



Nibley City
Planning Commission Meeting
Thursday, October 1, 2020
455 W. 3200 S.
Nibley, UT

6:30 p.m. Call to Order and Roll Call
 Approval of Agenda
 Approval of Minutes

1. Discussion and Consideration for a Conditional Use Permit, to operate corporate office and warehouse (Applicant: Stander, Inc.)
2. Discussion and Consideration for a Conditional Use Permit, proposing an addition to the existing building at 2410 Heritage Drive (Applicant: Stander, Inc.)
3. **Workshop:** Discussion regarding the Zone designations of 'Florist/Garden Center'
4. **Workshop:** Landscaping requirements for residential and commercial developments
5. Staff Report and Action Items

*Planning Commission agenda items may be tabled or continued if 1) Additional information is needed in order to take action on the item, OR 2) The Planning Commission feels there are unresolved issues that may need further attention before the Commission is ready to make a motion. **No agenda item will begin after 10:00 p.m. without a unanimous vote of the Commission.** The Commission may carry over agenda items, scheduled late in the evening and not heard, to the next regularly scheduled meeting.*

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, REASONABLE ACCOMMODATIONS FOR INDIVIDUALS WITH DISABILITIES WILL BE PROVIDED UPON REQUEST. FOR ASSISTANCE, PLEASE CALL 752-0431 A MINIMUM OF 24 HOURS BEFORE THE MEETING.



**Nibley City Planning
Commission
Agenda Item Report
October 1, 2020**

**Agenda Item #1 & #2: Conditional Use Permit:
Stander, Inc.**

Description

Discussion and Consideration for a Conditional Use Permit, to operate corporate office and warehouse (Applicant: Stander, Inc.)

Discussion and Consideration for a Conditional Use Permit, proposing an addition to the existing building at 2410 Heritage Drive (Applicant: Stander, Inc.)

Department

City Planning, Engineering, and Public Works

Action Type

Administrative

Recommendations

Approval of the Conditional Use Permit to operate corporate office and warehouse (Applicant: Stander, Inc.)

Approval of the Conditional Use Permit, proposing an addition to the existing building at 2410 Heritage Drive (Applicant: Stander, Inc.)

Reviewed By

City Planner, City Engineer, Public Works Director

Background

Stander, Inc. has submitted an application for Conditional Use Permit/ Business License to operate their corporate office at 2410 Heritage Dr and expand their existing building. Although the site plan was reviewed and approved in 2018, approval of the conditional use permit/business license was not granted at that time. Therefore, the Planning Commission is considering approval for both the business on the site in general and the proposed addition.

The zoning for the site is designated as Commercial. The primary use of the 31,600 sq. ft. expansion is warehousing. Although warehousing is not permitted in commercial zones, NCC 19.14.020-I provides:

In Commercial Zones, warehousing and storage may be allowed as part of business if it is attached to offices, retail, or other permitted or conditional use allowed within a Commercial Zone.

The proposed warehousing is attached to the corporate office for the company, which is a conditional use in the Commercial zone. Therefore, a conditional use is required for the addition. The site is located adjacent to other commercial uses to the north and south, vacant commercially zoned land to the east and vacant R-2 zoned property to the west.

Traffic and Connectivity

The applicant proposes to expand an existing loading dock area to the south and provide an additional access point on the northwest side of the building, accessed via 1350 West, a private street. Although there is anticipated to be additional deliveries with the expansion, Staff does not have concerns that the expansion will result in significant impacts to existing roadways and intersections, which would not allow a Level of Service (LOS) C to be maintained, as provided in NCC 19.28.050.

Utilities

The applicant has provided a utility plan for the site, including details about sewer, water and stormwater which the City Engineer and Public Works Director has reviewed. At this point in time, the City Engineer has indicated that they appear to meet sewer, water and stormwater design specifications.

Parking

The applicant does not propose to add any additional parking spaces beyond what is currently provided. NCC 19.24.160 provides that 'other uses not listed' must provide '1.5 spaces per 2 employees working on highest employment shift.' The existing parking lot has 38 stalls. Currently there are 29 employees working on the highest employment shift. The applicant has

indicated that they may add 2 employees when the addition is complete, for a total of 31 employees during the highest employment shift. Based upon this information, the applicant is not required to provide additional parking stalls.

Landscaping

NCC 19.24.170 provides landscaping requirements for development within the City. Specifically, this section includes requirements related to percentage of area to be landscaped (20% for commercial), tree ratios and other requirements. The applicant has indicated that much of the landscaping from the original building will be maintained, except for a portion of the landscaping in the NW section of the parcel, where the applicant is proposing an additional driveway. The applicant has indicated that the west and south side of the building will be landscaped with a mixture of trees, shrubs and ornamental grasses, set among stone mulch and drain rock. Including the already landscaped area, the applicant has indicated that 46,521 sq. ft. of the parcel will be landscaped when complete, which is approximately 33% of the total area. The additionally landscaped area includes a mix of 35 trees over an area of 6,505 sq. ft. which exceeds the tree ratio requirement. Staff has determined that the landscaping plans submitted by the applicant meet the minimum requirements of NCC 19.24.170.

Recommended Findings

- Site Plans shall receive final approval from the City Engineer and Public Works Director
- The building addition shall comply with the Fire Code, subject to an inspection of the Fire Marshall

Agenda Item #3: Florist/Garden Center Zone Designations

Description

Workshop: Discussion regarding the Zone designations of ‘Florist/Garden Center’

Department

City Planning, Engineering, and Public Works

Action Type

Workshop

Recommendations

Review and continue discussion

Reviewed By

City Planner

Background

Laura Frandsen has submitted an application to build an accessory building to arrange and sell floral arrangements. Ms. Frandsen currently has a business license for a home occupation to conduct this business within her home, but would like to expand the space of her business into an accessory building. NCC 19.04.010 provides the following definition for ‘home occupation:’

*HOME OCCUPATION: The use of a portion of a dwelling as an office, studio, or workroom for occupations which are conducted in the home and are incidental to the primary use as a home or residence; provided additionally that: 1) individuals who own and operate the business must also live at that residence ; 2)each home occupation may not have more than one employee who does not live at the residence report to that residence at a time; and 3) **the occupation shall not use any accessory building, yard, or any space outside the main building not normally associated with residential use.** Applications meeting these criteria may (as determined by the appropriate land use authority) be classified a home occupation rather than being classified by the actual activity associated with the business, with the following exceptions: 1) child daycare/preschool for more than eight (8) children at a time shall be classified as a commercial daycare rather than a home occupation; and 2) activities involving the sale, service, leasing and/or rental of motor vehicles shall not be classified as a home occupation.*

Base upon this provision, Staff cannot approve this application for the accessory building. In order for Ms. Frandsen to conduct her business within the accessory building, the use would need to be classified as a ‘florist/garden center’ rather than a ‘home occupation.’ Currently NCC 19.20 lists ‘florist/garden center’ as a permitted use in the C-N zone and a conditional use in the following zones: C, I, A, and R-E.

NCC 19.04.010 provides the following definition for ‘florist/garden center:’

FLORIST/GARDEN CENTER: A retail firm that sells flowers and plants and products related to gardens as its primary business. It is open to the public, with facilities to care for and display plants.

The purpose of this agenda item is to the discuss the appropriateness of adding this use to the list of allowed uses for the R-1A zone, in which Ms. Frandsen is applying to conduct the business. If

the Commission agrees that this use is appropriate for the R-1A zone, it would be logical to also add it to the R-1 zone, which has larger space requirements.

NCC 19.12.020 provides the following purpose for the R-1, R-1A, R-2 zones:

Purpose: The major purpose of the residential zones is to encourage, maintain and protect low density residential neighborhoods. Other uses which are compatible with and not detrimental to family-oriented residential neighborhoods may be allowed as a permitted use or as a conditional use.

The Commission may consider the following:

- Is this use compatible with and not detrimental to single-family oriented residential neighborhoods?
- Are there any situations in which the impact of the use may need to be mitigated beyond general provisions in Nibley City Code? In which case, it may be classified as a conditional use.

In general, Staff believes that this use would be compatible with both the R-1 and R-1A zones and this revision to the code should be considered. It may be most appropriately applied as a conditional use, as there may be situations in which mitigation measures are needed, such as limited hours of operation or screening from nearby residential uses. In addition to this change, the commission may consider adding this use as a permitted use, rather than conditional in commercial zones, as this use is compatible with the purpose of the commercial zone.

Agenda Item #4: Landscaping Requirements

Description

Workshop: Landscaping requirements for residential and commercial developments

Department

City Planning, Engineering, and Public Works

Action Type

Workshop

Recommendations

Review and continue discussion

Reviewed By

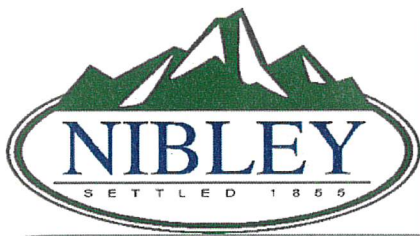
City Planner

Background

One of the Planning Commission Goals for 2020 is to review landscaping requirements for residential and commercial developments. NCC 19.24.170 provides landscaping requirements for residential, commercial and industrial zones, including the provision that 60% of a front or side yard adjacent to a street must be landscaped. Although these requirements are in code, in many cases there is not a sufficient process in place to ensure that landscaping is installed in a timely manner with new development. The City currently does not require landscaping to be installed prior to issuing a certificate of occupancy. This would not be appropriate, as homes are completed at various times of year, which are not necessarily feasible times to plant. Some potential provisions to address this issue may include:

- Requiring landscaping to be completed within 1 year of occupancy.
- Requiring a landscaping deposit for building permits, which would be refunded upon completion of landscaping.

The purpose of this agenda item is for the planning commission to discuss appropriate and effective measures to ensure compliance with landscaping requirements that may be incorporated into Nibley City's Zoning and Subdivision Regulations.



NIBLEY CITY

Application for Conditional Use Permit in Industrial and Commercial Zones

Office Use Only

Date Received _____

Application Fee Paid \$30.00

P&Z Meeting _____

Please type or print in black or blue ink

Business Name	STANDER, INC.	Local Business Phone #	435-755-0453
Business Address	2410 HERITAGE DR	City/State/Zip	NIBLEY, UT 84321
Billing Address	2410 HERITAGE DR	City/State/Zip	NIBLEY, UT 84321
State Tax ID		12041218-004-WTH	
DBA/Corp/LLC/Sole Prop./Partnership (circle)			
Describe the Nature of the Business (attach additional sheets if necessary)			
INVENT, DESIGN AND DISTRIBUTE MOBILITY ASSISTIVE DEVICES FOR THE ELDERLY & DISSABLED			
Do you use, store or manufacture any chemical, combustible, or hazardous materials? Yes/No <u>NO</u>			
If "Y", attach additional sheets explaining the type of chemicals and how they will be used, stored, or manufactured.			
Are you moving into a new or already existing building? New Existing <u>EXISTING</u>			
Sexually Oriented Business? *		Yes/No <u>NO</u>	Alcohol Sales/Consumption?*
		Yes/No <u>NO</u>	
*Answering yes to either of the above subjects a business owner to additional licensing requirements. See staff for additional information prior to submitting this application.			
Projected Opening Date		Days/Hours of Operation	8AM-5PM M-F

Officers/Owners (attach additional sheets if necessary)

	Owner/Office #1	Owner/Officer #2	Owner/Officer #3
Name (first/middle/last)	Brandon Birch		
Home Address	336 W 3650 S Nibley, UT		
Home Phone	435-764-4140		
DOB (mm/dd/yyyy)	08/09/1976		
Misc. Info/Pro. Licenses			
Driver's License #/State	153255956 UTAH		

I certify that the information contained in this application is true and correct. I agree to conduct my business in accordance with Nibley City ordinances and any other State or Federal statutes or laws governing operation of such business. Further, I understand that false disclosure of information on this application or failure to comply with said ordinances, laws and statutes may result in the revocation of my business license.

Signature of Applicant _____

Date 05-12-2020Print Name BRANDON BIRCHTitle CEO

- This application is subject to approval by the City Planner and Planning & Zoning Commission. You are required to appear before the Planning Commission for approval of the business license.
- Businesses must register with the Utah Division of Corporations, located at 160 East 300 South, SLC, UT or online at www.business.utah.gov/registration. Verification of registration must be submitted with this application.
- Business involved with the sale of tangible goods must provide evidence of a State sales tax number. You may obtain the sales tax number at the same time as you register the business entity, or obtain the sales tax number from the State Tax Commission.
- **If you are moving into an already existing building, you are required to have the County Building Inspector conduct an inspection prior to relocating. Evidence that the Building Inspector has conducted the inspection and finds the building suitable for the proposed use must be submitted with this application. Failure to submit an inspection report will result in the application being refused.**
- **If you are moving into a building which was constructed for your business, no business license will be issued until a certificate of occupancy has been issued by the Building Inspector.**
- There are additional application requirements for alcohol sales and sexually oriented businesses. See staff for further information.
- Also, if your profession is regulated by the Utah Department of Occupational and Professional Licensing, a copy of that professional license must be supplied.
- Temporary or soliciting type businesses are licensed on a separate application with specific requirements.
- License renewals are due January 1st each year. The license will indicate an expiration date. Renewal notices are sent as a reminder, but you are ultimately responsible for ensuring timely renewal payments. After March 1st, the license is no longer valid and business owners are required to submit a new application and pay associated fees.

FOR OFFICE USE ONLY

Use Classification _____ Approved _____ Denied _____

Comments/Conditions of License

City Planner

Date

Planning Commission Chair

Date

Commercial and Industrial Initial Business License Fee: **\$225.00**

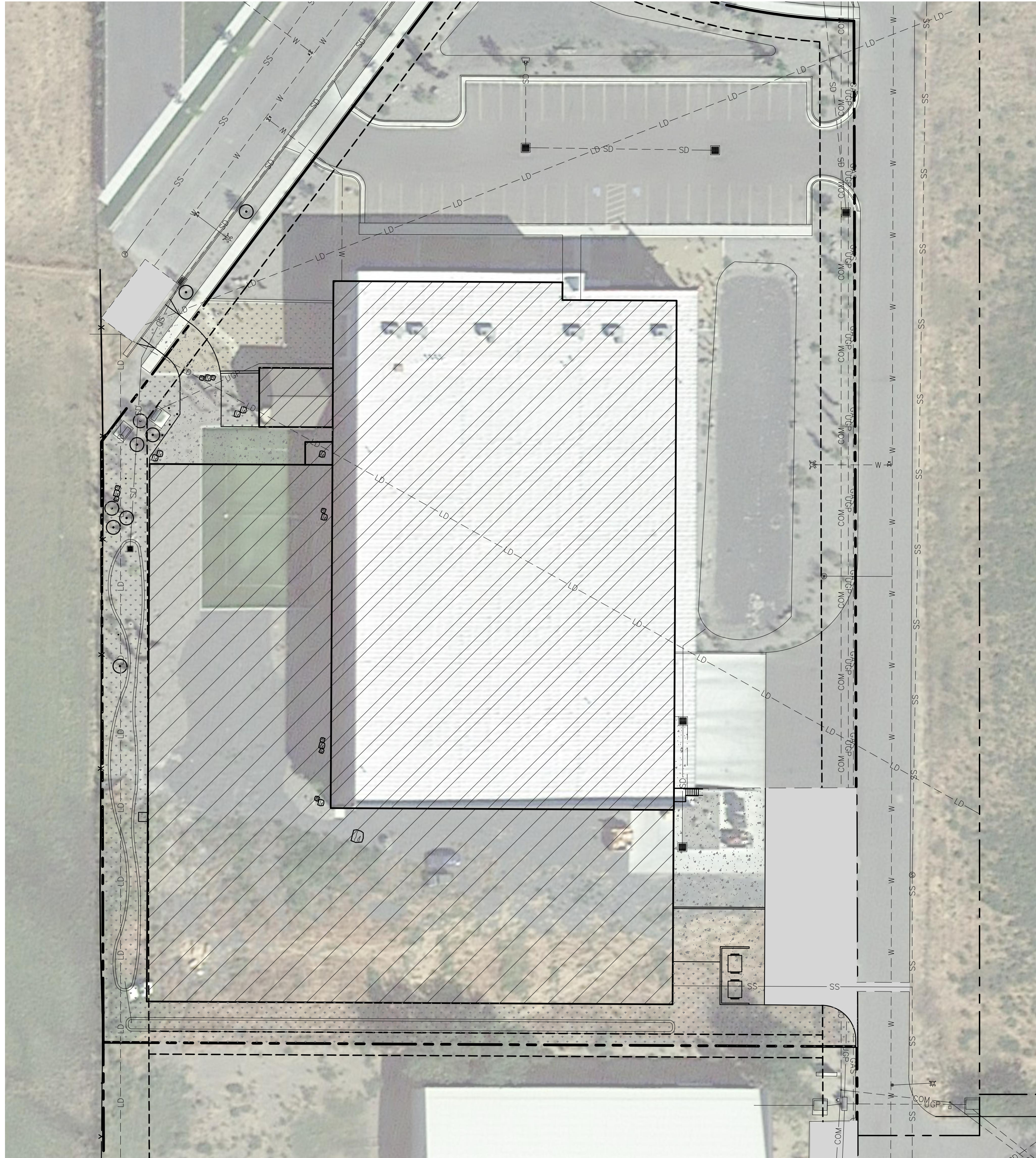
Received Date: _____

Rec'd By: _____

License Issued Date: _____

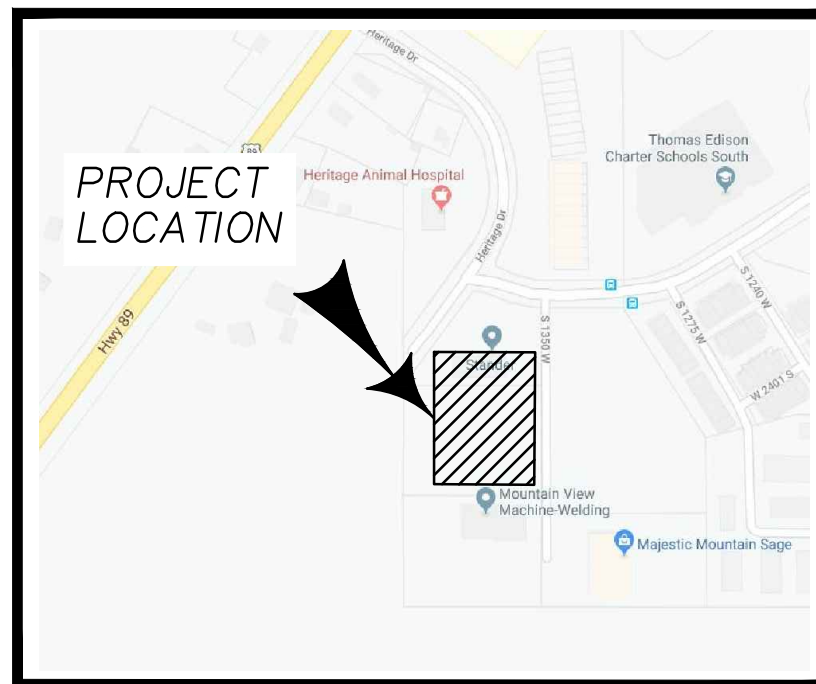
SITE-CONSTRUCTION DOCUMENTS
STANDER BUILDING ADDITION

LOCATED AT 2485 SOUTH 1350 WEST
NIBLEY, UTAH 84321



SHEET INDEX

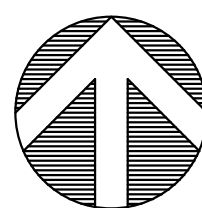
<u>DESCRIPTION</u>	<u>SHEET</u>
COVER SHEET	C-0.0
GENERAL NOTES	C-0.1
DEMO PLAN	C-1.0
SITE/UTILITY PLAN	C-2.0
GRADING/DRAINAGE PLAN	C-4.0
CIVIL DETAILS	C-5.0-5.1
EROSION CONTROL PLAN	C-6.0
LANDSCAPE PLAN	L-1.0-1.1

VICINITY MAPCIVIL ENGINEER

CACHE-LANDMARK ENGINEERING
95 GOLF COURSE RD, SUITE 101
Logan, Utah 84321
Project Manager: Jeremy Jensen, EIT
CELL: (435) 770-3441
Email: jjensen@cachelandmark.com
Engineer: Lance Anderson, P.E.
TEL: (435) 713-0099
CELL: (435) 760-1622
Email: lance@cachelandmark.com

DATE OF PREPARATION:

ORIGINAL ISSUE: 10 AUGUST 2020
UPDATED: 25 SEPTEMBER 2020



OVERALL SITE MAP

SCALE: 1"=30'

Know what's below.

Call 811 before you dig.

BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.

www.bluestakes.org
1-800-662-4111

AGENCY REVIEW SET

[illegible]

COVER SHEET

STANDER ADDITION
2455 SOUTH 1350 WEST
NIBLEY, UTAH, 84321



Engineers
Surveyors
Planners

Golf Course Rd.
Suite 101
Bogart, UT 84321
435.713.0099

100

E: N.T.S

DESIGNED BY:
J. JENSEN

CKED BY:
L. ANDERSON

APPROVED BY:
L. ANDERSON

PROJECT NUMBER:
565-2001

ET:

C-0.0

PLOTTED September 25, 2020 BY Jeremy Jensen FILE Z:\2020 PROJECTS\565-2001 JOE BECK - STANDER BUILDING ADDITION - NIBLEY, UT\ACAD\CONSTRUCTION DOCUMENTS\565-2001 C-0.0 COVER SHEET.DWG

PLOTTED September 25, 2020 BY Jeremy Jensen FILE Z:\2020 PROJECTS\565-2001 JOE BECK - STANDER BUILDING ADDITION - NIBLEY, UT\CAD\CONSTRUCTION DOCUMENTS\565-2001 C-0.0 COVER SHEET.DWG

GENERAL NOTES:

1. NO WORK IS TO BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN OBTAINED. GENERAL CONTRACTOR TO OBTAIN AND PAY FOR ALL NECESSARY PERMITS.
2. REQUIREMENTS SHOWN ON SITE PLAN SHALL GOVERN. GENERAL CONTRACTOR SHALL POINT OUT ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
3. ENTIRE INSTALLATION SHALL MEET ALL APPLICABLE CODES.
4. CONTRACTOR TO FIELD VERIFY ALL CONDITIONS AND DIMENSIONS ON-SITE.
5. GENERAL CONTRACTOR TO PROVIDE ALL EQUIPMENT AND PERSONNEL REQUIRED FOR FINAL CHECKOUT OF ALL FACILITIES BY OWNER'S REPRESENTATIVE.
6. GENERAL CONTRACTOR TO KEEP THE PROJECT SITE NEAT AND ORDERLY. GENERAL YARD CLEAN UP SHALL BE CONDUCTED AT THE END OF EACH DAY AND SHALL MEET THE APPROVAL OF THE OWNER'S REPRESENTATIVE PRIOR TO PROJECT COMPLETION.
7. THE GENERAL CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL DURING CONSTRUCTION.
8. WHERE THERE IS A CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADS & WALKWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS AND DIRT TRACKED FROM THE SITE.
10. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING. IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTACT THE ENGINEER FOR CLARIFICATION, AND ANNOTATE THE DIMENSION ON THE AS-BUILT RECORD DRAWINGS.
11. CONTRACTOR TO MAINTAIN ACCESS DURING CONSTRUCTION TO ADJACENT BUSINESS FACILITIES.

UTILITY GENERAL NOTES:

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND ARE TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE ACTUAL LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.
3. GENERAL CONTRACTOR TO COORDINATE ALL UTILITY WORK WITH THE APPROPRIATE UTILITY PROVIDER. GENERAL CONTRACTOR TO VERIFY AND FOLLOW ALL UTILITY PROVIDER REQUIREMENTS, PROCEDURES, STANDARDS AND SPECIFICATIONS.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACTUAL LOCATION AND ELEVATION OF EXISTING UTILITIES WHICH MAY BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION. IF A CONFLICT DOES EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION SO THAT ADJUSTMENTS CAN BE MADE.

GRADING GENERAL NOTES:

1. FINAL GRADES ARE SUBJECT TO MINOR CHANGES AS APPROVED BY OWNER. NO GRADE CHANGES IN EXCESS OF 0.05 FEET WITHOUT CIVIL ENGINEER'S APPROVAL.
2. ALL FILL MATERIAL SHALL BE CLEAN FILL SOIL APPROVED BY CIVIL ENGINEER.
3. ALL CONSTRUCTION LAYOUT AND STAKING SHALL BE PERFORMED UNDER THE RESPONSIBLE CHARGE OF A LAND SURVEYOR LICENSED IN THE STATE OF UTAH AND BY SURVEY CREW CHIEF OR ENGINEERING TECHNICIAN EXPERIENCED IN CONSTRUCTION LAYOUT AND STAKING TECHNIQUES AS REQUIRED BY THE SPECIFIC TYPE OF WORK BEING PERFORMED.
4. ACCESS AND HAULAGE ROADS SHALL BE MAINTAINED IN A DUST-FREE CONDITION BY SURFACING OR OTHER TREATMENT AS APPROVED BY THE CIVIL ENGINEER. FUGITIVE DUST SHALL BE CONTROLLED IN ALL OTHER OPERATIONAL AREAS OF THE PROJECT SITE. WATER TRUCKS OR OTHER MEANS MAY BE EMPLOYED TO CONTROL DUST AS NECESSARY.
5. CONTRACTOR SHALL MATCH GRADES AT SAWCUT LINE OF EXISTING CONCRETE FLAT WORK, CURB & GUTTER, AND SIDEWALKS.
6. CONTRACTOR SHALL MATCH FINISHED GROUND GRADES AT PROJECT LIMIT LINES.

LEGEND

	PROPERTY LINE
	PUE LINE
	EDGE OF CONCRETE
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING CURB AND GUTTER
	PROPOSED CURB & GUTTER
	EXISTING PAINT STRIPE
	PROPOSED PAINT STRIPE
	EXISTING UNDERGOURND COMMUNICATION LINE
	PROPOSED UNDERGOURND COMMUNICATION LINE
	EXISTING GAS LINE
	PROPOSED GAS LINE
	EXISTING OVERHEAD POWER LINE
	EXISTING UNDERGROUND POWER LINE
	PROPOSED UNDERGROUND POWER LINE
	EXISTING STORM DRAIN LINE
	PROPOSED STORM DRAIN LINE
	EXISTING LAND DRAIN LINE
	EXISTING SEWER LINE
	PROPOSED SEWER LINE
	EXISTING WATER LINE
	PROPOSED WATER LINE
	WATER VALVE
	FIRE HYDRANT
	WATER METER
	SEWER MANHOLE

HATCH LEGEND:

	ASPHALT
	CONCRETE
	EXISTING BUILDING
	PROPOSED BUILDING

AGENCY REVIEW SET

DESCRIPTION:
NO.:
DATE:

PROFESSIONAL ENGINEER
LANCE ANDERSON
32375-4202
Nibley, UT 84321
9-25-20

SHEET DESCRIPTION:
GENERAL NOTES

STANDER ADDITION
2455 SOUTH 1350 WEST
NIBLEY, UTAH, 84321

CL

Cache • Landmark
Engineers
Surveyors
Planners
95 Golf Course Rd.
Suite 101
Logan, UT 84321
435.713.0099

DATE:
25 SEPTEMBER 2020

SCALE:
N.T.S

DESIGN BY:
J. JENSEN

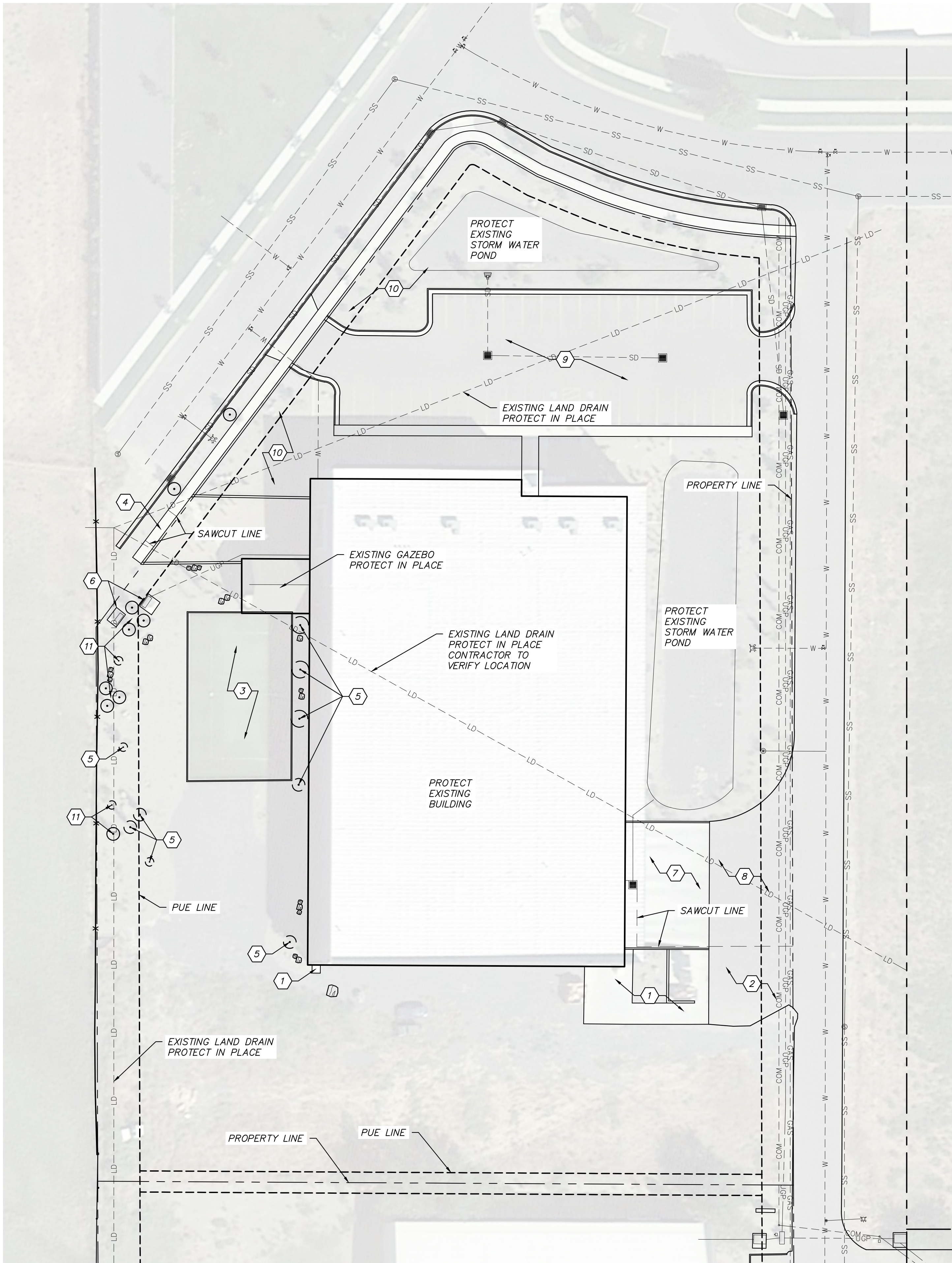
CHECKED BY:
L. ANDERSON

APPROVED BY:
L. ANDERSON

PROJECT NUMBER:
565-2001

SHEET:
C-0.1

PLOTTED September 25, 2020 BY Jeremy Jensen FILE 2\2020 PROJECTS\565-2001 JOE BECK - STANDER BUILDING ADDITION - NIBLEY, UT\A400\CONSTRUCTION DOCUMENTS\565-2001 C-1.0 DEMO PLANNING

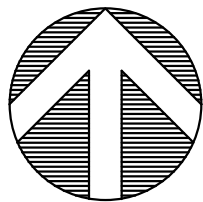
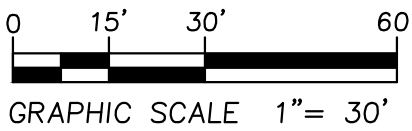


DEMO CONSTRUCTION NOTES

- 1 REMOVE EXISTING CONCRETE.
- 2 REMOVE EXISTING ASPHALT.
- 3 REMOVE EXISTING ASTROTURF AND CONCRETE ASSOCIATED WITH PLAY FIELD.
- 4 REMOVE EXISTING SIDEWALK, REMOVE OR SAWCUT CURB AND GUTTER IN DRIVEWAY APPROACH.
- 5 REMOVE EXISTING TREES.
- 6 PROTECT IN PLACE EXISTING JUNCTION BOX, TRANSFORMER, AND UNDERGROUND POWER LINES.
- 7 PROTECT EXISTING CONCRETE.
- 8 PROTECT EXISTING ASPHALT.
- 9 PROTECT IN PLACE ALL ASPHALT, CURBING, CONCRETE FLATWORK, AND STORM BOXES IN NORTH PARKING LOT.
- 10 PROTECT EXISTING LANDSCAPING.
- 11 PROTECT IN PLACE EXISTING TREES.

DEMOLITION GENERAL NOTES

1. THE CONTRACTOR SHALL REVIEW DEMOLITION PLAN AND COMPARE WITH EXISTING CONDITIONS. THE CONTRACTOR SHALL RESOLVE ANY DISCREPANCIES BETWEEN THE DEMOLITION PLAN AND EXISTING CONDITIONS WITH THE CIVIL ENGINEER AND/OR THE RESPECTIVE UTILITY COMPANY PRIOR TO ANY DEMOLITION ACTIVITIES.
2. THE CONTRACTOR SHALL PROMPTLY REPAIR ANY DAMAGES TO ADJACENT FACILITIES OR FINISHES CAUSED BY DEMOLITION OR CONSTRUCTION WORK. ALL REPAIR WORK SHALL BE AT NO ADDITIONAL COST.
3. THE PROJECT AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS AND REFUSE AT ALL TIMES. CONTRACTOR TO REMOVE ALL DEMOLITION DEBRIS FROM SITE IMMEDIATELY UPON DECONSTRUCTION AND TO ENSURE PROPER AND LEGAL DISPOSAL OF ALL DEMOLITION MATERIAL.
4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES. IF DISCREPANCIES EXIST BETWEEN THE DEMOLITION PLAN AND EXISTING SITE CONDITIONS, THE CIVIL ENGINEER MUST BE NOTIFIED IMMEDIATELY.
5. THE CONTRACTOR SHALL CONTACT THE CIVIL ENGINEER IMMEDIATELY IF THERE IS ANY DOUBT AS TO THE REMOVAL OR PRESERVATION OF ANY ELEMENT WITHIN THE PROJECT AREA.
6. EXISTING UNDERGROUND INSTALLATIONS AND PRIVATE UTILITIES SHOWN ON THE DEMOLITION PLAN ARE APPROXIMATE LOCATIONS. THE CIVIL ENGINEER DOES NOT GUARANTEE THE ACCURACY OF SUCH INFORMATION, BUT PROVIDES IT FOR REFERENCE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO ANY DEMOLITION ACTIVITIES.
7. THE CONTRACTOR SHALL COORDINATE ALL INFORMATION SHOWN ON DEMOLITION PLAN WITH ALL OTHER PLANS IN DOCUMENT SET PRIOR TO CONSTRUCTION.
8. BLUE STAKES DIGGING PERMIT REQUIRED.
9. CONTRACTOR TO LEGALLY DISPOSE OF ALL WASTE AND DEBRIS.
10. RECYCLE ASPHALT, CONCRETE, METALS, ETC, WHERE POSSIBLE.



DEMO PLAN
SCALE: 1"=30'

AGENCY REVIEW SET

NO.	DATE	DESCRIPTION

PROFESSIONAL ENGINEER
LANCE ANDERSON
32373-2020
10-25-20
STATE OF UTAH

DEMO PLAN

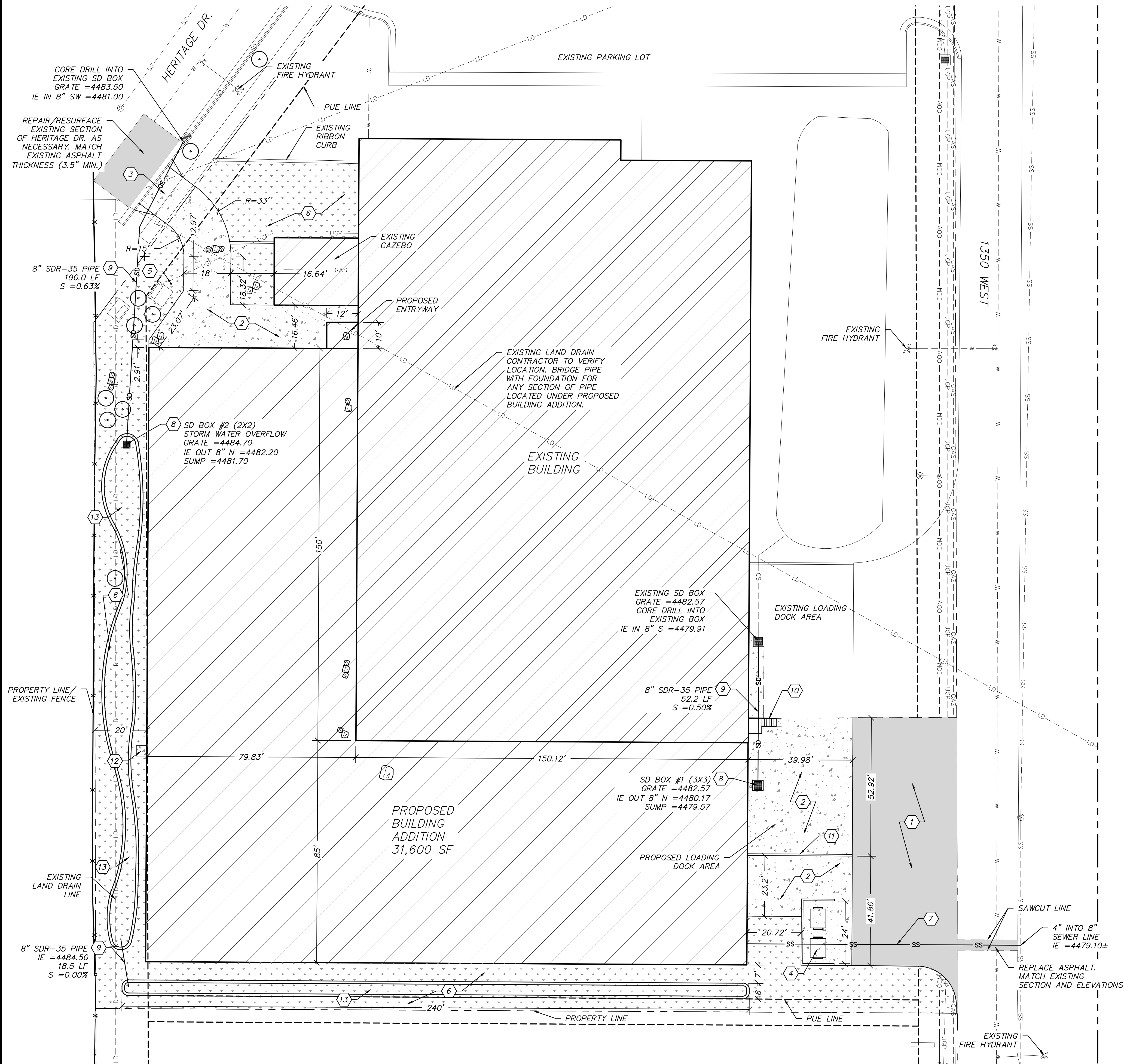
STANDER ADDITION
2455 SOUTH 1350 WEST
NIBLEY, UTAH, 84321

Cache • Landmark
Engineers
Surveyors
Planners

95 Golf Course Rd.
Suite 101
Logan, UT 84321
435.713.0099

DATE: 25 SEPTEMBER 2020
SCALE: 1"=30'
DESIGN BY: J. JENSEN
CHECKED BY: L. ANDERSON
APPROVED BY: L. ANDERSON
PROJECT NUMBER: 565-2001
SHEET: C-1.0

PLOTTED September 25, 2020 BY Jeremy Jensen FILE 2\2020 PROJECTS\565-2001 JOE BECK - STANDER BUILDING ADDITION - NIBLEY, UT\A00 CONSTRUCTION DOCUMENTS\565-2001 C-2.0 SITE PLAN.DWG



SITE CONSTRUCTION NOTES

1. CONSTRUCT STANDARD ASPHALT SECTION. SEE SHEET C-5.0/DETAIL 1.
2. CONSTRUCT HEAVY-DUTY CONCRETE SECTION. SEE SHEET C-5.0/DETAIL 2.
3. CONSTRUCT CONCRETE DRIVEWAY. SIDEWALK IN DRIVEWAY ACCESS TO BE 8" THICK. MATCH EXISTING ELEVATIONS AT SIDEWALK AND CURB. SEE SHEET C-5.0/DETAIL 3.
4. CONSTRUCT TRASH CURB ENCLOSURE. SEE SHEET C-5.0/DETAIL 4.
5. CONSTRUCT BOLLARDS TO PROTECT EXISTING POWER TRANSFORMER PER ROCKY MOUNTAIN POWER STANDARDS. SEE SHEET C-5.0/DETAIL 5.
6. LANDSCAPE AREA.
7. INSTALL 4" SANITARY SEWER LINE, MINIMUM 2% SLOPE. SEE MECHANICAL PLANS FOR BUILDING CONNECTIONS.
8. INSTALL 3'X3' STORM DRAIN BOX. SEE SHEET C-5.1/DETAIL 6.
9. INSTALL STORM DRAIN PIPE. SIZE AND TYPE AS LISTED ON PLAN. SEE SHEET C-5.1/DETAIL 7.
10. INSTALL GALVANIZED METAL STAIRS AND RAILING. SEE ARCHITECTURAL PLANS.
11. CONSTRUCT RETAINING WALL WITH METAL SAFETY RAILING. SEE SHEET C-5.1/DETAIL 8.
12. CONSTRUCT 4'X4' CONCRETE PAD AT MAN DOOR. CONCRETE TO BE 4" THICK. SLOPE 2% MAXIMUM AWAY FROM BUILDING. SEE SHEET C-5.0/DETAIL 2.
13. CONSTRUCT UNDERGROUND STORM WATER GRAVEL DETENTION IN SWALE AREA. 2580 CF (40% PORE VOLUME). SEE SHEET C-5.0/DETAIL 9. ANY ROOF DRAINS ON BUILDING ADDITION TO BE DIRECTED TOWARD DETENTION AREAS.

