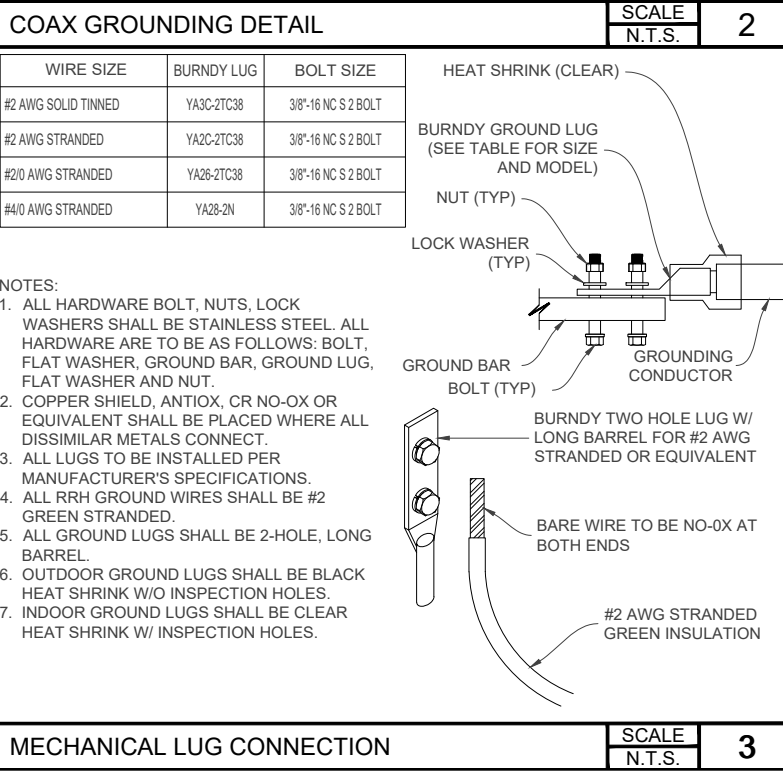
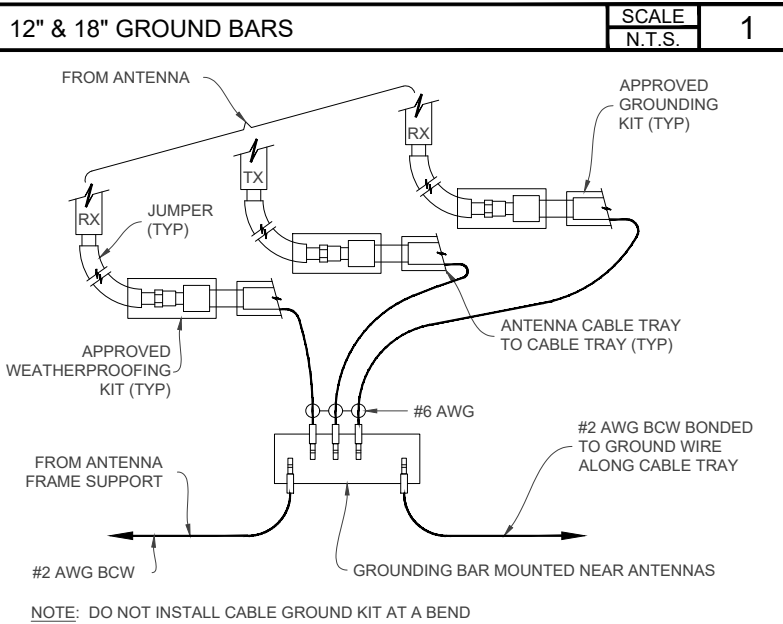
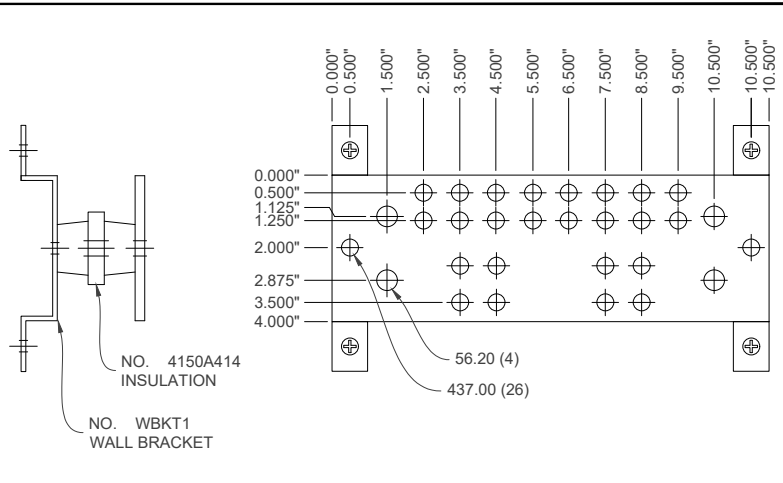
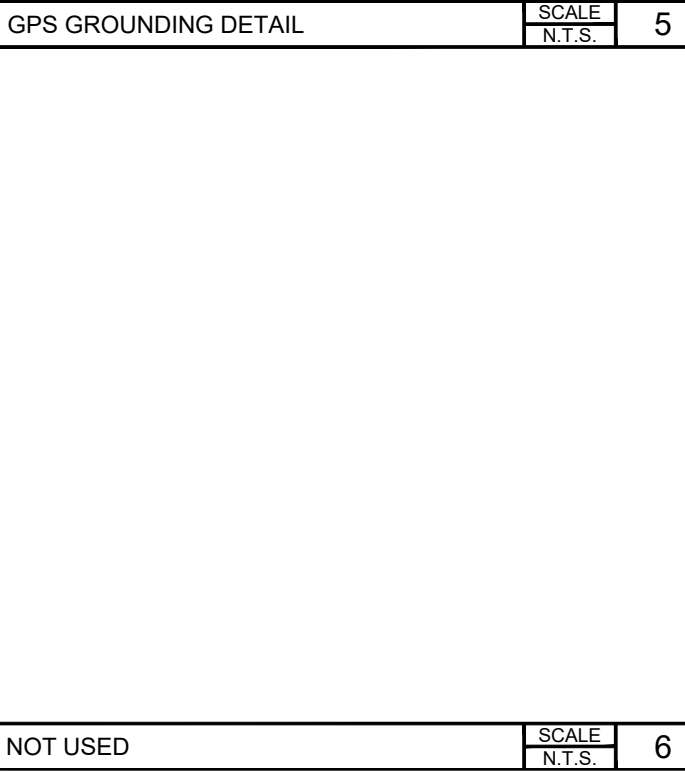
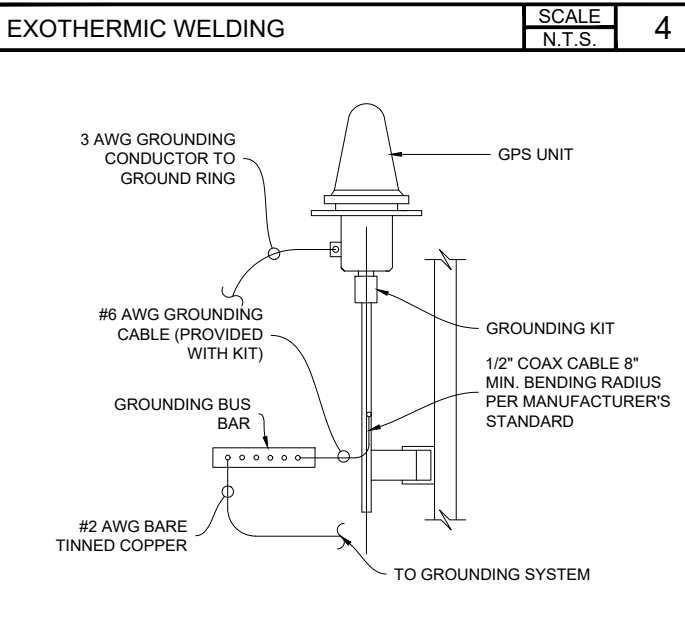
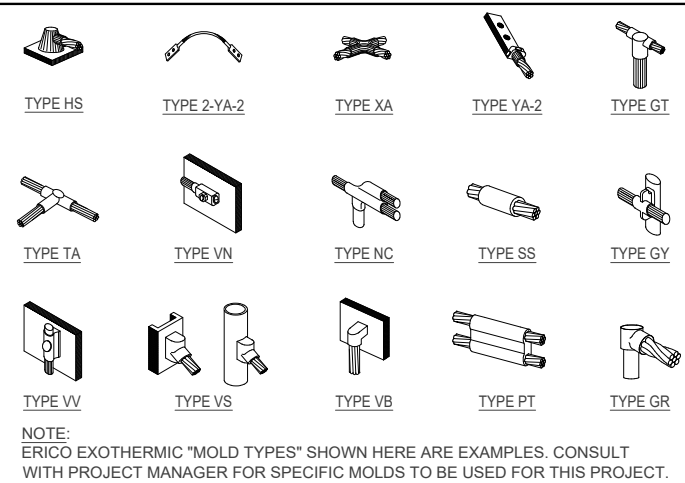
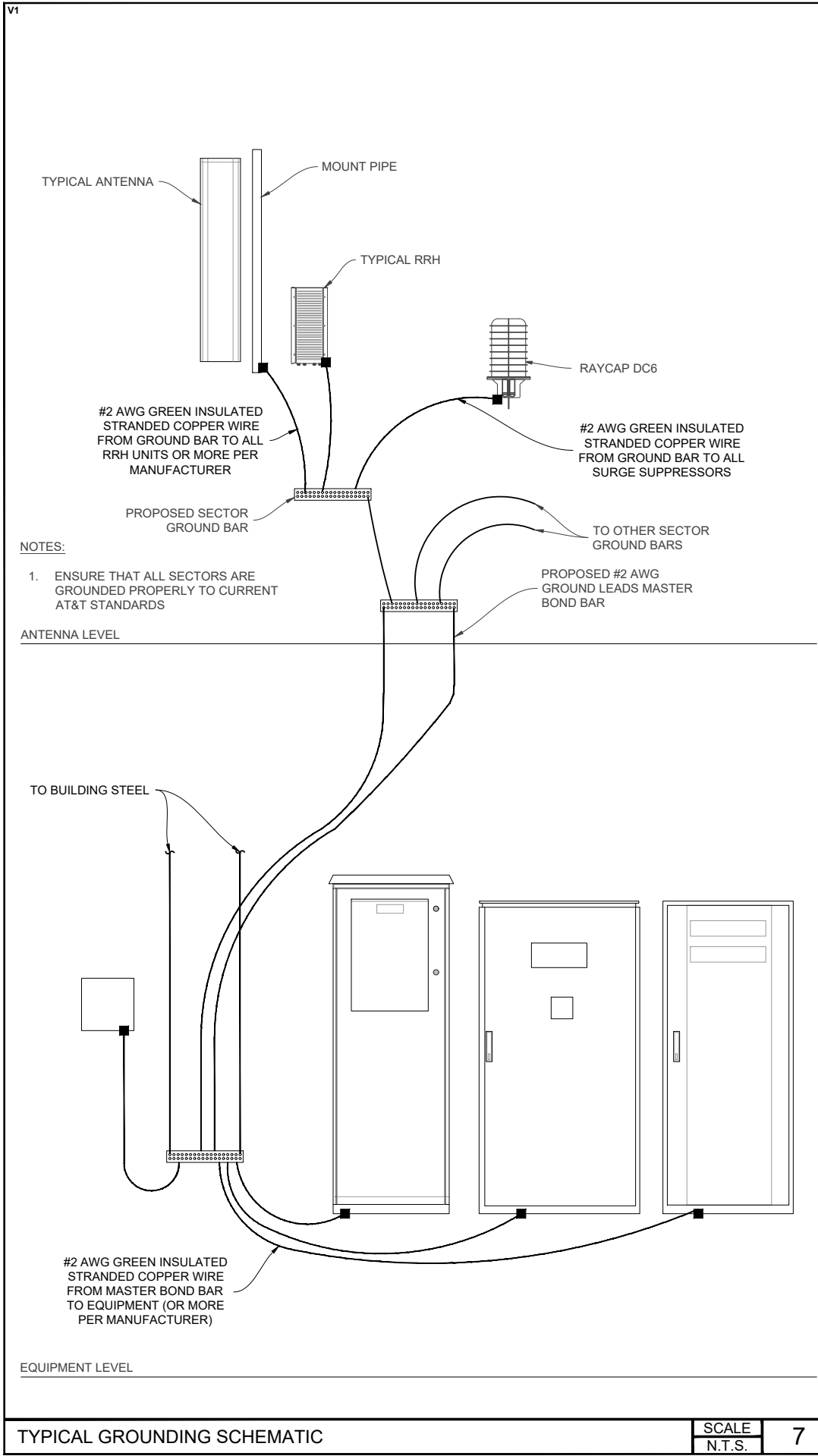
160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

HVAC DETAILS

SHEET NUMBER:

R-2



GENERAL DYNAMICS
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PO BOX 2621, BOISE, ID 83701
P: 530.539.4787
E: CONTACT@GEOSTRUCTURAL.COM
WWW.GEOSTRUCTURAL.COM

REVISIONS			
REV	DATE	DESCRIPTION	INT
2	01/31/19	REVISED PER PUBLIC WORKS	GGD
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B	11/08/18	EQUIPMENT TO 3rd FLOOR	GGD
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CHECKED BY: GGD

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SITE INFORMATION:
**TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO**
NEW SITE BUILD
160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:
**GROUNDING
DETAILS**

SHEET NUMBER:
G-1

PLANNING

Project Number	P19-041	Applied	2/22/2019	STOL
Project Name	CUP - AT&T	Approved		
Type	CUP	Closed		
Subtype	WIRELESS COMS FACILITY	Expired		
Status	STAFF REVIEW	Status		
Applicant	AT&T	Owner	TOWN OF JACKSON	
Site Address		City	State	Zip
160 S MILLWARD STREET		JACKSON	WY	83001
Subdivision		Parcel No	General Plan	
WORT ADDITION 2ND		22411633108003		

Type of Review	Status	Dates			
		Sent	Due	Received	Remarks
Contact					
Notes					
Building	APPROVED W/CONDITI	2/22/2019	3/15/2019	2/25/2019	
Kelly Sluder					
(2/25/2019 10:59 AM KS)					
The location of the equipment must meet building code requirements					
Fire		2/22/2019	3/15/2019		see comments
Kathy Clay					
(2/25/2019 10:56 AM KS)					
Location of the equipment must meet the building code requirements.					
Joint Housing Dept	NO COMMENT	2/22/2019	3/15/2019	3/12/2019	
Stacy Stoker					
Legal	APPROVED W/CONDITI	2/22/2019	3/15/2019	3/15/2019	
A Cohen-Davis					
(3/15/2019 2:49 PM LC)					
* In order to clarify the need for a CUP in this situation it hinges on the fact that AT&T is outside the leased area, which removes this application from the purview of 6409's automatic expansion provisions.					
* In light of the fact that Verizon's facility is built, the legal department asks the applicaiton be supplemented with an actual image of the as-built facility, and not a simulated depiction (A-4).					
Other	APPROVED W/CONDITI	3/1/2019	3/15/2019	4/5/2019	Kevin Meagher - See attachment
<none>					
Parks and Rec	NO COMMENT	2/22/2019	3/15/2019	3/5/2019	
Steve Ashworth					
(3/5/2019 9:25 AM STOL)					
No comments from Parks & Rec on AT&T submittal P19-041.					
Andy Erskine					

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Type of Review Contact Notes	Status	Dates			Remarks
		Sent	Due	Received	
Pathways Brian Schilling	NO COMMENT	2/22/2019	3/15/2019	2/28/2019	
Planning Brendan Conboy	APPROVED W/CONDITI	2/22/2019	3/15/2019	4/5/2019	See Staff Report
Police Todd Smith	NO COMMENT	2/22/2019	3/15/2019	2/25/2019	
Public Works Rachelle Rhodes (3/18/2019 3:30 PM RR) Plan Review Comments - SUFFICIENT P19-041 Pre-Application, Conditional Use Permit AT&T Wireless 160 South Millward Street March 18, 2018 Rachelle Rhodes, 307-733-3079	APPROVED W/CONDITI	2/22/2019	3/15/2019	3/18/2019	see notes
*The following comments are being provided for use in preparation of future Development Plan submittals and are required for sufficiency. Town of Jackson's Existing GPS Antenna: The applicant is required to use all means necessary to ensure that the GPS antenna and its ability to collect and provide high quality data collection are prioritized now and in the future. Any proposed impact is required to be included in permit application plans. The GPS antenna shall be inspected after construction to ensure no degradation in signal or use at the expense of the applicant. General: In addition to the required Town of Jackson submittal requirements, The Engineering Department would like to encourage applicants to submit plans, documents, etc in electronic PDF format in addition to the standard paper submittal(s). A complete grading and erosion control plan shall be provided on the plans consistent with the LDR 's. A parking and access plan per the LDR's shall be required for any excavation work. If construction activities will impact public access or sidewalks, a pedestrian corridor plan shall be provided for review. This shall include all dimensions and elevations in relation to existing curb and ADA compliance. All work to be completed within the Town's right-of-way shall be specifically addressed.					
START Darren Brugmann		2/22/2019	3/15/2019		

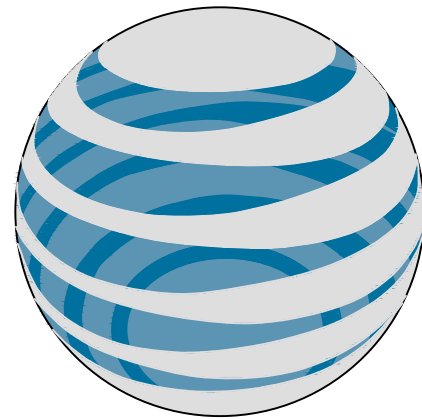
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at&t

IDL04511 RELO TOWN OF JACKSON PARKING GARAGE FA#: 14284658

56.5' ROOFTOP

PTN# 3770A0FQYD
NEW SITE BUILD

SITE INFORMATION	
SITE ADDRESS:	160 S MILLWARD STREET JACKSON, WY 83001
COUNTY:	TETON
COORDINATES:	43.4776580° / -110.7642330° (FOR NAVIGATION ONLY)
PROPERTY LANDLORD OR OWNER:	TOWN OF JACKSON
JURISDICTION:	TOWN OF JACKSON
OCCUPANCY GROUP	UNMANNED
CONSTRUCTION TYPE	II-B
POWER COMPANY:	LOWER VALLEY ENERGY
TELCO COMPANY:	CENTURY LINK
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

CONTACT INFORMATION	
APPLICANT:	AT&T 4393 RIVERBOAT ROAD, SUITE 400 TAYLORSVILLE, UTAH 84123 PHONE: 801.458.8888 CONTACT: BYRON BOSSHARDT
PROJECT MANAGER:	GENERAL DYNAMICS WIRELESS SERVICES, LLC. 1152 W. 2400 S., SUITE C SALT LAKE CITY, UT 84119 PHONE: 801.201.0566 CONTACT: ROCKY MATTISON
ARCHITECTURE & ENGINEERING:	GEOSTRUCTURAL, LLC. PO BOX 2621 BOISE, ID 83701 PHONE: 530.539.4787 CONTACT: DON GEORGE

VICINITY MAP



DRIVING DIRECTIONS

From Jackson Airport:
Turn right at the 1st cross street onto US-191 S/US-26 W/US-89 S (8.8 mi)
Turn right onto W Broadway (0.1 mi)
Turn left onto S Millward St (0.1 mi)
Enter parking garage and go to the top level
Site is in the elevator room door on right

APPROVALS		
RF MANAGER	_____	_____
CONSTRUCTION MANAGER	_____	_____
SITE ACQ. MANAGER	_____	_____
PROPERTY OWNER	_____	_____
OPERATIONS MANAGER	_____	_____

SCOPE OF WORK
PROPOSED: EXISTING ROOM ELECTRICAL & MECHANICAL BUILD-OUT (1) INDOOR POWER BAY / BATTERY RACK (1) LTE / UMTS RACK (1) 7705 / FIBER RACK (9) SBNHH-1D65A 4.6' TALL ANTENNAS (3) NNHH-65A-R4 4.6' TALL ANTENNAS (3) B25 RRH4x30-4R (3) RRH4x25-WCS-4R (6) AIRSCALE DUAL RRH 4T4R B25/60 320W AHFIB (3) DC/FIBER DISTRIBUTION BOXES

DO NOT SCALE DRAWINGS
CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR THE SAME.

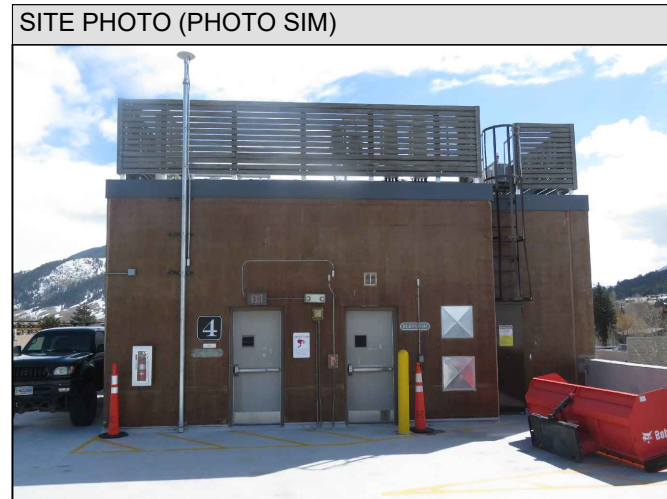
CODE COMPLIANCE
ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF ALL GOVERNING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. BUILDING CODE AND DESIGN STANDARD: 2018 IBC W/ STATE AMENDMENTS

FCC COMPLIANCE
RADIATION FROM THIS FACILITY WILL NOT INTERFERE WITH OPERATION OF OTHER COMMUNICATION DEVICES.

DIG LINE



62



SHEET INDEX	
SHEET	DESCRIPTION
T-1	TITLE SHEET
GN-1 - GN-6	GENERAL NOTES
SV-1	SITE SURVEY
A-1	SITE PLAN
A-2	EQUIPMENT PLAN
A-2.1	HVAC DUCTING PLAN
A-3	BUILDING ELEVATION
A-4	ANTENNA PLANS
A-4.1	ANTENNA MOUNT
R-1	EQUIPMENT DETAILS
R-2	HVAC DETAILS
G-1	GROUNDING DETAILS
E-1	UTILITY ROUTING PLAN
E-2	EQUIPMENT ROOM POWER & LIGHTING PLAN
E-3	SINGLE-LINE & SCHEDULE



GENERAL DYNAMICS
Information Technology



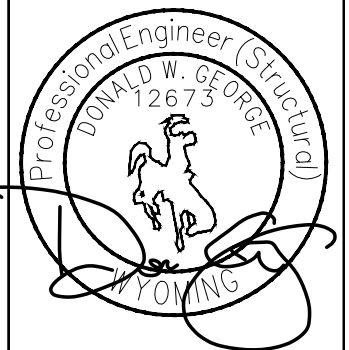
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PARKING GARAGE
IDL04511 RELO

NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

CONSTRUCTION NOTES:

1.

FOR THE PURPOSE OF CONSTRUCTION DRAWINGS THE FOLLOWING DEFINITIONS SHALL APPLY:

GENERAL CONTRACTOR: GENERAL DYNAMICS
SUBCONTRACTOR: ASSIGNED CONTRACTOR
2.

ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
3.

GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4.

ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
5.

ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
6.

UNLESS OTHER WISE, THE WORK SHALL INCLUDE FURNISHING, MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7.

PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO BE FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ARCHITECT/ENGINEERPRIOR TO PROCEEDING WITH WORK.
8.

THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9.

IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE SPACE FOR APPROVAL BY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING.
10.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS AND LOCAL JURISDICTION.
11.

GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLES.
12.

ERECTION SHALL BE DONE IN A WORK MANLIKE MANNER BY COMPETENT EXPERIENCED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
13.

SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. SUB CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
14.

WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. SUB CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWING PRIOR TO THE BEGINNING CONSTRUCTION.
15.

SUBCONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO THE COMMENCEMENT OF WORK.
16.

THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTORS EXPENSE TO THE SATISFACTION OF THE OWNER.
17.

THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18.

GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND SUBCONTRACTORS TO THE SITE AND/OR BUILDING.
19.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
20.

THE GENERAL CONTRACTOR SHALL MAINTAIN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISION, ADDENDA, AND CHANGES ORDERS ON THE PREMISES AT ALL TIMES.
21.

THE GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.

22.

NO TOWN OF JACKSON OPERATED UTILITIES SHALL BE IMPACTED WITHOUT A PUBLIC RIGHT-OF-WAY PERMIT, COORDINATION AND APPROVAL BY THE TOWN OF JACKSON
23.

ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES. AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ARCHITECT/ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO, A)FALL PROTECTION, B)CONFINED SPACE, C)ELECTRICAL SAFETY, D)TRENCHING & EXCAVATION.
24.

ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ARCHITECT/ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
25.

THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OF DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
26.

SUB CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION, EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
27.

NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING, FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACE IN ANY FILL OR EMBANKMENT.
28.

THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH GRADE AND COMPACTED TO 95 PERCENT STANCE PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL, PRE-APPROVED BY THE LOCAL JURISDICTION.
29.

ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
30.

ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER THE THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
31.

SUBCONTRACTOR SHALL SUBMIT A COMPLETE SET OS AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
32.

SUBCONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
33.

THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
34.

OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
35.

NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
36.

ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPGPRS WIRELESS SITES." INCASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
37.

SUBCONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF SUBCONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
38.

SUBCONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
39.

INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER.. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OF PROCEEDING WITH CONSTRUCTION.
40.

NO WHITE STROBIC LIGHTS ARE PERMITTED. LIGHTING IF REQUIRE, WILL MEET FAA STANDARDS AND REQUIREMENTS.
41.

ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
42.

NO NOISE, SMOKE, DUST, OR VIBRATION WILL RESULT FROM THIS FACILITY. (DISREGARD THIS NOTE IF THIS SITE HAS A GENERATOR)
43.

NO ADDITIONAL PARKING TO BE PROPOSED. EXISTING ACCESS AND PARKING TO REMAIN, UNLESS NOTED OTHERWISE.
44.

NO LANDSCAPING IS PROPOSED AT THIS SITE, UNLESS NOTED OTHERWISE.

SITE WORK & DRAINAGE:

PART 1 - GENERAL

CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN IN THESE PLANS.

- 1.1 REFERENCES:

A.

DOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION-CURRENT EDITION)

B.

ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)

C.

OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION)

- 1.2 INSPECTION AND TESTING:

A.

FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY SUBCONTRACTORS INDEPENDENT TESTING LAB. THIS WORK TO BE COORDINATE BY THE SUBCONTRACTOR.

B.

ALL WORK SHALL BE INSPECTED AND RELEASED BY THE GENERAL CONTRACTOR WHO PROPER PERFORMANCE OF THE WORK AS SPECIFIED AND/OR CALLED FOR ON THE DRAWINGS. IT IS THE SUBCONTRACTOR RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS WORK INACCESSIBLE OR DIFFICULT TO INSPECT.

- 1.3 SITE MAINTENANCE AND PROTECTION:

A.

PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OR WORK UNTIL COMPLETION OF THE SUBCONTRACT.

B.

AVOID DAMAGE TO THE SITE AND TO EXISTING FACILITIES, STRUCTURES, TREES, AND SCRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACILITIES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.

C.

KEEP SITE FREE OF ALL PONDING WATER.

D.

PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT AND EPA REQUIREMENTS.

E.

PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.

F.

EXISTING UTILITIES: DO NOT INTERRUPT EXISTING SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE ENGINEER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.

G.

PROVIDE A MINIMUM 48-HOUR NOTICE TO THE ENGINEER AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.

PART 2 - PRODUCTS

- 2.1

SUITABLE BACKFILL: ASTM D2321 (CLASS I, II, II OR IVA) FREE FROM FROZEN LUMPS, REFUSE, STONES, OR ROCKS LARGER THAT 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.2

NON-POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS III, IVA ORIVB) COARSE AGGREGATE. FREE FROM FROZEN LIMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.
- 2.3

POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM 52321 (CLASS IA, IB OR II) COARSE AGGREGATE FREE FROM FROZEN LUMPS, REFUSE STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL
- 2.4

SELECT STRUCTURAL FILL: GRANULAR FILL MATERIAL MEETING THE REQUIREMENTS OF ASTM E850-95. FOR USE AROUND UNDER STRUCTURES WHERE STRUCTURAL FILL MATERIAL ARE REQUIRED.
- 2.5

GRANULAR BEDDING AND TRENCH BACKFILL: WELL-GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2467 (SE OR SW-SM)
- 2.6

COARSE AGGREGATE FOR ACCESS ROAD SUBBASE COURSE SHALL CONFORM ASTM D2940.
- 2.7

UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTIC SILTS AND CLAYS (LL>45) MATERIAL CONTAINING REFUSE, FROZEN LIMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES IN ANY DIMENSION AND SOILS CLASSIFIED BY ASTM AS PT, MH, CH, OH, ML, AND DL.
- 2.8

GEOTEXTILE FABRIC: MIRAFI 500X OR APPROVED EQUAL.
- 2.9

PLASTIC MARKING TAPE: SHALL BE ACID AND ALKALI RESISTANT POLYETHYLENE FILM SPECIFICALLY MANUFACTURED FOR MARKING THE LOCATING UNDERGROUND UTILITIES 6 INCHES WIDE WITH A MINIMUM THICKNESS OF 0.004 INCHES, TAPE SHALL HAVE A MINIMUM STRENGTH OF 1500 PSI IN BOTH DIRECTIONS AND MANUFACTURED WITH INTEGRAL CONDUCTORS. FOIL BACKING OR OTHER MEANS TO PROTECT IT FROM CORROSION. TAPE COLOR SHALL BE RED FOR ELECTRIC UTILITIES AND ORANGE FOR TELECOMMUNICATION UTILITIES.



GENERAL DYNAMICS
Information Technology



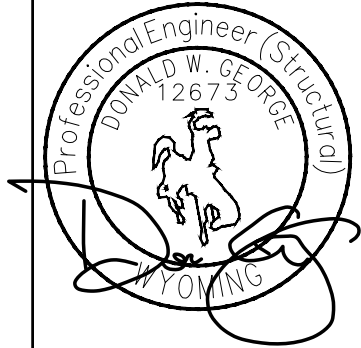
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CHECKED BY: GGD

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SITE INFORMATION:

TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO

NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-1

SITE WORK & DRAINAGE (CONT.)

PART 3 - EXECUTION

3.1 GENERAL:

- A.

BEFORE START GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ANY TIME.
- B.

BEFORE ALL SURVEY, LAYOUT, STAKING, AND MARKING, ESTABLISH AND MAINTAIN ALL LINE, GRADES, ELEVATIONS AND BENCHMARKS NEED FOR EXECUTION OF THE WORK.
- C.

CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED.

1.

REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS, AND OTHER DEBRIS. BRUSH AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE, RAKE, DISK OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6 INCHES, AND REMOVE TO A DEPTH OR 12 INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.

2.

REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS.

3.

EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED TILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION WORK COMPLETELY WITH SUITABLE FILL.

D.

REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS BURNING WILL NOT BE PERMITTED.

E.

PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES ON THE DRAWINGS AND TO ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, OR OTHER ITEM THAT MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION. NOTIFY THE CONSTRUCTION MANAGER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.

F.