STORM DETENTION DESIGN:

PRECIPITATION (100 YR/48 HR)	3.02 IN.
NEW PROJECT AREA	0.70 AC.
EXISTING HYDRAULIC SOIL GROUP	D

PROJECT AREA

PRE-DEVELOPMENT	
AREA	0.70 AC.
CN	89.0
DIRECT RUNOFF (100 YR/24 HR)	1.30 IN.

POST-DEVELOPMENT	
IMPERVIOUS AREA	0.70 AC.
CN	98.0
DIRECT RUNOFF (100 YR/24 HR)	3.00 IN.

TOTAL VOLUME REQUIRED (PRE-POST)	2,663 CU. FT.
90TH% STORM EVENT (0.60 IN.)	1,516 CU. FT.

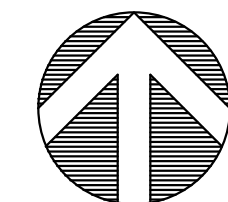
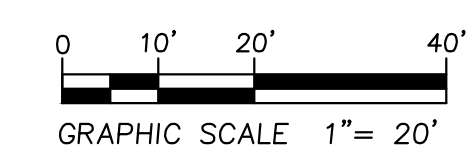
DETENTION VOLUME PROVIDED

DETENTION AREA (40% PORE VOLUME)	2,580 CU. FT.
EXCESS IN EXISTING RETENTION PONDS	100 CU. FT.

TOTAL VOLUME PROVIDED	2,680 CU. FT.
-----------------------	---------------

SITE GENERAL NOTES

1. ALL DIMENSIONS AND RADIUS' ARE MEASURED TO TOP BACK OF CURB - UNLESS OTHERWISE NOTED OR WHEN NO CURB IS PRESENT.
2. ALL CONCRETE JOINTING AND SCORING SHALL MEET NIBLEY CITY STANDARDS AND SPECIFICATIONS FOR CONCRETE PAVING.
3. CONTRACTOR TO REFER TO GRADING PLAN FOR ALL FINISH GRADE ELEVATIONS.
4. SEE SHEET C-0.1 FOR GENERAL NOTES AND LEGEND.



SITE PLAN
SCALE: 1"=20'

AGENCY REVIEW SET

DESCRIPTION:

NO. DATE:



SITE / UTILITY PLAN

STANDER ADDITION
2455 SOUTH 1350 WEST
NIBLEY, UTAH, 84321



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Planners

95 Golf Course Rd.
Suite 101
Logan, UT 84321
435.713.0099

DATE:
25 SEPTEMBER 2020

SCALE:
1"=20'

DESIGN BY:
J. JENSEN

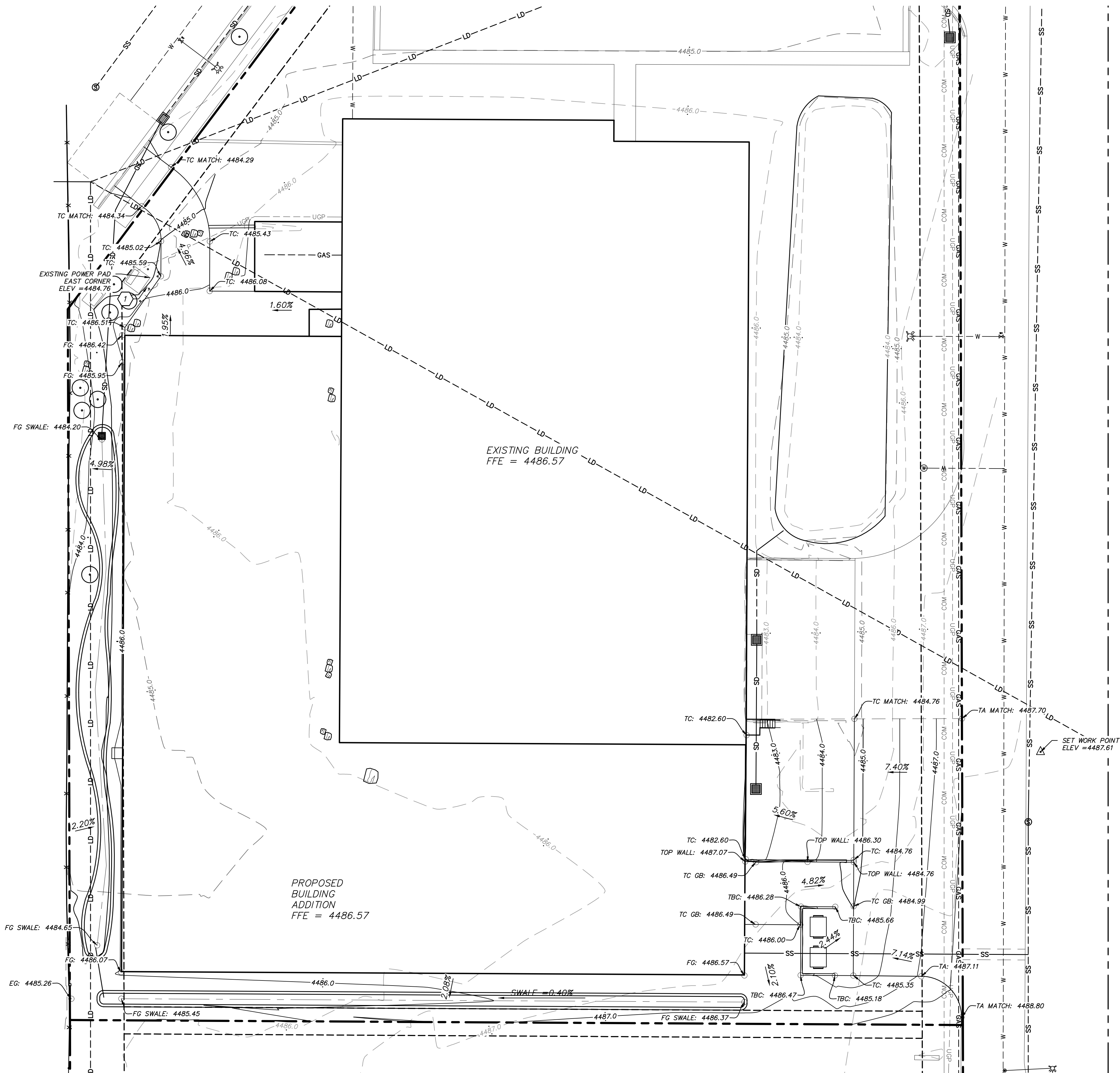
CHECKED BY:
L. ANDERSON

APPROVED BY:
L. ANDERSON

PROJECT NUMBER:
565-2001

SHEET:
C-2.0

PLOTTED September 25, 2020 BY Jeremy Jensen FILE 2:\2020 PROJECTS\565-2001 JOE BECK - STANDER BUILDING ADDITION - NIBLEY, UT\A00\CONSTRUCTION DOCUMENTS\565-2001 C-4.0 GRADING PLANNING

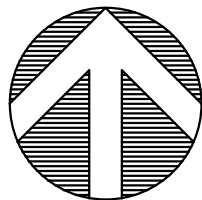
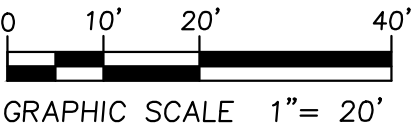


GRADING NOTES

- 1 PROVIDE LANDSCAPE ROCK BETWEEN PROPOSED CONCRETE DRIVE AND EXISTING CONCRETE TRANSFORMER PAD. PROPOSED SLOPE = 3:1.

GRADING GENERAL NOTES

- CONTRACTOR SHALL MATCH GRADES AT EXISTING CONCRETE AND ASPHALT.
- TYPICAL CONTOUR INTERVAL IS 1.0' FOR EXISTING AND 1.0' FOR PROPOSED.
- ALL SLOPE ARROWS ARE ORIENTED TOWARD THE DIRECTION OF WATER FLOW ON THE SURFACE.
- SEE SHEET C-2.0 FOR STORM WATER ELEVATIONS.
- SEE SHEET C-0.1 FOR GENERAL NOTES AND LEGEND.



GRADING PLAN
SCALE: 1"=20'

AGENCY REVIEW SET



GRADING PLAN

STANDER ADDITION
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435.713.0099

DATE: 25 SEPTEMBER 2020

SCALE: 1"=20'

DESIGN BY: J. JENSEN

CHECKED BY: L. ANDERSON

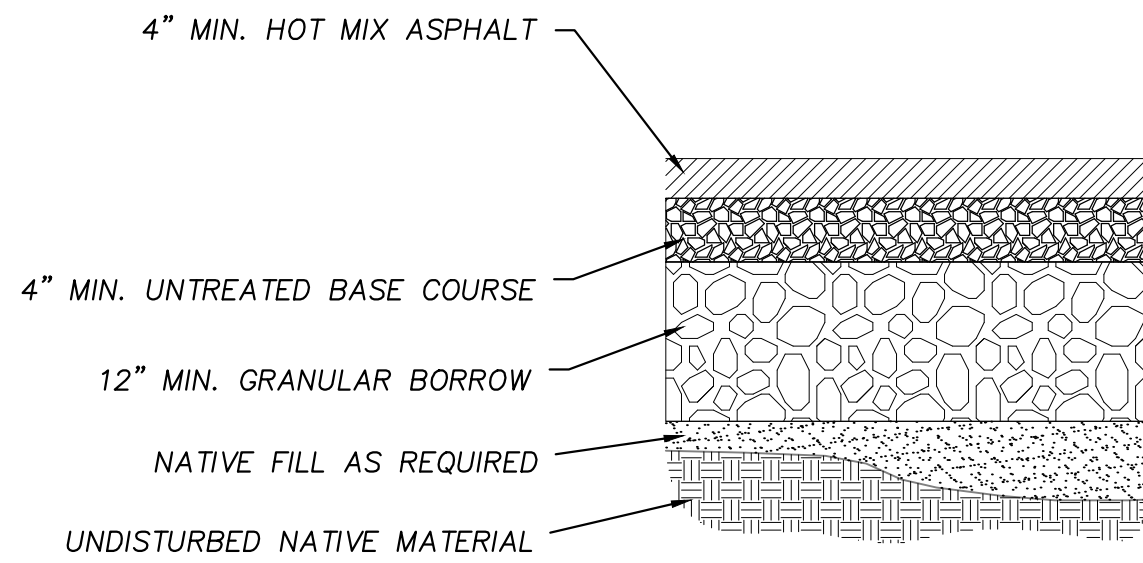
APPROVED BY: L. ANDERSON

PROJECT NUMBER: 565-2001

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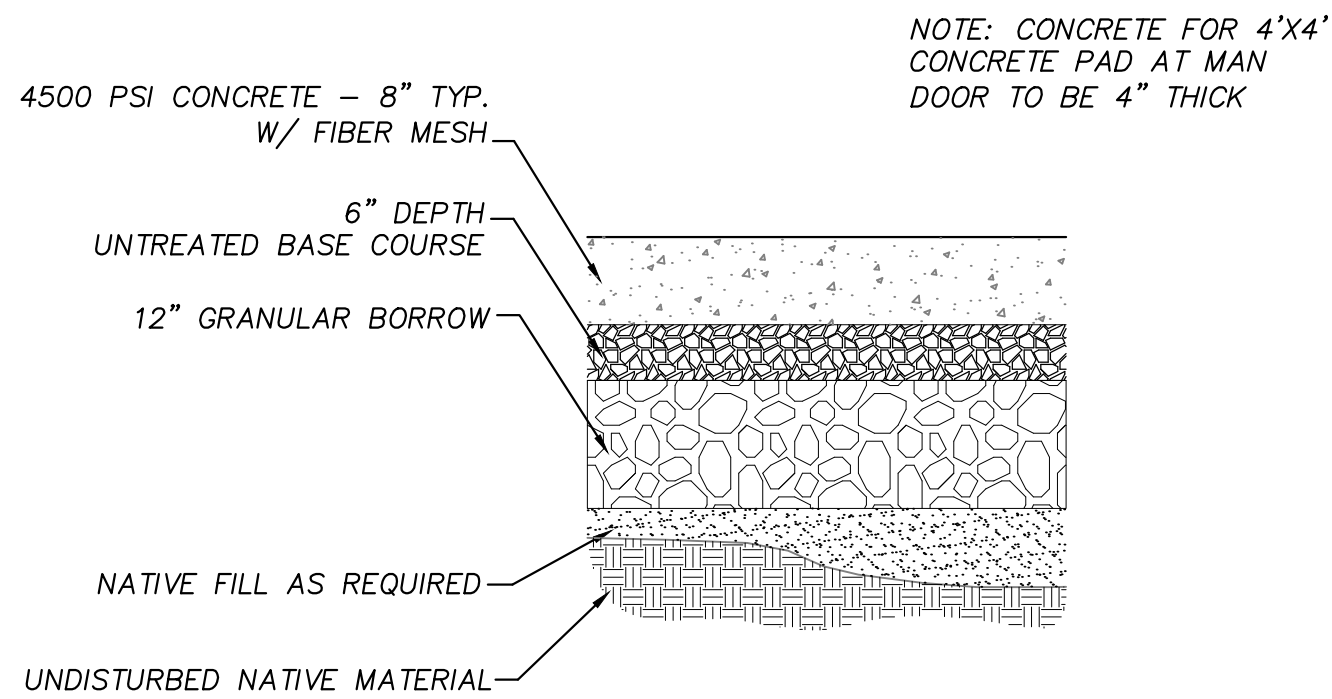
C-4.0

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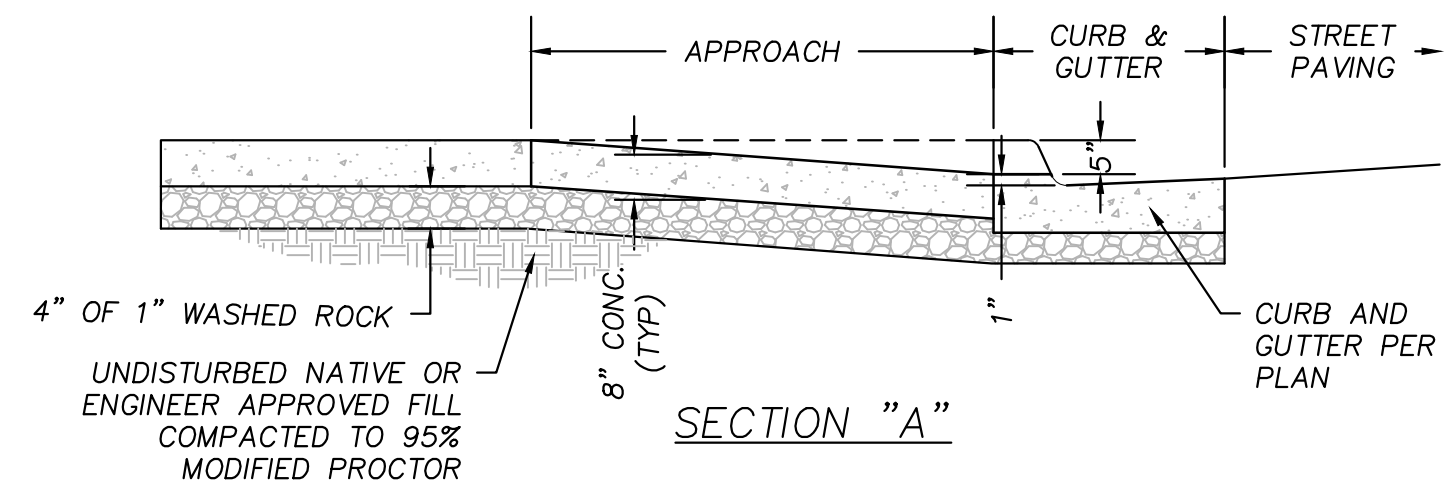
PROPOSED ASPHALT SECTION TO MATCH
EXISTING ASPHALT SECTION TO NORTH

1 STANDARD ASPHALT SECTION
SCALE: NTS



CONCRETE TO BE 4,500 PSI, 28-DAY STRENGTH
4" SLUMP, 6% AIR, W/FIBERMESH
PROVIDE CONTRACTION JOINT EVERY 10' MIN.

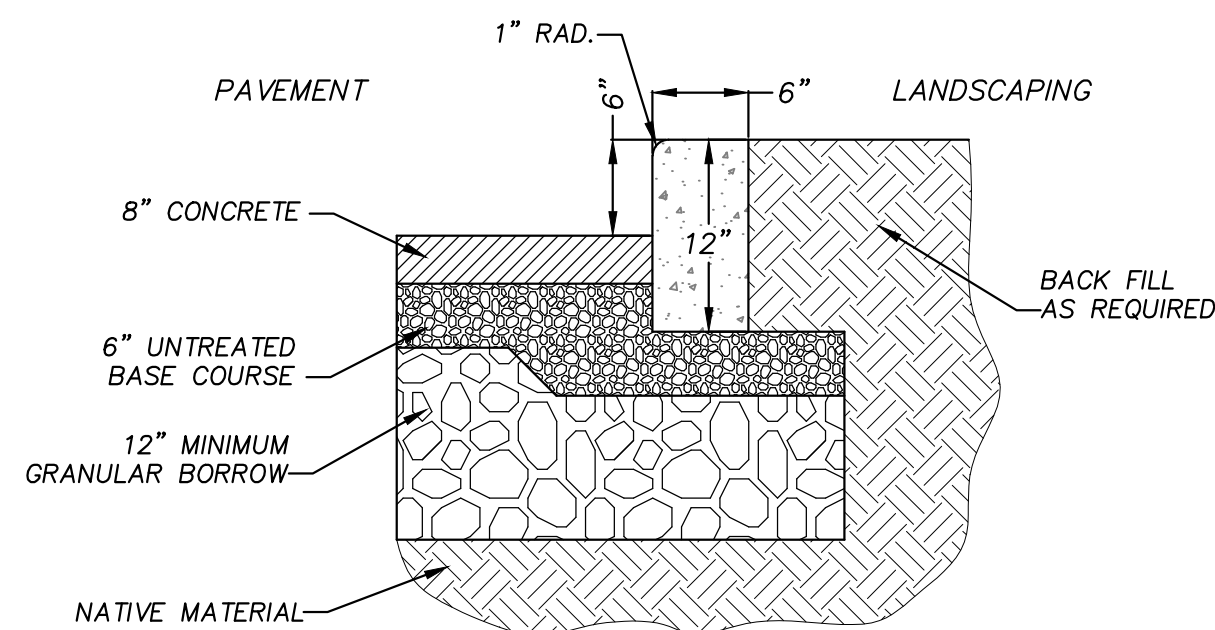
2 HEAVY-DUTY CONCRETE SECTION
SCALE: NTS



- NOTES:
1. CONCRETE FOR SIDEWALK AND APPROACH SHALL BE 8" THICK.
 2. ALL CONCRETE SHALL BE 4500 PSI.
 3. ALL BASE SHALL BE COMPACTED TO 95% PER AASHTO T-180 METHOD D.
 4. NO LIP IS ALLOWED AT FLOW LINE. CONCRETE MUST BE CUT OR POURED FLUSH.