SEPARATE AND STOCK PILE ALL EXCAVATED MATERIALS SUITABLE FOR BACKFILL, ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.
- 3.2 BACKFILL:
- A.

AS SOON AS PRACTICAL, AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST-IN-PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.

1.

PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS AND UNSUITABLE MATERIALS.

2.

BACKFILL BY PLACING AND COMPACTING SUITABLE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAT 8-INCHES LOOSE THICKNESS AND COMPACTED. WHERE HAND OPERATED COMPACTORS ARE USED, THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 4 INCHES IN LOOSE DEPTH AND COMPACTED.

3.

WHENEVER THE DENSITY TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DISKING AND DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE MINIMUM COMPACTION REQUIREMENTS.

B.

THOROUGHLY COMPACT EACH LAYER OF BACKFILL TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

3.3 TRENCH EXCAVATION:

A.

UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE GENERAL CONTRACTOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS.

B.

EXTEND THE TRENCH WIDTH A MINIMUM OF 7 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.

C.

WHEN SOIL YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED. BACKFILL AT THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION AND BACKFILL WITH GRANULAR BEDDING MATERIAL.

3.4 TRENCH BACKFILL:

A.

PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE DRAWING AND THE UTILITY REQUIREMENTS.

B.

NOTIFY THE GENERAL CONTRACTOR 24 HOURS IN ADVANCE OF BACKFILLING.

C.

CONDUCT UTILITY CHECK TESTS BEFORE BACKFILLING, BACKFILL AND COMPACT TRENCH BEFORE ACCEPTANCE TESTING.

D.

PLACE GRANULAR TRENCH BACKFILL UNIFORMLY ON BOTH SIDES OF THE CONDUITS IN 6-INCH UNCOMPACTED LIFTS UNTIL 12 INCHES OVER THE CONDUITS. SOLIDLY RAM AND TRAMP BACKFILL INTO SPACE AROUND CONDUITS.

E.

PROTECT CONDUIT FROM LATERAL MOVEMENT, IMPACT DAMAGE OR UNBALANCED LOADING.

F.

ABOVE THE CONDUIT EMBEDMENT ZONE, PLACE AND COMPACT SATISFACTORY BACKFILL MATERIAL IN 8 INCH MAXIMUM LOOSE THICKNESS LIFTS TO RESTORE THE REQUIRED FINISHED SURFACE GRADE.

G.

COMPACT FINAL TRENCH BACKFILL TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY ADJACENT TO THE TRENCH BUT NO LESS THAN A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

3.5 AGGREGATE ACCESS ROAD:

A.

CLEAR GRUB, STRIP AND EXCAVATE FOR THE ACCESS ROAD TO THE LINES AND GRADES INDICATED ON THE DRAWINGS. SCARIFY TO A DEPTH OF 6INCHES AND PROOF-ROLL. ALL HOLES, RUTS , SOFT PLACES AND OTHER DEFECTS SHALL BE CORRECTED.

B.

THE ENTIRE SUBGRADE SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 1557.

C.

AFTER PREPARATION OF THE SUBGRADE IS COMPLETE THE GEOTEXTILE FABRIC (MIRAFI 500XI) SHALL BE INSTALLED TO THE LIMITS INDICATED ON THE DRAWINGS BY ROLLING THE FABRIC OUT LONGITUDINALLY ALONG THE ROADWAY THE FABRIC SHALL NOT BE DRAGGED ACROSS THE SUBGRADE. PLACE THE ENTIRE ROLL IN A SINGE OPERATION, ROLLING OUT AS SMOOTHLY AS POSSIBLE.

1.

OVERLAPS PARALLEL TO THE ROADWAY WILL BE PERMITTED AT THE CENTERLINE AND AT LOCATIONS BEYOND THE ROADWAY SURFACE WIDTH (I.E. WITHIN THE SHOULDER WIDTH) ONLY. NO LONGITUDINAL OVERLAPS SHALL BE LOCATED BETWEEN THE CENTERLINE AND THE SHOULDER. PARALLEL OVERLAPS SHALL BE A MINIMUM OF 3 FEET WIDE.

2.

TRANSVERSE (PERPENDICULAR TO THE ROADWAY) OVERLAPS AT THE END OF A ROLL, SHALL OVERLAPS IN THE DIRECTION OF THE AGGREGATE PLACEMENT (PREVIOUS ROLL ON TOP) AND SHALL HAVE A MINIMUM LENGTH OF 3 FEET.

3.

ALL OVERLAPS SHALL BE PINNED WITH STAPLES OF NAILS A MINIMUM O 10 INCHES LONG TO INSURE POSITIONING DURING PLACEMENT OF AGGREGATE. PIN LONGITUDINAL SEAMS AT 25 FOOT CENTERS AND TRANSVERSE SEAMS EVERY 5 FEET.

D.

THE AGGREGATE BASE AND SURFACE COURSES SHALL BE CONSTRUCTED IN LAYERS NOT GEOTEXTILE FABRIC SHALL BE END-DUMPED ON THE FABRIC FROM THE FREE END OF THE FABRIC OR OVER PREVIOUSLY PLACED AGGREGATE. THE FIRST LIFT SHALL BE BLADED DOWN TO A THICKNESS OF OF 8 INCHES PRIOR TO COMPACTION. AT NO TIME SHALL EQUIPMENT EITHER TRANSPORTING THE AGGREGATE OR GRADING THE AGGREGATE BE PERMITTED ON THE ROADWAY WITH LESS THAN 4 INCHES OF MATERIAL COVERING THE FABRIC.

E.

THE AGGREGATE SHALL BE IMMEDIATELY COMPACTED TO NOT LESS THAT 95% OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE PROCTOR TEST, ASTM D 1557 WITH A TAMPING ROLLER, OR WITH A PNEUMATIC-TIRED ROLLER, OR WITH A VIBRATORY MACHINE OR ANY COMBINATION OF THE ABOVE. THE TOP LAYER SHALL BE GIVEN A FINAL ROLLING WITH A THREE-WHELL OR TANDEM ROLLER.

3.6 FINISH GRADING:

A.

PERFORM ALL GRADING TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND SMOOTH, EVEN SURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION, GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.

B.

UTILIZE SATISFACTORY FILL MATERIAL, RESULTING FROM THE EXCAVATION WORK IN THE CONSTRUCTION OF FILLS, EMBANKMENTS AND FOR REPLACEMENTS OF REMOVED UNSUITABLE MATERIALS.

C.

ACHIEVE FINISHED GRADE BY PLACING A MINIMUM OF 4 INCHES OF 1/2"-3/4" CRUSHED STONE ON TOP SOIL STABILIZER FABRIC.

D.

REPAIR ALL ACCESS ROADS AND SURROUND AREAS USED DURING THE COURSE OF THIS WORK TO THEIR ORIGINAL CONDITION.

3.7 ASPHALT PAVING ROAD:

A.

DIVISION 600-KDOT FLEXIBLE PAVEMENT (UPDATE PER LOCAL DOT)

B.

SECTION 403-MODOT ASPHALT CONCRETE PAVEMENT.

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REVISIONS			
REV	DATE	DESCRIPTION	INT
3	04/16/19	ELECTRICAL DESIGN ADDED	JCM
2	01/31/19	REVISED PER PUBLIC WORKS	GGD
1	01/22/19	REVISED PER ZONING	GGD
0	11/12/18	ISSUED FOR ZONING	GGD
B	11/06/18	EQUIPMENT TO 3rd FLOOR	GGD
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PARKING GARAGE
IDL04511 RELO

NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-2

ELECTRICAL NOTES:

PART 1 - GENERAL

1.1 CONTRACTOR RESPONSIBILITIES

- A. CONTRACTOR SHALL INSPECT THE EXISTING SITE CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE SUBCONTRACTORS FUNCTIONS. THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
- B. THE SUBCONTRACTOR SHALL OBTAIN PERMITS, LICENSES, MAKE ALL DEPOSITS, AND PAY ALL FEES REQUIRED FOR THE CONSTRUCTION PERFORMANCE FOR THE WORK UNDER THIS SECTION.
- C. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. THE SUBCONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWINGS SHALL NOT BE SCALED TO DETERMINED DIMENSIONS.

1.2 LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES:

- A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, AND ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUES AND CODES. CONDUIT BENDS SHALL BE THE RADIUS BEND FOR THE TRADE SIZE OF CONDUIT IN COMPLIANCE WITH THE LATEST EDITIONS OF NEC.

1.3 REFERENCES:

- A. THE PUBLICATIONS LISTED BELOW ARE PART OF THIS SPECIFICATION. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE. THIS SPECIFICATION IS ISSUED FOR THE CONSTRUCTION UNLESS OTHER WISE NOTED. EXCEPT AS MODIFIED BY THE REQUIREMENT SPECIFIED HEREIN OR THE DETAILS OF THE DRAWINGS. WORK INCLUDED IN THIS SPECIFICATION SHALL CONFORM TO THE APPLICABLE PROVISION OF THESE PUBLICATIONS.
- ANSI/IEEE (AMERICAN NATION STANDARDS INSTITUTE)
 - ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)
 - ICE (INSULATED CABLE ENGINEERS ASSOCIATION)
 - NEMA (NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION)
 - NEPA (NATIONAL ENVIRONMENTAL PROTECTION ASSOCIATION)
 - NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)
 - OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
 - UL (UNDERWRITERS LABORATORIES, INC.)
 - AT&T MOBILITY GROUNDING STANDARD ND-00071
 - IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS)

1.4 SCOPE OF WORK:

- A. WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL, AND ASSOCIATED SERVICES REQUIRED TO COMPLETE REQUIRED CONSTRUCTION AND BE OPERATIONAL.
- B. ALL ELECTRICAL EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY TESTED, ADJUSTED, AND ALIGNED BY THE SUBCONTRACTOR.
- C. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATING, DRAINING, TRENCHES, BACKFILLING, AND REMOVAL OF EXCESS DIRT.
- D. THE SUBCONTRACTOR SHALL FURNISH TO THE OWNER WITH CERTIFICATES OF FINAL INSPECTION AND APPROVAL FROM THE INSPECTION AUTHORITIES HAVING JURISDICTION.
- E. THE SUBCONTRACTOR SHALL PREPARE A COMPLETE SET OF AS-BUILT DRAWINGS, DOCUMENT ALL WIRING EQUIPMENT CONDITIONS, AND CHANCES WHILE COMPLETING THIS CONTRACT. THE AS-BUILT DRAWINGS SHALL BE SUBMITTED AT THE COMPLETION OF THE PROJECT.

PART 2 - PRODUCTS

2.1 GENERAL:

- A. ALL MATERIALS AND EQUIPMENT SHALL BE UL LISTED, NEW AND FREE FROM DEFECTS.
- B. All ITEMS OF MATERIALS AND EQUIPMENT SHALL BE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED.
- C. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OR APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- D. ALL OVER CURRENT DEVICES HAVE AN INTERRUPTING CURRENT RATING EQUAL TO OR GREATER THAT THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED. 10000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT.

2.2 MATERIALS AND EQUIPMENT:

- A. CONDUIT:

- RIGID METAL CONDUIT (RMC) SHALL BE HOTT-DIPPED GALVANIZED INSIDE AND OUTSIDE INCLUDING ENDS AND THREADS AND ENAMELED OR LACQUERED IN ADDITION TO GALVANIZING.
 - LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL BE UL LISTED.
 - CONDUIT CLAMPS, STRAPS AND SUPPORTS SHALL BE STEEL OR MALLEABLE IRON. ALL FITTINGS SHALL BE COMPRESSION AND CONCRETE TIGHT TYPE. GROUNDING BUSHINGS WITH INSULATED THROATS SHALL BE INSTALLED ON ALL CONDUIT TERMINATIONS.
 - NONMETALLIC CONDUIT AND FITTINGS SHALL BE SCHEDULE 40 PVC. INSTALL USING SOLVENT-CEMENT-TYPE JOINTS AS RECOMMENDED BY THE MANUFACTURER.
- B. CONDUCTORS AND CABLE:
- CONDUCTORS AND CABLE SHALL BE FLAME-RETARDANT, MOISTURE AND HEAT RESISTANT THERMOPLASTIC, SINGLE CONDUCTOR, COPPER, TYPE THHN/THWN-2, 600 VOLT, SIZE AS INDICATED, 12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR USED.
 - 10 AWG AND SMALLER CONDUCTOR SHALL BE SOLID OR STRANDED AND 6 AWG AND LARGER CONDUCTOR SHALL BE STRANDED.
 - SOLDERLESS, COMPRESSION-TYPE CONNECTORS SHALL BE USED FOR TERMINATION OF ALL STRANDED CONDUCTORS.
 - STRAIN-RELIEF SUPPORTS GRIPS SHALL BE HUBBELL KELLEMS OR APPROVED EQUAL. CABLES SHALL BE SUPPORTED IN ACCORDANCE WITH THE NEC AND CABLE MANUFACTURERS RECOMMENDATIONS.
 - ALL CONDUCTORS SHALL BE TAGGED AT BOTH ENDS OF THE CONDUCTOR, AT ALL PULL BOXES, J-BOXES, EQUIPMENT AND CABINETS AND SHALL BE IDENTIFIED WITH APPROVED PLASTIC TAGS (ACTION CRAFT, BRADY, OR APPROVED EQUAL).
- C. DISCONNECT SWITCHES:
- DISCONNECT SWITCHES SHALL BE HEAVY DUTY, DEAD-FRONT, QUICK-MAKE, QUICK-BREAK, EXTERNALLY OPERABLE, HANDLE LOCKABLE AND INTERLOCK WITH COVER IN CLOSED POSITION RATING AS INDICATED, UL LABELED FURNISHED IN NEMA 3R ENCLOSURE, SQUARE-D OR APPROVED EQUAL.
- D. CHEMICAL ELECTROLYTIC GROUNDING SYSTEM:
- INSTALL CHEMICAL GROUND AS REQUIRED. THE SYSTEM SHALL BE ELECTROLYTIC MAINTENANCE FREE ELECTRODE CONSISTING OF RODS WITH A MINIMUM OF 2 AWG CU EXOTHERMALLY WELDED PIGTAIL, PROTECTIVE BOXES, AND BACKFILL MATERIAL. MANUFACTURER SHALL BE LYNCOLE XIT GROUND ROD TYPES K2-(*) CS OR K2L-(*) CS (*) LENGTH AS REQUIRED.
 - GROUND ACCESS BOX SHALL BE A POLY-PLASTIC BOX FOR NON-TRAFFIC APPLICATIONS. INCLUDING BOLT DOWN FLUSH COVER WITH "BREATHER" HOLES, XIT MODEL #XB-22. ALL DISCONNECT SWITCHES AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS ID NUMBERING, AND THE ELECTRICAL POWER SOURCE.
 - BACKFILL MATERIAL SHALL BE LYNCONITE AND LYNCOLE GROUNDING GRAVEL.
- E. SYSTEM GROUNDING:
- ALL GROUNDING COMPONENTS SHALL BE TINNED AND GROUNDING CONDUCTOR SHALL BE 2 AWG BARE, SOLID, TINNED, COPPER, ABOVE GRADE GROUNDING CONDUCTORS SHALL BE INSULATED WHERE NOTED.
 - GROUNDING BUSES SHALL BE BARE, TINNED, ANNEALED COPPER BARS OF RECTANGULAR CROSS SECTION. STANDARD BUS BARS MGB, SHALL BE FURNISHED AND INSTALLED BY THE SUBCONTRACTOR, THEY SHALL NOT BE FABRICATED OR MODIFIED IN THE FIELD. ALL GROUNDING BUSSES SHALL BE IDENTIFIED WITH MINIMUM 3/4" LETTERS BY WAY OF STENCILING OR DESIGNATION PLATE.
 - CONNECTORS SHALL BE HIGH-CONDUCTIVITY, HEAVY DUTY, LISTED AND LABELED AS GROUNDED CONNECTORS FOR THE MATERIALS USED. USE TWO-HOLD COMPRESSION LUGS WITH HEAT SHRINK FOR MECHANICAL CONNECTIONS.
 - EXOTHERMIC WELDED CONNECTIONS SHALL BE PROVIDED IN KIT FORM AND SELECTED FOR THE SPECIFIC TYPES, SIZES AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS TO BE CONNECTED.
 - GROUND RODS SHALL BE COPPER-CLAD STEEL WITH HIGH-STRENGTH STEEL CORE AND ELECTROLYTIC-GRADE COPPER OUTER SHEATH, MOLTEN WELDED TO CORE, 5/8"x10'-0". ALL GROUNDING RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES.
 - INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS IN COMPLIANCE WITH THE SPECIFICATIONS AND NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, DISCONNECT SWITCHES, STARTERS AND EQUIPMENT CABINETS.
- F. OTHER MATERIALS:
- THE SUBCONTRACTOR SHALL PROVIDE OTHER MATERIALS, THOUGH NOT SPECIFICALLY DESCRIBED, WHICH ARE REQUIRED FOR A COMPLETELY OPERATIONAL SYSTEM AND PROPER INSTALLATION OF THE WORK.
 - PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.

G. PANELS AND LOAD CENTERS:

- ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN.

PART 3 - EXECUTION

3.1 GENERAL:

- A. ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- B. EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT OR WATER, AND AGAINST CHEMICAL OR MECHANICAL INJURY DURING INSTALLATION AND CONSTRUCTION PERIODS.

3.2 LABOR AND WORKMANSHIP:

- A. ALL LABOR FOR THE INSTALLATION OF MATERIALS AND EQUIPMENT FURNISHED FOR THE ELECTRICAL SYSTEM SHALL BE INSTALLED BY EXPERIENCED WIREMEN, IN A NEAT AND WORKMAN-LIKE MANNER.
- B. ALL ELECTRICAL EQUIPMENT SHALL BE ADJUSTED, ALIGNED AND TESTED BY THE SUBCONTRACTOR AS REQUIRED TO PRODUCE THE INTENDED PERFORMANCE.
- C. UPON COMPLETION OF WORK, THE SUBCONTRACTOR SHALL THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, REMOVE ALL LABELS AND ANY DEBRIS, CRATING OR CARTONS AND LEAVE THE INSTALLATION FINISHED AND READY FOR OPERATION.

3.3 COORDINATION:

- A. THE SUBCONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRICAL ITEMS WITH THE OWNER-FURNISHED EQUIPMENT DELIVERY SCHEDULE TO PREVENT UNNECESSARY DELAYS IN THE TOTAL WORK.

3.4 INSTALLATION:

- A. CONDUIT:

- ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT AS SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4 INCH TRADE SIZE.
- PROVIDE RIGID PVC SCHEDULE 80 CONDUITS FOR ALL RISERS, RMC OTHERWISE NOTED. EMT MAY BE INSTALLED FOR EXTERIOR CONDUITS WHERE NOT SUBJECT TO PHYSICAL DAMAGE.
- THE INSTALLATION OF SCHEDULE 40 PVC AND RMC CONDUITS SHALL BE 24 INCHES MINIMUM DEPTH. ALL 90 DEGREE BENDS SHALL BE RMS. EXPANSION JOINTS ARE REQUIRED ON ALL CONDUIT RISERS.
- USE GALVANIZED FLEXIBLE STEEL CONDUIT WHERE DIRECT CONNECTION TO EQUIPMENT WITH MOVEMENT, VIBRATION, OR FOR ESE OF MAINTENANCE. USE LIQUID TIGHT, FLEXIBLE METAL CONDUIT FOR OUTDOOR APPLICATIONS. INSTALL GALVANIZED FLEXIBLE STEEL CONDUIT AT ALL POINTS OF CONNECTION TO EQUIPMENT MOUNTED ON SUPPORT TO ALLOW FOR EXPANSION AND CONTRACTION.
- A RUN OF CONDUIT BETWEEN BOXES OR EQUIPMENT SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF THREE QUARTER-BENDS. CONDUIT BEND SHALL BE MADE WITH THE UL LISTED BENDER OR FACTOR 90 DEGREE ELBOWS MAY BE USED.
- FIELD FABRICATED CONDUITS SHALL BE CUT SQUARE WITH A CONDUIT CUTTING TOOL AND REAMED TO PROVIDE A SMOOTH INSIDE SURFACE.
- PROVIDE INSULATED GROUNDING BUSHING FOR ALL CONDUITS.
- SUBCONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL CONDUITS DURING CONSTRUCTION. TEMPORARY OPENING IN THE CONDUIT SYSTEM SHALL BE PLUGGED OR CAPPED TO PREVENT ENTRANCE OF MOISTURE OR FOREIGN MATTER. SUBCONTRACTOR SHALL REPLACE ANY CONDUITS CONTAINING FOREIGN MATERIALS THAT CANNOT BE REMOVED.
- ALL CONDUITS SHALL BE SWABBED CLEAN BY PULLING AN APPROPRIATE SIZE MANDREL THROUGH THE CONDUIT BEFORE INSTALLATION OF CONDUCTORS AR CABLES. CONDUIT SHALL BE FREE OF DIRT AND DEBRIS.
- INSTALL PULL STRINGS IN ALL CLEAN EMPTY CONDUITS. IDENTIFY PULL STRINGS AT EACH END.
- INSTALL 2" HIGHLY VISIBLE AND DETECTABLE TAPE 12" ABOVE ALL UNDERGROUND CONDUITS AND CONDUCTORS.
- CONDUITS SHALL BE INSTALLED IN SUCH A MANNER AS TO INSURE AGAINST COLLECTION OF TRAPPED CONDENSATION.
- PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS TO ALLOW FOR RACEWAYS AND CABLES TO BE ROUTED THROUGH THE BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS. SLEEVES AND/OR PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE EFFECTIVELY SEALED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATING OF THE WALL OR STRUCTURE. FIRE STOPS AT FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE, AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.



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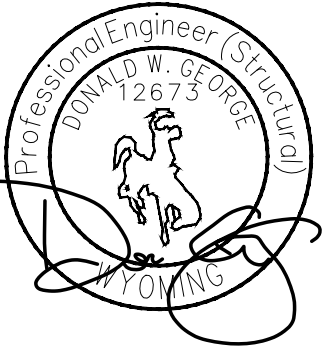


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JACKSON, WY 83001

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-3

ELECTRICAL NOTES (CONT.):

B. CONDUCTORS AND CABLE:

1. ALL POWER WIRING SHALL BE COLOR CODED AS FOLLOWS:

DESCRIPTION	208/240/120 VOLT SYSTEMS
PHASE A	BLACK
PHASE B	RED
PHASE C	BLUE
NEUTRAL	WHITE
GROUNDING	GREEN

2. SPLICES SHALL BE MADE ONLY AT OUTLETS, JUNCTION BOXES, OR ACCESSIBLE RACEWAY CONDULETS APPROVED FOR THIS PURPOSE.
3. PULLING LUBRICANTS SHALL BE UL APPROVED, SHALL USE NYLON OR HEMP ROPE FOR PULLING CONDUCTOR OR CABLES INTO THE CONDUIT.
4. CABLES SHALL BE NEATLY TRAINED, WITHOUT INTERLACING, AND BE OF SUFFICIENT LENGTH IN ALL BOXES & EQUIPMENT TO PERMIT MAKING A NEAT ARRANGEMENT. CABLES SHALL BE SECURED IN A MANNER TO AVOID TENSION ON CONDUCTORS OF TERMINALS. CONDUCTORS SHALL BE PROTECTED FROM MECHANICAL INJURY AND MOISTURE. SHARP BENDS OVER CONDUIT BUSHINGS ARE PROHIBITED. DAMAGED CABLES SHALL BE REMOVED AND REPLACED AT THE SUBCONTRACTORS EXPENSE.

C. DISCONNECT SWITCHES:

1. INSTALL DISCONNECT SWITCHES LEVEL AND PLUMB. CONNECT TO WIRING SYSTEM AND GROUNDING SYSTEM AS INDICATED.

D. GROUNDING:

1. ALL METALLIC PARTS OF ELECTRICAL EQUIPMENT WHICH DO NOT CARRY CURRENT SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING MANUFACTURER, AT&T MOBILITY GROUNDING STANDARD ND-0071, ND-00135, AND THE NATIONAL ELECTRICAL CODE.
2. PROVIDE ELECTRIC GROUNDING AND BONDING SYSTEM INDICATED WITH ASSEMBLY OF MATERIALS, INCLUDING GROUNDING ELECTRODES, BONDING JUMPERS AND ADDITIONAL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
3. ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUNDING CONDUCTORS SHALL NOT BE LOOPED OR SHARPLY BENT. ROUTE GROUNDING CONNECTIONS AND CONDUCTORS TO GROUND IN THE SHORTEST AND STRAIGHTEST PATHS POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES.
4. BUILDINGS AND/OR NEW TOWERS GREATER THAN 75 FEET IN HEIGHT AND WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE. THE SUBCONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM. THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 AWG COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM. THE BUILDING STEEL COLUMNS LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATERLINE (FERROUS OR NONFERROUS METAL PIPING ONLY.)
5. TIGHTEN GROUNDING AND BONDING CONNECTORS. INCLUDING SCREWS, BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT AVAILABLE, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUES SPECIFIED IN UL TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
6. SUBCONTRACTOR SHALL VERIFY THE LOCATIONS OF GROUNDING TIE-IN-POINTS TO THE EXISTING GROUNDING SYSTEM. ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. ALL GROUNDING CONNECTIONS SHALL BE INSPECTED FOR TIGHTNESS, EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BY THE INSPECTOR HAVING JURISDICTION BEFORE BEING PERMANENTLY CONCEALED.
8. APPLY CORROSION-RESISTANCE FINISH TO FIELD CONNECTIONS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATINGS HAVE BEEN DESTROYED. USED KOPR-SHIELD ANIT-OXIDATION COMPOUND O ALL COMPRESSION GROUNDING CONNECTIONS.
9. A SEPARATE, CONTINUOUS, INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS.
10. BOND ALL INSULATED GROUNDING BUSHING WITH A BARE 6 AWG GROUNDING CONDUCTOR TO A GROUND BAR.
11. DIRECT BURIED GROUNDING CONDUCTORS SHALL BE INSTALLED AT A NOMINAL DEPTH OF 36" MINIMUM BELOW GRADE, OR 6" BELOW THE FROST LINE, USE GREATER OF THE TWO DISTANCES.
12. ALL GROUNDING CONDUCTORS EMBEDDED IN OR PENETRATING CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT.
13. THE INSTALLATION OF CHEMICAL ELECTROLYTIC GROUNDING SYSTEM IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMOVE SEALING TAPE FROM LEACHING AND BREATHER HOLES. INSTALL PROTECTIVE BOX FLUSH WITH GRADE.
14. DRIVE GROUND RODS UNTIL TOPS ARE A MINIMUM DISTANCE OF 36" DEPTH OR 6" BELOW FROST LINE, USING THE GREATER OF THE TWO DISTANCES.

15. IF COAX ON THE ICE BRIDGE IS MORE THAN 6 FT. FROM THE GROUNDING BAR AT THE BASE OF THE TOWER, A SECOND GROUNDING BAR WILL BE NEEDED AT THE END OF THE ICE BRIDGE, TO GROUND THE COAX CABLE GROUNDING KITS AND IN-LIN ARRESTERS.
16. SUB CONTRACTORS SHALL REPAIR, AND/OR REPLACE EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE SUBCONTRACTORS EXPENSE.

3.5 ACCEPTANCE TESTING:

- A. CERTIFIED PERSONNEL USING CERTIFIED EQUIPMENT SHALL PERFORM REQUIRED TESTS AND SUBMIT WRITTEN TEST REPORTS UPON COMPLETION.
- B. WHEN MATERIAL AND/OR WORKMANSHIP IS FOUND NOT TO COMPLY WITH THE SPECIFIED REQUIREMENTS, THE NON COMPLYING ITEMS SHALL BE REMOVED FROM THE PROJECT SITE AND REPLACED WITH ITEMS COMPLYING WITH THE SPECIFIED REQUIREMENTS PROMPTLY AFTER RECEIPT OF NOTICE FOR NON-COMPLIANCE.
- C. TEST PROCEDURES:

1. ALL FEEDERS SHALL HAVE INSULATION TESTED AFTER INSTALLATION, BEFORE CONNECTION TO DEVICES. THE CONDUCTORS SHALL TEST FREE FROM SHORT CIRCUITS AND GROUNDS. TESTING SHALL BE FOR ONE MINUTE USING 1000V DC. PROVIDE WRITTEN DOCUMENTATION FOR ALL TEST LISTED TO SUBCONTRACTOR.
2. PRIOR TO ENERGIZING CIRCUITRY, TEST WIRING DEVICES FOR ELECTRICAL CONTINUITY AND PROPER POLARITY CONNECTIONS.
3. MEASURE AND RECORD VOLTAGES BETWEEN PHASES AND BETWEEN PHASE CONDUCTORS AND NEUTRALS. SUBMIT A REPORT OF MAXIMUM AND MINIMUM VOLTAGES.
4. PERFORM GROUNDING TEST TO MEASURE GROUNDING RESISTANCE OF GROUNDING SYSTEM USING THE IEEE STANDARD 3-POINT "FALL-OF-POTENTIAL" METHOD. PROVIDE PLOTTED TEST VALUES AND LOCATION SKETCH. NOTIFY THE ENGINEER IMMEDIATELY IF MEASURE VALUE IS OVER 5 OHMS.



GENERAL DYNAMICS
Information Technology

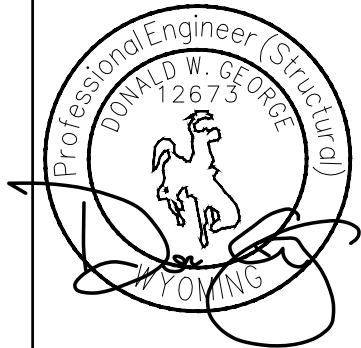


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REVISIONS			
REV	DATE	DESCRIPTION	INT
3	04/16/19	ELECTRICAL DESIGN ADDED	JCM
2	01/31/19	REVISED PER PUBLIC WORKS	GGD
1	01/22/19	REVISED PER ZONING	GGD
0	11/12/18	ISSUED FOR ZONING	GGD
B	11/06/18	EQUIPMENT TO 3rd FLOOR	GGD
A	09/19/18	ISSUED FOR REVIEW	GGD

CHECKED BY: GGD

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT NAMES IS STRICTLY PROHIBITED.



SITE INFORMATION:

TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO

NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-4

GENERAL NOTES: 1. THIS FACILITY IS EXEMPT FROM HANDICAP REQUIREMENTS PER 2010 CBC SECTION 1105B.3.4 EXCEPTION #1. THIS FACILITY IS NON-OCCUPIABLE SPACE AND ENTERED ONLY BY SERVICE PERSONNEL. THIS SPACE IS NOT FOR HUMAN OCCUPANCY. 2. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES, CONFLICTS OR OMISSIONS SHALL BE REPORTED TO THE ENGINEER PRIOR TO SUBMITTING BIDS, AND PROCEEDING WITH ANY WORK. 3. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES AS THEY MAY BE DISCOVERED IN THE PLANS, SPECIFICATIONS, & NOTES PRIOR TO STARTING CONSTRUCTION. INCLUDING BUT NOT LIMITED BY DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ERRORS, OMISSION, OR INCONSISTENCY AFTER THE START OF CONSTRUCTION WHICH HAS NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER AND SHALL INCUR ANY EXPENSES TO RECTIFY THE SITUATION. THE METHOD OF CORRECTION SHALL BE APPROVED BY THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT. 4. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR HAS THE RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR OR SUBCONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGE TO THE UTILITIES CAUSED DURING THE EXECUTION OF THE WORK. CONTACT USA DIG ALERT @ 800-227-2600. 5. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW OR EXISTING SURFACES, STRUCTURES OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGED AREAS. 6. A COPY OF THE APPROVED PLANS SHALL BE KEPT IN PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL CONSTRUCTION SETS REFLECT THE SAME INFORMATION AS THE APPROVED PLANS. THE CONTRACTOR SHALL ALSO MAINTAIN ONE SET OF PLANS AT THE SITE FOR THE PURPOSE OF DOCUMENTING ALL AS-BUILT CHANGES, REVISIONS, ADDENDA, OR CHANGE ORDERS. THE CONTRACTOR SHALL FORWARD THE AS-BUILT/HIRED DRAWINGS TO THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT AT THE CONCLUSION OF THE PROJECT. 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE WORK IS IN PROGRESS UNTIL THE JOB IS COMPLETE. 8. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY POWER, WATER, AND TOILET FACILITIES AS REQUIRED BY THE PROPERTY OWNER OR GOVERNING AGENCY. 9. ALL CONSTRUCTION THROUGH THE PROJECT SHALL CONFORM TO THE LATEST C.B.C, AND ALL OTHER GOVERNING CODES, INCLUDING THE CALIFORNIA ADMINISTRATIVE CODES TITLE 8, 19, AND 24. THE MOST RESTRICTIVE CODE SHALL GOVERN. 10. THE CONTRACTOR AND SUB CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE REGULATIONS INCLUDING ALL OSHA REQUIREMENTS. 11. WHEN REQUIRED STORAGE OF MATERIALS OCCURS, THEY SHALL BE EVENLY DISTRIBUTED OVER THE FLOOR OR ROOF SO AS NOT TO EXCEED THE DESIGNED LIVE LOADS FOR THE STRUCTURE. TEMPORARY SHORTING OR BRACING SHALL BE PROVIDED WHERE THE STRUCTURE OR SOIL HAS NOT ATTAINED THE DESIGN STRENGTH FOR THE CONDITIONS PRESENT. 12. THE CONTRACTOR SHALL SUPERVISE AND COORDINATE ALL WORK, USING HIS PROFESSIONAL KNOWLEDGE AND SKILLS, HE IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES, AND SEQUENCING AND COORDINATING ALL PORTIONS OF THE WORK UNDER THE PROJECT. 13. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS WITH RESPECT TO THE WORK TO COMPLETE THE PROJECT, BUILDING PERMIT APPLICATIONS SHALL BE FILED BY THE OWNER OR AUTHORIZED AGENT. CONTRACTOR SHALL OBTAIN THE PERMIT AND MAKE FINAL PAYMENT OF SAID DOCUMENT. 14. ALL DIMENSIONS TAKE PRECEDENCE OVER SCALE. DRAWINGS ARE NOT TO BE SCALED UNDER ANY CIRCUMSTANCES. 15. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BRACING, FRAMING, HANGERS OR SUPPORTS FOR THE INSTALLATION OF ITEMS INDICATED ON THE DRAWINGS. 16. THE CONTRACTOR SHALL PROVIDE THE FIRE MARSHAL OR UL APPROVED MATERIALS TO FILL/SEAL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. 17. NEW CONSTRUCTION ADDED TO EXISTING CONSTRUCTION SHALL BE MATCHED IN FORM, TEXTURE, MATERIAL, AND PAINT COLOR EXCEPT AS NOTED IN THE PLANS. 18. THE CONTRACTOR IS TO PROVIDE PORTABLE FIRE EXTINGUISHERS HAVING A MINIMUM 28: 10-B:C RATING WITHIN 75 FT. OF TRAVEL TO ALL PORTIONS OF THE CONSTRUCTION AREA. (2010 CC SECTION 906-1-1 &7 AND SECTION 906.3.1) 19. MATERIALS TESTING SHALL BE TO THE LATEST STANDARDS AVAILABLE AS REQUIRED BY THE LOCAL GOVERNING AGENCY RESPONSIBLE FOR APPROVING THE RESULTS. 20. ALL GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENTS TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OTHERWISE. 21. ALL DEBRIS AND REFUSE IS TO BE REMOVED FROM THE PROJECT. PREMISES SHALL BE LEFT N A CLEAN BROOM FINISHED CONDITION AT ALL TIMES. 22. BUILDING INSPECTORS AND/OR OTHER BUILDING OFFICIALS ARE TO BE NOTIFIED PRIOR TO ANY GRADING AND CONSTRUCTION EFFORT AS MANDATED BY THE GOVERNING AGENCY. 23. ALL SYMBOLS AND ABBREVIATIONS ARE CONSIDERED CONSTRUCTION INDUSTRY STANDARDS, IF A CONTRACTOR HAS A QUESTION REGARDING THEIR EXACT MEANING THE ARCHITECT OR THE ENGINEER RESPONSIBLE OF THE PROJECT SHALL BE NOTIFIED FOR CLARIFICATIONS. GENERAL FIRE NOTES: 1. BUILDINGS UNDERGOING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL BE IN ACCORDANCE WITH 2010 CFC SECTION 1401 AND ALL GOVERNING CODES. 2. ADDRESS SHALL BE PROVIDED FOR ALL NEW AND EXISTING BUILDINGS IN A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.(2010 CFC SECTION 505.1) 3. DECORATIVE MATERIALS SHALL BE MAINTAINED IN A FLAME-RETARDANT CONDITION.(2010 CFC SECTION 807-1.2) 4. PORTABLE FIRE EXTINGUISHERS: AT LEAST ONE FIRE EXTINGUISHER WITH A MINIMUM RATING OF 2-A-10B:C SHALL BE PROVIDED WITHIN 75 FEET MAXIMUM TRAVEL DISTANCE FOR EACH 6000 SQUARE FEET OR PORTION THEREOF ON EACH FLOOR.(2010 CFC SECTION 906.1.1 & 7 AND SECTION 906.3.1) <table><tr><td colspan="2"> ABBR. DEFINITION </td></tr><tr><td>A.B.</td><td>ANCHOR BOLT</td></tr><tr><td>ABV.</td><td>ABOVE</td></tr><tr><td>ACCA</td><td>ANTENNA CABLE COVER ASSEMBLY</td></tr><tr><td>ADDL</td><td>ADDITIONAL</td></tr><tr><td>A.F.F.</td><td>ABOVE FINISHED FLOOR</td></tr><tr><td>A.F.G.</td><td>ABOVE FINISHED GRADE</td></tr><tr><td>ALUM.</td><td>ALUMINUM</td></tr><tr><td>ALT.</td><td>ALTERNATE</td></tr><tr><td>ANT.</td><td>ANTENNA</td></tr><tr><td>APRX.</td><td>APPROXIMATE(LY)</td></tr><tr><td>ARCH.</td><td>ARCHITECT(URAL)</td></tr><tr><td>AWG.</td><td>AMERICAN WIRE GAUGE</td></tr><tr><td>BLDG.</td><td>BUILDING</td></tr><tr><td>BLK.</td><td>BLOCK</td></tr><tr><td>BLKG.</td><td>BLICKING</td></tr><tr><td>BM.</td><td>BEAM</td></tr><tr><td>B.N.</td><td>BOUNDARY NAILING</td></tr><tr><td>BRCW.</td><td>BARE TINNED COPPER WIRE</td></tr><tr><td>B.O.F.</td><td>BOTTOM OF FOOTING</td></tr><tr><td>B/U</td><td>BACK-UP CABINET</td></tr><tr><td>CAB.</td><td>CABINET</td></tr><tr><td>CANT.</td><td>CANTILEVER(ED)</td></tr><tr><td>C.I.P.</td><td>CAST IN PLACE</td></tr><tr><td>CLG.</td><td>CEILING</td></tr><tr><td>CLR.</td><td>CLEAR</td></tr><tr><td>COL.</td><td>COLUMN</td></tr><tr><td>CONC.</td><td>CONCRETE</td></tr><tr><td>CONN.</td><td>CONNECTION(OR)</td></tr><tr><td>CONST.</td><td>CONSTRUCTION</td></tr><tr><td>CONT.</td><td>CONTINUOUS</td></tr><tr><td>d</td><td>PENNY (NAILS)</td></tr><tr><td>DBL.</td><td>DOUBLE</td></tr><tr><td>DEPT.</td><td>DEPARTMENT</td></tr><tr><td>D.F.</td><td>DOUGLAS FIR</td></tr><tr><td>DIA.</td><td>DIAMETER</td></tr><tr><td>DIAG.</td><td>DIAGONAL</td></tr><tr><td>DIM.</td><td>DIMENSION</td></tr><tr><td>DWG.</td><td>DRAWING(S)</td></tr><tr><td>DWL.</td><td>DOWEL(S)</td></tr><tr><td>EA.</td><td>EACH</td></tr><tr><td>EL.</td><td>ELEVATION</td></tr><tr><td>ELEC.</td><td>ELECTRICAL</td></tr><tr><td>ELEV.</td><td>ELEVATOR</td></tr><tr><td>EMT.</td><td>ELECTRICAL METALLIC TUBING</td></tr><tr><td>E.N.</td><td>EDGE NAIL</td></tr><tr><td>ENG.</td><td>ENGINEER</td></tr><tr><td>EQ.</td><td>EQUAL</td></tr></table> <table><tr><td colspan="2"> ABBR. 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DEFINITION </td></tr><tr><td></td><td>NEW ANTENNA</td></tr><tr><td></td><td>EXISTING ANTENNA</td></tr><tr><td></td><td>GROUND ROD</td></tr><tr><td></td><td>GROUND BUS BAR</td></tr><tr><td></td><td>MECHANICAL GRND. CONN.</td></tr><tr><td></td><td>CAD WELD</td></tr><tr><td></td><td>GROUND ACCESS WELL</td></tr><tr><td></td><td>ELECTRIC BOX</td></tr><tr><td></td><td>TELEPHONE BOX</td></tr><tr><td></td><td>LIGHT POLE</td></tr><tr><td></td><td>FND. MONUMENT</td></tr><tr><td></td><td>SPOT ELEVATION</td></tr><tr><td></td><td>SET POINT</td></tr><tr><td></td><td>REVISION</td></tr><tr><td></td><td>CENTERLINE</td></tr><tr><td></td><td>PROPERTY/LEASE LINE</td></tr><tr><td></td><td>MATCH LINE</td></tr><tr><td></td><td>WORK POINT</td></tr><tr><td></td><td>GROUND CONDUCTOR</td></tr><tr><td></td><td>TELEPHONE CONDUIT</td></tr><tr><td></td><td>ELECTRICAL CONDUIT (POWER)</td></tr><tr><td></td><td>COAXIAL CABLE</td></tr><tr><td></td><td>OVERHEAD SERVICE CONDUCTORS</td></tr><tr><td></td><td>CHAIN LINK FENCING</td></tr><tr><td></td><td>GRID REFERENCE</td></tr><tr><td></td><td>DETAIL REFERENCE</td></tr><tr><td></td><td>ELEVATION REFERENCE</td></tr><tr><td></td><td>SECTION REFERENCE</td></tr><tr><td></td><td>GROUT OR PLASTER</td></tr><tr><td></td><td>(E) BRICK</td></tr><tr><td></td><td>(E) WOOD FRAME</td></tr><tr><td></td><td>CONCRETE</td></tr><tr><td></td><td>EARTH</td></tr><tr><td></td><td>GRAVEL</td></tr><tr><td></td><td>PLYWOOD</td></tr><tr><td></td><td>SAND</td></tr><tr><td></td><td>WOOD CONT.</td></tr><tr><td></td><td>WOOD BLOCKING</td></tr><tr><td></td><td>STEEL</td></tr><td data-kind="parent" data-rs="2">1</td><tr><td>GENERAL NOTES</td></tr></table>		ABBR. DEFINITION		A.B.	ANCHOR BOLT	ABV.	ABOVE	ACCA	ANTENNA CABLE COVER ASSEMBLY	ADDL	ADDITIONAL	A.F.F.	ABOVE FINISHED FLOOR	A.F.G.	ABOVE FINISHED GRADE	ALUM.	ALUMINUM	ALT.	ALTERNATE	ANT.	ANTENNA	APRX.	APPROXIMATE(LY)	ARCH.	ARCHITECT(URAL)	AWG.	AMERICAN WIRE GAUGE	BLDG.	BUILDING	BLK.	BLOCK	BLKG.	BLICKING	BM.	BEAM	B.N.	BOUNDARY NAILING	BRCW.	BARE TINNED COPPER WIRE	B.O.F.	BOTTOM OF FOOTING	B/U	BACK-UP CABINET	CAB.	CABINET	CANT.	CANTILEVER(ED)	C.I.P.	CAST IN PLACE	CLG.	CEILING	CLR.	CLEAR	COL.	COLUMN	CONC.	CONCRETE	CONN.	CONNECTION(OR)	CONST.	CONSTRUCTION	CONT.	CONTINUOUS	d	PENNY (NAILS)	DBL.	DOUBLE	DEPT.	DEPARTMENT	D.F.	DOUGLAS FIR	DIA.	DIAMETER	DIAG.	DIAGONAL	DIM.	DIMENSION	DWG.	DRAWING(S)	DWL.	DOWEL(S)	EA.	EACH	EL.	ELEVATION	ELEC.	ELECTRICAL	ELEV.	ELEVATOR	EMT.	ELECTRICAL METALLIC TUBING	E.N.	EDGE NAIL	ENG.	ENGINEER	EQ.	EQUAL	ABBR. DEFINITION		EXP.	EXPANSION	EXST.(E)	EXISTING	EXT.	EXTERIOR	FAB.	FABRICATION(OR)	F.F.	FINISH FLOOR	F.G.	FINISH GRADE	FIN.	FINISH(ED)	FLR.	FLOOR	FDN.	FOUNDATION	F.O.C.	FACE OF CONCRETE	F.O.M.	FACE OF MASONRY	F.O.S.	FACE OF STUD	F.O.W.	FACE OF WALL	F.S.	FINISH SURFACE	FT.(')	FOOT (FEET)	FTG.	FOOTING	G.	GROWTH (CABINET)	GA.	GAUGE	GI.	GALVANIZED	G.F.I.	GROUND FAULT CIRCUIT INTERRUPTER	GLB.(GLU-LAM)	GLUE LAMINATED BEAM	GPS	GLOBAL POSITIONING SYSTEM	GRND.	GROUND	HDR.	HEADER	HGR.	HANGER	HT.	HEIGHT	ICGB.	ISOLATED COPPER GROUND BUS	IN.(")	INCH(ES)	INT.	INTERIOR	LB.(#)	POUND(S)	L.B.	LAG BOLTS	L.F.	LINEAR FEET (FOOT)	L.	LONG(ITUDINAL)	MAS.	MASONRY	MAX.	MAXIMUM	M.B.	MACHINE BOLT	MECH.	MECHANICAL	MFR.	MANUFACTURER	MIN.	MINIMUM	MISC.	MISCELLANEOUS	MTL.	METAL	(N)	NEW	NO.(#)	NUMBER	N.T.S.	NOT TO SCALE	O.C.	ON CENTER	ABBR. DEFINITION		OPNG.	OPENING	P/C.	PRECAST CONCRETE	PCS	PERSONAL COMM SERVICES	PLY.	PLYWOOD	PPC	POWER PROTECTION CABINET	PRC	PRIMARY RADIO CABINET	P.S.F.	POUNDS PER SQUARE FOOT	P.S.I.	POUNDS PER SQUARE INCH	P.T.	PRESSURE TREATED	PWR.	POWER (CABINET)	QTY.	QUANTITY	RAD.(R)	RADIUS	REF.	REFERENCE	REINF.	REINFORCEMENT(ING)	REQD.	REQUIRED	RGS.	RIGID GALVANIZED STELL	RRH.	REMOTE RADIO HEAD	SCH.	SCHEDULE	SHT.	SHEET	SIM.	SIMILAR	SPEC.	SPECIFICATION(S)	SQ.	SQUARE	S.S.	STAINLESS STEEL	STD.	STANDARD	STL.	STEEL	STRUC.	STRUCTURAL	TEMP.	TEMPORARY	THK.	THICK(NESS)	TMA	TOWER MOUNTED AMPLIFIER	TOE NAIL	TOE NAIL	T.O.A.	TOP OF ANTENNA	T.O.C.	TOP OF CURB	T.O.F.	TOP OF FOUNDATION	T.O.P.	TOP OF PLATE (PARAPET)	T.O.S.	TOP OF STEEL	T.O.W.	TOP OF WALL	TYP.	TYPICAL	U.G.	UNDERGROUND	U.L.	UNDERWRITERS LABORATORY	U.N.O.	UNLESS NOTED OTHERWISE	V.I.F.	VERIFY IN FIELD	W	WIDE (WIDTH)	W/	WITH	W.P.	WEATHERPROOF	WT.	WEIGHT	ϵ	CENTERLINE	ϱ	PLATE	2	LEGEND	ABBR. DEFINITION			NEW ANTENNA		EXISTING ANTENNA		GROUND ROD		GROUND BUS BAR		MECHANICAL GRND. CONN.		CAD WELD		GROUND ACCESS WELL		ELECTRIC BOX		TELEPHONE BOX		LIGHT POLE		FND. MONUMENT		SPOT ELEVATION		SET POINT		REVISION		CENTERLINE		PROPERTY/LEASE LINE		MATCH LINE		WORK POINT		GROUND CONDUCTOR		TELEPHONE CONDUIT		ELECTRICAL CONDUIT (POWER)		COAXIAL CABLE		OVERHEAD SERVICE CONDUCTORS		CHAIN LINK FENCING		GRID REFERENCE		DETAIL REFERENCE		ELEVATION REFERENCE		SECTION REFERENCE		GROUT OR PLASTER		(E) BRICK		(E) WOOD FRAME		CONCRETE		EARTH		GRAVEL		PLYWOOD		SAND		WOOD CONT.		WOOD BLOCKING		STEEL	1	GENERAL NOTES
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GENERAL DYNAMICS

Information Technology



PO BOX 2621, BOISE, ID 83701
P: 530.539.4787
E: CONTACT@GEOSTRUCTURAL.COM
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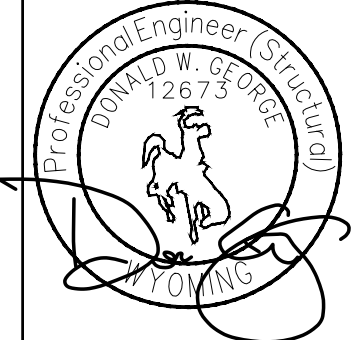
REVISIONS

REV	DATE	DESCRIPTION	INT
3	04/16/19	ELECTRICAL DESIGN ADDED	JCM
2	01/31/19	REVISED PER PUBLIC WORKS	GGD
1	01/22/19	REVISED PER ZONING	GGD
0	11/12/18	ISSUED FOR ZONING	GGD
B	11/06/18	EQUIPMENT TO 3rd FLOOR	GGD
A	09/19/18	ISSUED FOR REVIEW	GGD

CHECKED BY:

GGD

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SITE INFORMATION:

TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO

NEW SITE BUILD

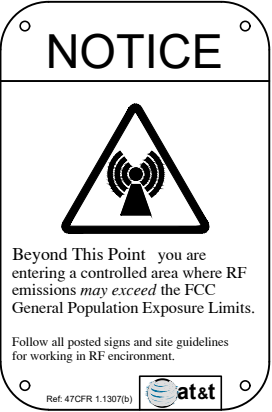
160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-5



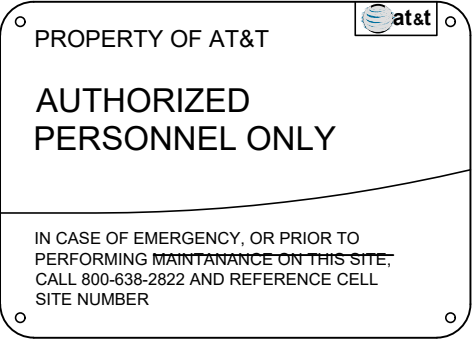
ALERTING SIGNS



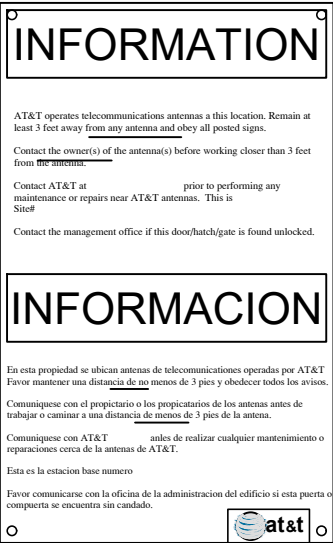
ALERTING SIGNS



ALERTING SIGNS



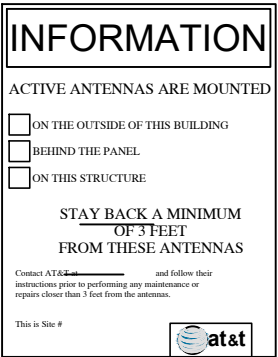
INFO SIGN #5



INFO SIGN #1



INFO SIGN #3



INFO SIGN #2

STAY BACK 3 FEET FROM ANTENNA



INFO SIGN #4

GENERAL SIGNAGE GUIDELINES								
STRUCTURE TYPE	INFO SIGN #1	INFO SIGN #2	INFO SIGN #3	INFO SIGN #4	INFO SIGN #5	STRIPING	NOTICE SIGN	CAUTION SIGN
TOWERS								
MONOPOLE/MONOPINE/MONOPALM	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING SIDE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			AT THE HEIGHT OF THE FIRST CLIMBING STEP, MIN. 9FT ABOVE GROUND
SCE TOWERS/TOWERS WITH HIGH VOLTAGE	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING SIDE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			AT THE HEIGHT OF THE FIRST CLIMBING STEP, MIN. 9FT ABOVE GROUND
LIGHT POLES/FLAG POLES	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			
UTILITY WOOD POLES (JPA)	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET		IF GP MAX VALUE OF MPE AT ANTENNA LEVEL IS: 0-99%: NOTICE SIGN; OVER 99%: CAUTION SIGN AT NO LESS THAN 3FT BELOW ANTENNA AND 9FT ABOVE GROUND	
MICROCELLS MOUNTED ON NON-JPA POLES	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET		NOTICE OR CAUTION SIGN AT NO LESS THAN 9FT ABOVE GROUND: ONLY IF THE EXPOSURE EXCEEDS 90% OF THE GENERAL PUBLIC EXPOSURE AT 6FT ABOVE GROUND	
ROOF TOPS								
AT ALL ACCESS POINTS TO THE ROOF	X							
ON ANTENNAS	X		X	X				
CONCEALED ANTENNAS	X	X						
ANTENNA MOUNTED FACING OUTSIDE BUILDING	X	X						
ANTENNAS ON SUPPORT STRUCTURE	X	X						
ROOFTOP GRAPH:								
RADIATION AREA IS WITHIN 3FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA					DIAGONAL, YELLOW STRIPING AS TO ROOF VIEW GRAPH	EITHER NOTICE OR CAUTION SIGN (BASED ON ROOFVIEW RESULTS) AT ANTENNAS/BARRIER
RADIATION IS BEYOND 3FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA						
CHURCH STEEPLES	ACESS TO STEEPLE	ADJACENT TO EACH ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			CAUTION SIGN AT THE ANTENNAS
WATER STATIONS	ACESS TO STEEPLE	ADJACENT TO EACH ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ON BACKSIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			CAUTION SIGN AT THE ANTENNAS
NOTES FOR ROOFTOP SITES: 1. EITHER NOTICE OR CAUTION SIGNS NEED TO BE POSTED AT EACH SECTOR AS CLOSE AS POSSIBLE TO: THE OUTER EDGE OF THE STRIPED OFF AREA OR THE OUTER ANTENNAS OF THE SECTOR. 2. IF ROOF VIEW SHOWS: ONLY BLUE = NOTICE SIGN, BLUE AND YELLOW = CAUTION SIGN, ONLY YELLOW = CAUTION SIGN TO BE INSTALLED. 3. SHOULD THE REQUIRED STRIPING AREA INTERFERE WITH ANY STRUCTURES OR EQUIPMENT (A/C VENTS, ROOF HATCH, DOORS, OTHER ANTENNAS, DISHES, ETC.) 4. PLEASE NOTIFY AT&T TO MODIFY THE STRIPING AREA, PRIOR TO STARTING THE WORK.								



GENERAL DYNAMICS
Information Technology

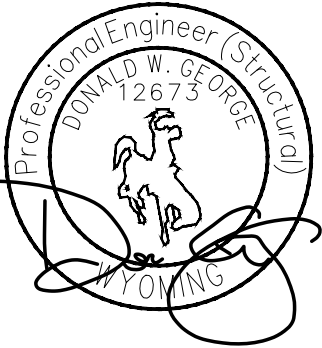


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REVISIONS			
REV	DATE	DESCRIPTION	INT
3	04/16/19	ELECTRICAL DESIGN ADDED	JCM
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B	11/06/18	EQUIPMENT TO 3rd FLOOR	GGD
A	09/19/18	ISSUED FOR REVIEW	GGD

CHECKED BY: GGD

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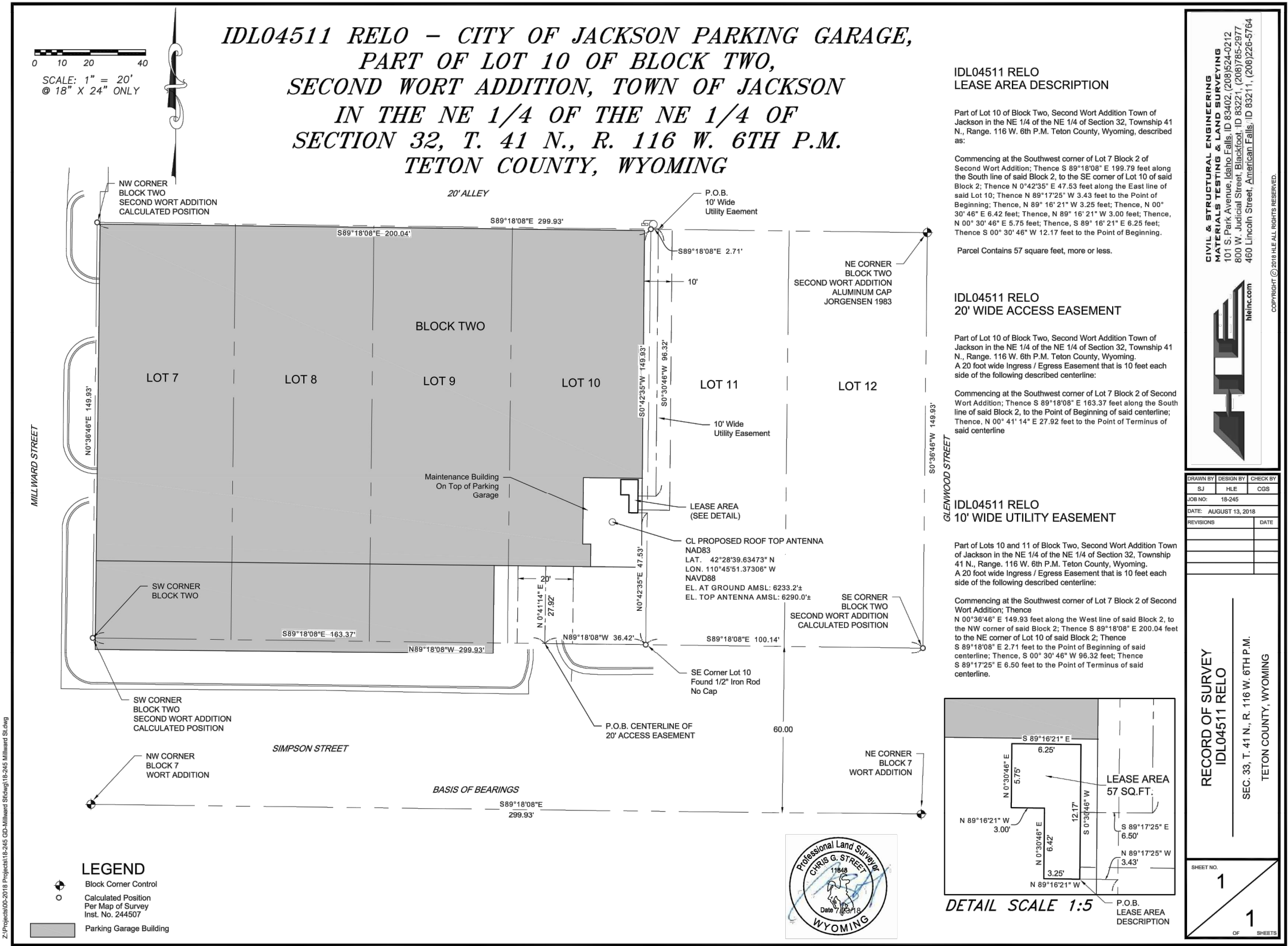


SITE INFORMATION:
TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO
NEW SITE BUILD

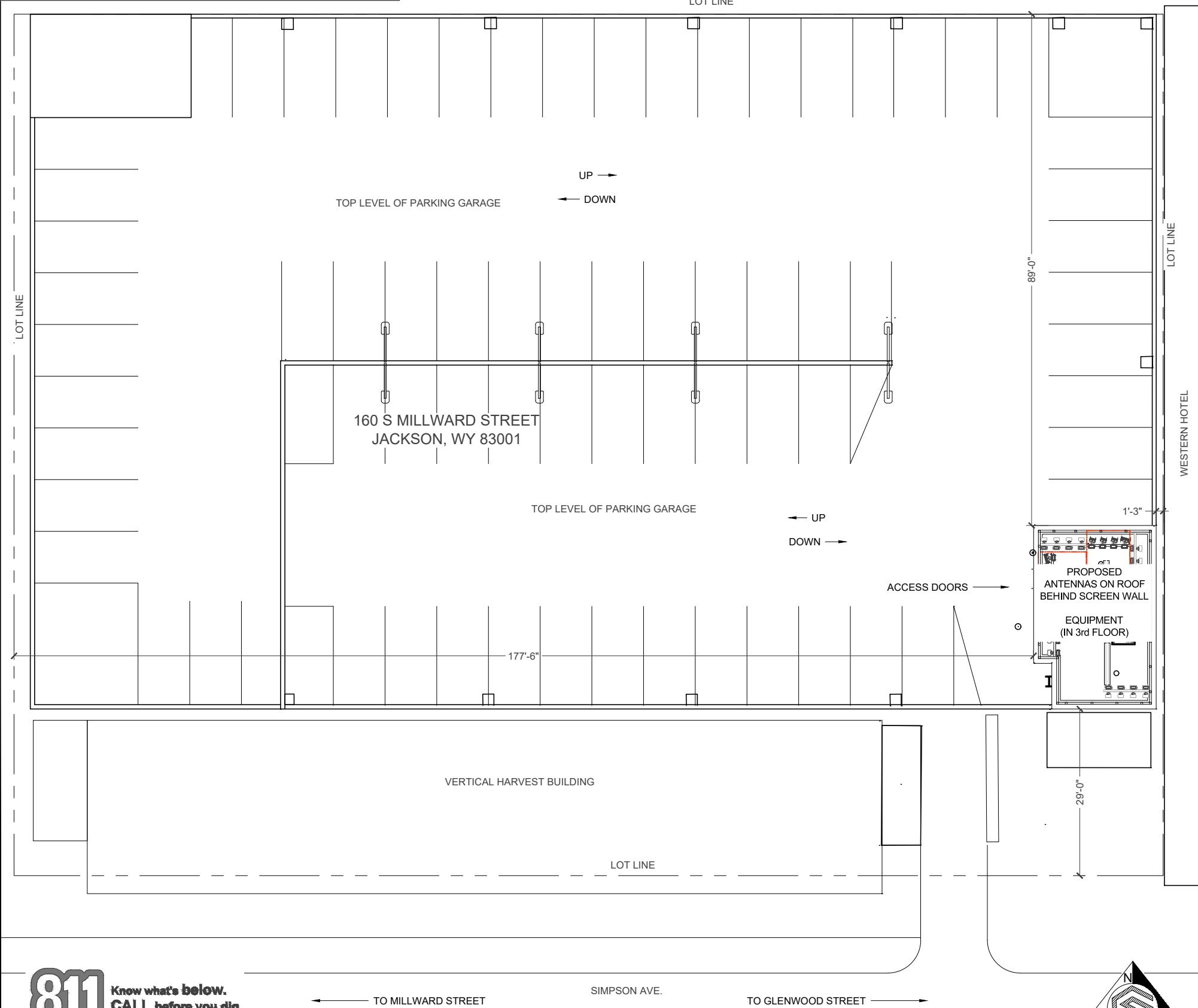
160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:
GN-6



UTILITY NOTE		KEY		NOTE
THE UTILITIES AS SHOWN ON THIS SET OF DRAWINGS WERE DEVELOPED FROM THE INFORMATION AVAILABLE. THE INFORMATION PROVIDED IS NOT IMPLIED NOR INTENDED TO BE A COMPLETE INVENTORY OF THE UTILITIES IN THIS AREA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND PROTECT SAID UTILITIES FROM ANY DAMAGE CAUSED BY CONTRACTOR'S ACTIVITIES.		E	EXISTING	EVERYTHING SHOWN IS EXISTING UNLESS MARKED PROPOSED
		P	PROPOSED	



EXISTING PUBLIC WORKS TRIMBLE GPS ANTENNA TO BE CHECKED BEFORE AND AFTER INSTALLATION OF NEW AT&T ANTENNAS. IF THERE ARE ANY CHANGES IN GPS ANTENNA, AT&T TO CORRECT AS REQUIRED.