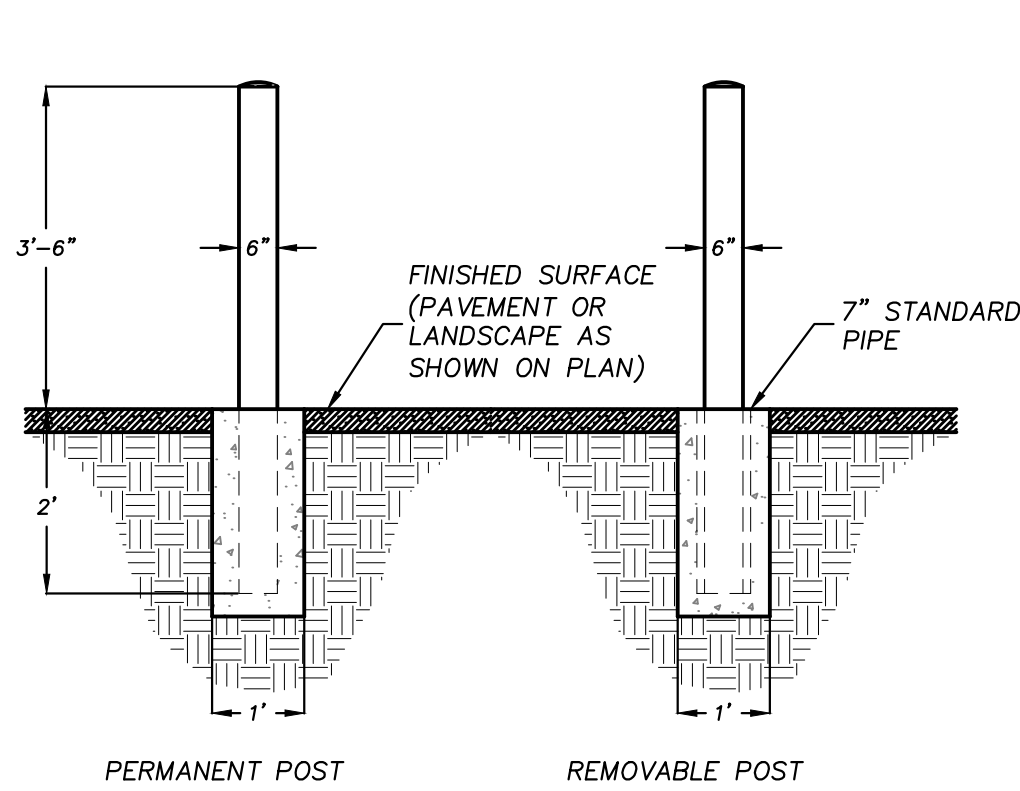
DRIVEWAY ISOMETRIC VIEW

3 CONCRETE DRIVEWAY
SCALE: NTS



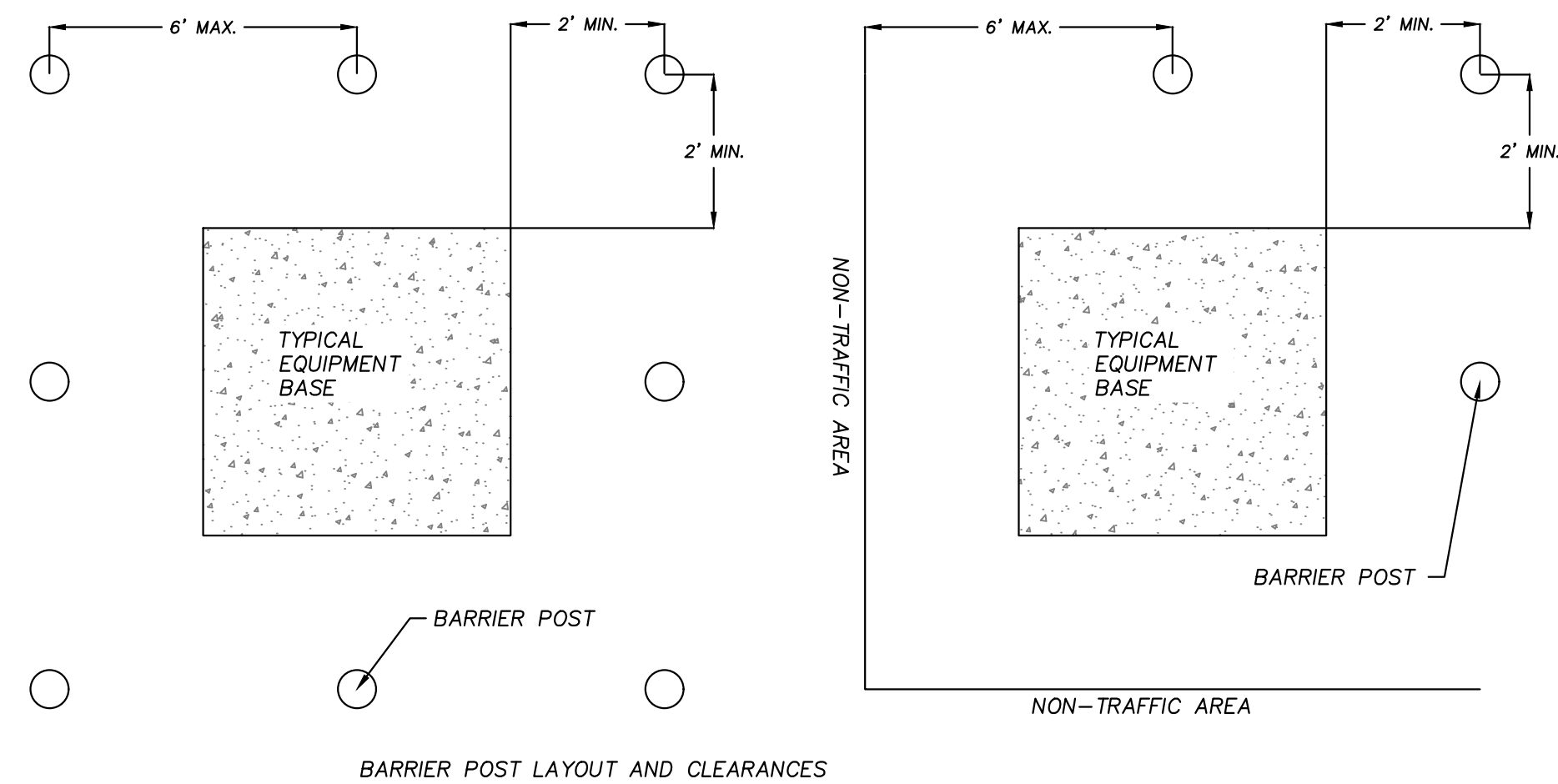
- NOTES
1. CONCRETE SHALL BE 4,500 PSI, 28 DAY STRENGTH.
 2. PROVIDE CONTRACTION JOINTS @ 10'-0" O.C.
 3. PROVIDE EXPANSION JOINTS @ 50'-0" O.C.

4 TRASH ENCLOSURE CURB WALL
SCALE: NTS



PROVIDE REMOVABLE POST WHERE PERMANENT POST WILL
INTERFERE WITH STANDARD TRANSFORMER MAINTENANCE

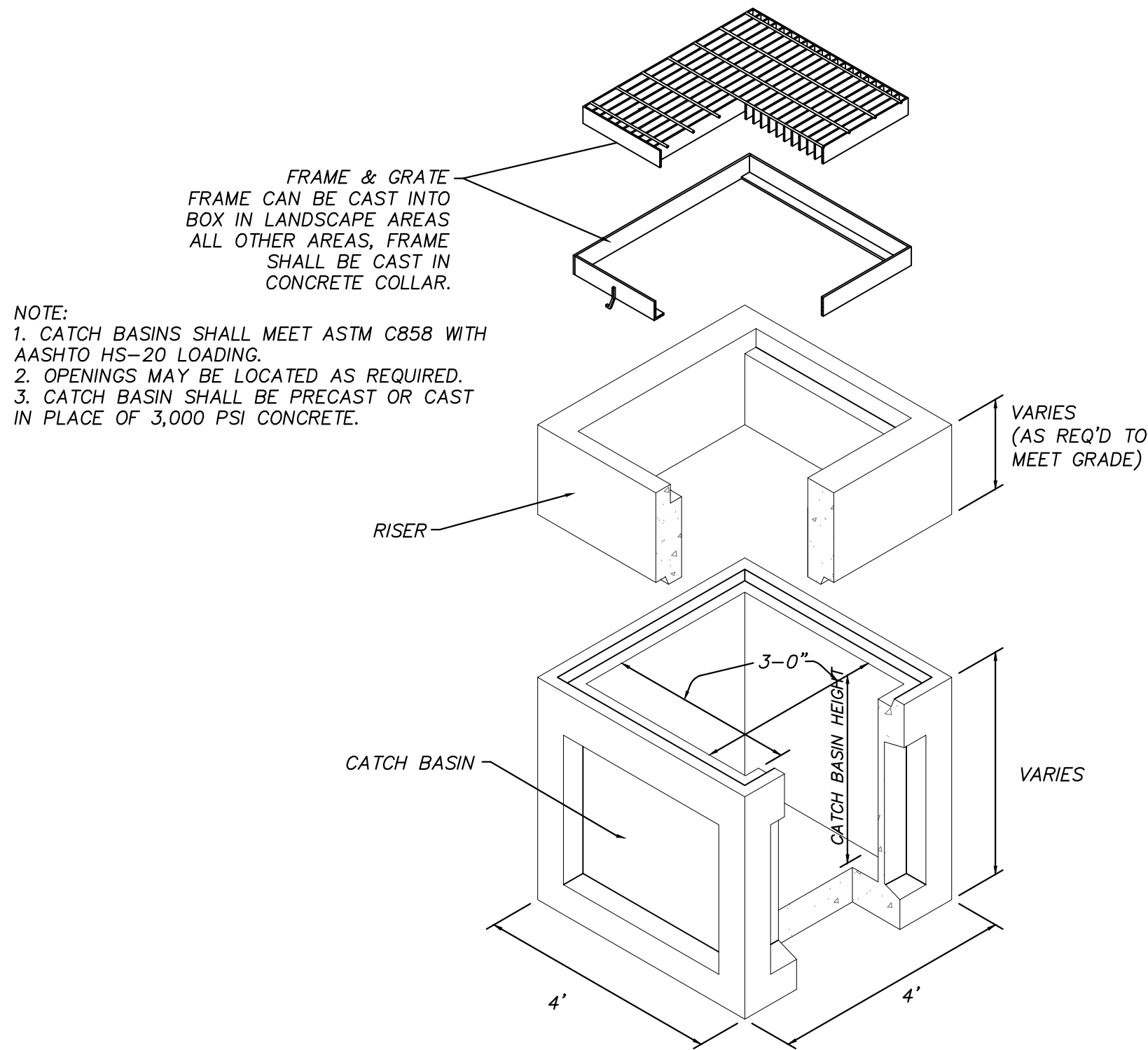
5 ROCKY MOUNTAIN POWER STANDARD BOLLARD DETAIL
SCALE: NTS



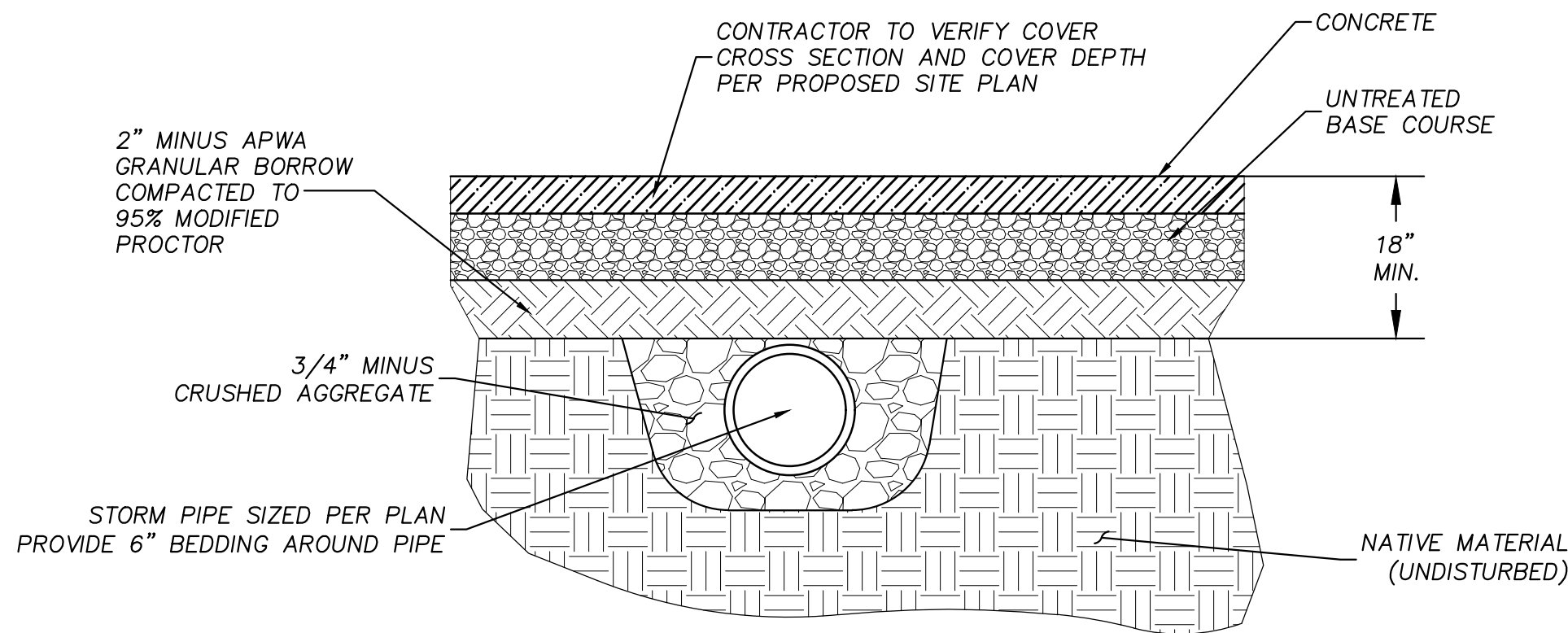
BARRIER POST LAYOUT AND CLEARANCES

DESCRIPTION:	
NO.:	
DATE:	
	
SHEET DESCRIPTION: DETAIL SHEET	
STANDER ADDITION 2455 SOUTH 1350 WEST NIBLEY, UTAH, 84321	
 Cache • Landmark Engineers Surveyors Planners 95 Golf Course Rd. Suite 101 Logan, UT 84321 435.713.0099	
DATE:	25 SEPTEMBER 2020
SCALE:	NTS
DESIGN BY:	J. JENSEN
CHECKED BY:	L. ANDERSON
APPROVED BY:	L. ANDERSON
PROJECT NUMBER:	565-2001
SHEET:	C-5.0