ANTENNAS BEHIND 5' SCREEN WALL

SITE PLAN	70	SCALE: 1" = 20'-0" (11x17) SCALE: 1" = 10'-0" (24x36)	2	PHOTOS	N.T.S.	1
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GENERAL DYNAMICS
Information Technology

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SITE INFORMATION:

**TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO**

NEW SITE BUILD

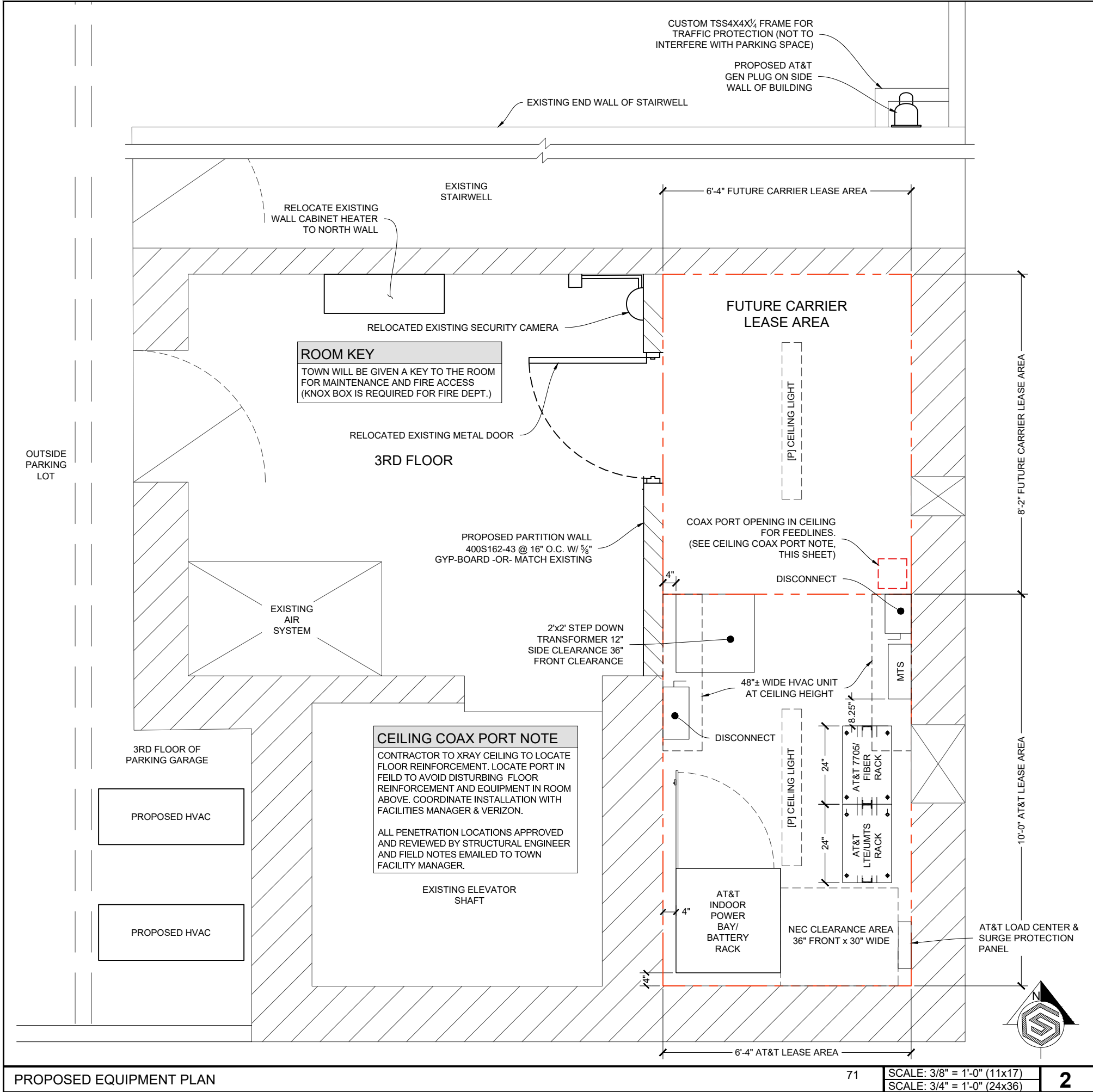
160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

A-1



NOTE: PROPOSED WALL / FLOOR / CEILING TO MATCH EXISTING ROOM MATERIALS AND FINISHES

Lobby ventilation system not utilized

CONTRACTOR TO ENSURE THAT EXHAUST FAN IN ELEVATOR LOBBY & EXHAUST DUCT REMAINS FUNCTIONAL

KEEP CEILING IN ELEVATOR ROOM

PROPOSED WALL

REMOVE CEILING IN EQUIPMENT ROOM

RELOCATE CAMERA

RELOCATE DOOR

RELOCATE HEATER

COORDINATE ANY SPRINKLER RELOCATION/ INSTALLATION WITH TOWN FACILITIES MANAGER

THIRD FLOOR ELEVATOR ROOM

STRUCTURE NOTES

REFER TO BUILDING DRAWINGS FOR ALL EXISTING BUILDING COMPONENTS AND APPURTENANCES.

CONTRACTOR TO COMPLY WITH ALL FCC AND FAA REGULATIONS ON THIS PROJECT.

PRIOR TO CONSTRUCTION CONTRACTOR SHALL VERIFY THAT A BUILDING STRUCTURAL ANALYSIS AND A MOUNT ANALYSIS HAS BEEN PERFORMED AND SHOWS A "PASS" OR AN "ACCEPTABLE" RATING. UNDER NO CIRCUMSTANCE WHAT SO EVER SHALL THE PROPOSED EQUIPMENT BE INSTALLED WITHOUT SAID STRUCTURAL ANALYSIS. IF SAID STRUCTURAL ANALYSIS REQUIRES THAT THE STRUCTURE AND/OR MOUNT BE MODIFIED, SUCH MODIFICATIONS SHALL BE COMPLETED PRIOR TO INSTALLATION OF THE PROPOSED EQUIPMENT.

GENERAL DYNAMICS
Information Technology

PO BOX 2621, BOISE, ID 83701
P: 530.539.4787
E: CONTACT@GEOSTRUCTURAL.COM
WWW.GEOSTRUCTURAL.COM

REVISIONS			
REV	DATE	DESCRIPTION	INT
3	04/16/19	ELECTRICAL DESIGN ADDED	JCM
2	01/31/19	REVISED PER PUBLIC WORKS	GGD
1	01/22/19	REVISED PER ZONING	GGD
0	11/12/18	ISSUED FOR ZONING	GGD
B	11/06/18	EQUIPMENT TO 3rd FLOOR	GGD
A	09/19/18	ISSUED FOR REVIEW	GGD

CHECKED BY: GGD

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SITE INFORMATION:

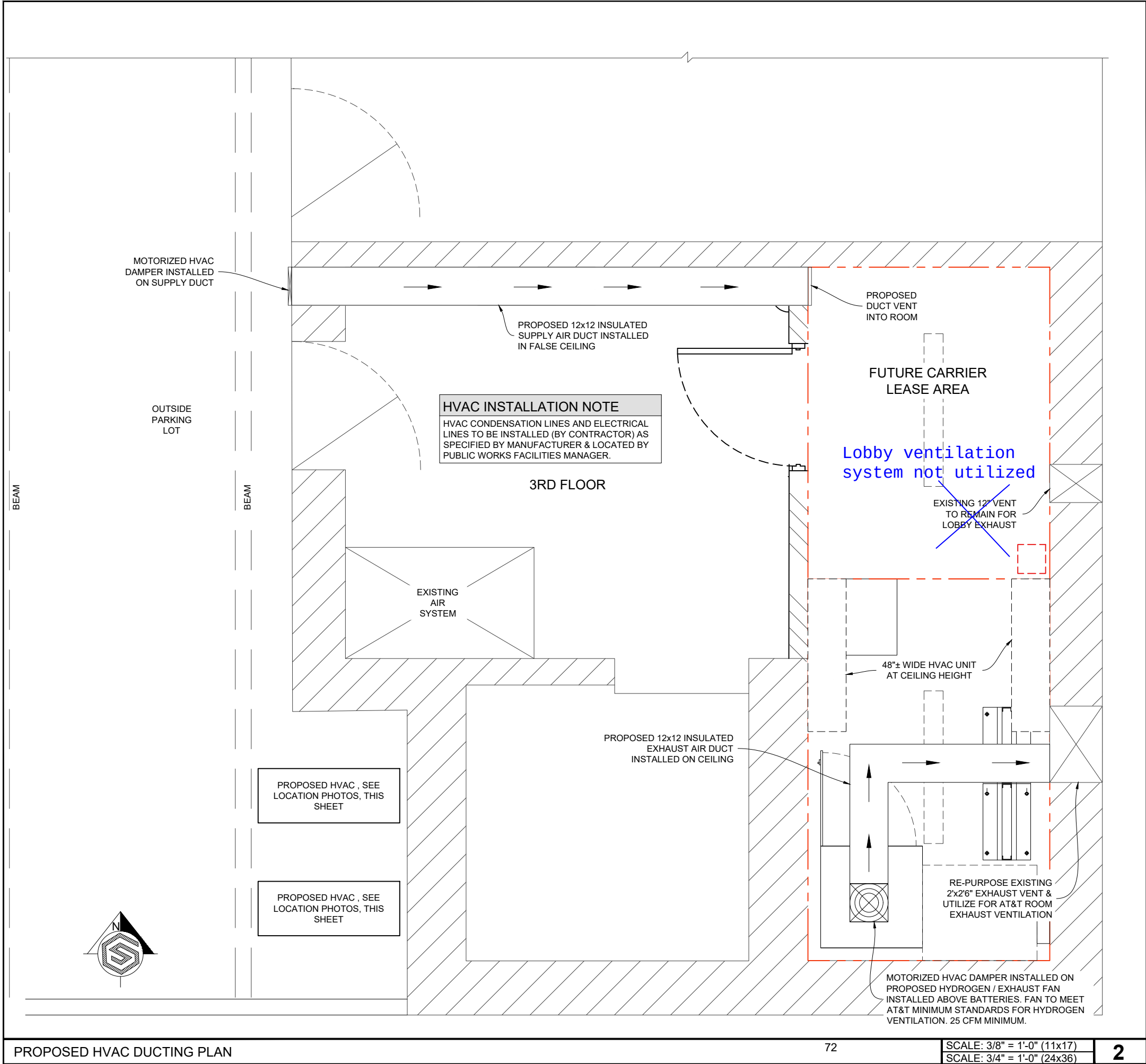
**TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO**

NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:
**EQUIPMENT
PLAN**

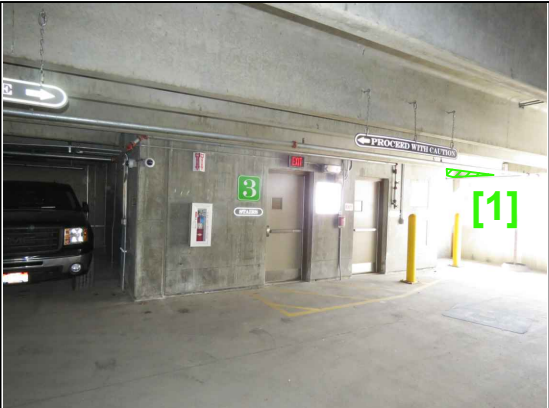
SHEET NUMBER:
A-2





FIRE SPRINKLER LINE TO BE RELOCATED AS REQUIRED COORDINATE WITH TOWN FACILITIES MANAGER.

THIRD FLOOR PARKING GARAGE



THIRD FLOOR PARKING GARAGE

[1]

(2) PROPOSED AT&T HVAC UNITS (37.1 TALL x 44.5 WIDE x 17.1 DEEP) INSET BETWEEN DECK BEAMS ATTACHED TO DECK ABOVE

X-RAY DECK TO AVOID DECK REINFORCEMENT



GENERAL DYNAMICS
Information Technology

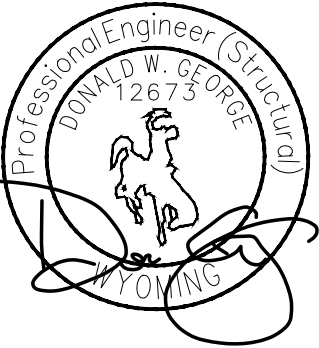


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SITE INFORMATION:

TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO

NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:
HVAC DUCTING
PLAN

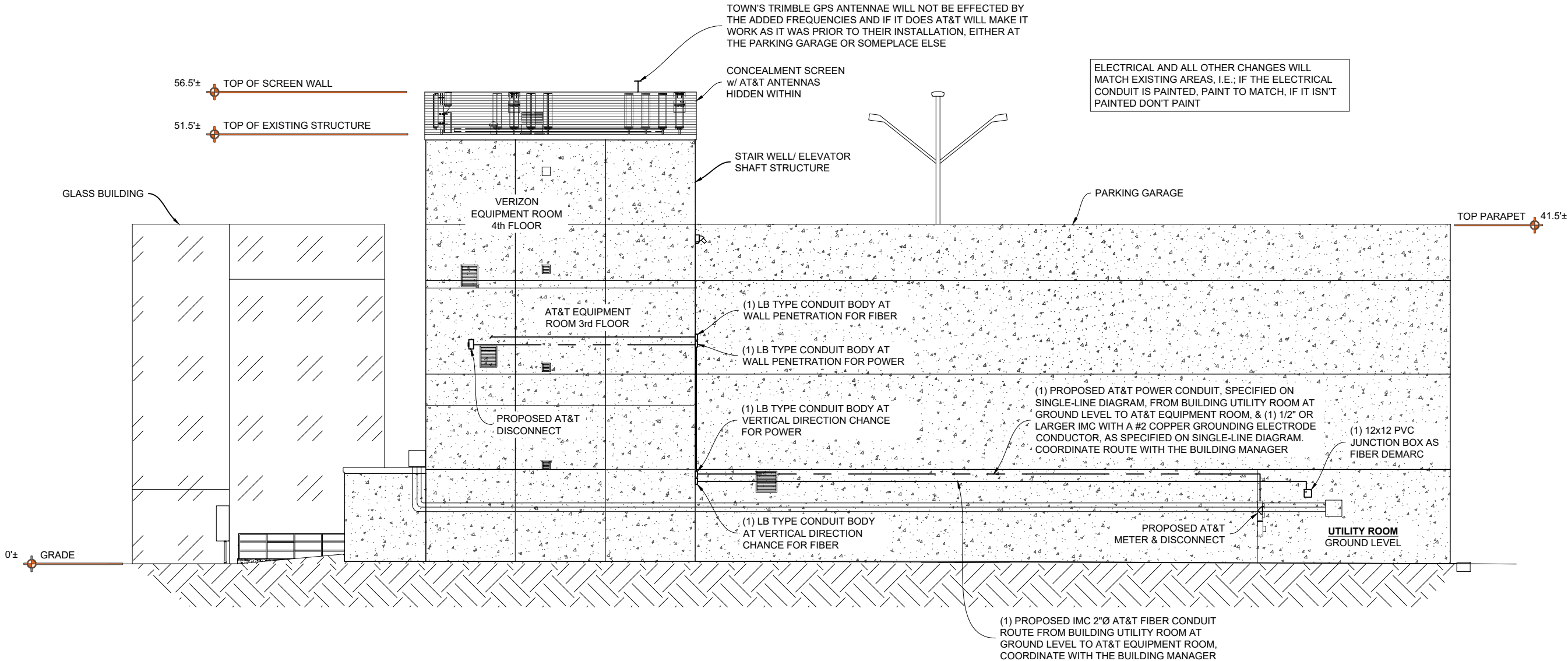
SHEET NUMBER:
A-2.1

STRUCTURE NOTES

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CONTRACTOR TO COMPLY WITH ALL FCC AND FAA REGULATIONS ON THIS PROJECT.

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Route electrical conduit next to Verizon's exiting conduit's utilizing extended Unistrut for that purpose



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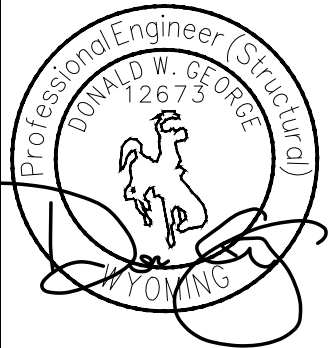
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SITE INFORMATION:
TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO
NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:
BUILDING
ELEVATION

SHEET NUMBER:
A-3

1.	ANTENNA CLEARANCE AND MOUNTING TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION WITH FINAL ANTENNA SPECIFICATIONS, MOUNTING HARDWARE AND RF DESIGN. ANTENNA PIPE MOUNT MODIFICATION MAY BE REQUIRED PER STRUCTURAL.
2.	CONTRACTOR TO VERIFY FINAL ANTENNA CONFIGURATION FROM LATEST APPROVED RFDS.
3.	CONTRACTOR SHALL OBTAIN A MINIMUM 4' SEPARATION BETWEEN ALL ANTENNAS UNLESS APPROVED BY RF.
4.	STRUCTURAL ANALYSIS MUST BE PERFORMED PRIOR TO THE INSTALLATION OF ANY NEW EQUIPMENT.

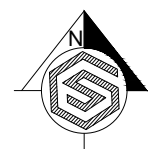
THESE DRAWINGS WERE PRODUCED WITH INFORMATION PROVIDED BY THE CLIENT. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO INSTALLATION.

ANTENNA AND EQUIPMENT CALLOUTS SHOWN ARE TYPICAL OF ALL SECTORS UNLESS SPECIFICALLY NOTED OTHERWISE.

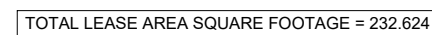
PROPOSED AT&T

- (9) SBNHH-1D65A 4.6' TALL ANTENNAS
- (3) NNHH-65A-R4 4.6' TALL ANTENNAS
 - (3) B25 RRH4x30-4R
 - (3) RRH4x25-WCS-4R
- (6) AIRSCALE DUAL RRH 4T4R B25/60
320W AHFB
- (3) DC/FIBER DISTRIBUTION BOXS

ALL NEW PENETRATIONS THRU THE NEW ROOF WILL NOT CHANGE ROOF WARRANTY. ALL PENETRATIONS THRU STRUCTURE WILL BE REVIEWED AND APPROVED BY PUBLIC WORKS AND STRUCTURAL ENGINEER.



3



- STRUCTURAL STEEL
1.

STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE AISC STEEL CONSTRUCTION MANUAL AND SECTION 4 OF THE TIA CODE.

2.

PRE-QUALIFIED STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING MINIMUM GRADES UNLESS OTHERWISE NOTED:

• CHANNELS & ANGLES

ASTM A36, (Fy = 36 KSI)

• PLATES

ASTM A36, (Fy = 36 KSI)

• PIPES

ASTM A53 GR.B, (Fy = 35 KSI)

• STRUCTURAL BOLTS

ASTM A325

• U-BOLTS

ASTM A307 GR.A

• NUTS FOR BOLTS

ASTM A563 (THREADING TO MATCH BOLT)

• WASHERS FOR BOLTS

ASTM F436

• SEE TABLE 5-1 OF THE TIA CODE FOR ADDITIONAL SHAPES AND STANDARDS THAT ARE NOT LISTED ABOVE.

3.

NON PRE-QUALIFIED STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING STANDARDS PER THE TIA CODE:

• THE CARBON EQUIVALENT OF STEEL SHALL NOT EXCEED 0.65 PER SECTION 5.4.2 OF THE TIA CODE

• ELONGATION OF STEEL SHALL NOT BE LESS THAN 18%

• TEST REPORTS SHALL BE IN ACCORDANCE WITH ASTM A6 OR A568

• TOLERANCES SHALL BE IN ACCORDANCE WITH ASTM A6

4.

FIELD CUT EDGES, EXCEPT DRILLED HOLES, SHALL BE GROUND SMOOTH AND COLD GALVANIZED.

5.

ALL WELDING WORK SHALL CONFORM TO THE AWS D1.1 STRUCTURAL WELDING CODE. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS ONLY. WELDING ELECTRODES SHALL BE E70XX.

6.

ALL DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO AISC SPECS AND CODES, LATEST EDITION.

7.

UPON REQUEST, THE CONTRACTOR SHALL SUBMIT DETAILED, ENGINEERED, COORDINATED AND CHECKED SHOP DRAWINGS FOR ALL STRUCTURAL STEEL TO THE ENGINEER OF RECORD TO REVIEW FOR COMPLIANCE WITH DESIGN INTENT PRIOR TO THE START OF FABRICATION AND/OR ERECTION. GEOSTRUCTURAL IS ABSOLVED OF ALL LIABILITY ASSOCIATED WIT THE MISINTERPRETATION OF THE CONSTRUCTION DOCUMENTS IF CONTRACTOR CHOOSES NOT TO SUBMIT SHOP DRAWINGS.

8.

TORCH-CUTTING OF ANY KIND SHALL NOT BE PERMITTED.

9.

ALL BOLT HOLES SHALL BE STANDARD SIZE BOLT HOLES PER AISC 360, UNLESS OTHERWISE NOTED.

ALL HOLES SHALL BE SHOP DRILLED OR SUB-PUNCHED AND REAMED. BURNING OF HOLES IS NOT PERMITTED. WHERE SLOTTED OR OVERSIZE HOLES ARE SPECIFIED ON THE DRAWINGS, EXTRA-THICK ASTM F436 PLATE WASHERS SHALL BE USED (3/16" MINIMUM THICKNESS) WITH A DIAMETER SUITABLE TO COVER THE EXTENTS OF THE SLOT OR HOLE. BOLTS SHALL BE HEAVY-HEX WHERE AVAILABLE IN THE SIZE AND GRADE SPECIFIED, OTHERWISE BOLTS SHALL BE HEX HEAD CAP SCREWS.

10.

ALL STEEL HARDWARE, INCLUDING ADHESIVE OR EMBEDDED ANCHOR BOLTS AND THEIR ACCESSORIES, SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153 (EXCEPT BOLTS SMALLER THAN 1/2" SHALL CONFORM TO FE/ZN 3 AT PER ASTM F1941 WHERE HOT-DIP GALVANIZED BOLTS ARE NOT AVAILABLE). ALL STEEL MEMBERS, INCLUDING WELDMENTS, SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123. REPAIR DAMAGE TO GALVANIZED COATINGS USING ASTM A780 PROCEDURES WITH A ZINC RICH PAINT (SUCH AS ZINC GALVILITE) FOR GALVANIZING DAMAGED BY HANDLING, TRANSPORTING, CUTTING, WELDING, OR BOLTING. DO NOT HEAT SURFACES TO WHICH REPAIR PAINT HAS BEEN APPLIED. CALL OUT HOLES REQUIRED FOR HOT-DIP GALVANIZING ON SHOP DRAWINGS.

MEMBERS SHALL BE SHOP-FABRICATED AND WELDED TO THE EXTENT PRACTICABLE IN ORDER TO REDUCE FIELD INSTALLATION COSTS.
- BOLTS

1.

ALL CONNECTIONS OF STRUCTURAL STEEL MEMBERS SHALL BE MADE USING SPECIFIED GALVANIZED HIGH STRENGTH ASTM A325 OR A490 BOLTS WITH THREADS EXCLUDED FROM SHEAR PLANE.

2.

FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES, WITH BOLT HEADS FACING DOWN WHERE APPLICABLE.

3.

ALL BOLTS AT EVERY CONNECTION SHALL BE INSTALLED SNUG-TIGHT UNTIL THE SECTION IS FULLY COMPACTED AND ALL PLIES ARE JOINED, AND THEN TIGHTENED FURTHER BY AISC - "TURN OF THE NUT" METHOD. TIGHTENING SHALL PROGRESS SYSTEMATICALLY.

4.

BOLT LENGTHS UP TO AND INCLUDING 4 DIAMETERS SHALL BE TENSIONED 1/3 TURN BEYOND SNUG-TIGHT. BOLT LENGTHS OVER 4 DIAMETERS SHALL BE 1 1/2 TURNS BEYOND SNUG-TIGHT.

5.

ALL BOLTED CONNECTIONS SHALL USE LOCK WASHERS.
- NEW FRP L4x4x3/8 W/ (2) 5/8" FRP BOLTS DETERMINE LENGTH IN FIELD

(2) TOTAL ANGLES PER MOUNT FRAME INSTALLED CLOSE TO EXISTING FIBERGLASS POST

EXISTING FIBERGLASS SCREEN WALL POST

4x4x1/4 RAIL W/ 5/8"Ø U-BOLT (2) TOTAL PER FRAME

3/8" RAIN CAP WELD TO TOP

PIPE 2.5X-STR (2 1/8" O.D. SCHEDULE 80) POST x 5'-6"± TALL VERIFY IN FIELD

(4) 5/8"Ø x 3.125" MIN. EMBED HILTI H.A.S. THREADED ROD ANCHORS W/ HILTI HIT-RE500 V3 (ESR#3814) EPOXY HOLE DRILLING, CLEANING/PREPARATION, EPOXY AND ANCHOR INSTALLATION AS PER MANUFACTURER'S RECOMMENDATIONS.

9" 6" 6" 6"

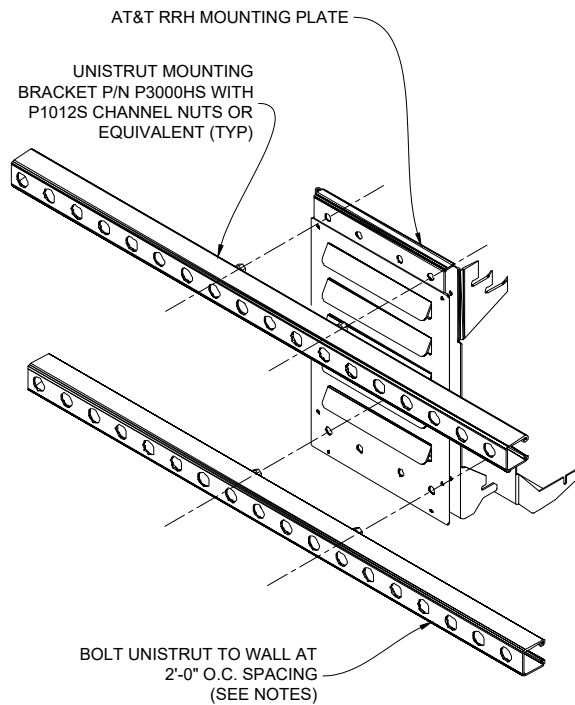
1/4"

3/4" THICK

ROOF MEMBRANE TO BE REPAIRED BY A LICENSED/ BONDED ROOFING CONTRACTOR

CONCRETE ROOF DECK

CONTRACTOR TO X-RAY CONCRETE DECK TO LOCATE SLAB REINFORCEMENT. LOCATE POST IN FEILD TO AVOID DISTURBING REINFORCEMENT. COORDINATE INSTALLATION WITH FACILITIES MANAGER & VERIZON.
- SIMILAR INSTALLATION EXCEPT AT&T WILL HAVE A POST ON EACH END
- VERIZON INSTALLATION ON-SITE
(AT&T WILL HAVE A SIMILAR INSTALLATION)
- AT&T INSTALLATION WILL HAVE PROPOSED ANGLE ATTACHMENT TO SCREEN WALL
- VERIZON INSTALLATION ON-SITE
(AT&T WILL HAVE A SIMILAR INSTALLATION)
- PROPOSED ANTENNA MOUNT
- 75
- SCALE: 1" = 1'-0" (11x17)
SCALE: 2" = 1'-0" (24x36)
- 2
- PHOTOS
- N.T.S.
- 1
-
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- | REVISIONS | | | |
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- SITE INFORMATION:
- TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO
- NEW SITE BUILD
- 160 S MILLWARD STREET
JACKSON, WY 83001
- SHEET TITLE:
- ANTENNA MOUNT
- SHEET NUMBER:
- A-4.1

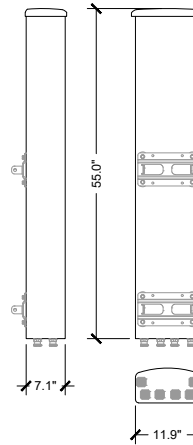


NOTES:

- CONCRETE ANCHOR:** HILTI HIT HY 150 ADHESIVE ANCHOR
SIZE: $\varnothing = 3/8"$
EMBEDMENT: 1 3/4"
SPACING: S = 24" (MAX)
* IF THE WALL THICKNESS IS LESS THAN 2", THE 1/2" $\varnothing$ A325 BOLT SHALL BE USED TO GO THROUGH THE WALL WITH A 3/8" BACK PLATE INSIDE OF THE WALL.
- FULLY-GROUTED CMU WALL**
ANCHOR: HILTI HIT HY 150 ADHESIVE ANCHOR
SIZE: $\varnothing = 3/8"$
EMBEDMENT: 1 3/4"
SPACING: ONE (1) ANCHOR PER CELL (MAX) AND 8" (MIN)
- SOLID BRICK WALL**
ANCHOR: HILTI HIT HY 20 ADHESIVE ANCHOR
SIZE: $\varnothing = 3/8"$
EMBEDMENT: 2"
SPACING: S = 24" (MAX)
- HOLLOW, UNGROUTED CMU WALL & BRICK WALL WITH HOLES**
ANCHOR: HILTI HIT HY 20 ADHESIVE ANCHOR
SIZE: $\varnothing = 3/8"$
EMBEDMENT: THROUGH FACE OF HOLLOW BASE > 6" (MIN)
SPACING: S = (2) COMPLETE BRICKS IN ANY DIRECTION
(1) ANCHOR PER BLOCK CELL (CMU)
- STEEL BOLT:** A325
BOLT SIZE: $\varnothing = 1/2"$
BOLT HOLE SIZE: $\varnothing = 9/16"$
- IF THE WALL MATERIAL IS DIFFERENT FROM ABOVE, CONTRACTOR SHALL INFORM DESIGN ENGINEER IMMEDIATELY.
- ALL HARDWARE AND PARTS SHALL BE HOT-DIPPED GALVANIZED WITH LOCK WASHERS AND HEAVY HEX NUTS.
- ALL BOLT HOLES SHALL BE 7/16" $\varnothing$ UNLESS NOTED OTHERWISE.
- THE MAX LOAD BETWEEN ANCHORS SHALL BE LESS THAN 400 POUNDS.