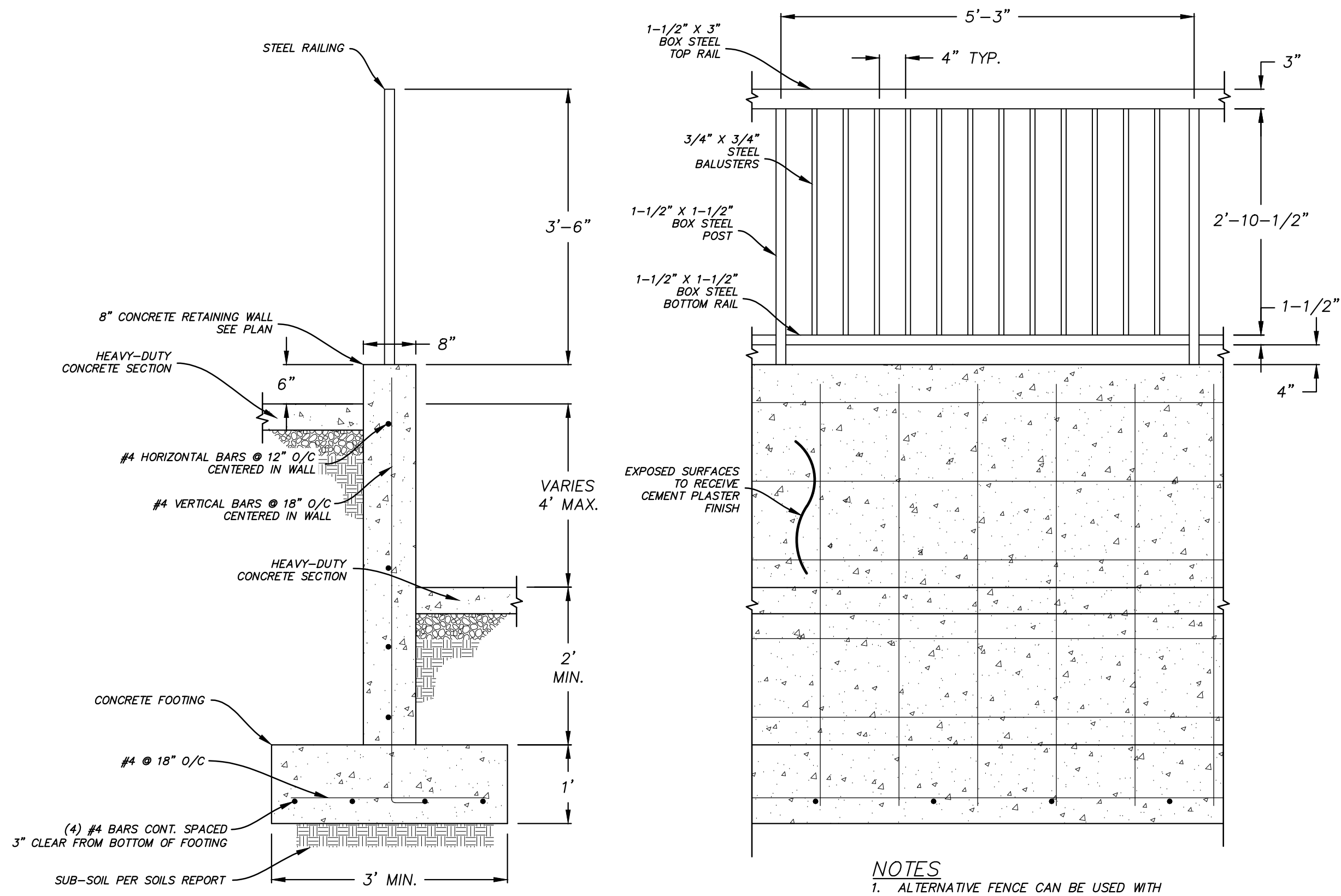
AGENCY REVIEW SET



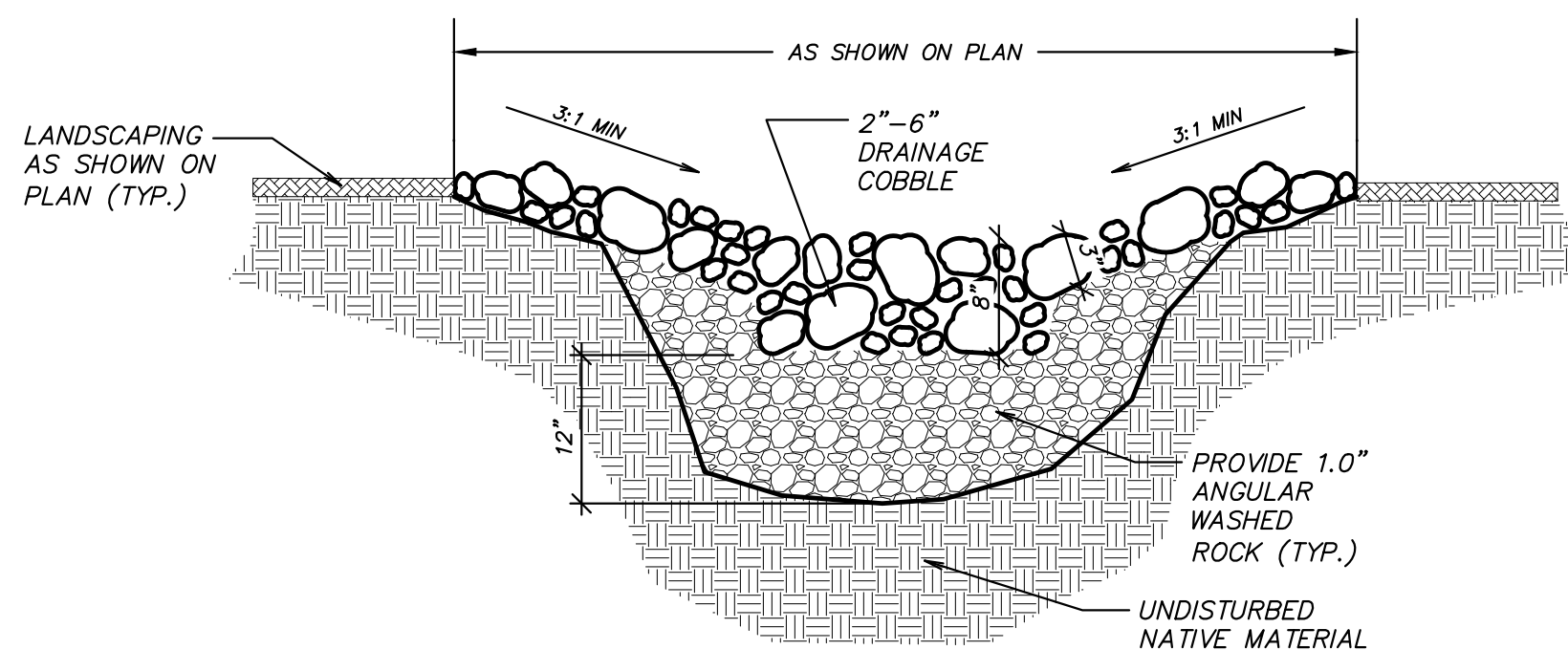
6 3'X3' STORM DRAIN BOX
SCALE: NTS



7 STORM WATER PIPE SECTION
SCALE: NTS

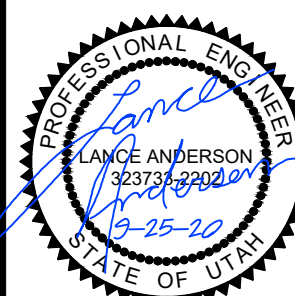


8 LOADING DOCK CONCRETE RETAINING WALL
SCALE: NTS

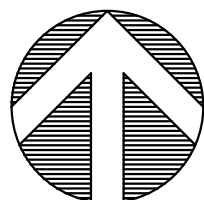
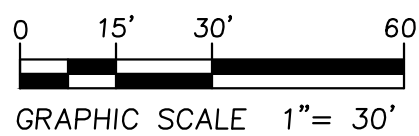
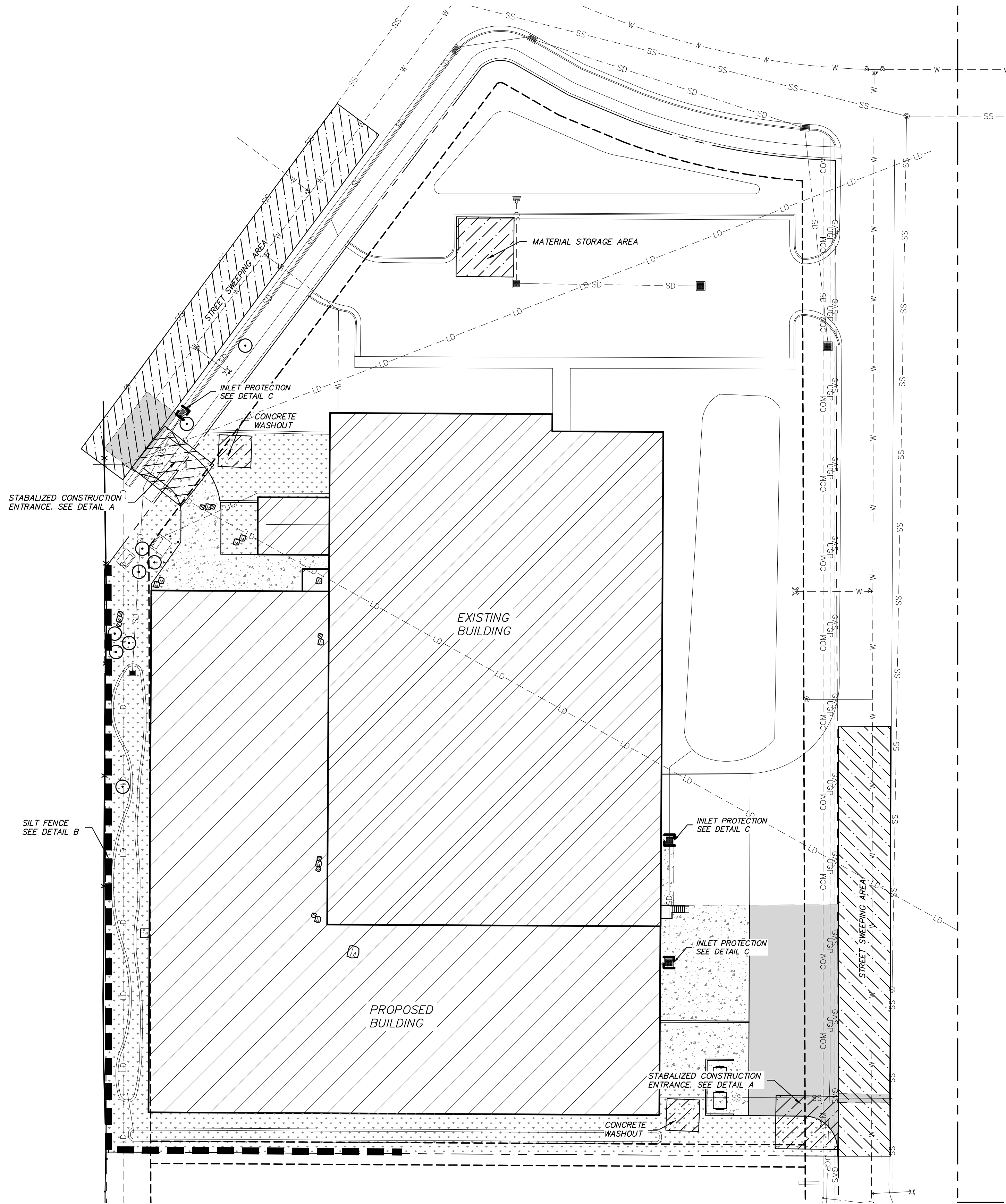


9 INFILTRATION TRENCH
SCALE: NTS

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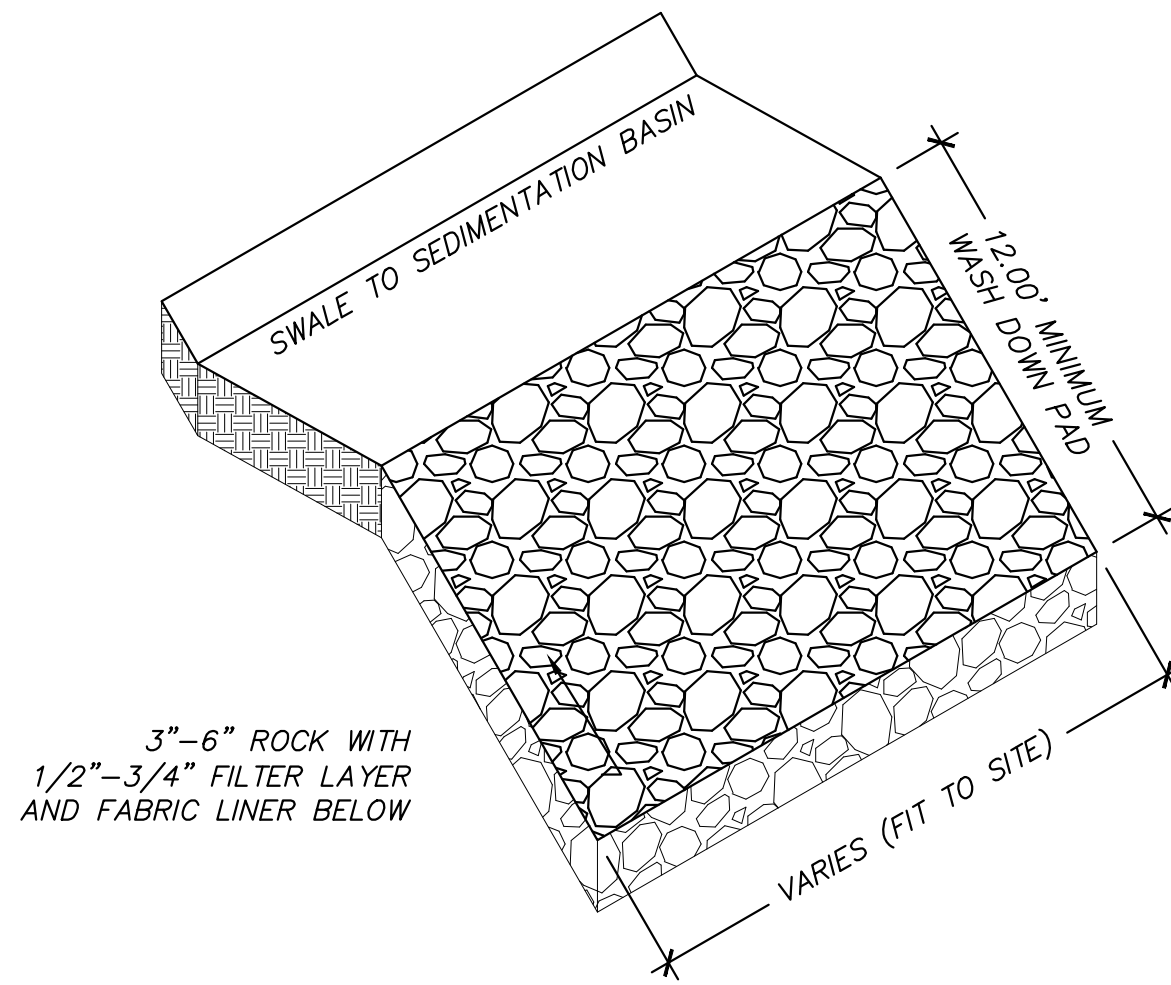
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DATE:	
	
SHEET DESCRIPTION:	
DETAIL SHEET	
STANDER ADDITION 2455 SOUTH 1350 WEST NIBLEY, UTAH, 84321	
	
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DATE:	25 SEPTEMBER 2020
SCALE:	NTS
DESIGN BY:	
CHECKED BY:	L. ANDERSON
APPROVED BY:	L. ANDERSON
PROJECT NUMBER:	565-2001
SHEET:	C-5.1

PLOTTED September 25, 2020 BY Jeremy Jensen FILE 2\2020 PROJECTS\565-2001 JOE BECK - STANDER BUILDING ADDITION - NIBLEY, UT\A&D\CONSTRUCTION DOCUMENTS\565-2001 C-6.0 EROSION CONTROL PLANNING

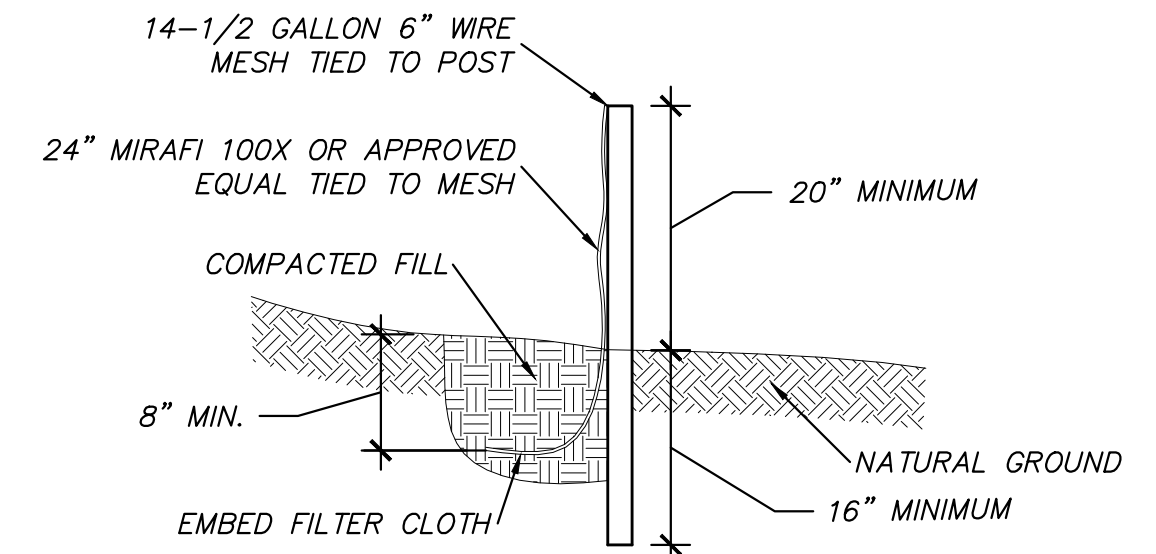


EROSION CONTROL PLAN

SCALE: 1"=30'



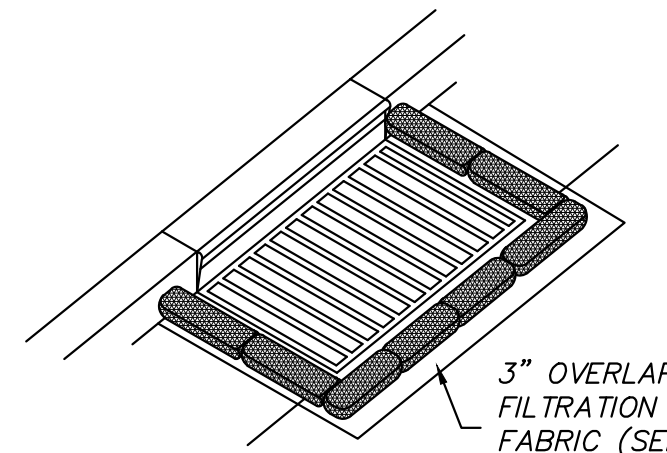
A STABILIZED CONSTRUCTION ENTRANCE
SCALE: NTS



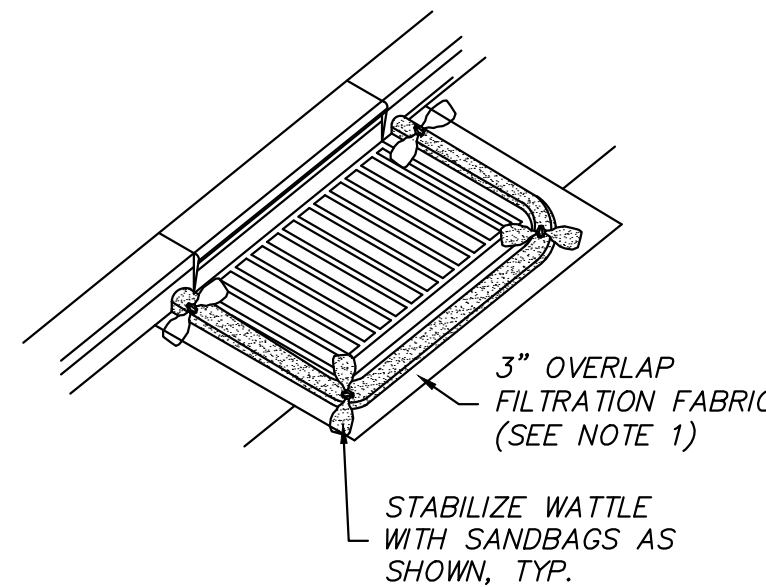
EROSION CONTROL NOTES:
1. NO EARTH SHALL BE MOVED UNTIL EROSION CONTROL MEASURES ARE IN PLACE.
2. EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL RE-VEGETATION MEASURES HAVE BEEN ESTABLISHED.

SILT FENCE INSTALLATION NOTES:
1. POSTS SPACED 10' O.C. MAX.
2. FILTER CLOTH TO BE TIED TO MESH EVERY 24" AT TOP AND MIDDLE WITH 6" FOLDED OVERLAP AT VERTICAL SEAMS.
3. FENCE SHALL BE MAINTAINED AND ACCUMULATED MATERIAL REMOVED.

B SILT FENCE
SCALE: NTS



SANDBAG OPTION



WATTLE OPTION

C INLET PROTECTION
SCALE: NTS

INLET PROTECTION NOTES:

1. REMOVE EXISTING GRATE AND OVERLAY WITH FILTRATION FABRIC. REPLACE GRATE WITH FABRIC SECURED.
2. PLACE WATTLES OR SANDBAGS TIGHT AGAINST CURB TO PREVENT SEDIMENT-LADEN WATER FROM GETTING BETWEEN CURB AND WATTLE/BAG.
3. PLACE WATTLES OR SANDBAGS SUCH THAT FLOW DOES NOT OVERTOP CURB OR ROAD CENTERLINE.
4. INSPECT INLET PROTECTION AFTER EVERY LARGE STORM EVENT AND AT LEAST BI-WEEKLY, TO ENSURE THAT SEDIMENT CONTROL IS MEETING ITS DESIGN INTENT. MAINTAIN AND/OR REPLACE AS NEEDED.
5. REMOVE SEDIMENT ACCUMULATED WHEN IT REACHES 50% OF SANDBAG OR WATTLE HEIGHT.
6. CONTRACTOR MAY SUBMIT AN ALTERNATIVE METHOD OF INLET PROTECTION. THE ALTERNATIVE METHOD SHALL BE APPROVED BY THE CITY INSPECTOR AND THE LANDSCAPE ARCHITECT.
7. MAINTAIN TOP OF INLET AT 6" ABOVE GRADE FOR SEDIMENTATION AROUND BOX BEFORE PLACEMENT OF CURB, STABILIZATION OF LAND BEHIND CURB, AND PAVING

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DESCRIPTION:

NO. DATE:



SHEET DESCRIPTION:

EROSION CONTROL

STANDER ADDITION
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DATE: 25 SEPTEMBER 2020

SCALE: 1"=30'

DESIGN BY: J. JENSEN

CHECKED BY: L. ANDERSON

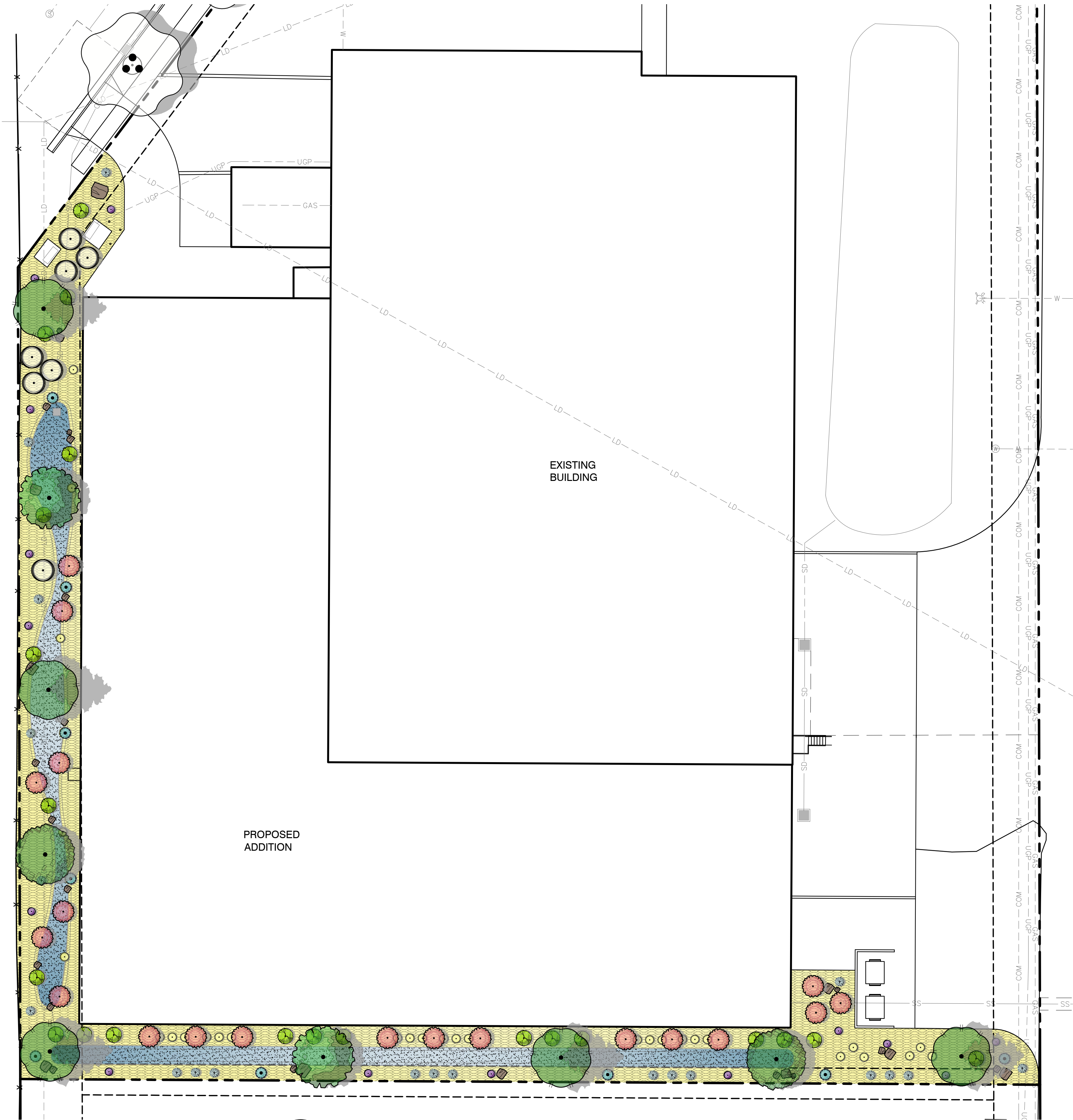
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PROJECT NUMBER: 565-2001