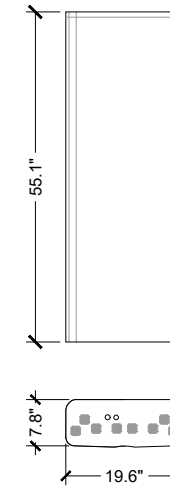
ANDREW SBNHH-1D65A

DIMENSION (H x W x D) 55" x 11.9" x 7.1"
WEIGHT 40.9 lbs



COMMSCOPE NNHH-65A-R4

DIMENSION (H x W x D) 55.1" x 19.6" x 7.8"
WEIGHT 68.3 lbs



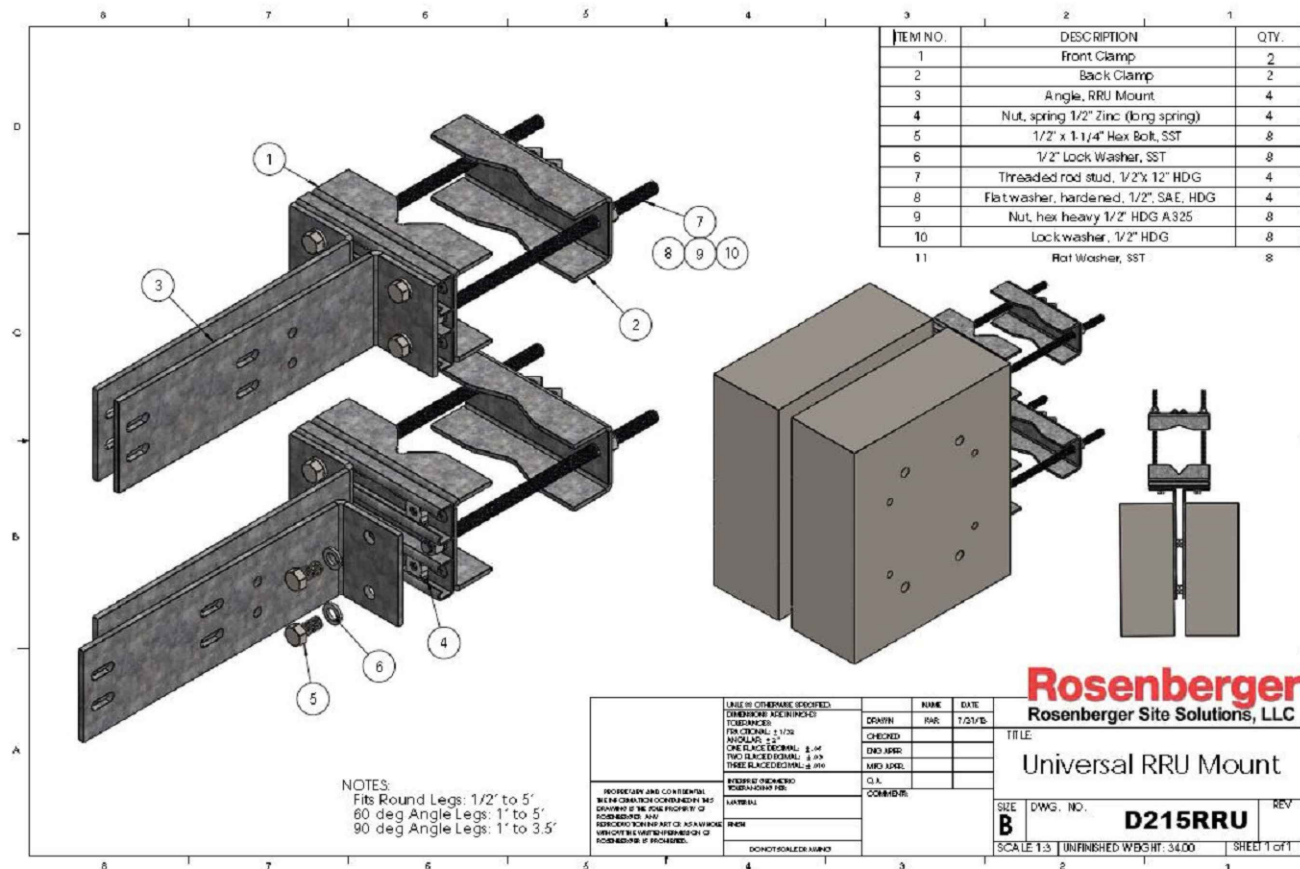
ALCATEL-LUCENT B25 RRH4X30 (4-WAY RECEIVE)

DIMENSION (H x W x D) 21.2" x 12.0" x 7.2"
WEIGHT 53 lbs



ALCATEL-LUCENT RRH4x25-WCS-4R (4-WAY RECEIVE)

DIMENSION (H x W x D) 31.5" x 11.8" x 8.7"
WEIGHT 70 lbs



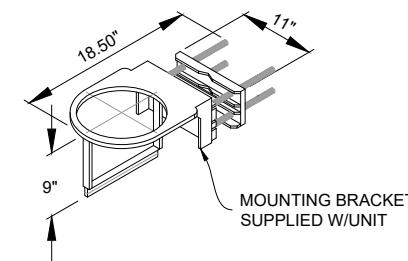
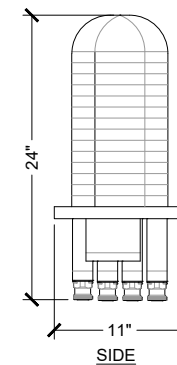
NOKIA

AHFIB Dimensions



RAYCAP DC6 DC/FIBER DISTRIBUTION BOX

DIMENSION (H x W x D) 24" x 11" x 11"
WEIGHT 32.8 lbs



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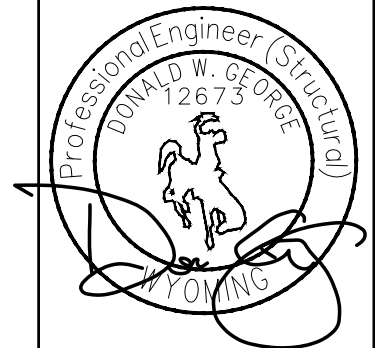
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SITE INFORMATION:

TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO

NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

EQUIPMENT
DETAILS

SHEET NUMBER:

R-1

DIMENSIONS - OUTDOO.

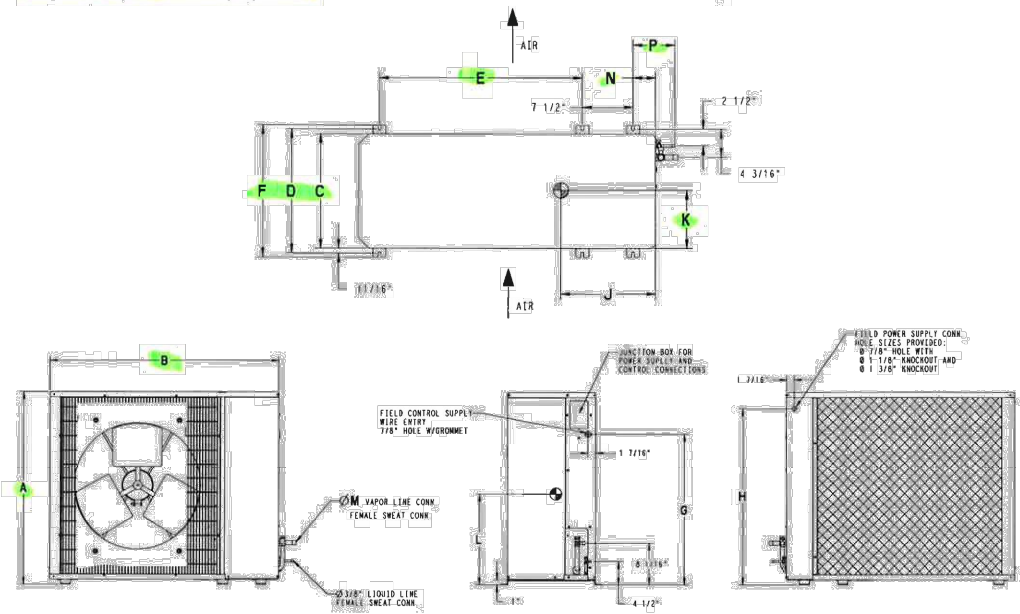


Fig. 4 - Outdoor Unit Dimensions

Table 4—Dimensions Indoor

	UNIT	DIMENSIONS in (mm)														OPERATING WEIGHT lbs (kg)
		A	B	C	D	E	F	G	H	J	K	L	M	N	P	
Cooling Only	18	31.1 (791)	36.9 (938)	14.6 (370)	16 (406)	23.4 (595)	17.2 (437)	23.1 (587)	28.1 (713)	13 (330)	6.6 (168)	11.3 (288)	0.6 (16)	2.9 (73)	5.8 (148)	146 (66)
	24	31.1 (791)	36.9 (938)	14.6 (370)	16 (406)	23.4 (595)	17.2 (437)	23.1 (587)	28.1 (713)	14 (356)	6.8 (171)	11.6 (295)	0.8 (19)	2.9 (73)	5.8 (148)	148 (67)
	30	37.1 (943)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	29.1 (740)	34.1 (865)	13.7 (348)	8.1 (206)	15.9 (403)	0.8 (22)	3.4 (86)	6.4 (162)	183 (83)
	36	37.1 (943)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	29.1 (740)	34.1 (865)	13.7 (348)	8.1 (206)	15.9 (403)	0.9 (22)	3.4 (86)	6.4 (162)	184 (83)
	48	37.1 (943)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	29.1 (740)	34.1 (865)	14.5 (368)	8.5 (216)	18.9 (479)	0.9 (22)	3.4 (86)	6.4 (162)	213 (97)
	60	43.1 (1095)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	35.1 (892)	40.1 (1018)	14.5 (368)	8.5 (216)	18.9 (479)	0.9 (22)	3.4 (86)	6.4 (162)	245 (111)
Heat Pump	30	37.1 (943)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	29.1 (740)	34.1 (865)	13.7 (348)	8.1 (206)	15.9 (403)	0.8 (19)	3.4 (86)	5.5 (140)	196 (89)
	36	37.1 (943)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	29.1 (740)	34.1 (865)	13.7 (348)	8.1 (206)	15.9 (403)	0.9 (22)	3.4 (86)	5.5 (140)	197 (89)
	48	43.1 (1095)	44.5 (1130)	17.1 (433)	18.4 (468)	30.5 (775)	19.6 (498)	35.1 (892)	40.1 (1018)	14.5 (368)	8.5 (216)	18.9 (479)	0.9 (22)	3.4 (86)	5.5 (140)	246 (112)

NOTE: Dimensions shown in feet-inches. Dimensions in () are millimeters.

DIMENSIONS - INDOOR

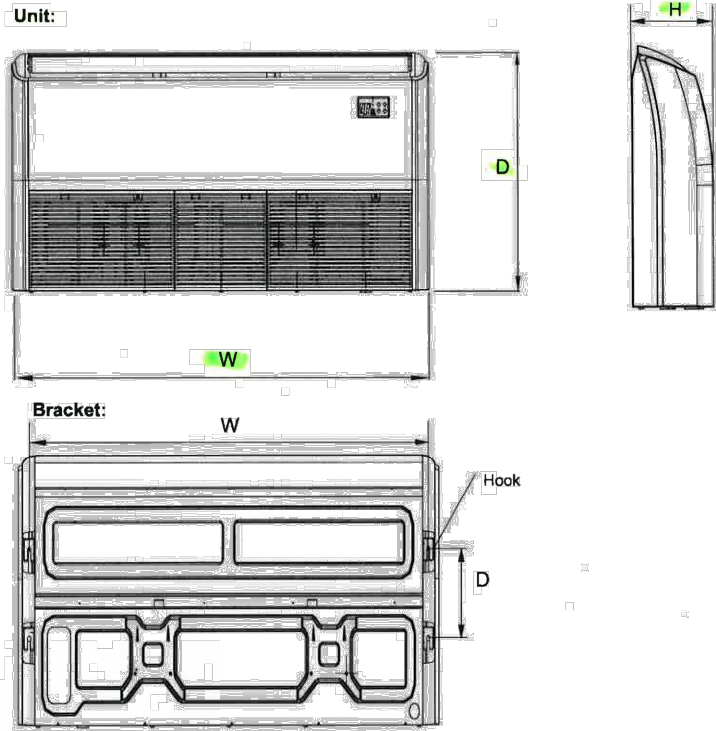


Fig. 3 - 40MKCB**F, 40MKQB**F Unit and Bracket Dimensions

Table 3—Dimensions Indoor

INDOOR UNIT SIZE BTU/Hr	HEIGHT (H) in (mm)	WIDTH (W) in (mm)	DEPTH (D) in (mm)	OPERATING WEIGHT lb (kg)
AC				
18K	9.3 (235)	42.0 (1068)	26.6 (675)	59.7 (27.1)
24K - 34K	9.3 (235)	65.0 (1650)	26.6 (675)	91.9 (41.7)
48K - 54K	9.3 (235)	65.0 (1650)	26.6 (675)	98.8 (44.8)
HP				
30K - 48K	9.3 (235)	65.0 (1650)	26.6 (675)	98.8 (44.8)
Bracket				
18K AC		38.7 (983)	8.7 (220)	
24K - 54K AC/HP		61.6 (1565)	8.7 (220)	

Table 9 - 25HHA4/224ANS Electrical Data

UNIT SIZE -- voltage, series	V/PH	OPER VOLTS*		COMPR		FAN	MCA	MAX FUSE** or CKT BRK AMPS
		MAX	MIN	LRA	RLA	FLA		
30--3				64	12.8	1.2	17.2	30
36--3	206/230/1	253	197	77	14.2	1.2	19	30
48--3				117	21.8	1.45	28.8	50
36--5	208/230/3	253	197	71	9.3	1.2	12.8	20
48--5				83.1	13.7	1.45	18.6	30
36--6	480/3	506	414	38	5.6	0.6	7.6	15
48--6				41	6.2	0.8	8.6	15

Table 10 - 40MKCB**F Electrical Data

INDOOR UNIT SIZE BTU/Hr	V-Ph-Hz	VOLTAGE RANGE		FAN	POWER	
		Min (V)	Max (V)	FLA (A)	Min Ckt Amp (A)	Max Fuse CB Amp (A)
18K	208-230-1-60	187	253	0.71	1	15
24K - 34K	208-230-1-60	187	253	0.7 x 2	3	15
54K	208-230-1-60	187	253	0.95 x 2	3	15

Table 11 - 40MKQB**F Electrical Data

INDOOR UNIT SIZE BTU/Hr	V-Ph-Hz	VOLTAGE RANGE		FAN	POWER	
		Min (V)	Max (V)	FLA (A)	Min Ckt Amp (A)	Max Fuse CB Amp (A)
30K - 48K	208-230-1-60	187	253	0.95 x 2	3	15

LEGEND
FLA - Full Load Amps
HACR - Heating, Air Conditioning, Refrigeration
LRA - Locked Rotor Amps
NEC - National Electrical Code
RLA - Rated Load Amps (compressor)
*Permissible limits of the voltage range at which the unit will operate satisfactorily
**Time-Delay fuse.
Complies with 2007 requirements of ASHRAE Standards 90.1

Fig. 6 - Outdoor Unit Clearance

UNIT	OIL FACING WALL - in.(mm)	FAN FACING WALL - in. (mm)
A	24 (610)	24 (610)
B	24 (610)	24 (610)
C	20 (508)	6 (152)
D	6 (152)	8 (203)
E	6 (152)	20 (508)

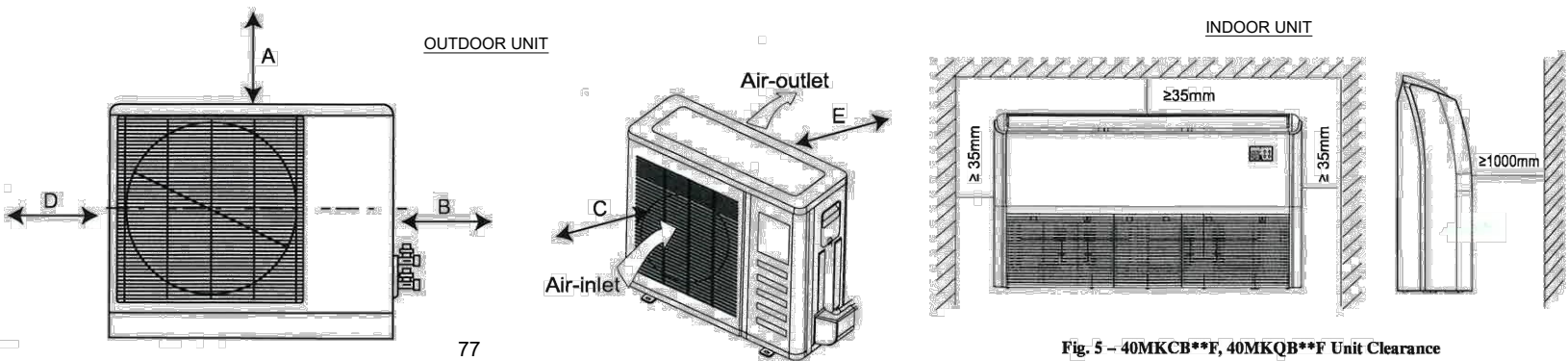


Fig. 5 - 40MKCB**F, 40MKQB**F Unit Clearance



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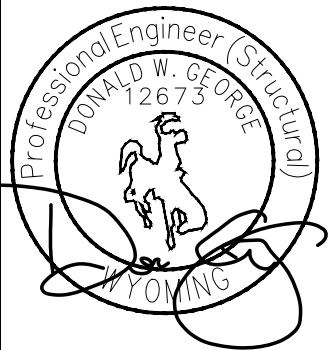
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WWW.GEOSTRUCTURAL.COM

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2	01/31/19	REVISED PER PUBLIC WORKS	GGD
1	01/22/19	REVISED PER ZONING	GGD
0	11/12/18	ISSUED FOR ZONING	GGD
B	11/06/18	EQUIPMENT TO 3rd FLOOR	GGD
A	09/19/18	ISSUED FOR REVIEW	GGD

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SITE INFORMATION:

TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO

NEW SITE BUILD

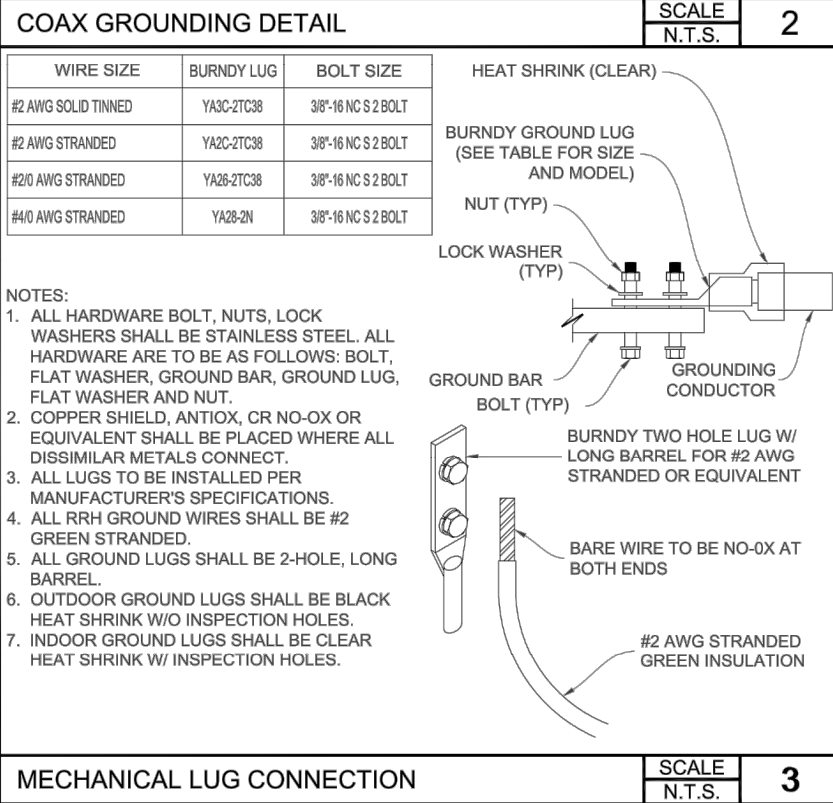
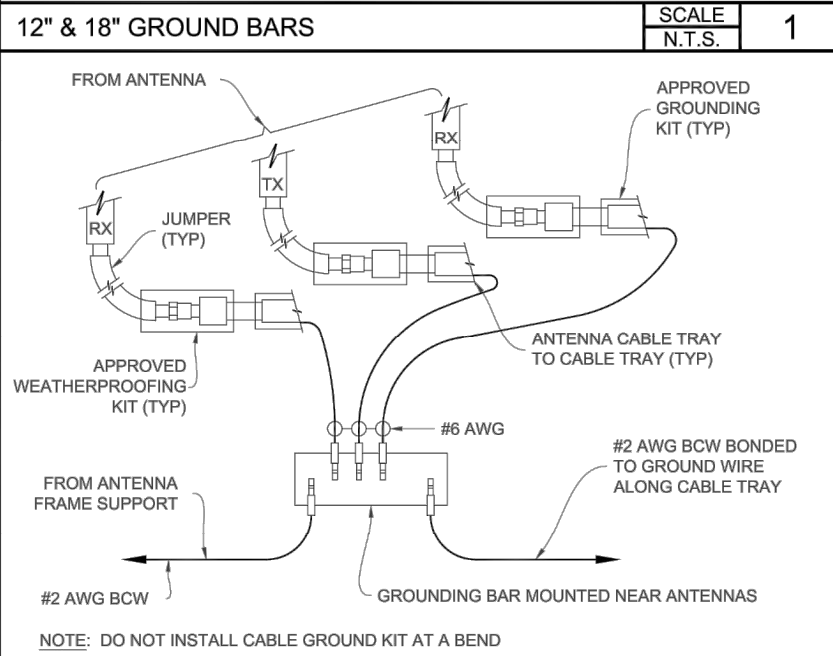
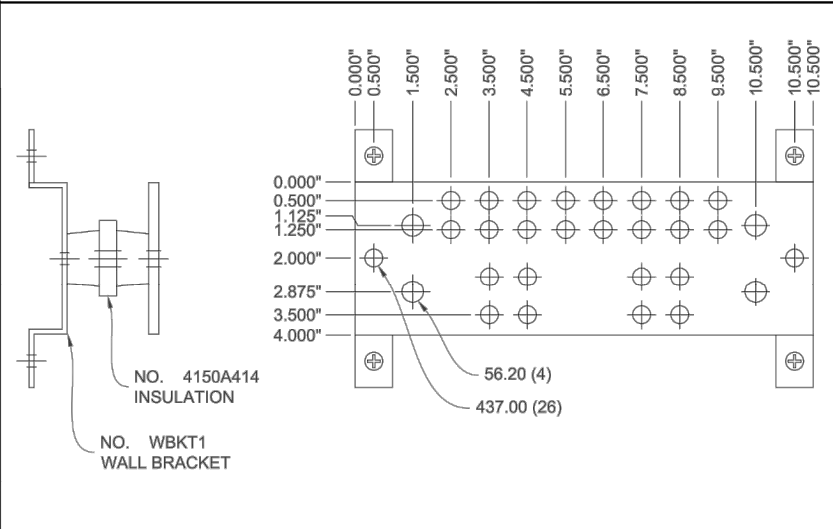
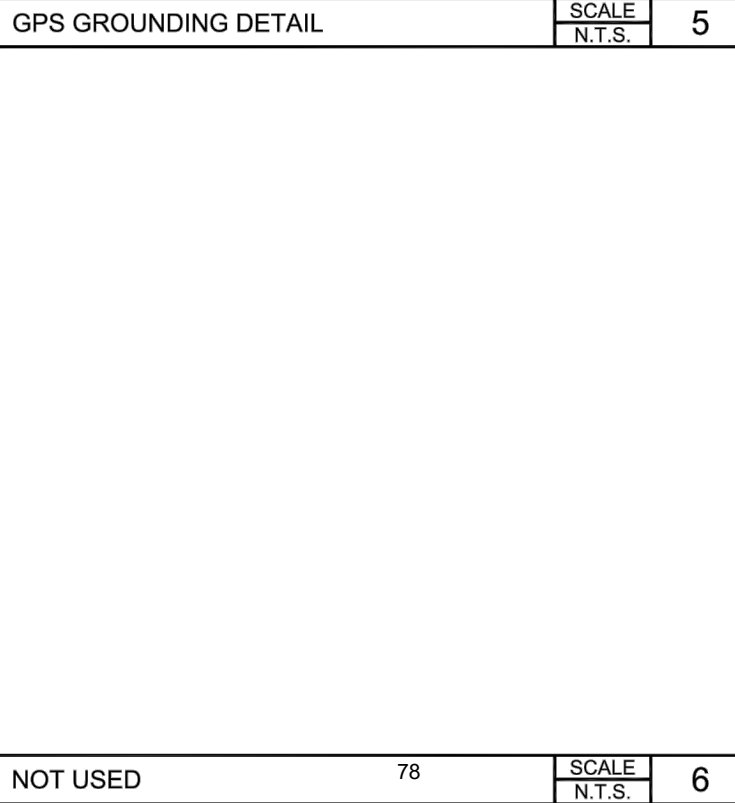
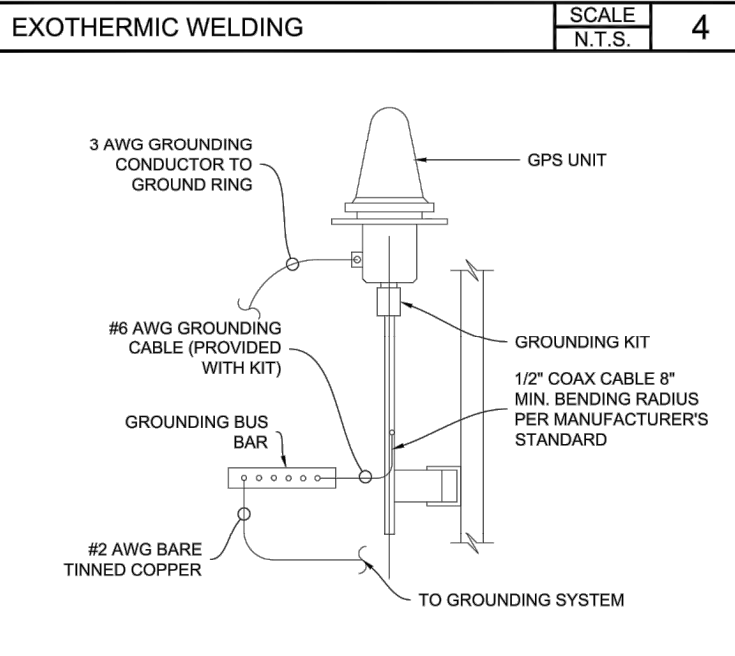
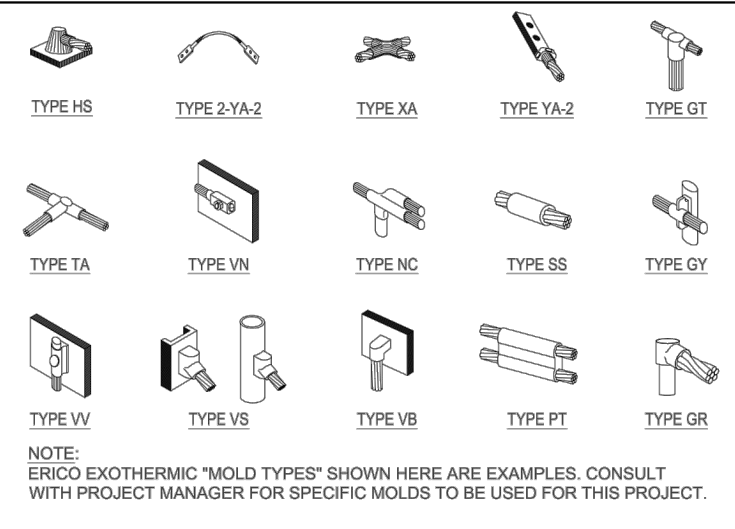
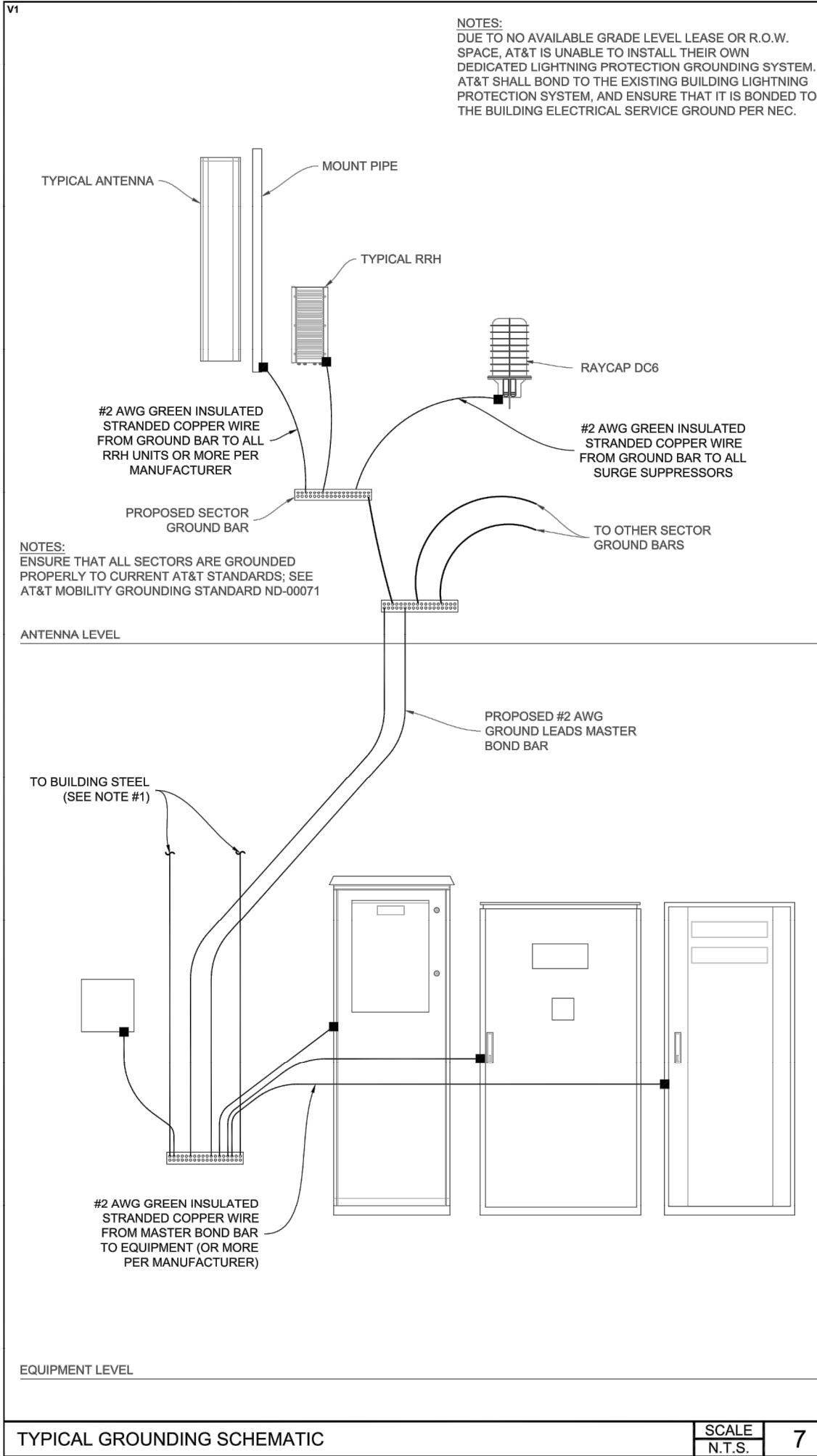
160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

HVAC DETAILS

SHEET NUMBER:

R-2



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IDL04511 RELO**

NEW SITE BUILD

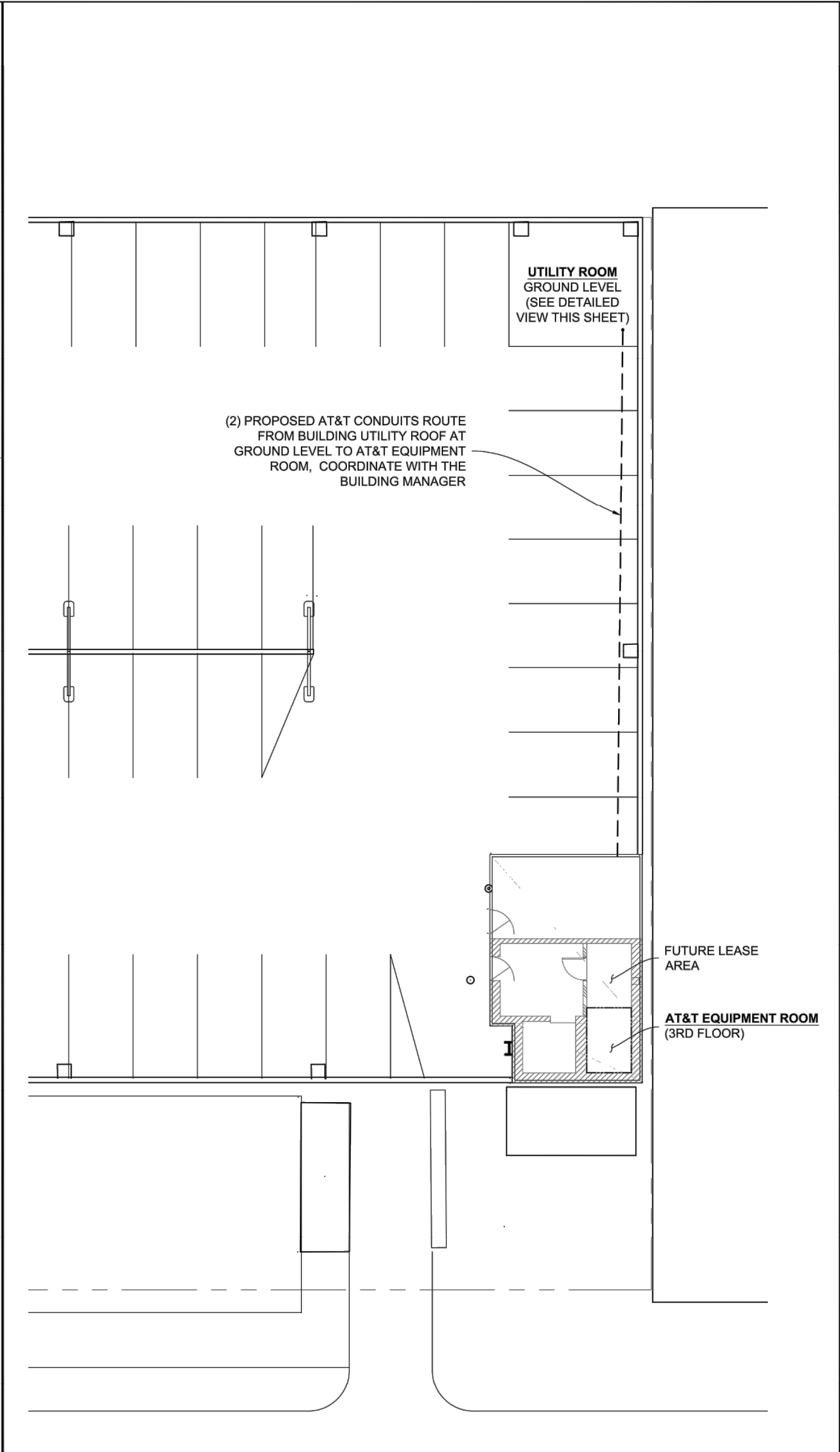
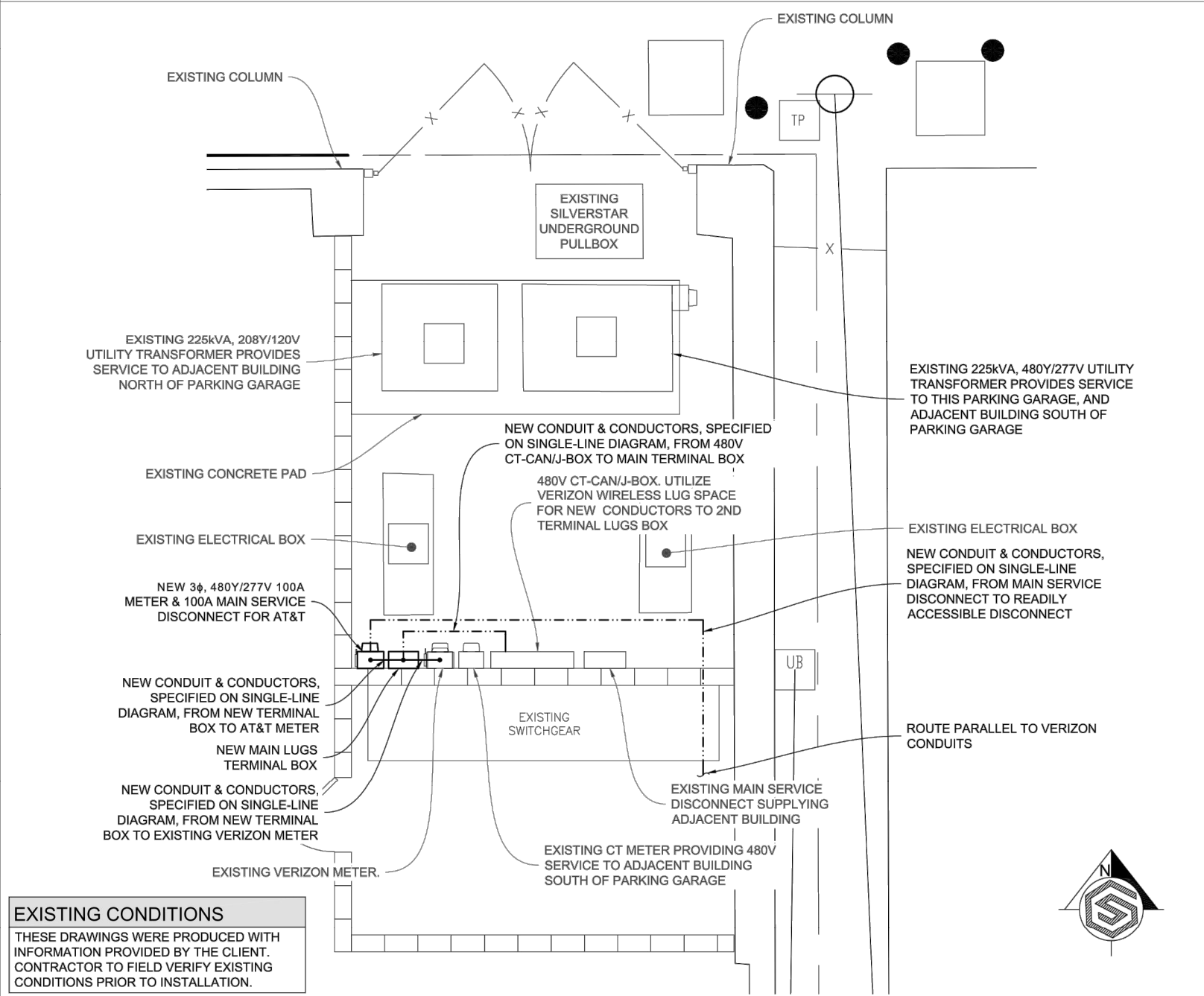
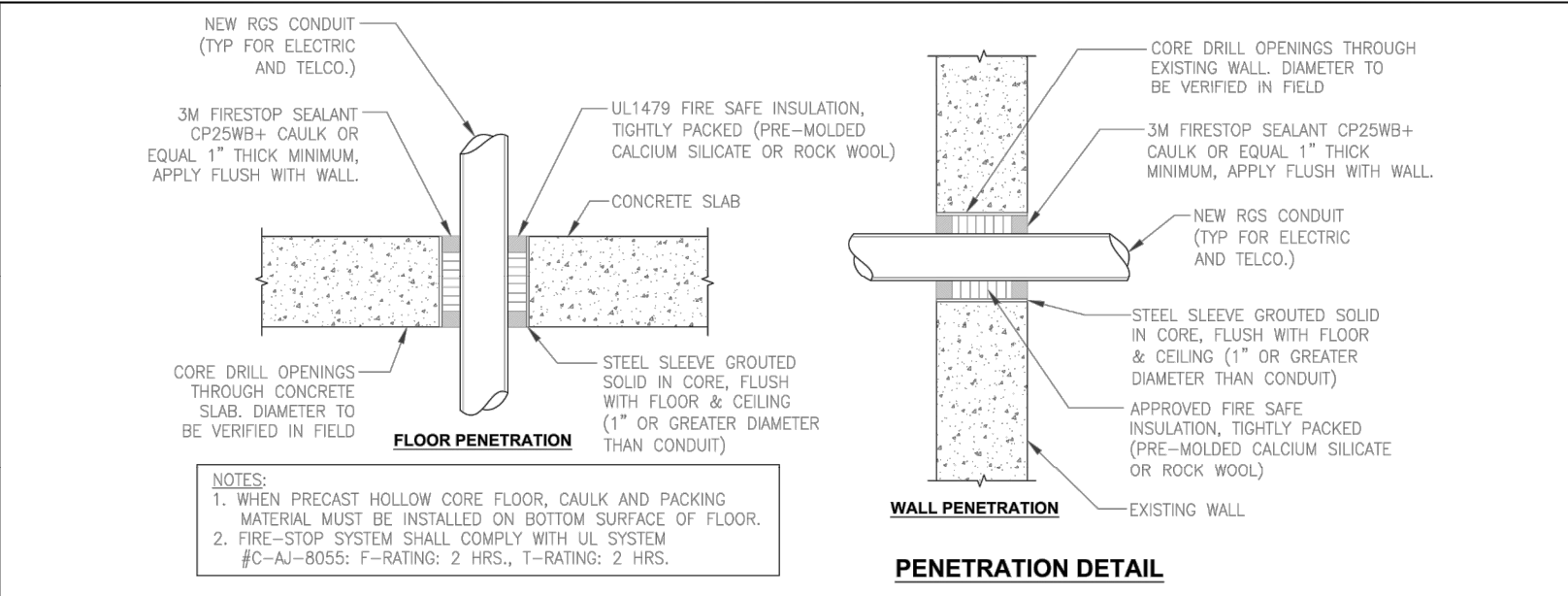
160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:

**GROUNDING
DETAILS**

SHEET NUMBER:

G-1



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**TOWN OF JACKSON
PARKING GARAGE
IDL04511 RELO**
NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:
**UTILITY ROUTING
PLAN**

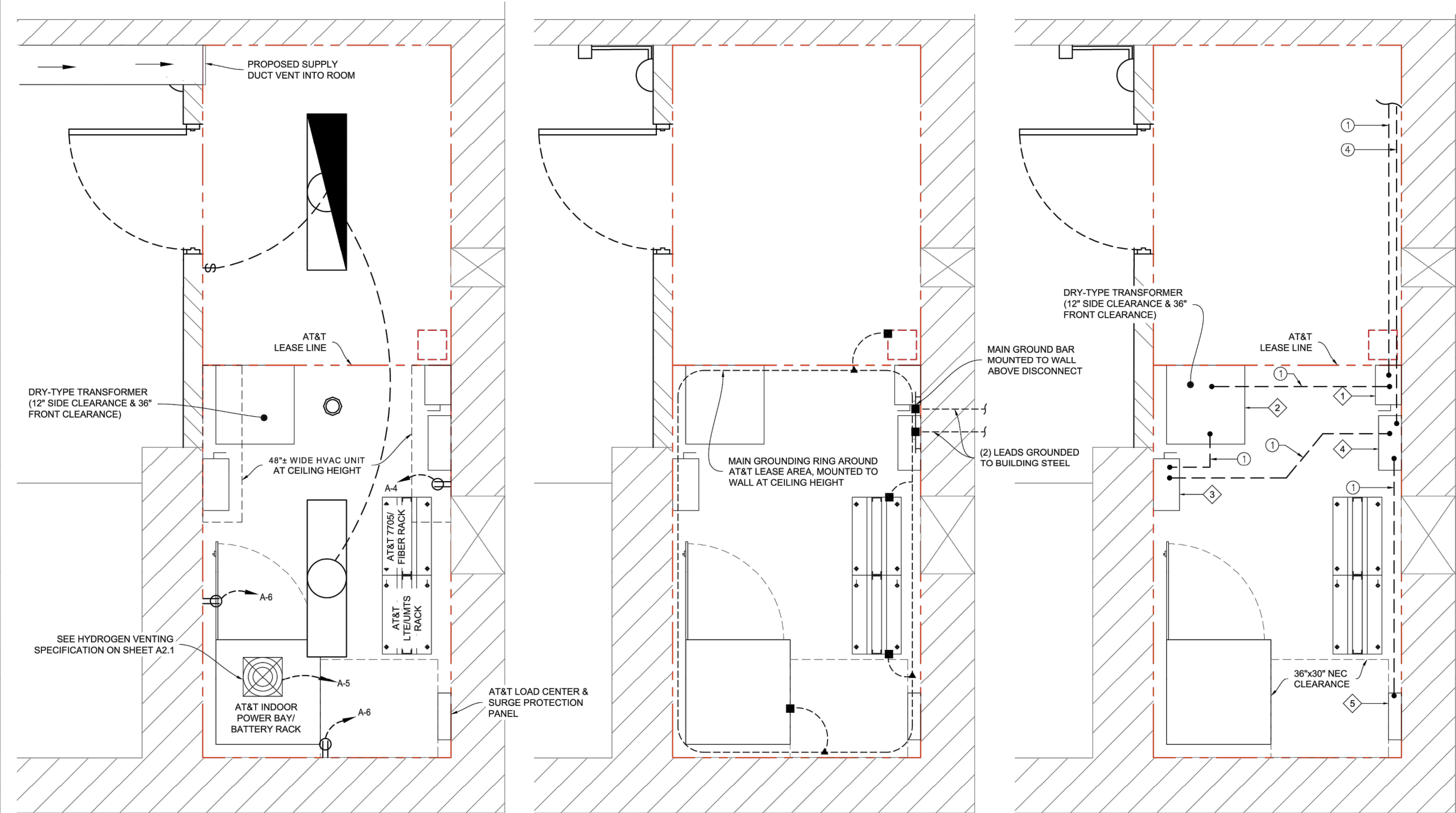
SHEET NUMBER:
E-1

GENERAL ELECTRICAL NOTES	
	DUPLEX RECEPTACLE, 20A NEMA 5-20R, 18" A.F.F. UNLESS NOTED OTHERWISE. GFCI RATED. CONDUCTORS TO BE INSTALLED IN 3/4"Ø CONDUIT.
	SINGLE POLE, SINGLE THROW, 20A ROCKER LIGHT FIXTURE.
	PHOTOELECTRIC SMOKE DETECTOR.
	4' FIXTURE, W/ONE 32W T-8 LAMP & HIGH EFFICIENCY ELECTRONIC BALLAST
	4' FIXTURE, W/ONE 32W T-8 LAMP. FIXTURE SHALL INCLUDE AN INTERNAL BATTERY BACKUP TO PROVIDE 90 MINUTE MINIMUM BACKUP FOR POWER TO FIXTURE.

LEGEND	
	CADWELD CONNECTION (EXOTHERMIC WELD)
	MECHANICAL CONNECTION
	5/8"Øx10' COPPER CLAD STEEL GROUND ROD
	#2 SOLID, TINNED BARE COPPER
	#6 GREEN STRANDED INSULATED COPPER

KEYED COMPONENT NOTES:	
	NEW 480V 100A READILY ACCESSIBLE DISCONNECT CIRCUIT BREAKER, SPECIFIED ON SINGLE-LINE DIAGRAM
	NEW 1Ø 50KVA DRY TYPE TRANSFORMER, SPECIFIED ON SINGLE-LINE DIAGRAM
	NEW 240V, 200A SECONDARY DISCONNECT SPECIFIED ON SINGLE-LINE DIAGRAM
	NEW 1Ø 120/240V, 200A MANUAL TRANSFER SWITCH
	200A, 42 POSITION DISTRIBUTION PANEL

KEYED CONDUIT NOTES:	
	CONDUIT & CONDUCTORS SPECIFIED ON SINGLE-LINE DIAGRAM



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SITE INFORMATION:
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PARKING GARAGE
IDL04511 RELO
NEW SITE BUILD

160 S MILLWARD STREET
JACKSON, WY 83001

SHEET TITLE:
EQUIPMENT
ROOM POWER &
LIGHTING PLAN

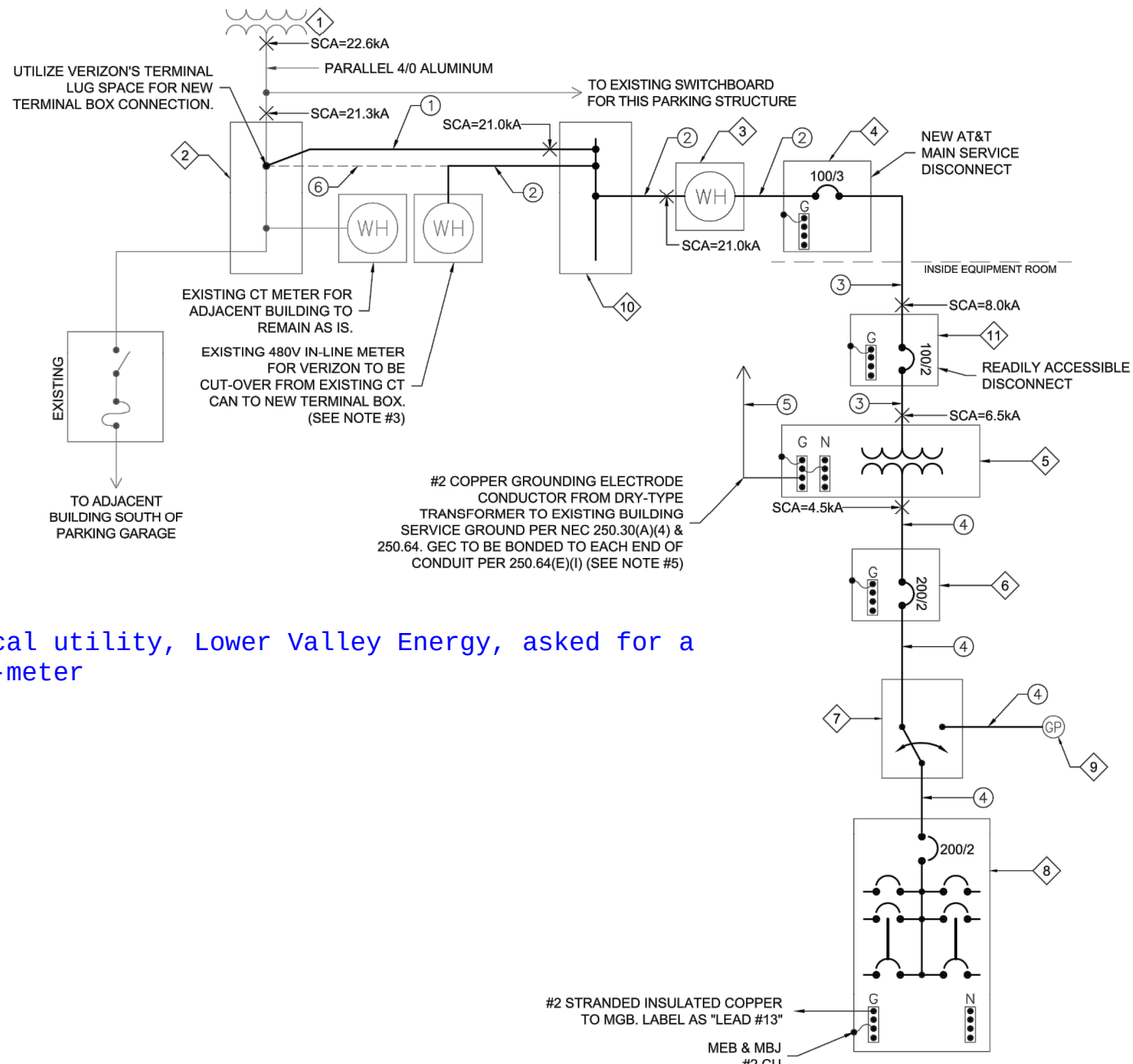
SHEET NUMBER:
E-2

1	EXISTING 225kVA, 480Y/277V UTILITY TRANSFORMER.
2	EXISTING 480V CT-CAN / J-BOX. SEE NOTE #4
3	NEW 3 ϕ 480/277V 100A METER (ACCEPTABLE TO POWER COMPANY)
4	NEW 3 ϕ 480V 100A CIRCUIT BREAKER, SQUARE D FHL36100 INSTALLED IN SUITABLE ENCLOSURE.
5	NEW 1 ϕ 50kVA DRY TYPE TRANSFORMER, 480V:120/240V SQUARE D EE50S3H OR EQUIVALENT. IMPEDANCE = 5.7%
6	NEW 1 ϕ 120/240V, 200A CIRCUIT BREAKER. SQUARE D QBL22200, RATED 10 KAIC
7	NEW 1 ϕ 120/240V, 200A MANUAL TRANSFER SWITCH
8	NEW 200A, 42 POSITION DISTRIBUTION PANEL
9	NEW 200A, 600VAC APPLETON GENERATOR PLUG. GENERATOR PLUG NEUTRAL IS TO BE SOLIDLY CONNECTED THROUGH MANUAL TRANSFER SWITCH TO SERVICE NEUTRAL. MODEL #AR20034-200-RS OR EQUIVALENT.
10	NEW MAIN LUGS TERMINAL BOX. SEE NOTE #4.
11	NEW 480V 100A CIRCUIT BREAKER, SQUARE D FAL24100 INSTALLED IN SUITABLE ENCLOSURE.

①	2" C MINIMUM, (4) #3/0 THWN COPPER
②	1¼" C MINIMUM, (4) #2 THWN COPPER, (1) #2 COPPER GROUND
③	1" C MINIMUM, (2) #2 THWN COPPER, (1) #2 COPPER GROUND. CONDUIT ROUTING TO BE COORDINATED BY CONTRACTOR WITH BUILDING MANAGEMENT.
④	2" C MINIMUM, (3) 3/0 THWN COPPER, (1) #2 COPPER GROUND.
⑤	#2 B.C. IN 3/4"Ø SCH 80 PVC TO EXISTING BUILDING SERVICE GROUND.
⑥	REMOVE EXISTING CONDUIT & CONDUCTORS

X ← INDICATES CALCULATED
FAULT POINT W/AIC AMPS.

1.	ALL CONDUIT NOT SPECIFIED OTHERWISE SHALL BE SCH. 40 PVC BELOW GRADE, IMC ABOVE. EMT ACCEPTABLE INDOORS IN AREAS ACCESSIBLE ONLY TO AT&T AUTHORIZED PERSONNEL.
2.	CONTRACTOR TO ENSURE THAT EXISTING BUILDING ELECTRICAL SERVICE IS PROPERLY GROUNDED PER NEC. EXISTING BUILDING SERVICE GROUND WILL SERVE AS AT&T SERVICE GROUND AND AS GROUND FOR AT&T TRANSFORMER.
3.	CONTRACTOR TO COORDINATE WITH VERIZON AND ANY OTHER PARTIES WHO WILL INCUR A POWER OUTAGE RELATED TO THIS PROJECT, TO MINIMIZE OUTAGE TIME AND IMPACT ON THEIR OPERATIONS.
4.	CONTRACTOR HAS PREVIOUSLY VERIFIED THE ADEQUACY OF THE EXISTING CT CAN 2 TO ACCEPT CONNECTIONS TO SUPPLY THE NEW TERMINAL BOX ◇ AND RECEIVED POWER COMPANY APPROVAL TO INSTALL THE TERMINAL BOX ON THE SUPPLY SIDE OF VERIZON AND AT&T METERS.
5.	CONTRACTOR TO INSTALL GROUNDING ELECTRODE CONDUCTOR FROM THIS SEPARATELY DERIVED SYSTEM TO THE EXISTING BUILDING SERVICE GROUND BY THE MOST EXPEDIENT ROUTE AVAILABLE, COORDINATED WITH BUILDING MANAGEMENT, TO MEET ALL REQUIREMENT OF NEC 250.30(A)(4) AND 250.64



FAULT CALCULATIONS ARE BASED ON THE FOLLOWING ASSUMPTIONS:	
1	225kVA, 480Y/277V UTILITY TRANSFORMER WITH 1.2% IMPEDANCE
2	PARALLEL 4/0 ALUMINUM FROM TRANSFORMER TO CT-CAN/J-BOX
3	MINIMUM ONE-WAY CONDUCTOR LENGTH OF 18 FEET FROM TRANSFORMER TO CT-CAN/J-BOX.
4	500kCMIL COPPER FROM EXISTING CT CAN / J-BOX TO NEW TERMINAL BOX.
5	MINIMUM ONE-WAY CONDUCTOR LENGTH OF 3 FEET FROM CT CAN/J-BOX TO NEW TERMINAL BOX
6	NEW METER MOUNTED IMMEDIATELY ADJACENT TO TERMINAL BOX.
7	NEW MAIN SERVICE DISCONNECT MOUNTED IMMEDIATELY ADJACENT TO METER.
8	#2 THWN COPPER CONDUCTORS FROM MAIN SERVICE DISCONNECT TO READILY ACCESSIBLE DISCONNECT.
9	MINIMUM ONE-WAY LENGTH OF 125 FEET FROM MAIN SERVICE DISCONNECT TO READILY ACCESSIBLE DISCONNECT.
10	#2 COPPER IN STEEL CONDUIT FROM READILY ACCESSIBLE DISCONNECT TO DRY-TYPE TRANSFORMER.
11	MINIMUM ONE-WAY CONDUCTOR LENGTH OF 15 FEET FROM READILY ACCESSIBLE DISCONNECT TO DRY-TYPE TRANSFORMER.
IF FIELD CONDITIONS RESULT IN THE TRANSFORMER OR CONDUCTORS BEING LARGER THAN STATED ABOVE, OR THE CONDUCTORS BEING SHORTER, THEN THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO REVISE THE FAULT CALCULATIONS.	
UTILITY TRANSFORMER $SCA_{3\phi} = 22.6kA$	

CT CAN / J-BOX $SCA_{3\phi} = 21.3kA$	

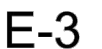
NEW AT&T METER $SCA_{3\phi} = 21.0kA$	

READILY ACCESSIBLE DISCONNECT $SCAL-G = 8.0kA$	

DRY TYPE TRANSFORMER SECONDARY TERMINALS $SL-L = 2.9kA$	
DRY TYPE TRANSFORMER SECONDARY TERMINALS $SL-N = 4.5kA$	

AT&T PANEL SCHEDULE									
MAIN: 200 AMP MAIN CIRCUIT BEAKER					AIC RATING: 22,000 AMPS				
VOLTAGE / PHASE: 120/240V, 1-PHASE, 3 WIRE					PANEL AMPACITY: 200 AMPS				
MOUNTING: SURFACE MOUNTED					ENCLOSURE: NEMA 1				
DESCRIPTION	C/B	C / NC	CIR NO.	LOAD (VA) A-PHASE	B-PHASE	CIR C / NO. NC	C/B	DESCRIPTION	
RECTIFIER #1	30	C	1	1440			20	GFCI OUTLET	
		NC		180		2	1		
			3		1440	C	20		
RECTIFIER #2	30	C	5	1440		4	20	RECEPTACLES	
		NC		360		NC	1		
			7		1440	6	20		
RECTIFIER #3	30	C	9	1440			20	LIGHTING	
		C		101		10	1		
			11		1440	C	30		
HVAC COMPRESSOR #1	30	NC	13	1836			20	RECTIFIER #4	
		C		1440		12	C		
			15		1836	NC	30		
HVAC AIR HANDLER #1	15	NC	17	114			20	RECTIFIER #5	
		C		1440		18	C		
			19		114	NC	30		
HVAC COMPRESSOR #2	15	NC	21	1836			20	RECTIFIER #6	
		C		1440		22	C		
			23		1836	NC	2		
HVAC AIR HANDLER #2	15	NC	25	114			24	BLANK	
				---		26			
			27		114	NC			
BLANK	2			---		---	28		
			29	---			30		
			31	---		---	32		
			33	---		---	34		
			35	---		---	36		
			37	---		---	38		
			39	---		---	40		
			41	---		---	42		

BASE LOAD (VA)				13,181	12,784	"C" DESIGNATION IDENTIFIES			
25% OF CONTINUOUS LOAD (VA)				2,186	2,176	CONTINUOUS LOADS AND MOTOR			
TOTAL LOAD (VA)				15,367	14,960	LOADS AS REQUIRED BY SECTIONS			
TOTAL LOAD (A)				128	125	230.42 AND 430.24 OF THE NEC			



Equipment Room – Structural Evaluation

Site Name: IDL04511 Town of Jackson Parking
Garage

Site Number: 14284658

Project: New Site / LTE1C

Prepared For: AT&T

Site Description: Existing Mechanical / Equipment
Room with Concrete Floor Slab

Site Location: 160 South Millward Street
Jackson, Wyoming
Teton County
43.4776580°, -110.7642330°

Design Codes: IBC 2018
ANSI/TIA-222-H

Analysis Load Case: AT&T Final Configuration

Analysis Result: Adequate



Revision 0
April 24, 2019

14284658 - 3770A0FQYD Equipment Room Structural Evaluation_R0 190424

1.0 Introduction

A structural evaluation has been performed on the existing equipment room floor slab which will support AT&T's proposed new equipment cabinets located at the IDL04511 Town of Jackson Parking Garage communications site in Teton County, Wyoming considering the final equipment loading configuration listed in Section 3.0.

2.0 Evaluation Criteria

Our structural evaluation was based on the following design parameters:

- IBC 2018 – International Building Code.
- ANSI/TIA-222-H – Structural Standard for Antenna Supporting Structures, Antennas and Small Wind Turbine Support Structures.
- ASCE 7-16 – Minimum Design Loads and Associated Criteria for Buildings and Other Structures.
- AISC – Steel Construction Manual.
- ANSI/AWS D1.1 – Structural Welding Code.