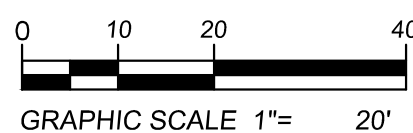
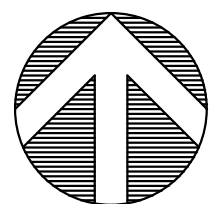
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C-6.0

PLOTTED: September 25, 2020 BY: Jeremy Jensen FILE: 2\2020 PROJECTS\565-2001 JOE BECK - STANDER BUILDING ADDITION - NIBLEY, UT\CAD\CONSTRUCTION DOCUMENTS\565-2001 L-1.0 PLANTING PLANDWG



PLANTING PLAN
 SCALE: 1" = 20'



PLANT SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	QTY	
	ACER TRUNCATUM 'PACIFIC SUNSET' TM	PACIFIC SUNSET MAPLE	2	15 GAL - 2" CAL - 1/L-1.1
	ACER X FREEMANII 'JEFFSRED'	AUTUMN BLAZE MAPLE	2	
	EXISTING AUTUMN PURPLE ASH		-	PROTECT IN PLACE SEE TREE PROTECTION NOTES
	EXISTING CRIMSON POINT FLOWERING PLUM		-	
	PINUS SYLVESTRIS	SCOTCH PINE	5	B&B - 2/L-1.1
	PRUNUS CERASIFERA 'CRIPZOZAM	CRIMSON POINT FLOWERING PLUM	19	15 GAL - 2" CAL - 1/L-1.1
SHRUBS	BOTANICAL NAME	COMMON NAME	QTY	
	CORNUS SERICEA 'ARTIC FIRE'	ARTIC FIRE DOGWOOD	21	5 GAL - 3/L-1.1
	PICEA ABIES 'FAT CAT'	FAT CAT NORWAY SPRUCE	9	
GRASSES	BOTANICAL NAME	COMMON NAME	QTY	
	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	29	3 GAL - 4/L-1.1
	HELICTOTRICHON SEMPERVIRENS	BLUE OAT GRASS	20	
ANNUALS/PERENNIALS	BOTANICAL NAME	COMMON NAME	QTY	
	SALVIA DORRII	DESERT SAGE	14	3 GAL - 5/L-1.1
GROUND COVERS	BOTANICAL NAME	COMMON NAME	QTY	
	6" DEEP 2" - 3" SALVAGED EXISTING STONE MULCH - SEE DEMO PLAN		8,175 SF	6/L-1.1 & DEMO PLAN
	6" DEEP 3/4" - 1" SALVAGED EXISTING DRAIN ROCK - SEE DEMO PLAN		2,831 SF	
	LANDSCAPE BOULDERS: 21 EXISTING SALVAGED BOULDERS TO BE RELOCATED ON PLAN. 8 ADDITIONAL LANDSCAPE BOULDERS REQUIRED. 3-5' DIA, TO MATCH EXISTING.		29	7/L-1.1 & DEMO PLAN

GENERAL PLANTING NOTES

1. PLANTING PLAN IS DIAGRAMATIC. CONTRACTOR SHALL VERIFY PLANT QUANTITIES AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN PLANT SYMBOLS AND QUANTITIES PRIOR TO PURCHASE ORDER.
2. THE LANDSCAPE PLAN IS TO BE USED IN CONJUNCTION WITH THE IRRIGATION, CIVIL, MECHANICAL, ELECTRICAL AND ARCHITECTURAL SITE PLANS TO FORM COMPLETE INFORMATION REGARDING THIS SITE. CONTRACTOR TO COORDINATE ALL UTILITIES WITH PLANTINGS AS SHOWN HERE.
3. ALL PLANT MATERIALS SHALL MEET OR EXCEED SIZE IN SCHEDULES. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REFUSE PLANT MATERIALS WHICH DO NOT MEET THE QUALITY AS DEFINED IN ANSI Z.60 AMERICAN STANDARDS FOR NURSERY STOCK.
4. 8" DEPTH AMENDED PLANT BACKFILL MATERIAL SHALL BE A MIXTURE OF THREE (3) PARTS TOPSOIL TO ONE (1) PART PEAT MOSS AND SHALL BE MIXED ON SITE.
5. ALL PLANTINGS SHALL RECEIVE TWENTY-ONE (21) GRAM TABLETS OF "AGRIFORM" PLANT FERTILIZER (OR APPROVED EQUAL) TO BE PLACED IN PLANTING PIT AND PER MANUFACTURERS RECOMMENDATIONS.
6. ALL PLANTING BEDS TO RECEIVE 6" DEPTH OF MULCH, OVER APPROVED WEED BARRIER FABRIC, UNLESS OTHERWISE INDICATED ON PLAN AND SCHEDULE. FABRIC SHALL BE INSTALLED AFTER PRE-EMERGENT HAS BEEN APPLIED.
7. AUTOMATIC DRIP IRRIGATION SYSTEM TO BE PROVIDED BY CONTRACTOR (DESIGN-BUILD). CONTRACTOR TO INSTALL BACKFLOW PREVENTION TO MEET STATE AND LOCAL STANDARDS.

DESCRIPTION:
 NO.:
 DATE:

SHEET DESCRIPTION:
PLANTING PLAN

STANDER ADDITION
2455 SOUTH 1350 WEST
 NIBLEY, UTAH, 84321

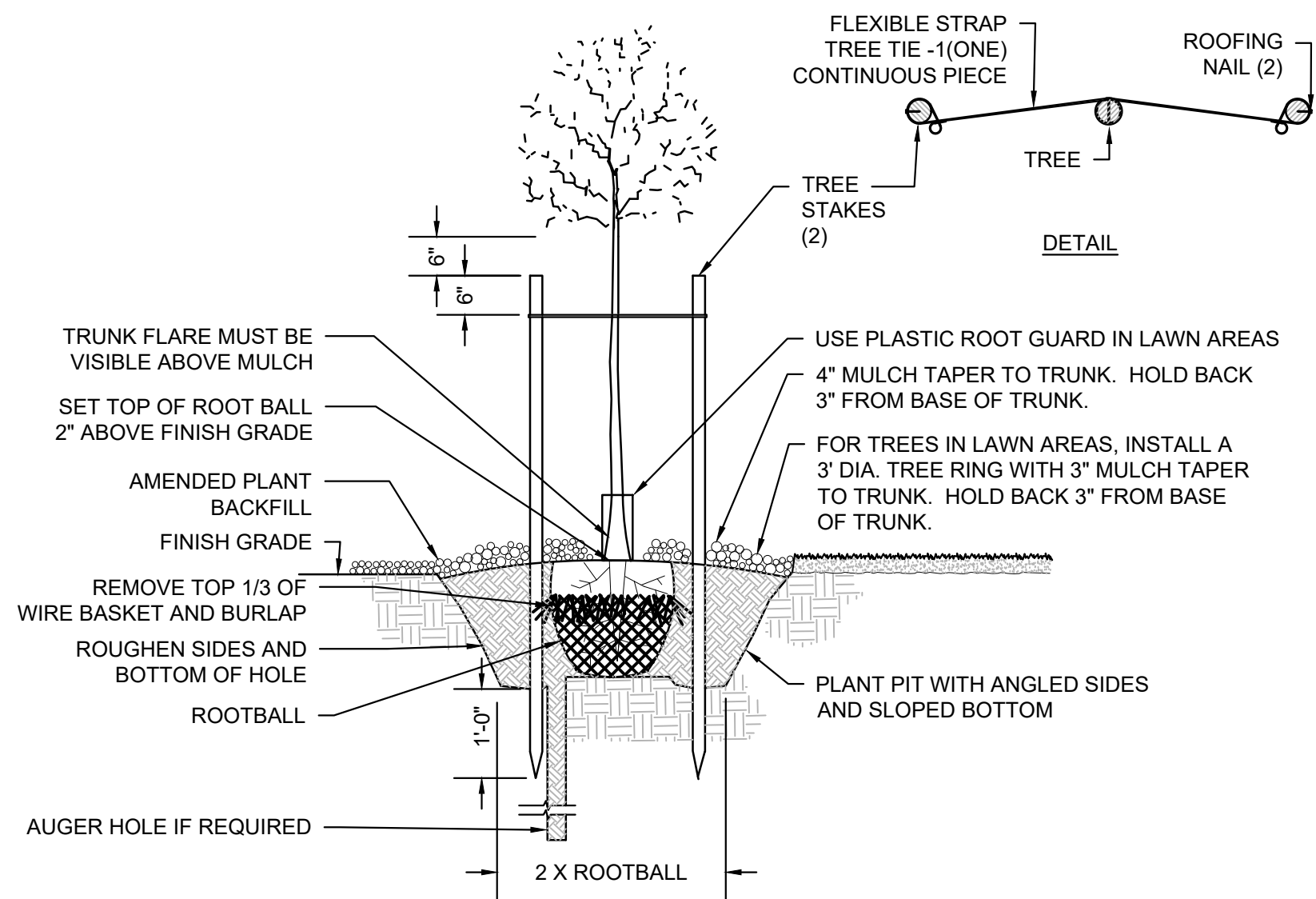
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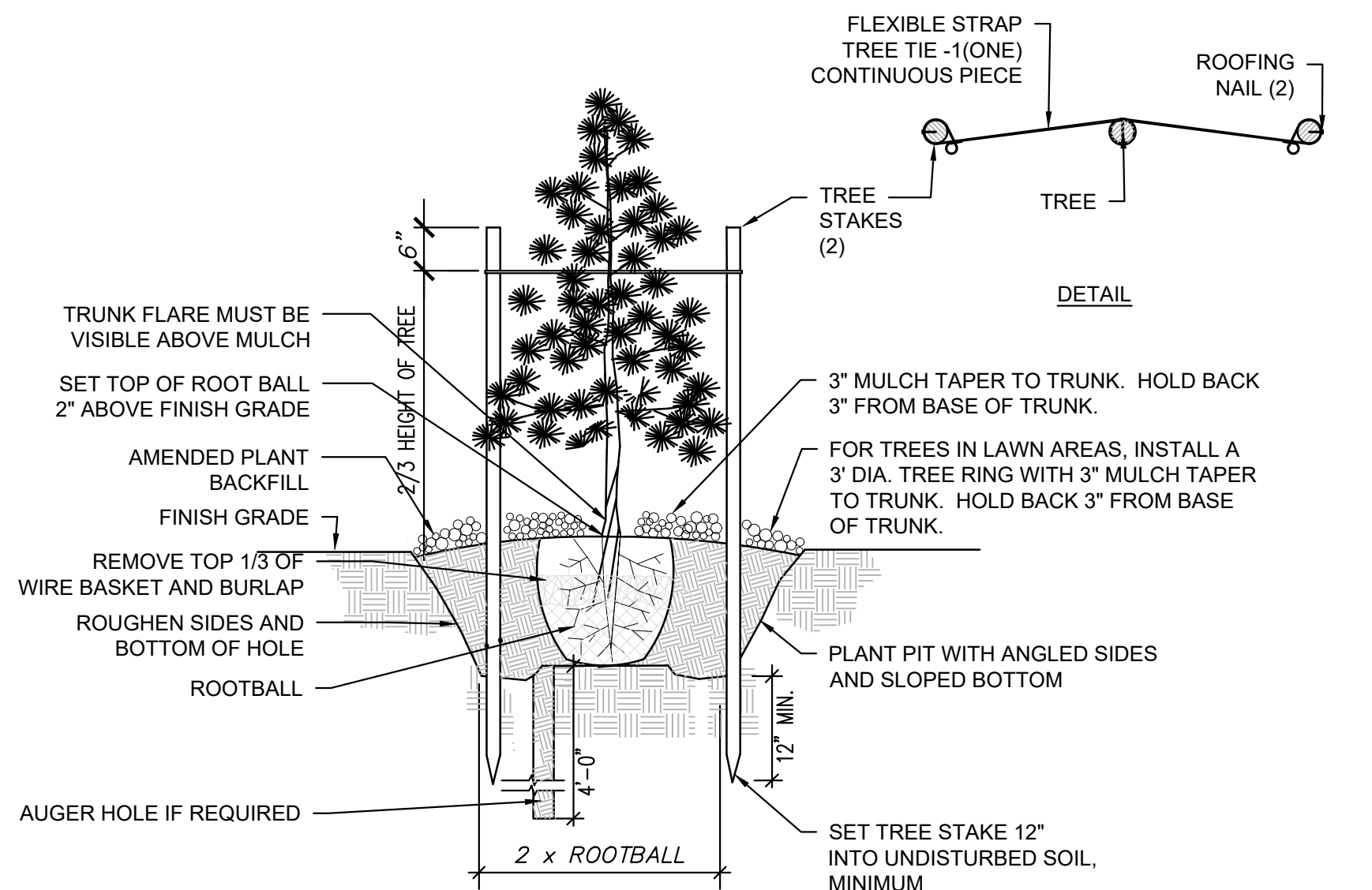
DATE:
 25 SEPTEMBER 2020
 SCALE:
 1" = 20'
 DESIGN BY:
 J. MAUGHAN
 CHECKED BY:
 J. MAUGHAN
 APPROVED BY:
 L. ANDERSON
 PROJECT NUMBER:
 565-2001
 SHEET:
L-1.0

PLOTTED September 25, 2020 BY: Jeremy Jensen FILE: 2\2020 PROJECTS\565-2001 JOE BECK - STANDER BUILDING ADDITION - NIBLEY, UT\CAD\CONSTRUCTION DOCUMENTS\565-2001 L-1.0 PLANTING PLANNING



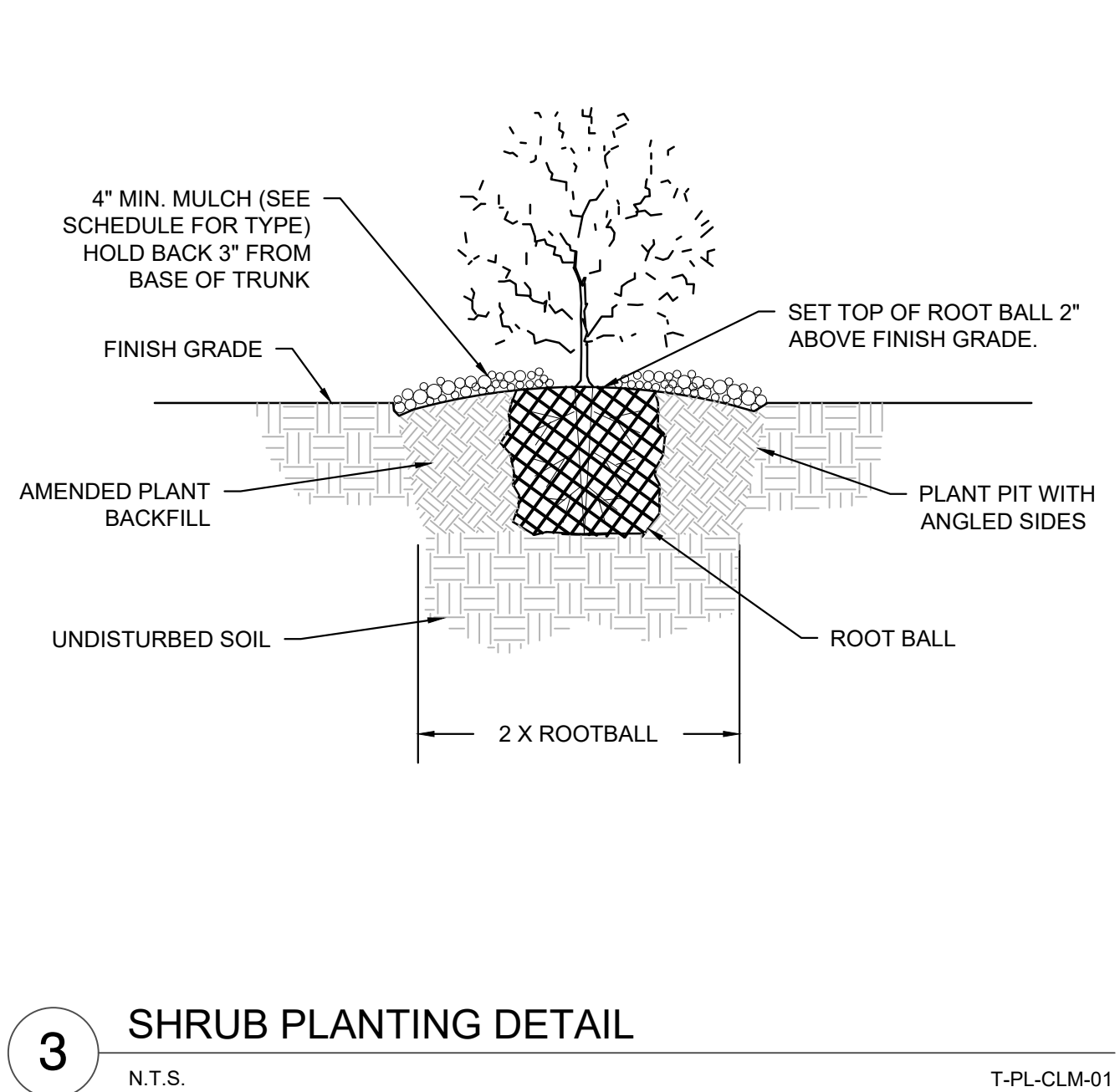
1 TREE PLANTING AND STAKING DETAIL
1" = 1'-0"

T-PL-CLM-09



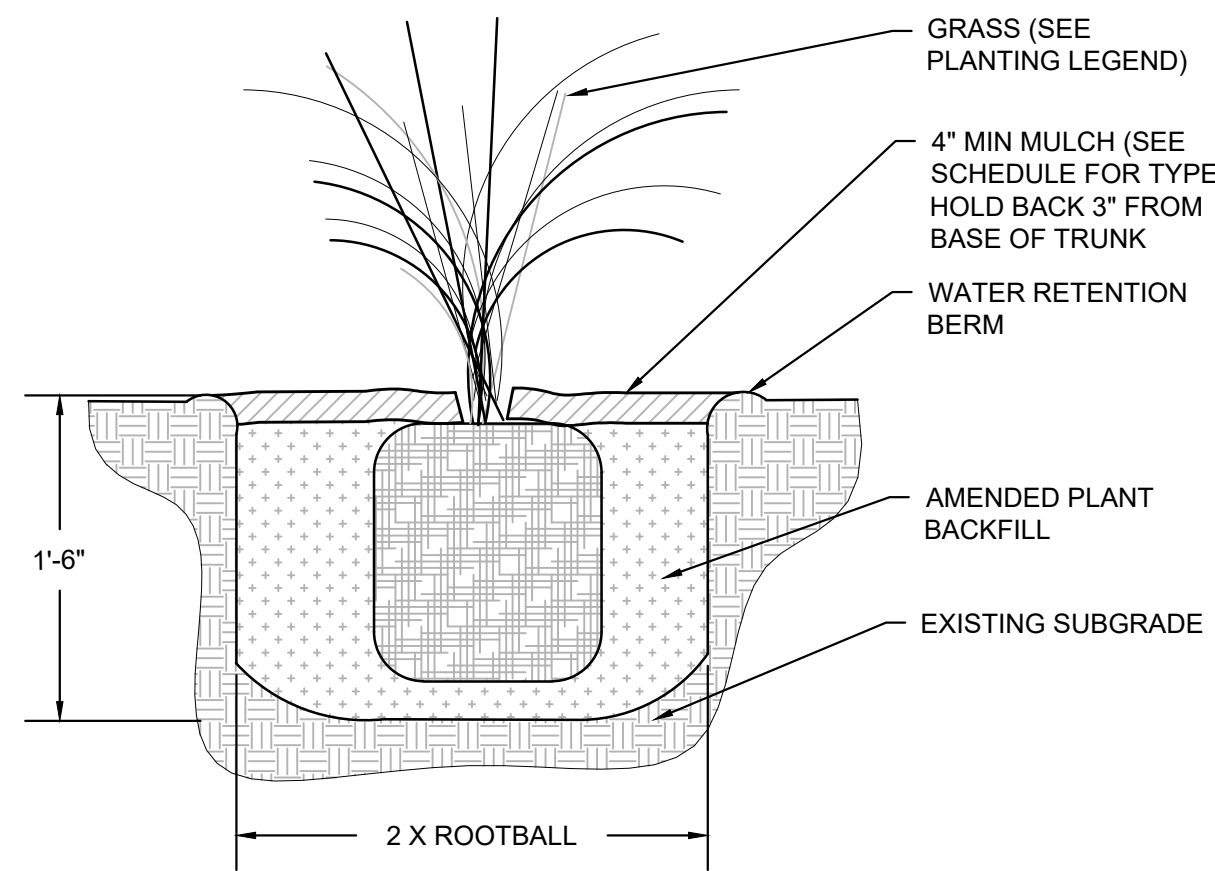
2 EVERGREEN PLANTING DETAIL
1" = 1'-0"

T-PL-CLM-07



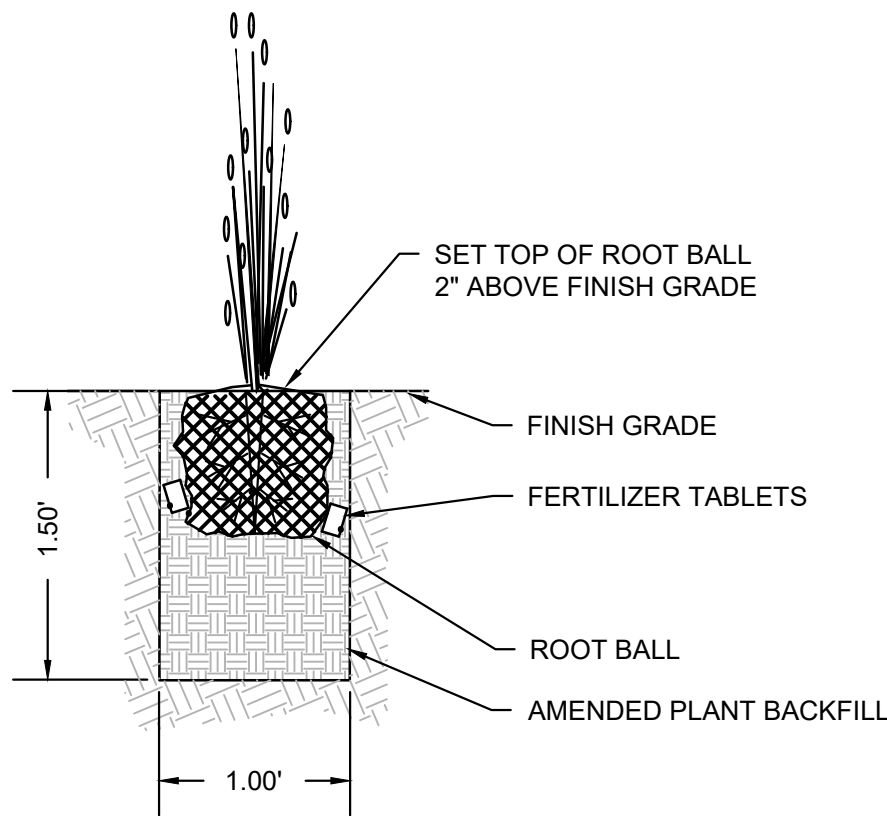
3 SHRUB PLANTING DETAIL
N.T.S.