Wind w/o ice = 105 mph (3-sec gust Ultimate Wind Speed)
Wind w/ ice = 50 mph (3-sec gust Basic) with 0.25" Design Ice, Escalated with Height*
Topographic Category 1; Exposure Category C; Structure Class (Risk Category) II
Gust Effect Factor = 1.0; Directionality Factor = 0.95; Appurtenance Shielding Factor = 0.9
Existing Structure Modification Factor = 1.0
Site Class D "Stiff Soil"; $S_s = 1.035$; $S_1 = 0.341$; $S_{DS} = 0.828$
Original Design Floor Loading:
Live Load = 150 psf (Mechanical Rooms)
Dead Load = 5 psf (Mechanical)

The following documents were provided:

- Construction Drawings – New Site Build
GeoStructural LLC, Rev-3, 4/16/19.
- Site Walk Photos
GeoStructural LLC, 3/18/18.
- Stealth Screen Install Photos
Town of Jackson Facilities Manager, 10/17/18.
- Original Building Drawings
EnCon Utah LLC, 6/18/07.
- RF Design – New Site / LTE1C
AT&T, RFDS ID: 2298054, 3/23/18.

The results of the evaluation are illustrated in Section 4.0. If any of the existing or proposed conditions reported in this analysis are not properly represented, please contact our office immediately to request an amended report.

3.0 Equipment Information

Table 3.1 – AT&T Final Equipment Cabinet Configuration¹

Equipment Cabinet (Quantity) Make/Model
(1) Indoor Power Bay / Battery Rack Weight = 1,500 lbs / Cabinet Fully Loaded)
(1) Fiber Rack Weight = 250 lbs / Cabinet Fully Loaded)
(1) LTE/UMTS Rack Weight = 500 lbs / Cabinet Fully Loaded)
(1) Electrical Transformer Weight = 500 lbs / Cabinet Fully Loaded)

1. Refer to approved Construction Drawings for additional information regarding final equipment orientations.

3.2. – Existing Structural Framing Information – Equipment Room Floor

► **Existing Equipment Room Floor Framing Configuration:**

1. Floor framing consists of 6" thick precast/prestressed concrete floor panels w/ 2" concrete topping slab. Floor panel span = 6'-6"±.

**Existing floor framing information was obtained from original design drawings and provided documents as listed above. Contractor shall verify all information prior to the commencement of any work. If framing assumptions are incorrect and not properly represented, please contact our office immediately to request an amended report as this evaluation will not be valid.*

4.0 Evaluation Results

Table 4.1 – Equipment Room Floor Capacity

Load Case	Floor Component ¹	% Capacity ²	Result
Final AT&T Equipment Room Configuration	6" Thick Prestressed Concrete Floor Panel	77%	Adequate

1. Refer to the Calculations & Software Output portion of this report for additional information.
2. Listed results are expressed as a percentage of available member capacity based upon the assumed material strengths listed in Table 4.2. 105% is an acceptable allowable stress percentage for structural components. Note that for conservatism, a standard reinforced concrete slab was used in this evaluation. The prestressed floor panels will have additional capacity than what is listed above.

Table 4.2 – Structural Component Material Strengths

Structural Component	Nominal Strength/Material ¹
Pipe	$F_y = 35$ ksi (A53, Gr. B)
Tube	$F_y = 46$ ksi (A500, Gr. B)
Structural Shapes (L, C, W, etc.), Plate / Bar	$F_y = 36$ ksi (A36)
Uni-Strut	$F_y = 33$ ksi (A570, Gr. 33)
Connection Bolts	A325
U-Bolts / Threaded Rod	SAE J429 Grade 2 (Substitution: ASTM A449) $F_y = 57$ ksi (Yield) & $F_u = 74$ ksi (Tension)
Welds	E70XX Electrodes
Concrete Topping Slab	$f'_c = 5,000$ psi
Concrete Floor Panels	$f'_c = 5,000$ psi / $F_y = 60$ ksi
Prestressing Rebar Strands	A416, 270 ksi

1. Strengths listed were assumed for this analysis and are based upon ASTM, AISC, RCSC, AWS and ACI preferred specification values. Values and materials are consistent with industry standards. Material strengths were taken from original design documents when available.

5.0 Conclusion & Recommendations

Based on AT&T's final equipment loading configuration, the existing equipment room floor slab will have sufficient capacity to support the loading considered in this analysis pursuant to the listed standards.

All data required to complete our structural evaluation was furnished by our client and per our limited site visit. GeoStructural has not conducted an independent study nor a structural mapping of the equipment room floor structure to verify existing conditions and the results of this evaluation are based solely on the information provided.

This evaluation only encompasses the areas immediately adjacent to AT&T's proposed equipment. The overall building superstructure, foundation, etc. are beyond the scope of this evaluation. If any of the existing or proposed conditions (appurtenance loading, member sizes, etc.) reported in this analysis are not properly represented, please contact our office immediately to request an amended report.

Prepared by:



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Reviewed and Approved by:



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6.0 Standard Conditions

- All data required to complete our structural analysis was furnished by our client and per our limited site visit. GeoStructural has not conducted an independent study nor a structural mapping of the floor structure or to verify existing conditions and the results of this analysis are based solely on the information provided. It has been assumed that the building structure and foundation have been constructed according to the provided existing drawings, previous structural analysis reports, mapping documents, etc.
- The default Risk Category is Category II in accordance with ANSI/TIA-222-H §A.2.2 & §A.15.0 and has been assumed for this analysis. The owner shall verify this classification conforms with original or desired reliability criteria.
- This analysis assumes that the structure has been properly installed and maintained in accordance with ANSI/TIA-222-H §15.6 and that no physical deterioration has occurred in any of the components of the structure. Damaged, missing, or rusted members were not considered.
- This analysis verifies the adequacy of the main components of the structure. Not all connections, welds, bolts, plates, etc. were individually detailed and analyzed. Where not specifically analyzed, the existing connection plates, welds, bolts, etc. were assumed adequate to develop the full capacity of the main structural members.
- No consideration has been made for unusual or extreme wind events, rime/in-cloud ice loadings, harmonic or nodal vibration, vortex shedding or other similar conditions.
- It is the owner's responsibility to determine the appropriate design wind speed and amount of ice accumulation beyond code minimum values that should be considered in the analysis.
- This analysis report does not constitute a maintenance and condition assessment. No certifications regarding maintenance and condition are expressed or implied.
- This analysis only encompasses the areas immediately adjacent to AT&T's proposed equipment. The overall building superstructure, foundation, etc. are beyond the scope of this analysis.

7.0 Calculations & Software Output

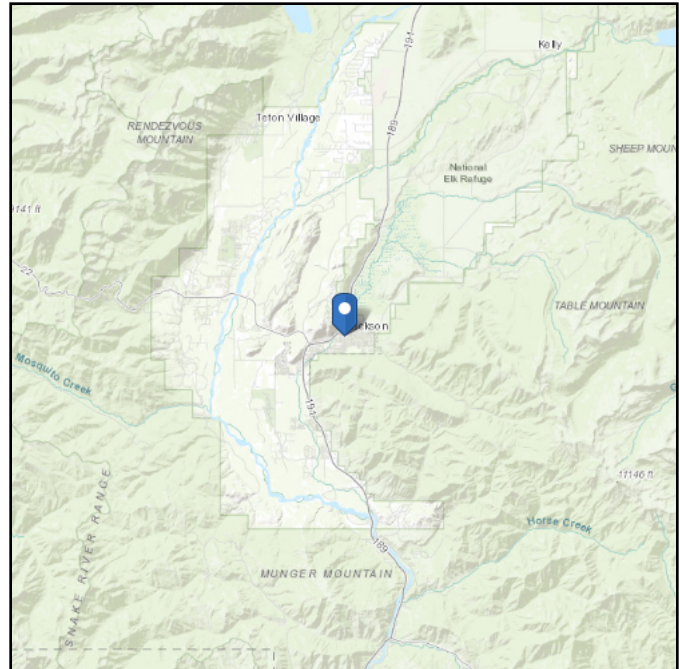
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ASCE 7 Hazards Report

Address:
No Address at This
Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see
Section 11.4.3)

Elevation: 6229.94 ft (NAVD 88)
Latitude: 43.477658
Longitude: -110.764233



Wind

Results:

Wind Speed:	105 Vmph
10-year MRI	75 Vmph
25-year MRI	81 Vmph
50-year MRI	86 Vmph
100-year MRI	91 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4

Date Accessed: Thu Apr 18 2019

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

Site Soil Class: D - Default (see Section 11.4.3)

Results:

S_S :	1.035	S_{D1} :	N/A
S_1 :	0.341	T_L :	8
F_a :	1.2	PGA :	0.459
F_v :	N/A	PGA _M :	0.551
S_{MS} :	1.242	F_{PGA} :	1.2
S_{M1} :	N/A	I_e :	1
S_{DS} :	0.828	C_v :	1.307

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Thu Apr 18 2019

Date Source: [USGS Seismic Design Maps](#)

Ice

Results:

Ice Thickness: 0.25 in.

Concurrent Temperature: 5 F

Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Thu Apr 18 2019

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

In the mountain west, ice thicknesses may exceed the mapped values in the foothills and passes. However, at elevations above 5,000 ft, freezing rain is unlikely.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

Concrete Beam

58 - Town of Jackson Parking Garage\Reports\Calculations\Equipment Room Analysis_R0 190424\14284658.ec6

Software copyright ENERCALC, INC. 1983-2018, Build:10.18.11.30

Lic. # : KW-06009677

Licensee : GeoStructural, LLC

Description : Existing Floor Panel

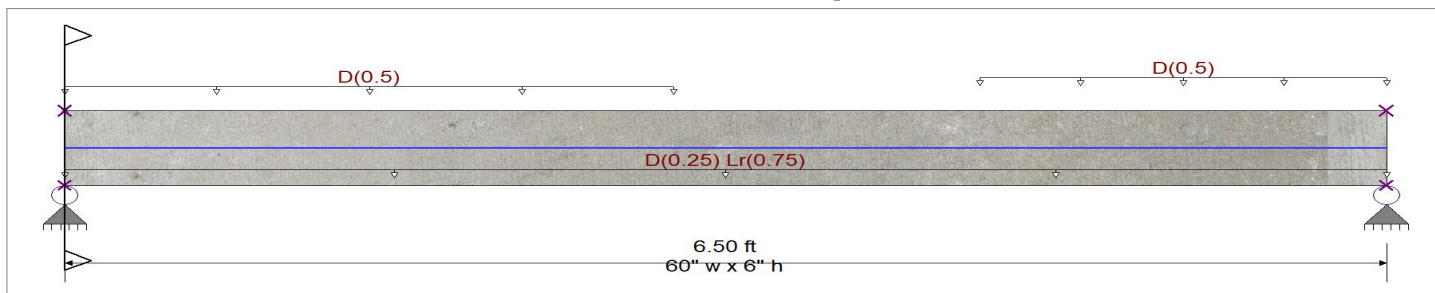
CODE REFERENCES

Calculations per ACI 318-14, IBC 2018, CBC 2019, ASCE 7-16

Load Combination Set : IBC 2018

Material Properties

f'_c	=	5.0 ksi	ϕ Phi Values	Flexure :	0.90
$f_r = f'_c^{1/2} * 7.50$	=	530.33 psi		Shear :	0.750
ψ Density	=	145.0 pcf	β_1	=	0.80
λ LtWt Factor	=	1.0			
Elastic Modulus	=	3,122.0 ksi	F_y - Stirrups	=	40.0 ksi
f_y - Main Rebar	=	60.0 ksi	E - Stirrups	=	29,000.0 ksi
E - Main Rebar	=	29,000.0 ksi	Stirrup Bar Size #	=	3
			Number of Resisting Legs Per Stirrup	=	2



Cross Section & Reinforcing Details

Rectangular Section, Width = 60.0 in, Height = 6.0 in

Span #1 Reinforcing....

4-#5 at 3.0 in from Bottom, from 0.0 to 6.50 ft in this span

Applied Loads

Service loads entered. Load Factors will be applied for calculations

Beam self weight calculated and added to loads

Load for Span Number 1

Uniform Load : D = 0.050, Lr = 0.150 ksf, Tributary Width = 5.0 ft, (Uniform Floor Load)

Uniform Load : D = 0.50 k/ft, Extent = 0.0 --> 3.0 ft, Tributary Width = 1.0 ft, (Proposed AT&T Battery Cabinet)

Uniform Load : D = 0.50 k/ft, Extent = 4.50 --> 6.50 ft, Tributary Width = 1.0 ft, (Proposed AT&T Equipment Cabinets)

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio =		0.765 : 1	Maximum Deflection	
Section used for this span		Typical Section	Max Downward Transient Deflection	0.009 in Ratio = 8733 >=360
μ_u : Applied		12.183 k-ft	Max Upward Transient Deflection	0.000 in Ratio = 0 <360.0
$M_n * \Phi$: Allowable		15.926 k-ft	Max Downward Total Deflection	0.020 in Ratio = 3879 >=180
Location of maximum on span		3.126 ft	Max Upward Total Deflection	0.000 in Ratio = 0 <180.0
Span # where maximum occurs		Span # 1		

Vertical Reactions

Support notation : Far left is #1

Load Combination	Support 1	Support 2
Overall MAXimum	5.736	5.620
Overall MINimum	1.979	1.910
+D+H	3.298	3.183
+D+L+H	3.298	3.183
+D+Lr+H	5.736	5.620
+D+S+H	3.298	3.183
+D+0.750Lr+0.750L+H	5.126	5.011

Concrete Beam

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Lic. # : KW-06009677

Licensee : GeoStructural, LLC

Description : Existing Floor Panel

Vertical Reactions

Support notation : Far left is #1

Load Combination	Support 1	Support 2
+D+0.750L+0.750S+H	3.298	3.183
+D+0.60W+H	3.298	3.183
+D+0.70E+H	3.298	3.183
+D+0.750Lr+0.750L+0.450W+H	5.126	5.011
+D+0.750L+0.750S+0.450W+H	3.298	3.183
+D+0.750L+0.750S+0.5250E+H	3.298	3.183
+0.60D+0.60W+0.60H	1.979	1.910
+0.60D+0.70E+0.60H	1.979	1.910
D Only	3.298	3.183
Lr Only	2.437	2.437
L Only		
S Only		
W Only		
E Only		
H Only		

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Mu (k-ft) Design	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd Suggest
+1.20D+1.60Lr+0.50W+1.60H	1	0.00	3.00	7.86	7.86	0.00	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.01	3.00	7.83	7.83	0.09	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.02	3.00	7.80	7.80	0.19	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.04	3.00	7.77	7.77	0.28	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.05	3.00	7.74	7.74	0.37	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.06	3.00	7.71	7.71	0.46	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.07	3.00	7.68	7.68	0.55	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.08	3.00	7.65	7.65	0.64	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.09	3.00	7.62	7.62	0.73	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.11	3.00	7.59	7.59	0.82	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.12	3.00	7.56	7.56	0.91	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.13	3.00	7.53	7.53	1.00	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.14	3.00	7.50	7.50	1.09	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.15	3.00	7.47	7.47	1.18	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.17	3.00	7.44	7.44	1.27	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.18	3.00	7.41	7.41	1.36	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.19	3.00	7.38	7.38	1.44	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.20	3.00	7.35	7.35	1.53	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.21	3.00	7.32	7.32	1.62	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.22	3.00	7.29	7.29	1.70	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.24	3.00	7.26	7.26	1.79	1.00	Vu < PhiVc/2	lot Req'd 9.6.	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.25	3.00	7.23	7.23	1.88	0.96	Vu < PhiVc/2	lot Req'd 9.6.	20.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.26	3.00	7.20	7.20	1.96	0.92	Vu < PhiVc/2	lot Req'd 9.6.	20.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.27	3.00	7.17	7.17	2.05	0.88	Vu < PhiVc/2	lot Req'd 9.6.	20.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.28	3.00	7.14	7.14	2.13	0.84	Vu < PhiVc/2	lot Req'd 9.6.	20.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.30	3.00	7.11	7.11	2.21	0.80	Vu < PhiVc/2	lot Req'd 9.6.	20.0	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.31	3.00	7.08	7.08	2.30	0.77	Vu < PhiVc/2	lot Req'd 9.6.	19.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.32	3.00	7.05	7.05	2.38	0.74	Vu < PhiVc/2	lot Req'd 9.6.	19.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.33	3.00	7.02	7.02	2.47	0.71	Vu < PhiVc/2	lot Req'd 9.6.	19.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.34	3.00	6.99	6.99	2.55	0.69	Vu < PhiVc/2	lot Req'd 9.6.	19.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.36	3.00	6.96	6.96	2.63	0.66	Vu < PhiVc/2	lot Req'd 9.6.	19.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.37	3.00	6.93	6.93	2.71	0.64	Vu < PhiVc/2	lot Req'd 9.6.	19.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.38	3.00	6.90	6.90	2.80	0.62	Vu < PhiVc/2	lot Req'd 9.6.	19.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.39	3.00	6.87	6.87	2.88	0.60	Vu < PhiVc/2	lot Req'd 9.6.	19.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.40	3.00	6.84	6.84	2.96	0.58	Vu < PhiVc/2	lot Req'd 9.6.	19.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.41	3.00	6.81	6.81	3.04	0.56	Vu < PhiVc/2	lot Req'd 9.6.	19.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.43	3.00	6.78	6.78	3.12	0.54	Vu < PhiVc/2	lot Req'd 9.6.	19.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.44	3.00	6.75	6.75	3.20	0.53	Vu < PhiVc/2	lot Req'd 9.6.	19.4	0.0 0.0

Concrete Beam

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Lic. # : KW-06009677

Licensee : GeoStructural, LLC

Description : Existing Floor Panel

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Vu (k) Design	Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd Suggest
+1.20D+1.60Lr+0.50W+1.60H	1	0.45	3.00	6.72	6.72	3.28	0.51	19.33	Vu < PhiVc/2	lot Req'd 9.6.:	19.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.46	3.00	6.69	6.69	3.36	0.50	19.29	Vu < PhiVc/2	lot Req'd 9.6.:	19.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.47	3.00	6.66	6.66	3.44	0.48	19.26	Vu < PhiVc/2	lot Req'd 9.6.:	19.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.49	3.00	6.63	6.63	3.52	0.47	19.23	Vu < PhiVc/2	lot Req'd 9.6.:	19.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.50	3.00	6.60	6.60	3.59	0.46	19.20	Vu < PhiVc/2	lot Req'd 9.6.:	19.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.51	3.00	6.57	6.57	3.67	0.45	19.18	Vu < PhiVc/2	lot Req'd 9.6.:	19.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.52	3.00	6.54	6.54	3.75	0.44	19.15	Vu < PhiVc/2	lot Req'd 9.6.:	19.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.53	3.00	6.51	6.51	3.83	0.43	19.13	Vu < PhiVc/2	lot Req'd 9.6.:	19.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.54	3.00	6.48	6.48	3.90	0.41	19.10	Vu < PhiVc/2	lot Req'd 9.6.:	19.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.56	3.00	6.45	6.45	3.98	0.40	19.08	Vu < PhiVc/2	lot Req'd 9.6.:	19.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.57	3.00	6.42	6.42	4.06	0.40	19.06	Vu < PhiVc/2	lot Req'd 9.6.:	19.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.58	3.00	6.39	6.39	4.13	0.39	19.04	Vu < PhiVc/2	lot Req'd 9.6.:	19.0	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.59	3.00	6.36	6.36	4.21	0.38	19.02	Vu < PhiVc/2	lot Req'd 9.6.:	19.0	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.60	3.00	6.33	6.33	4.28	0.37	19.00	Vu < PhiVc/2	lot Req'd 9.6.:	19.0	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.62	3.00	6.30	6.30	4.36	0.36	18.98	Vu < PhiVc/2	lot Req'd 9.6.:	19.0	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.63	3.00	6.27	6.27	4.43	0.35	18.96	Vu < PhiVc/2	lot Req'd 9.6.:	19.0	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.64	3.00	6.24	6.24	4.51	0.35	18.94	Vu < PhiVc/2	lot Req'd 9.6.:	18.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.65	3.00	6.21	6.21	4.58	0.34	18.93	Vu < PhiVc/2	lot Req'd 9.6.:	18.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.66	3.00	6.18	6.18	4.65	0.33	18.91	Vu < PhiVc/2	lot Req'd 9.6.:	18.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.67	3.00	6.15	6.15	4.73	0.33	18.89	Vu < PhiVc/2	lot Req'd 9.6.:	18.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.69	3.00	6.12	6.12	4.80	0.32	18.88	Vu < PhiVc/2	lot Req'd 9.6.:	18.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.70	3.00	6.09	6.09	4.87	0.31	18.86	Vu < PhiVc/2	lot Req'd 9.6.:	18.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.71	3.00	6.06	6.06	4.94	0.31	18.85	Vu < PhiVc/2	lot Req'd 9.6.:	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.72	3.00	6.03	6.03	5.01	0.30	18.84	Vu < PhiVc/2	lot Req'd 9.6.:	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.73	3.00	6.00	6.00	5.09	0.29	18.82	Vu < PhiVc/2	lot Req'd 9.6.:	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.75	3.00	5.97	5.97	5.16	0.29	18.81	Vu < PhiVc/2	lot Req'd 9.6.:	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.76	3.00	5.94	5.94	5.23	0.28	18.80	Vu < PhiVc/2	lot Req'd 9.6.:	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.77	3.00	5.91	5.91	5.30	0.28	18.79	Vu < PhiVc/2	lot Req'd 9.6.:	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.78	3.00	5.88	5.88	5.37	0.27	18.77	Vu < PhiVc/2	lot Req'd 9.6.:	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.79	3.00	5.85	5.85	5.44	0.27	18.76	Vu < PhiVc/2	lot Req'd 9.6.:	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.81	3.00	5.82	5.82	5.50	0.26	18.75	Vu < PhiVc/2	lot Req'd 9.6.:	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.82	3.00	5.79	5.79	5.57	0.26	18.74	Vu < PhiVc/2	lot Req'd 9.6.:	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.83	3.00	5.76	5.76	5.64	0.26	18.73	Vu < PhiVc/2	lot Req'd 9.6.:	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.84	3.00	5.73	5.73	5.71	0.25	18.72	Vu < PhiVc/2	lot Req'd 9.6.:	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.85	3.00	5.70	5.70	5.78	0.25	18.71	Vu < PhiVc/2	lot Req'd 9.6.:	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.86	3.00	5.67	5.67	5.84	0.24	18.70	Vu < PhiVc/2	lot Req'd 9.6.:	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.88	3.00	5.64	5.64	5.91	0.24	18.69	Vu < PhiVc/2	lot Req'd 9.6.:	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.89	3.00	5.61	5.61	5.98	0.23	18.68	Vu < PhiVc/2	lot Req'd 9.6.:	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.90	3.00	5.58	5.58	6.04	0.23	18.67	Vu < PhiVc/2	lot Req'd 9.6.:	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.91	3.00	5.55	5.55	6.11	0.23	18.66	Vu < PhiVc/2	lot Req'd 9.6.:	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.92	3.00	5.52	5.52	6.18	0.22	18.66	Vu < PhiVc/2	lot Req'd 9.6.:	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.94	3.00	5.49	5.49	6.24	0.22	18.65	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.95	3.00	5.46	5.46	6.31	0.22	18.64	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.96	3.00	5.43	5.43	6.37	0.21	18.63	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.97	3.00	5.40	5.40	6.43	0.21	18.62	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.98	3.00	5.37	5.37	6.50	0.21	18.62	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	0.99	3.00	5.34	5.34	6.56	0.20	18.61	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.01	3.00	5.31	5.31	6.62	0.20	18.60	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.02	3.00	5.28	5.28	6.69	0.20	18.60	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.03	3.00	5.25	5.25	6.75	0.19	18.59	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.04	3.00	5.22	5.22	6.81	0.19	18.58	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.05	3.00	5.19	5.19	6.87	0.19	18.58	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.07	3.00	5.16	5.16	6.93	0.19	18.57	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.08	3.00	5.13	5.13	6.99	0.18	18.56	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0

Concrete Beam

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Lic. # : KW-06009677

Licensee : GeoStructural, LLC

Description : Existing Floor Panel

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Vu (k) Design	Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd Suggest
+1.20D+1.60Lr+0.50W+1.60H	1	1.09	3.00	5.10	5.10	7.06	0.18	18.56	Vu < PhiVc/2	lot Req'd 9.6.	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.10	3.00	5.07	5.07	7.12	0.18	18.55	Vu < PhiVc/2	lot Req'd 9.6.	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.11	3.00	5.04	5.04	7.18	0.18	18.55	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.12	3.00	5.01	5.01	7.23	0.17	18.54	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.14	3.00	4.98	4.98	7.29	0.17	18.53	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.15	3.00	4.95	4.95	7.35	0.17	18.53	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.16	3.00	4.92	4.92	7.41	0.17	18.52	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.17	3.00	4.89	4.89	7.47	0.16	18.52	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.18	3.00	4.86	4.86	7.53	0.16	18.51	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.20	3.00	4.83	4.83	7.58	0.16	18.51	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.21	3.00	4.80	4.80	7.64	0.16	18.50	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.22	3.00	4.77	4.77	7.70	0.15	18.50	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.23	3.00	4.74	4.74	7.75	0.15	18.49	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.24	3.00	4.71	4.71	7.81	0.15	18.49	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.26	3.00	4.68	4.68	7.87	0.15	18.48	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.27	3.00	4.65	4.65	7.92	0.15	18.48	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.28	3.00	4.62	4.62	7.98	0.14	18.47	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.29	3.00	4.59	4.59	8.03	0.14	18.47	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.30	3.00	4.56	4.56	8.08	0.14	18.46	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.31	3.00	4.53	4.53	8.14	0.14	18.46	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.33	3.00	4.50	4.50	8.19	0.14	18.46	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.34	3.00	4.47	4.47	8.24	0.14	18.45	Vu < PhiVc/2	lot Req'd 9.6.	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.35	3.00	4.44	4.44	8.30	0.13	18.45	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.36	3.00	4.41	4.41	8.35	0.13	18.44	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.37	3.00	4.38	4.38	8.40	0.13	18.44	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.39	3.00	4.35	4.35	8.45	0.13	18.44	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.40	3.00	4.32	4.32	8.50	0.13	18.43	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.41	3.00	4.29	4.29	8.56	0.13	18.43	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.42	3.00	4.26	4.26	8.61	0.12	18.42	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.43	3.00	4.23	4.23	8.66	0.12	18.42	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.44	3.00	4.20	4.20	8.71	0.12	18.42	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.46	3.00	4.17	4.17	8.76	0.12	18.41	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.47	3.00	4.14	4.14	8.80	0.12	18.41	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.48	3.00	4.11	4.11	8.85	0.12	18.41	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.49	3.00	4.08	4.08	8.90	0.11	18.40	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.50	3.00	4.05	4.05	8.95	0.11	18.40	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.52	3.00	4.02	4.02	9.00	0.11	18.40	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.53	3.00	3.99	3.99	9.04	0.11	18.39	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.54	3.00	3.96	3.96	9.09	0.11	18.39	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.55	3.00	3.93	3.93	9.14	0.11	18.39	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.56	3.00	3.90	3.90	9.18	0.11	18.38	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.57	3.00	3.87	3.87	9.23	0.10	18.38	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.59	3.00	3.84	3.84	9.28	0.10	18.38	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.60	3.00	3.81	3.81	9.32	0.10	18.37	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.61	3.00	3.78	3.78	9.37	0.10	18.37	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.62	3.00	3.75	3.75	9.41	0.10	18.37	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.63	3.00	3.72	3.72	9.46	0.10	18.37	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.65	3.00	3.69	3.69	9.50	0.10	18.36	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.66	3.00	3.66	3.66	9.54	0.10	18.36	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.67	3.00	3.63	3.63	9.59	0.09	18.36	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.68	3.00	3.60	3.60	9.63	0.09	18.35	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.69	3.00	3.57	3.57	9.67	0.09	18.35	Vu < PhiVc/2	lot Req'd 9.6.	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.70	3.00	3.54	3.54	9.71	0.09	18.35	Vu < PhiVc/2	lot Req'd 9.6.	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.72	3.00	3.51	3.51	9.75	0.09	18.35	Vu < PhiVc/2	lot Req'd 9.6.	18.3	0.0 0.0

Concrete Beam

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Description : Existing Floor Panel

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Vu (k) Design	Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd Suggest
+1.20D+1.60Lr+0.50W+1.60H	1	1.73	3.00	3.48	3.48	9.80	0.09	18.34	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.74	3.00	3.45	3.45	9.84	0.09	18.34	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.75	3.00	3.42	3.42	9.88	0.09	18.34	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.76	3.00	3.39	3.39	9.92	0.09	18.34	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.78	3.00	3.36	3.36	9.96	0.08	18.33	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.79	3.00	3.33	3.33	10.00	0.08	18.33	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.80	3.00	3.30	3.30	10.04	0.08	18.33	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.81	3.00	3.27	3.27	10.08	0.08	18.33	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.82	3.00	3.24	3.24	10.11	0.08	18.32	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.84	3.00	3.21	3.21	10.15	0.08	18.32	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.85	3.00	3.18	3.18	10.19	0.08	18.32	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.86	3.00	3.15	3.15	10.23	0.08	18.32	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.87	3.00	3.12	3.12	10.26	0.08	18.31	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.88	3.00	3.09	3.09	10.30	0.07	18.31	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.89	3.00	3.06	3.06	10.34	0.07	18.31	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.91	3.00	3.03	3.03	10.37	0.07	18.31	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.92	3.00	3.00	3.00	10.41	0.07	18.30	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.93	3.00	2.97	2.97	10.44	0.07	18.30	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.94	3.00	2.94	2.94	10.48	0.07	18.30	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.95	3.00	2.91	2.91	10.51	0.07	18.30	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.97	3.00	2.88	2.88	10.55	0.07	18.30	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.98	3.00	2.85	2.85	10.58	0.07	18.29	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	1.99	3.00	2.82	2.82	10.62	0.07	18.29	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.00	3.00	2.79	2.79	10.65	0.07	18.29	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.01	3.00	2.76	2.76	10.68	0.06	18.29	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.02	3.00	2.73	2.73	10.71	0.06	18.29	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.04	3.00	2.70	2.70	10.75	0.06	18.28	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.05	3.00	2.67	2.67	10.78	0.06	18.28	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.06	3.00	2.64	2.64	10.81	0.06	18.28	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.07	3.00	2.61	2.61	10.84	0.06	18.28	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.08	3.00	2.58	2.58	10.87	0.06	18.28	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.10	3.00	2.55	2.55	10.90	0.06	18.27	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.11	3.00	2.52	2.52	10.93	0.06	18.27	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.12	3.00	2.49	2.49	10.96	0.06	18.27	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.13	3.00	2.46	2.46	10.99	0.06	18.27	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.14	3.00	2.43	2.43	11.02	0.06	18.27	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.15	3.00	2.40	2.40	11.05	0.05	18.26	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.17	3.00	2.37	2.37	11.08	0.05	18.26	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.18	3.00	2.34	2.34	11.10	0.05	18.26	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.19	3.00	2.31	2.31	11.13	0.05	18.26	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.20	3.00	2.28	2.28	11.16	0.05	18.26	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.21	3.00	2.25	2.25	11.18	0.05	18.25	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.23	3.00	2.22	2.22	11.21	0.05	18.25	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.24	3.00	2.19	2.19	11.24	0.05	18.25	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.25	3.00	2.16	2.16	11.26	0.05	18.25	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.26	3.00	2.13	2.13	11.29	0.05	18.25	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.27	3.00	2.10	2.10	11.31	0.05	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.29	3.00	2.07	2.07	11.34	0.05	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.30	3.00	2.04	2.04	11.36	0.04	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.31	3.00	2.01	2.01	11.39	0.04	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.32	3.00	1.98	1.98	11.41	0.04	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.33	3.00	1.95	1.95	11.43	0.04	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.34	3.00	1.92	1.92	11.46	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.36	3.00	1.89	1.89	11.48	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0