T-PL-CLM-01



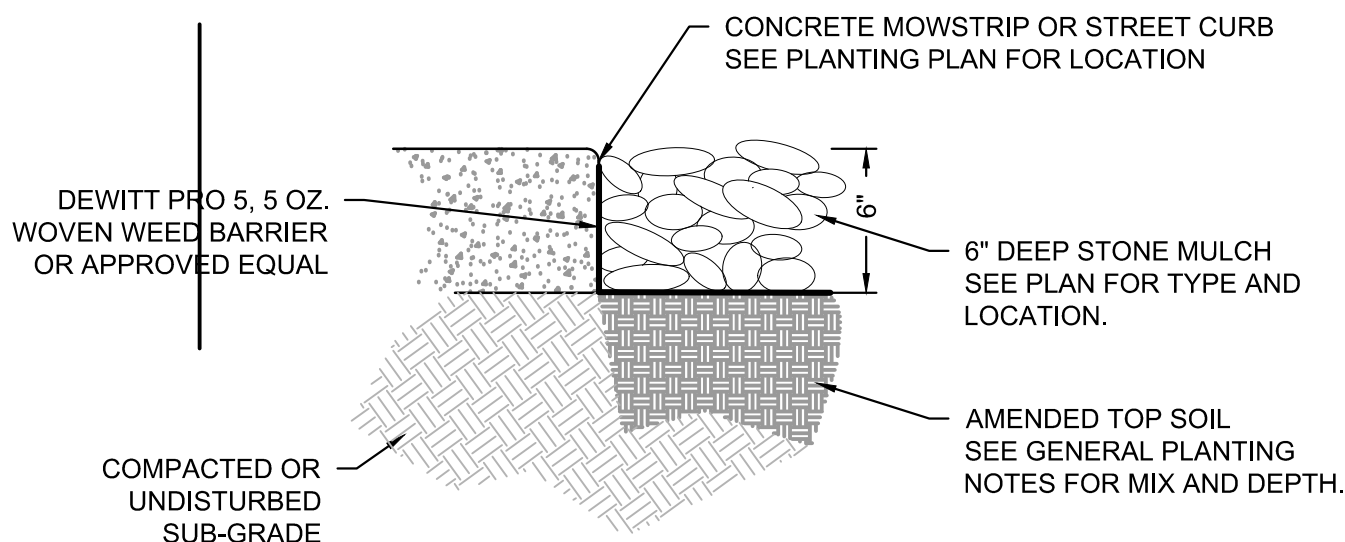
4 ORNAMENTAL GRASS PLANTING DETAIL
N.T.S.

T-PL-CLM-02



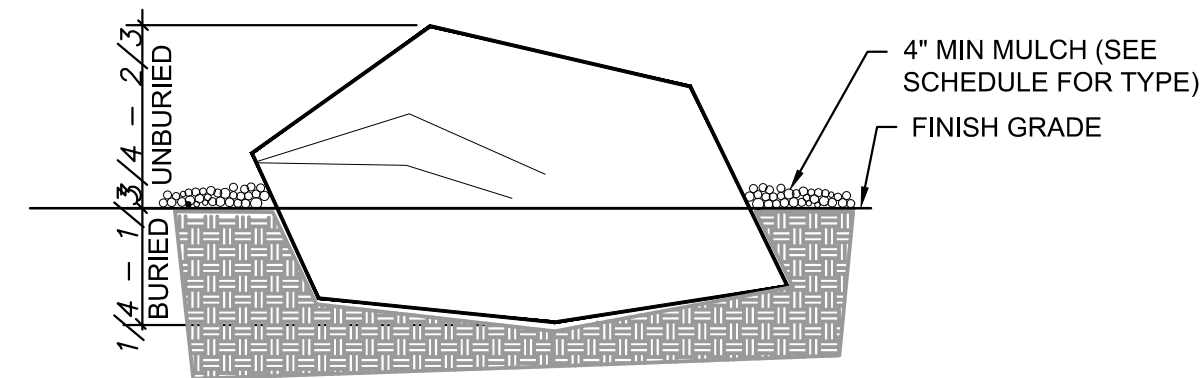
5 PERENNIAL PLANTING DETAIL
N.T.S.

T-PL-CLM-03



6 6" DEEP STONE MULCH
1" = 1'-0"

T-PL-CLM-12



7 BOULDER PLACEMENT DETAIL
N.T.S.

T-PL-CLM-08

DESCRIPTION:	NO.	DATE:

PLANTING DETAILS

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DESIGN BY:
J. MAUGHAN

CHECKED BY:
J. MAUGHAN

APPROVED BY:
L. ANDERSON

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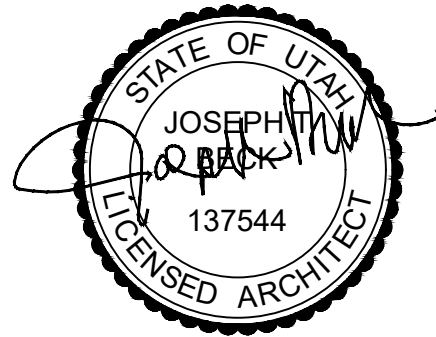
SHEET:

L-1.1

STANDER INC. WAREHOUSE ADDITION

2455 SOUTH 1350 WEST
NIBLEY , UTAH

JOSEPH T. BECK ARCHITECT, INC.
650 NORTH 400 WEST
SMITHFIELD, UTAH
(435) 764-6742



DATE
AUGUST 2020

PROJECT TITLE
STANDER INC. WAREHOUSE ADDITION
2455 S. 1350 W.
NIBLEY , UTAH

SHEET TITLE
REF. SITE PLAN
REFERENCE MAP
PLAN LEGEND

PROJECT NUMBER
-

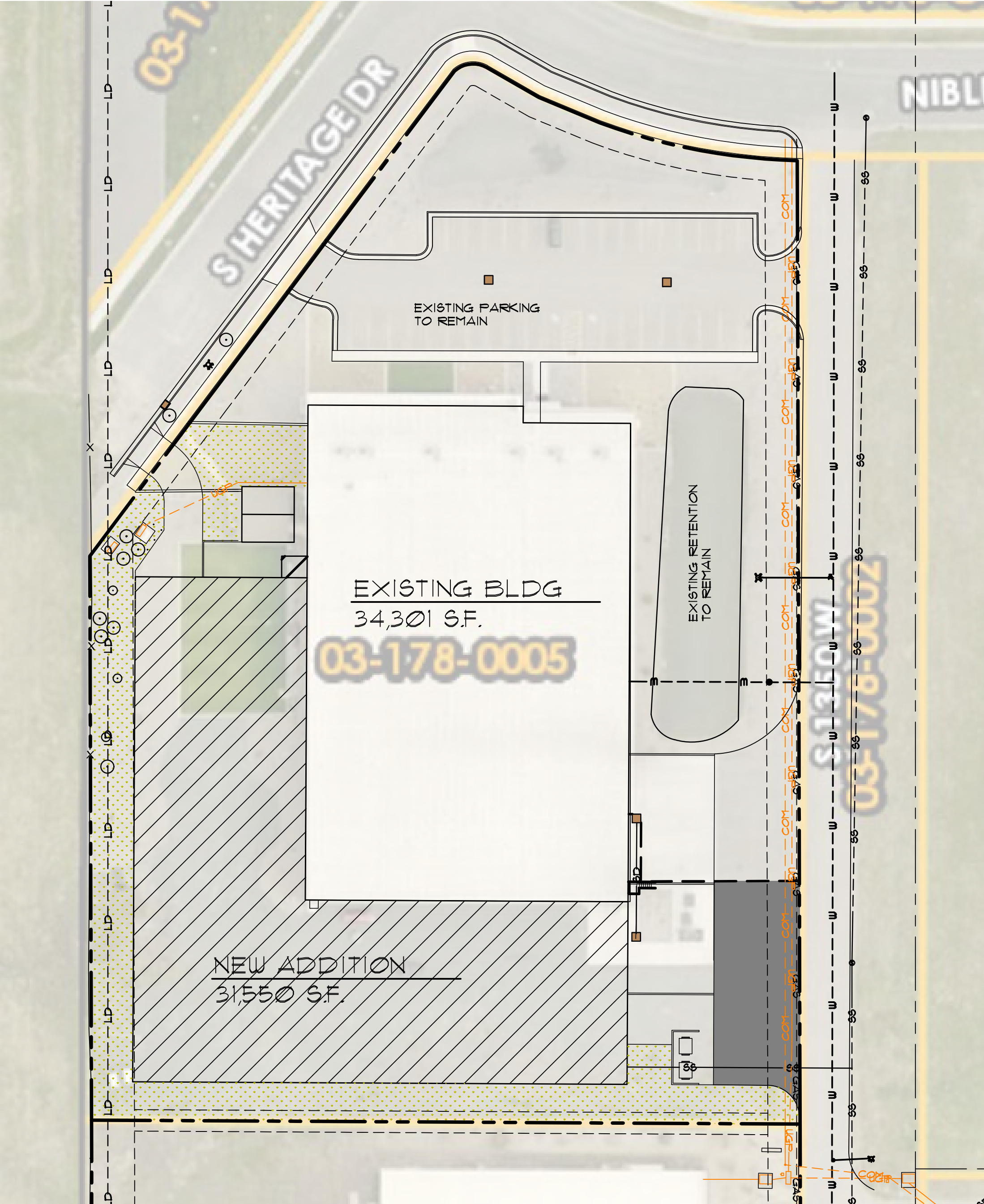
REVISIONS

SHEET NUMBER

A0.0

IBC 2018

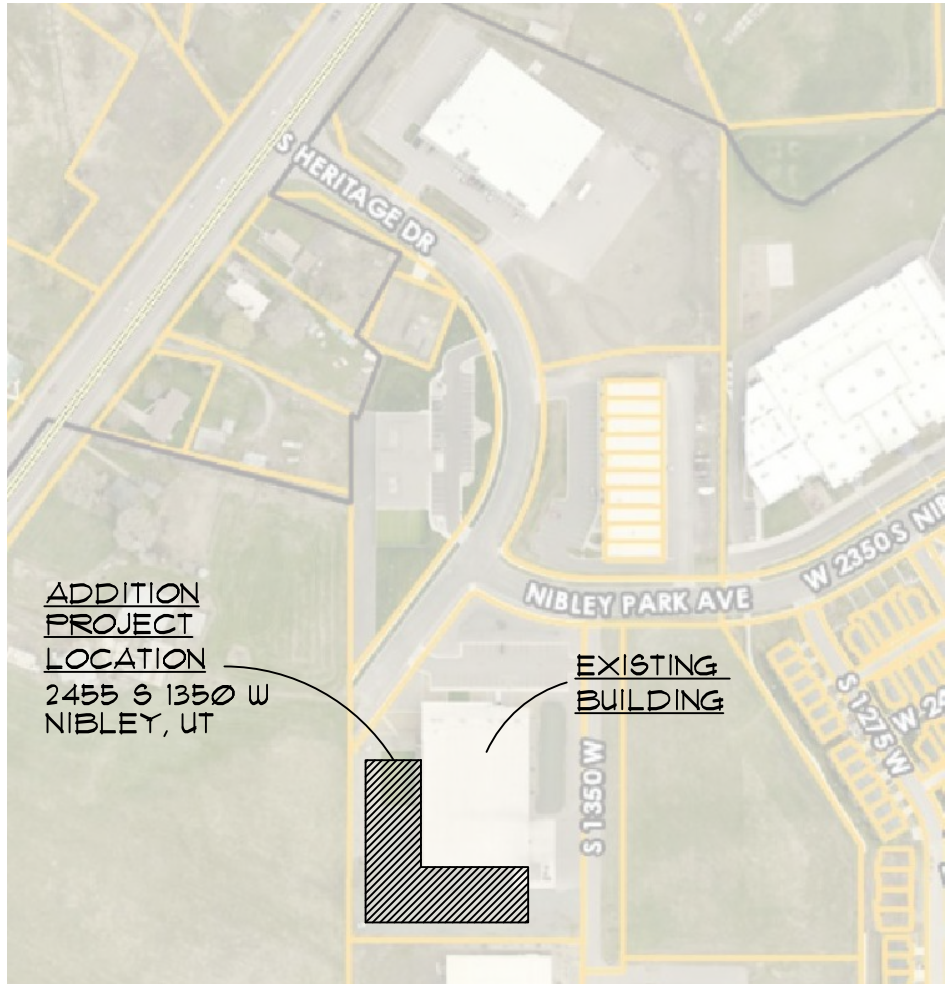
DESCRIPTION	IBC REFERENCE	REMARKS
OCCUPANCY STORAGE (MEDIUM HAZARD)	S-1 Chapter 3 SECT NO. 311.2	
BASIC ALLOWABLE BUILDING HEIGHT, FLOOR AREA AND STORY IN HEIGHT MAX HEIGHT IN FEET (ALLOWED) 60' MAX-SPRINKLED MAXIMUM # OF FLOORS (S1/VB/S) 2 STORY ALLOWED S1 OCCUPANCIES FLOOR AREA (ALLOWED - S1/VB/S1) 36,000 S.F. INCREASES INCREASE DUE TO FRONTAGE = 50% 18,000 S.F. ALLOWABLE AREA 54,000 S.F. UNLIMITED AREA ALLOWED/SPRINKLED/1 STORY, TYPE VB	Chapter 5 Table No. 504.4 Table No. 506.2 SECTION 507.4	Provided: PROVIDED HT = 29'-0" PROVIDED STORIES = 1 TOTAL BUILDING AREA 31,550 S.F. (NEW ADDITION) 34,301 S.F. (EXISTING) 65,851 S.F. (TOTAL)
TYPE OF CONSTRUCTION Fire Resistive Requirements Building Element 1. Structural Frame 2. Exterior Bearing Walls 3. Non-Bearing Walls - Exterior 4. Non-Bearing Walls - Interior 5. Floor Construction - Beams and Joists 6. Roof Construction - Beams and Joists	TYPE VB Fire Resistive Rating (in Hours) 0 0 0 0 0 0 Chapter 6 Table No. 601	Comply
INTERIOR FINISHES SPRINKLERED EXIT ENCLOSURES AND PASSAGEWAYS CORRIDORS ROOMS AND ENCLOSED SPACES	Chapter 8 TABLE 803.11 C C C	N/A N/A N/A
FIRE PROTECTION AUTOMATIC SPRINKLER SYSTEM - REQUIRED MANUAL FIRE ALARM SYSTEM - REQUIRED MEANS OF EGRESS ILLUMINATION - REQUIRED	Chapter 9 SECTION 903.2.1 SECTION 1008	GREATER THAN 12,000 S.F. (S1 OCCUPANCY) PROVIDED
OCCUPANT LOAD NEW WAREHOUSE (NET AREA) 35,550 S.F. / 500 S.F./OCC - 63 OCCS. EXISTING WAREHOUSE (NET AREA) 30,000 S.F. / 500 S.F./OCC - 60 OCCS.	Chapter 10 Table No. 1004.12	TOTAL OCCS = 123
EXITING TWO EXITS REQD PER FLOOR MORE THAN 50 OCCS ACCESSIBLE MEANS OF EGRESS	Chapter 10 TABLE 1006.3.1 SECTION 1007.1	8 EXITS PROVIDED 8 PROVIDED (100%)
ACCESSIBILITY GROUP B OCCUPANCIES WILL BE ACCESSIBLE TO PERSONS WITH DISABILITIES AS REQUIRED BY USER. FURNITURE / RESTROOM LAYOUT SHALL BE ARRANGED TO PROVIDE ACCESSIBILITY THROUGHOUT THE SPACE.	Chapter 11	N/A
PLUMBING SYSTEMS S1 OCCUPANCIES - STORAGE MEN = 62 OCCS WOMEN = 62 OCCS TOTAL FIXTURES REQUIRED TOTAL FIXTURES PROVIDED	Chapter 29 TABLE 2902.1 TOILET = 1 LAV = 1 TOILET = 1 TOILET = 2 LAV = 2 TOILETS = 5	SHWR = 0 SHWR = 0 DRINKING FOUNTAIN = 1 SERVICE SINK = 1 DRINKING FOUNTAIN = 3 SERVICE SINK = 2



REFERENCE SITE PLAN
SCALE: 1" = 40' - 0"
PLAT ID: - 03-178-0005
NOTE: SEE "C" SHEETS FOR ACTUAL SITE CONSTRUCTION INFORMATION

LANDSCAPE CALCULATIONS
EXISTING LANDSCAPE AREA = 40,016 S.F.
PROPOSED LANDSCAPE AREA = 46,521 S.F. (INCREASE OF 16%)
(NOTE: ALL AREAS OF THE SITE, THAT ARE NOT HARDSCAPE WILL BE LANDSCAPED)

ADDED 9-17-2020



REF. SITE PLAN
NT SCALE

SHEET INDEX

ARCHITECT

JOSEPH T. BECK ARCHITECT, INC.
650 NORTH 400 WEST
SMITHFIELD, UTAH 84335
435-764-6742
JTBARCHITECT@GMAIL.COM

CIVIL ENGINEERING

CACHE LANDMARK ENGINEERING
1011 WEST 400 NORTH, SUITE 130
LOGAN, UTAH 84321
435-713-0099

STRUCTURAL ENGINEERING

NORTHERN STEEL SYSTEMS
345 N. MAIN STREET
BRIGHAM CITY, UTAH 84302
435-734-9100
JED@MVEENG.COM

MECHANICAL ENGINEERING

MORTENSEN ENGINEERING, INC.
251 SOUTH 830 EAST
SMITHFIELD, UTAH 84335
435-770-5534
LORINMORTENSEN@COMCASTNET

ELECTRICAL ENGINEERING

SINE SOURCE ENGINEERING
35 WEST GOLF COURSE RD, #102
LOGAN UTAH 84321
435-781-1445
SHANES@SINESOURCE.NET

FIRE SPRINKLER ENGINEERING

DESIGN/BUILD CONTRACTOR
(DEFERRED SUBMITTAL)