Concrete Beam

58 - Town of Jackson Parking Garage\Reports\Calculations\Equipment Room Analysis_R0 190424\14284658.ec6

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Description : Existing Floor Panel

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Vu (k) Design	Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd Suggest
+1.20D+1.60Lr+0.50W+1.60H	1	2.37	3.00	1.86	1.86	11.50	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.38	3.00	1.83	1.83	11.52	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.39	3.00	1.80	1.80	11.54	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.40	3.00	1.77	1.77	11.56	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.42	3.00	1.74	1.74	11.59	0.04	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.43	3.00	1.71	1.71	11.61	0.04	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.44	3.00	1.68	1.68	11.63	0.04	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.45	3.00	1.65	1.65	11.65	0.04	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.46	3.00	1.62	1.62	11.66	0.03	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.47	3.00	1.59	1.59	11.68	0.03	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.49	3.00	1.56	1.56	11.70	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.50	3.00	1.53	1.53	11.72	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.51	3.00	1.50	1.50	11.74	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.52	3.00	1.47	1.47	11.76	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.53	3.00	1.44	1.44	11.77	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.55	3.00	1.41	1.41	11.79	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.56	3.00	1.38	1.38	11.81	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.57	3.00	1.35	1.35	11.82	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.58	3.00	1.32	1.32	11.84	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.59	3.00	1.28	1.28	11.85	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.60	3.00	1.25	1.25	11.87	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.62	3.00	1.22	1.22	11.88	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.63	3.00	1.19	1.19	11.90	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.64	3.00	1.16	1.16	11.91	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.65	3.00	1.13	1.13	11.93	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.66	3.00	1.10	1.10	11.94	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.68	3.00	1.07	1.07	11.95	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.69	3.00	1.04	1.04	11.96	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.70	3.00	1.01	1.01	11.98	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.71	3.00	0.98	0.98	11.99	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.72	3.00	0.95	0.95	12.00	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.73	3.00	0.92	0.92	12.01	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.75	3.00	0.89	0.89	12.02	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.76	3.00	0.86	0.86	12.03	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.77	3.00	0.83	0.83	12.04	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.78	3.00	0.80	0.80	12.05	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.79	3.00	0.77	0.77	12.06	0.02	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.81	3.00	0.74	0.74	12.07	0.02	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.82	3.00	0.71	0.71	12.08	0.01	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.83	3.00	0.68	0.68	12.09	0.01	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.84	3.00	0.65	0.65	12.09	0.01	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.85	3.00	0.62	0.62	12.10	0.01	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.87	3.00	0.59	0.59	12.11	0.01	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.88	3.00	0.56	0.56	12.12	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.89	3.00	0.53	0.53	12.12	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.90	3.00	0.50	0.50	12.13	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.91	3.00	0.47	0.47	12.13	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.92	3.00	0.44	0.44	12.14	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.94	3.00	0.41	0.41	12.15	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.95	3.00	0.38	0.38	12.15	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.96	3.00	0.35	0.35	12.15	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.97	3.00	0.32	0.32	12.16	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	2.98	3.00	0.29	0.29	12.16	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.00	3.00	0.26	0.26	12.17	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.1	0.0 0.0

Concrete Beam

58 - Town of Jackson Parking Garage\Reports\Calculations\Equipment Room Analysis_R0 190424\14284658.ec6

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Lic. # : KW-06009677

Licensee : GeoStructural, LLC

Description : Existing Floor Panel

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Vu (k) Design	Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd Suggest
+1.20D+1.60Lr+0.50W+1.60H	1	3.01	3.00	0.24	0.24	12.17	0.00	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.02	3.00	0.22	0.22	12.17	0.00	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.03	3.00	0.19	0.19	12.17	0.00	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.04	3.00	0.17	0.17	12.18	0.00	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.05	3.00	0.15	0.15	12.18	0.00	18.14	Vu < PhiVc/2	lot Req'd 9.6.:	18.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.07	3.00	0.12	0.12	12.18	0.00	18.14	Vu < PhiVc/2	lot Req'd 9.6.:	18.1	0.0 0.0
+1.40D+1.60H	1	3.08	3.00	-0.12	0.12	6.84	0.00	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.1	0.0 0.0
+1.40D+1.60H	1	3.09	3.00	-0.13	0.13	6.84	0.00	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.1	0.0 0.0
+1.40D+1.60H	1	3.10	3.00	-0.14	0.14	6.83	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.1	0.0 0.0
+1.40D+1.60H	1	3.11	3.00	-0.15	0.15	6.83	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.13	3.00	-0.16	0.16	6.83	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.14	3.00	-0.17	0.17	6.83	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.15	3.00	-0.18	0.18	6.83	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.16	3.00	-0.19	0.19	6.82	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.17	3.00	-0.20	0.20	6.82	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.18	3.00	-0.21	0.21	6.82	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.20	3.00	-0.22	0.22	6.82	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.21	3.00	-0.23	0.23	6.81	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.22	3.00	-0.24	0.24	6.81	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.23	3.00	-0.25	0.25	6.81	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.24	3.00	-0.26	0.26	6.81	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.26	3.00	-0.27	0.27	6.80	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.27	3.00	-0.28	0.28	6.80	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.40D+1.60H	1	3.28	3.00	-0.29	0.29	6.80	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.29	3.00	-0.31	0.31	12.16	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.30	3.00	-0.33	0.33	12.15	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.32	3.00	-0.36	0.36	12.15	0.01	18.15	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.33	3.00	-0.38	0.38	12.15	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.34	3.00	-0.40	0.40	12.14	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.35	3.00	-0.43	0.43	12.14	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.36	3.00	-0.45	0.45	12.13	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.37	3.00	-0.47	0.47	12.13	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.39	3.00	-0.49	0.49	12.12	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.40	3.00	-0.52	0.52	12.11	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.41	3.00	-0.54	0.54	12.11	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.42	3.00	-0.56	0.56	12.10	0.01	18.16	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.43	3.00	-0.59	0.59	12.09	0.01	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.45	3.00	-0.61	0.61	12.09	0.01	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.46	3.00	-0.63	0.63	12.08	0.01	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.47	3.00	-0.65	0.65	12.07	0.01	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.48	3.00	-0.68	0.68	12.06	0.01	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.49	3.00	-0.70	0.70	12.06	0.01	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.50	3.00	-0.72	0.72	12.05	0.02	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.52	3.00	-0.75	0.75	12.04	0.02	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.53	3.00	-0.77	0.77	12.03	0.02	18.17	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.54	3.00	-0.79	0.79	12.02	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.55	3.00	-0.81	0.81	12.01	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.56	3.00	-0.84	0.84	12.00	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.58	3.00	-0.86	0.86	11.99	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.59	3.00	-0.88	0.88	11.98	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.60	3.00	-0.91	0.91	11.97	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.61	3.00	-0.93	0.93	11.96	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.62	3.00	-0.95	0.95	11.95	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.63	3.00	-0.98	0.98	11.94	0.02	18.18	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0

Concrete Beam

58 - Town of Jackson Parking Garage\Reports\Calculations\Equipment Room Analysis_R0 190424\14284658.ec6

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Lic. # : KW-06009677

Licensee : GeoStructural, LLC

Description : Existing Floor Panel

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Vu (k) Design	Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd Suggest
+1.20D+1.60Lr+0.50W+1.60H	1	3.65	3.00	-1.00	1.00	11.93	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.66	3.00	-1.02	1.02	11.91	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.67	3.00	-1.04	1.04	11.90	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.68	3.00	-1.07	1.07	11.89	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.69	3.00	-1.09	1.09	11.88	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.71	3.00	-1.11	1.11	11.86	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.72	3.00	-1.14	1.14	11.85	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.73	3.00	-1.16	1.16	11.84	0.02	18.19	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.74	3.00	-1.18	1.18	11.82	0.02	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.75	3.00	-1.20	1.20	11.81	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.77	3.00	-1.23	1.23	11.79	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.78	3.00	-1.25	1.25	11.78	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.79	3.00	-1.27	1.27	11.76	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.80	3.00	-1.30	1.30	11.75	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.81	3.00	-1.32	1.32	11.73	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.82	3.00	-1.34	1.34	11.72	0.03	18.20	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.84	3.00	-1.36	1.36	11.70	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.85	3.00	-1.39	1.39	11.69	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.86	3.00	-1.41	1.41	11.67	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.87	3.00	-1.43	1.43	11.65	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.88	3.00	-1.46	1.46	11.63	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.90	3.00	-1.48	1.48	11.62	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.91	3.00	-1.50	1.50	11.60	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.92	3.00	-1.53	1.53	11.58	0.03	18.21	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.93	3.00	-1.55	1.55	11.56	0.03	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.94	3.00	-1.57	1.57	11.55	0.03	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.95	3.00	-1.59	1.59	11.53	0.03	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.97	3.00	-1.62	1.62	11.51	0.04	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.98	3.00	-1.64	1.64	11.49	0.04	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	3.99	3.00	-1.66	1.66	11.47	0.04	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.00	3.00	-1.69	1.69	11.45	0.04	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.01	3.00	-1.71	1.71	11.43	0.04	18.22	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.03	3.00	-1.73	1.73	11.41	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.04	3.00	-1.75	1.75	11.39	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.05	3.00	-1.78	1.78	11.37	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.06	3.00	-1.80	1.80	11.35	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.07	3.00	-1.82	1.82	11.32	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.08	3.00	-1.85	1.85	11.30	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.10	3.00	-1.87	1.87	11.28	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.11	3.00	-1.89	1.89	11.26	0.04	18.23	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.12	3.00	-1.91	1.91	11.24	0.04	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.13	3.00	-1.94	1.94	11.21	0.04	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.14	3.00	-1.96	1.96	11.19	0.04	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.16	3.00	-1.98	1.98	11.17	0.04	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.17	3.00	-2.01	2.01	11.14	0.05	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.18	3.00	-2.03	2.03	11.12	0.05	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.19	3.00	-2.05	2.05	11.09	0.05	18.24	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.20	3.00	-2.08	2.08	11.07	0.05	18.25	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.21	3.00	-2.10	2.10	11.05	0.05	18.25	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.23	3.00	-2.12	2.12	11.02	0.05	18.25	Vu < PhiVc/2	lot Req'd 9.6.:	18.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.24	3.00	-2.14	2.14	11.00	0.05	18.25	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.25	3.00	-2.17	2.17	10.97	0.05	18.25	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.26	3.00	-2.19	2.19	10.94	0.05	18.25	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.27	3.00	-2.21	2.21	10.92	0.05	18.26	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0

Concrete Beam

58 - Town of Jackson Parking Garage\Reports\Calculations\Equipment Room Analysis_R0 190424\14284658.ec6

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Lic. # : KW-06009677

Licensee : GeoStructural, LLC

Description : Existing Floor Panel

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Vu (k) Design	Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd Suggest
+1.20D+1.60Lr+0.50W+1.60H	1	4.29	3.00	-2.24	2.24	10.89	0.05	18.26	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.30	3.00	-2.26	2.26	10.87	0.05	18.26	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.31	3.00	-2.28	2.28	10.84	0.05	18.26	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.32	3.00	-2.30	2.30	10.81	0.05	18.26	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.33	3.00	-2.33	2.33	10.78	0.05	18.26	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.35	3.00	-2.35	2.35	10.76	0.05	18.26	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.36	3.00	-2.37	2.37	10.73	0.06	18.27	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.37	3.00	-2.40	2.40	10.70	0.06	18.27	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.38	3.00	-2.42	2.42	10.67	0.06	18.27	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.39	3.00	-2.44	2.44	10.64	0.06	18.27	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.40	3.00	-2.46	2.46	10.61	0.06	18.27	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.42	3.00	-2.49	2.49	10.58	0.06	18.27	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.43	3.00	-2.51	2.51	10.55	0.06	18.28	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.44	3.00	-2.53	2.53	10.52	0.06	18.28	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.45	3.00	-2.56	2.56	10.49	0.06	18.28	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.46	3.00	-2.58	2.58	10.46	0.06	18.28	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.48	3.00	-2.60	2.60	10.43	0.06	18.28	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.49	3.00	-2.62	2.62	10.40	0.06	18.28	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.50	3.00	-2.65	2.65	10.37	0.06	18.29	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.51	3.00	-2.68	2.68	10.34	0.06	18.29	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.52	3.00	-2.71	2.71	10.31	0.07	18.29	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.53	3.00	-2.74	2.74	10.28	0.07	18.29	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.55	3.00	-2.77	2.77	10.24	0.07	18.29	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.56	3.00	-2.80	2.80	10.21	0.07	18.30	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.57	3.00	-2.83	2.83	10.18	0.07	18.30	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.58	3.00	-2.86	2.86	10.14	0.07	18.30	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.59	3.00	-2.89	2.89	10.11	0.07	18.30	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.61	3.00	-2.92	2.92	10.07	0.07	18.31	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.62	3.00	-2.95	2.95	10.04	0.07	18.31	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.63	3.00	-2.98	2.98	10.01	0.07	18.31	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.64	3.00	-3.01	3.01	9.97	0.08	18.31	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.65	3.00	-3.04	3.04	9.93	0.08	18.32	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.66	3.00	-3.07	3.07	9.90	0.08	18.32	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.68	3.00	-3.10	3.10	9.86	0.08	18.32	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.69	3.00	-3.13	3.13	9.82	0.08	18.32	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.70	3.00	-3.16	3.16	9.79	0.08	18.32	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.71	3.00	-3.19	3.19	9.75	0.08	18.33	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.72	3.00	-3.22	3.22	9.71	0.08	18.33	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.74	3.00	-3.25	3.25	9.67	0.08	18.33	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.75	3.00	-3.28	3.28	9.63	0.09	18.34	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.76	3.00	-3.31	3.31	9.60	0.09	18.34	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.77	3.00	-3.34	3.34	9.56	0.09	18.34	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.78	3.00	-3.37	3.37	9.52	0.09	18.34	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.80	3.00	-3.40	3.40	9.48	0.09	18.35	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.81	3.00	-3.43	3.43	9.44	0.09	18.35	Vu < PhiVc/2	lot Req'd 9.6.:	18.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.82	3.00	-3.46	3.46	9.40	0.09	18.35	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.83	3.00	-3.49	3.49	9.35	0.09	18.35	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.84	3.00	-3.52	3.52	9.31	0.09	18.36	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.85	3.00	-3.55	3.55	9.27	0.10	18.36	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.87	3.00	-3.58	3.58	9.23	0.10	18.36	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.88	3.00	-3.61	3.61	9.19	0.10	18.37	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.89	3.00	-3.64	3.64	9.14	0.10	18.37	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.90	3.00	-3.67	3.67	9.10	0.10	18.37	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.91	3.00	-3.70	3.70	9.06	0.10	18.37	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0

Concrete Beam

58 - Town of Jackson Parking Garage\Reports\Calculations\Equipment Room Analysis_R0 190424\14284658.ec6

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Lic. # : KW-06009677

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Description : Existing Floor Panel

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Vu (k) Design	Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd Suggest
+1.20D+1.60Lr+0.50W+1.60H	1	4.93	3.00	-3.73	3.73	9.01	0.10	18.38	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.94	3.00	-3.76	3.76	8.97	0.10	18.38	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.95	3.00	-3.79	3.79	8.92	0.11	18.38	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.96	3.00	-3.82	3.82	8.88	0.11	18.39	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.97	3.00	-3.85	3.85	8.83	0.11	18.39	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	4.98	3.00	-3.88	3.88	8.79	0.11	18.39	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.00	3.00	-3.91	3.91	8.74	0.11	18.40	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.01	3.00	-3.94	3.94	8.70	0.11	18.40	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.02	3.00	-3.97	3.97	8.65	0.11	18.40	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.03	3.00	-4.00	4.00	8.60	0.12	18.41	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.04	3.00	-4.03	4.03	8.55	0.12	18.41	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.06	3.00	-4.06	4.06	8.51	0.12	18.41	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.07	3.00	-4.09	4.09	8.46	0.12	18.42	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.08	3.00	-4.12	4.12	8.41	0.12	18.42	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.09	3.00	-4.15	4.15	8.36	0.12	18.43	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.10	3.00	-4.18	4.18	8.31	0.13	18.43	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.11	3.00	-4.21	4.21	8.26	0.13	18.43	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.13	3.00	-4.24	4.24	8.21	0.13	18.44	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.14	3.00	-4.27	4.27	8.16	0.13	18.44	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.15	3.00	-4.30	4.30	8.11	0.13	18.45	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.16	3.00	-4.33	4.33	8.06	0.13	18.45	Vu < PhiVc/2	lot Req'd 9.6.:	18.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.17	3.00	-4.36	4.36	8.01	0.14	18.45	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.19	3.00	-4.39	4.39	7.96	0.14	18.46	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.20	3.00	-4.42	4.42	7.90	0.14	18.46	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.21	3.00	-4.45	4.45	7.85	0.14	18.47	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.22	3.00	-4.48	4.48	7.80	0.14	18.47	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.23	3.00	-4.51	4.51	7.75	0.15	18.48	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.24	3.00	-4.54	4.54	7.69	0.15	18.48	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.26	3.00	-4.57	4.57	7.64	0.15	18.48	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.27	3.00	-4.60	4.60	7.58	0.15	18.49	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.28	3.00	-4.63	4.63	7.53	0.15	18.49	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.29	3.00	-4.66	4.66	7.47	0.16	18.50	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.30	3.00	-4.69	4.69	7.42	0.16	18.50	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.32	3.00	-4.72	4.72	7.36	0.16	18.51	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.33	3.00	-4.75	4.75	7.31	0.16	18.51	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.34	3.00	-4.78	4.78	7.25	0.16	18.52	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.35	3.00	-4.81	4.81	7.19	0.17	18.53	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.36	3.00	-4.84	4.84	7.14	0.17	18.53	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.38	3.00	-4.87	4.87	7.08	0.17	18.54	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.39	3.00	-4.90	4.90	7.02	0.17	18.54	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.40	3.00	-4.93	4.93	6.96	0.18	18.55	Vu < PhiVc/2	lot Req'd 9.6.:	18.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.41	3.00	-4.96	4.96	6.90	0.18	18.55	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.42	3.00	-4.99	4.99	6.85	0.18	18.56	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.43	3.00	-5.02	5.02	6.79	0.18	18.57	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.45	3.00	-5.05	5.05	6.73	0.19	18.57	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.46	3.00	-5.08	5.08	6.67	0.19	18.58	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.47	3.00	-5.11	5.11	6.61	0.19	18.59	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.48	3.00	-5.14	5.14	6.55	0.20	18.59	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.49	3.00	-5.17	5.17	6.49	0.20	18.60	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.51	3.00	-5.20	5.20	6.42	0.20	18.61	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.52	3.00	-5.23	5.23	6.36	0.21	18.61	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.53	3.00	-5.26	5.26	6.30	0.21	18.62	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.54	3.00	-5.29	5.29	6.24	0.21	18.63	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.55	3.00	-5.32	5.32	6.17	0.22	18.64	Vu < PhiVc/2	lot Req'd 9.6.:	18.6	0.0 0.0

Concrete Beam

58 - Town of Jackson Parking Garage\Reports\Calculations\Equipment Room Analysis_R0 190424\14284658.ec6

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Lic. #: KW-06009677

Licensee: GeoStructural, LLC

Description: Existing Floor Panel

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Vu (k) Design	Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd Suggest
+1.20D+1.60Lr+0.50W+1.60H	1	5.56	3.00	-5.35	5.35	6.11	0.22	18.65	Vu < PhiVc/2	lot Req'd 9.6.	18.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.58	3.00	-5.38	5.38	6.05	0.22	18.65	Vu < PhiVc/2	lot Req'd 9.6.	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.59	3.00	-5.41	5.41	5.98	0.23	18.66	Vu < PhiVc/2	lot Req'd 9.6.	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.60	3.00	-5.44	5.44	5.92	0.23	18.67	Vu < PhiVc/2	lot Req'd 9.6.	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.61	3.00	-5.47	5.47	5.86	0.23	18.68	Vu < PhiVc/2	lot Req'd 9.6.	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.62	3.00	-5.50	5.50	5.79	0.24	18.69	Vu < PhiVc/2	lot Req'd 9.6.	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.64	3.00	-5.53	5.53	5.73	0.24	18.70	Vu < PhiVc/2	lot Req'd 9.6.	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.65	3.00	-5.56	5.56	5.66	0.25	18.71	Vu < PhiVc/2	lot Req'd 9.6.	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.66	3.00	-5.59	5.59	5.59	0.25	18.72	Vu < PhiVc/2	lot Req'd 9.6.	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.67	3.00	-5.62	5.62	5.53	0.25	18.73	Vu < PhiVc/2	lot Req'd 9.6.	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.68	3.00	-5.65	5.65	5.46	0.26	18.74	Vu < PhiVc/2	lot Req'd 9.6.	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.69	3.00	-5.68	5.68	5.39	0.26	18.75	Vu < PhiVc/2	lot Req'd 9.6.	18.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.71	3.00	-5.71	5.71	5.33	0.27	18.76	Vu < PhiVc/2	lot Req'd 9.6.	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.72	3.00	-5.74	5.74	5.26	0.27	18.77	Vu < PhiVc/2	lot Req'd 9.6.	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.73	3.00	-5.77	5.77	5.19	0.28	18.78	Vu < PhiVc/2	lot Req'd 9.6.	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.74	3.00	-5.80	5.80	5.12	0.28	18.80	Vu < PhiVc/2	lot Req'd 9.6.	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.75	3.00	-5.83	5.83	5.05	0.29	18.81	Vu < PhiVc/2	lot Req'd 9.6.	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.77	3.00	-5.86	5.86	4.98	0.29	18.82	Vu < PhiVc/2	lot Req'd 9.6.	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.78	3.00	-5.89	5.89	4.91	0.30	18.83	Vu < PhiVc/2	lot Req'd 9.6.	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.79	3.00	-5.92	5.92	4.84	0.31	18.85	Vu < PhiVc/2	lot Req'd 9.6.	18.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.80	3.00	-5.95	5.95	4.77	0.31	18.86	Vu < PhiVc/2	lot Req'd 9.6.	18.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.81	3.00	-5.98	5.98	4.70	0.32	18.88	Vu < PhiVc/2	lot Req'd 9.6.	18.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.83	3.00	-6.01	6.01	4.63	0.32	18.89	Vu < PhiVc/2	lot Req'd 9.6.	18.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.84	3.00	-6.04	6.04	4.56	0.33	18.91	Vu < PhiVc/2	lot Req'd 9.6.	18.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.85	3.00	-6.07	6.07	4.49	0.34	18.92	Vu < PhiVc/2	lot Req'd 9.6.	18.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.86	3.00	-6.10	6.10	4.42	0.35	18.94	Vu < PhiVc/2	lot Req'd 9.6.	18.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.87	3.00	-6.13	6.13	4.34	0.35	18.96	Vu < PhiVc/2	lot Req'd 9.6.	19.0	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.88	3.00	-6.16	6.16	4.27	0.36	18.98	Vu < PhiVc/2	lot Req'd 9.6.	19.0	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.90	3.00	-6.19	6.19	4.20	0.37	18.99	Vu < PhiVc/2	lot Req'd 9.6.	19.0	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.91	3.00	-6.22	6.22	4.13	0.38	19.01	Vu < PhiVc/2	lot Req'd 9.6.	19.0	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.92	3.00	-6.25	6.25	4.05	0.39	19.03	Vu < PhiVc/2	lot Req'd 9.6.	19.0	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.93	3.00	-6.28	6.28	3.98	0.39	19.05	Vu < PhiVc/2	lot Req'd 9.6.	19.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.94	3.00	-6.31	6.31	3.90	0.40	19.08	Vu < PhiVc/2	lot Req'd 9.6.	19.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.96	3.00	-6.34	6.34	3.83	0.41	19.10	Vu < PhiVc/2	lot Req'd 9.6.	19.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.97	3.00	-6.37	6.37	3.75	0.42	19.12	Vu < PhiVc/2	lot Req'd 9.6.	19.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.98	3.00	-6.40	6.40	3.68	0.44	19.15	Vu < PhiVc/2	lot Req'd 9.6.	19.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	5.99	3.00	-6.43	6.43	3.60	0.45	19.17	Vu < PhiVc/2	lot Req'd 9.6.	19.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.00	3.00	-6.46	6.46	3.53	0.46	19.20	Vu < PhiVc/2	lot Req'd 9.6.	19.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.01	3.00	-6.49	6.49	3.45	0.47	19.23	Vu < PhiVc/2	lot Req'd 9.6.	19.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.03	3.00	-6.52	6.52	3.37	0.48	19.26	Vu < PhiVc/2	lot Req'd 9.6.	19.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.04	3.00	-6.55	6.55	3.29	0.50	19.29	Vu < PhiVc/2	lot Req'd 9.6.	19.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.05	3.00	-6.58	6.58	3.22	0.51	19.33	Vu < PhiVc/2	lot Req'd 9.6.	19.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.06	3.00	-6.61	6.61	3.14	0.53	19.36	Vu < PhiVc/2	lot Req'd 9.6.	19.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.07	3.00	-6.64	6.64	3.06	0.54	19.40	Vu < PhiVc/2	lot Req'd 9.6.	19.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.09	3.00	-6.67	6.67	2.98	0.56	19.44	Vu < PhiVc/2	lot Req'd 9.6.	19.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.10	3.00	-6.70	6.70	2.90	0.58	19.48	Vu < PhiVc/2	lot Req'd 9.6.	19.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.11	3.00	-6.73	6.73	2.82	0.60	19.52	Vu < PhiVc/2	lot Req'd 9.6.	19.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.12	3.00	-6.76	6.76	2.74	0.62	19.57	Vu < PhiVc/2	lot Req'd 9.6.	19.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.13	3.00	-6.79	6.79	2.66	0.64	19.62	Vu < PhiVc/2	lot Req'd 9.6.	19.6	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.14	3.00	-6.82	6.82	2.58	0.66	19.67	Vu < PhiVc/2	lot Req'd 9.6.	19.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.16	3.00	-6.85	6.85	2.50	0.68	19.73	Vu < PhiVc/2	lot Req'd 9.6.	19.7	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.17	3.00	-6.88	6.88	2.42	0.71	19.79	Vu < PhiVc/2	lot Req'd 9.6.	19.8	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.18	3.00	-6.91	6.91	2.34	0.74	19.85	Vu < PhiVc/2	lot Req'd 9.6.	19.9	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.19	3.00	-6.94	6.94	2.26	0.77	19.92	Vu < PhiVc/2	lot Req'd 9.6.	19.9	0.0 0.0

Concrete Beam

58 - Town of Jackson Parking Garage\Reports\Calculations\Equipment Room Analysis_R0 190424\14284658.ec6

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Lic. # : KW-06009677

Licensee : GeoStructural, LLC

Description : Existing Floor Panel

Detailed Shear Information

Load Combination	Span Number	Distance (ft)	'd' (in)	Vu (k) Actual	Vu (k) Design	Mu (k-ft)	d*Vu/Mu	Phi*Vc (k)	Comment	Phi*Vs (k)	Phi*Vn (k)	Spacing (in) Req'd Suggest
+1.20D+1.60Lr+0.50W+1.60H	1	6.20	3.00	-6.97	6.97	2.17	0.80	20.00	Vu < PhiVc/2	lot Req'd 9.6.:	20.0	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.22	3.00	-7.00	7.00	2.09	0.84	20.08	Vu < PhiVc/2	lot Req'd 9.6.:	20.1	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.23	3.00	-7.03	7.03	2.01	0.88	20.17	Vu < PhiVc/2	lot Req'd 9.6.:	20.2	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.24	3.00	-7.06	7.06	1.92	0.92	20.27	Vu < PhiVc/2	lot Req'd 9.6.:	20.3	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.25	3.00	-7.09	7.09	1.84	0.96	20.38	Vu < PhiVc/2	lot Req'd 9.6.:	20.4	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.26	3.00	-7.12	7.12	1.76	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.28	3.00	-7.15	7.15	1.67	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.29	3.00	-7.18	7.18	1.59	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.30	3.00	-7.21	7.21	1.50	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.31	3.00	-7.24	7.24	1.42	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.32	3.00	-7.27	7.27	1.33	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.33	3.00	-7.30	7.30	1.24	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.35	3.00	-7.33	7.33	1.16	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.36	3.00	-7.36	7.36	1.07	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.37	3.00	-7.39	7.39	0.98	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.38	3.00	-7.42	7.42	0.90	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.39	3.00	-7.45	7.45	0.81	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.41	3.00	-7.48	7.48	0.72	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.42	3.00	-7.51	7.51	0.63	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.43	3.00	-7.54	7.54	0.54	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.44	3.00	-7.57	7.57	0.45	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.45	3.00	-7.60	7.60	0.36	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.46	3.00	-7.63	7.63	0.27	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.48	3.00	-7.66	7.66	0.18	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.49	3.00	-7.69	7.69	0.09	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0
+1.20D+1.60Lr+0.50W+1.60H	1	6.50	3.00	-7.72	7.72	0.00	1.00	20.46	Vu < PhiVc/2	lot Req'd 9.6.:	20.5	0.0 0.0

Maximum Forces & Stresses for Load Combinations

Load Combination Segment	Span #	Location (ft) along Beam	Bending Stress Results (k-ft)		
			Mu : Max	Phi*Mnx	Stress Ratio
MAXimum BENDING Envelope					
Span # 1	1	6.500	12.18	15.93	0.76
+1.40D+1.60H					
Span # 1	1	6.500	6.85	15.93	0.43
+1.20D+0.50Lr+1.60L+1.60H					
Span # 1	1	6.500	7.84	15.93	0.49
+1.20D+1.60Lr+0.50S+1.60H					
Span # 1	1	6.500	5.87	15.93	0.37
+1.20D+1.60Lr+0.50L+1.60H					
Span # 1	1	6.500	12.18	15.93	0.76
+1.20D+1.60Lr+0.50W+1.60H					
Span # 1	1	6.500	12.18	15.93	0.76
+1.20D+0.50L+1.60S+1.60H					
Span # 1	1	6.500	5.87	15.93	0.37
+1.20D+1.60S+0.50W+1.60H					
Span # 1	1	6.500	5.87	15.93	0.37
+1.20D+0.50Lr+0.50L+W+1.60H					
Span # 1	1	6.500	7.84	15.93	0.49
+1.20D+0.50L+0.50S+W+1.60H					
Span # 1	1	6.500	5.87	15.93	0.37
+1.366D+0.50L+0.70S+1.30E+1.60H					
Span # 1	1	6.500	6.68	15.93	0.42
+0.90D+W+0.90H					
Span # 1	1	6.500	4.40	15.93	0.28
+0.7344D+1.30E+0.90H					
Span # 1	1	6.500	3.59	15.93	0.23

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl (in)	Location in Span (ft)	Load Combination	Max. "+" Defl (in)	Location in Span (ft)
+D+Lr+H	1	0.0201	3.250		0.0000	0.000