A0.0 COVER SHEET / REF SITE PLAN / CODE REVIEW
A1 PRESENTATION RENDERINGS
A1.1 MAIN LEVEL FLOOR PLAN / ROOM FINISH SCHEDULE
A2 MEZZANINE LEVEL FLOOR PLAN / STAIR DETAILS
A3 EXTERIOR ELEVATIONS
A4 DOOR / WINDOW SCHEDULES / INTERIOR ELEVATIONS

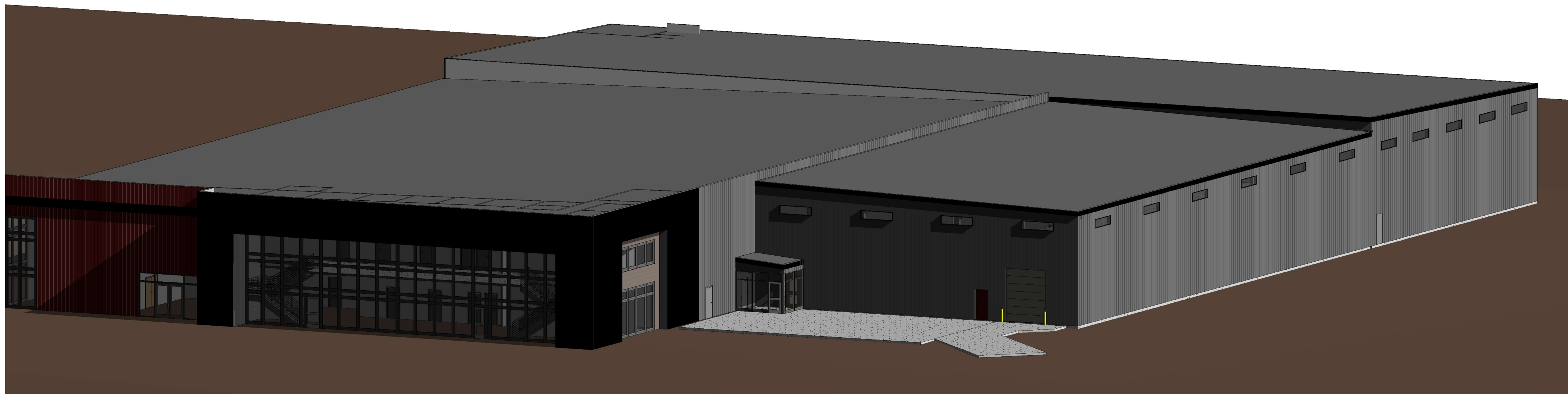
C-0.0 CIVIL COVER SHEET
C-0.1 CIVIL GENERAL NOTES
C-1.0 CIVIL DEMOLITION PLAN
C-2.0 CIVIL SITE / UTILITY PLAN
C-4.0 CIVIL GRADING PLAN
C-5.0 CIVIL DETAIL SHEET
C-5.1 CIVIL DETAIL SHEET
C-6.0 CIVIL EROSION CONTROL PLAN

SEE "PE" MTL BLDG/FOUNDATION PLANS
UNDER SEPARATE COVER
(DEFERRED SUBMITTAL)

M0 MECH NOTES AND SPECS
M1 MECHANICAL PLANS
M2 MECHANICAL DETAILS AND SCHEDULES
P1 PLUMBING NOTES, SYMBOLS, SPECS
P2 PLUMBING PLANS
P3 PLUMBING DETAILS AND SCHEDULES

E001 GENERAL SHEET
E002 ELECTRICAL SPECIFICATIONS
E010 ELECTRICAL SITE PLAN
E0100 ELECTRICAL DEMOLITION PLANS
E01 LIGHTING PLANS
E02 POWER PLANS
E030 ELECTRONIC SYSTEMS PLANS
E031 ELECTRICAL DETAILS
E032 ELECTRICAL ONE-LINE DIAGRAM
E033 ELECTRICAL SCHEDULES

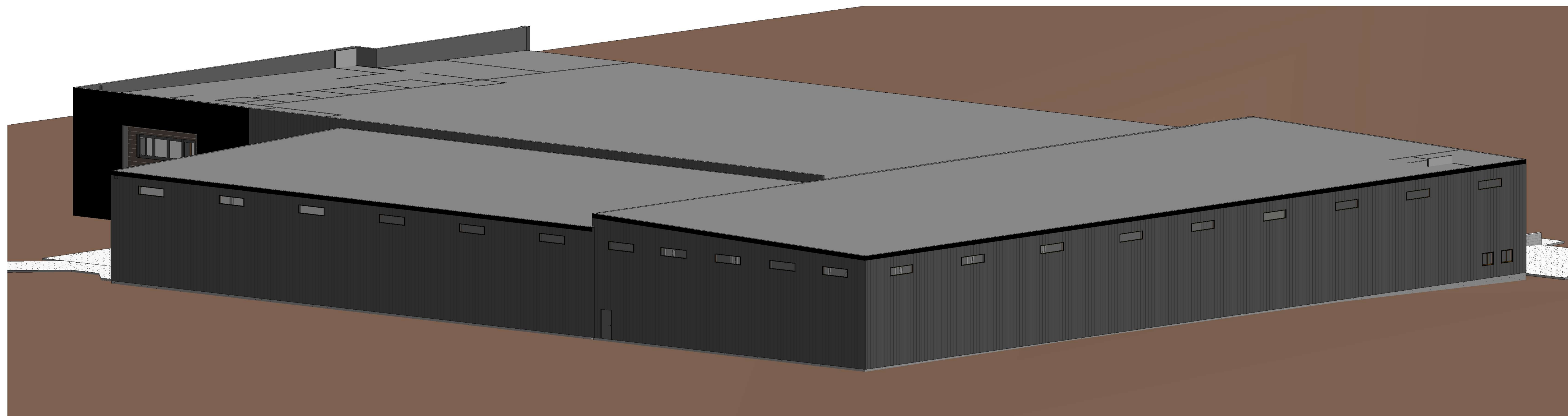
FIRE SPRINKLER ENGINEERING WILL BE PROVIDED
AS A DEFERRED SUBMITTAL FROM FIRE SPRINKLING
CONTRACTOR. THESE PLANS WILL BE SUBMITTED PRIOR
FIRE SPRINKLER INSTALLATION.



1 AERIAL VIEW



2 EXTERIOR PERSPECTIVE



3 AERIAL VIEW

JOSEPH T. BECK
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650 N. 400 W.
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(435) 764-6742

DATE
08/06/2020

PROJECT TITLE
STANDER INC.
NIBLEY, UT

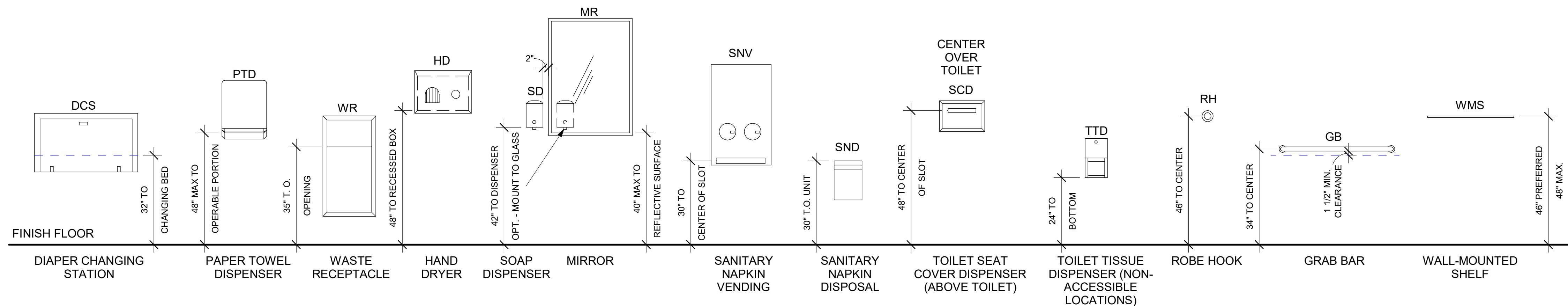
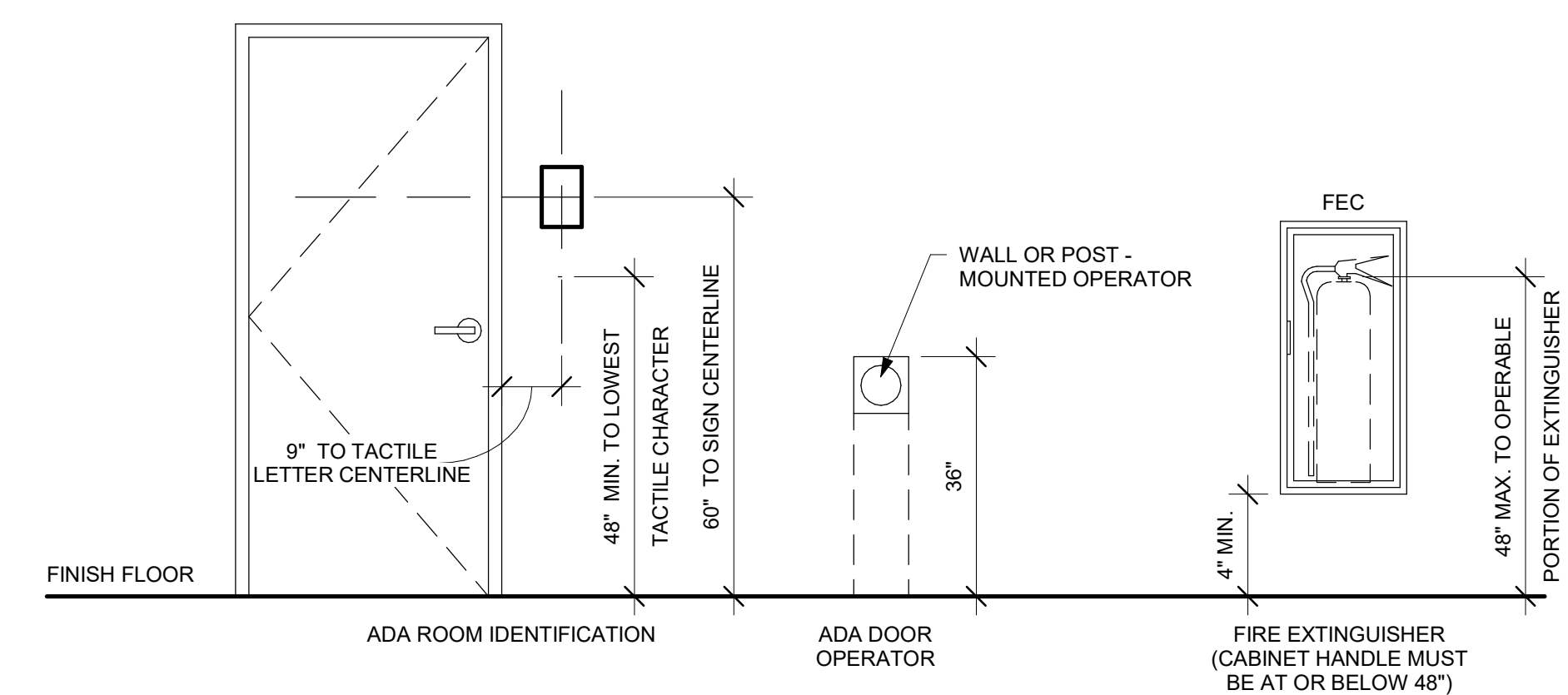
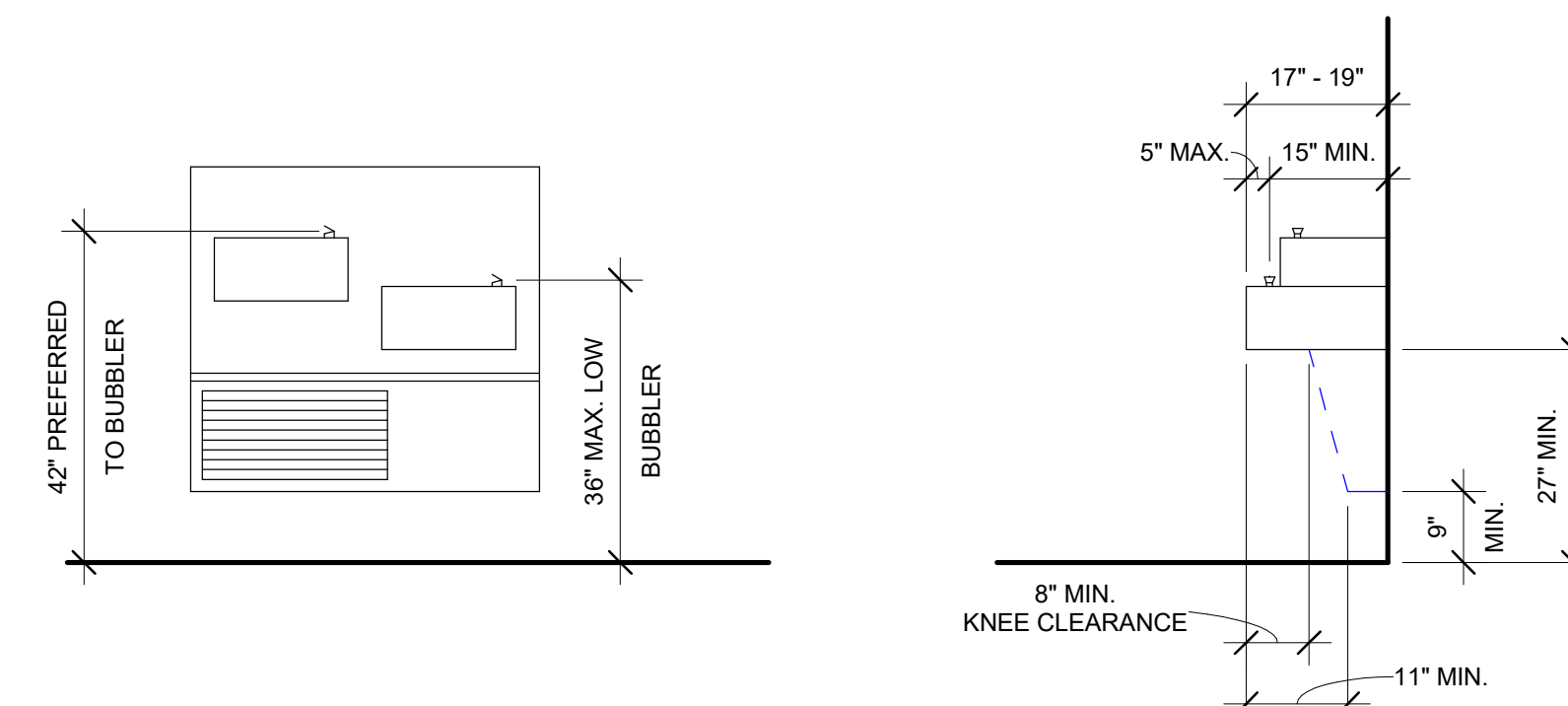
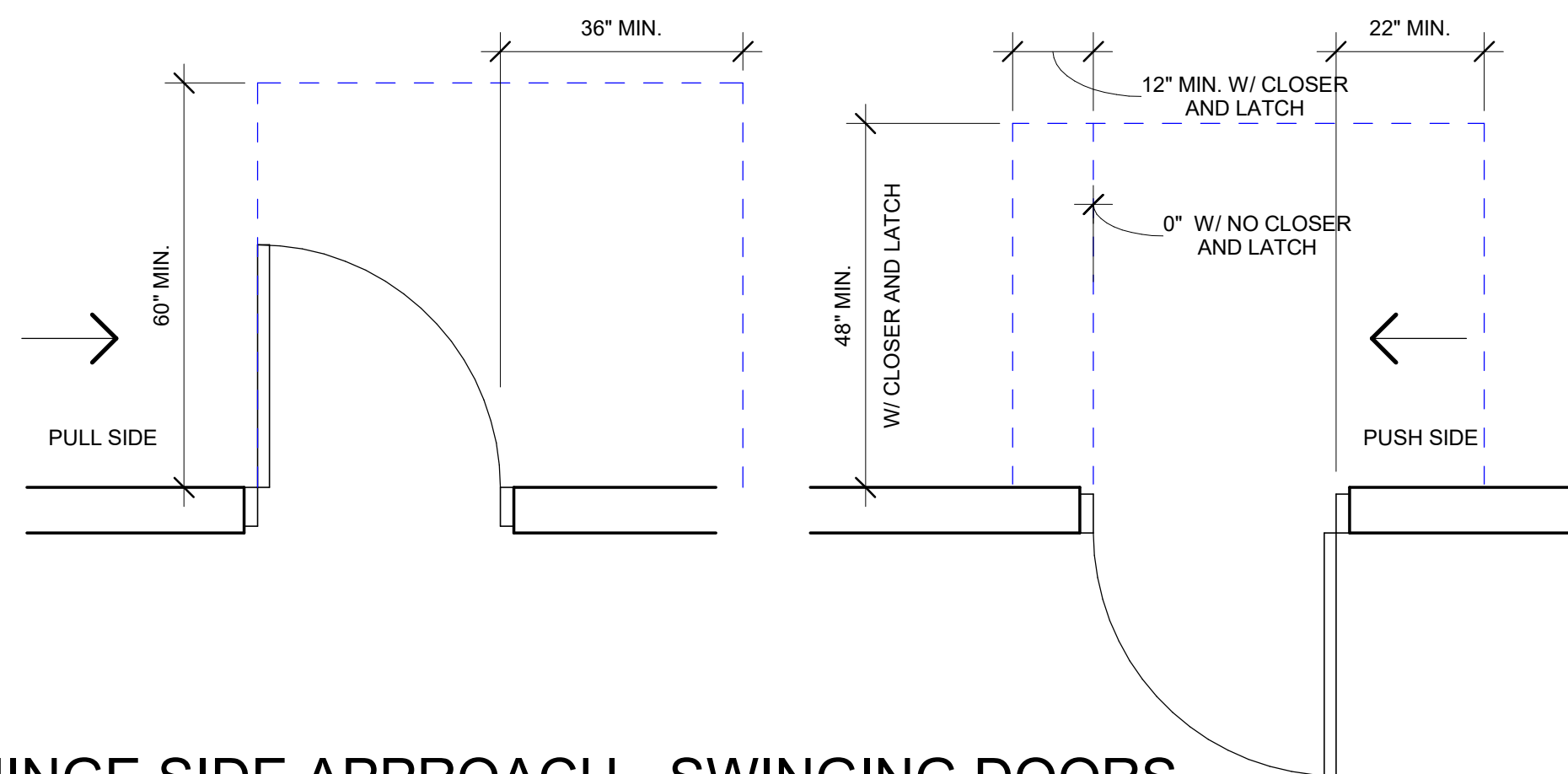
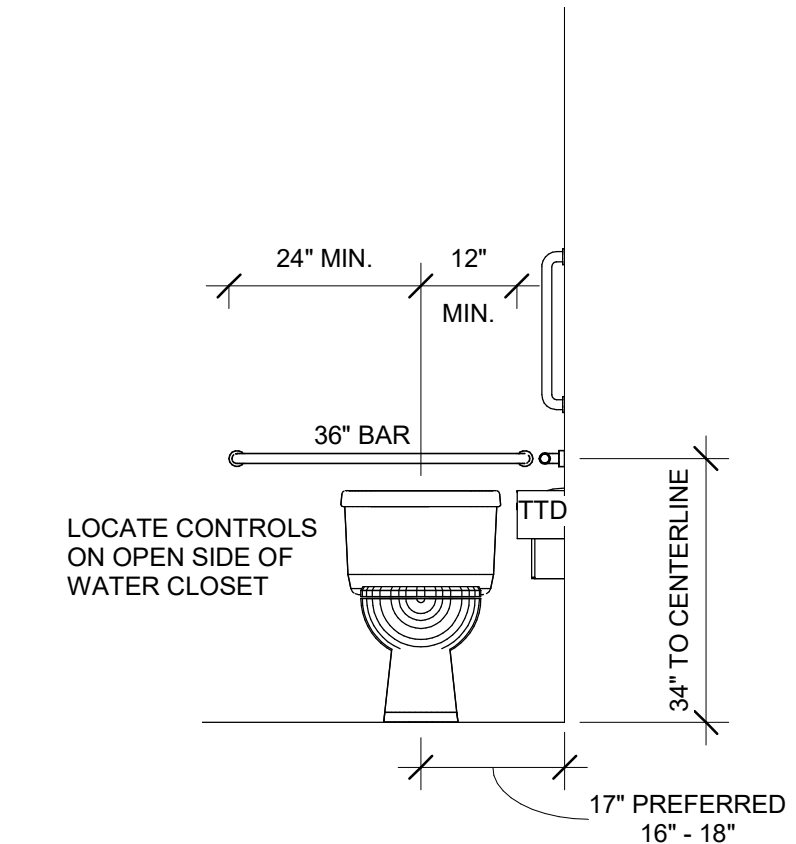
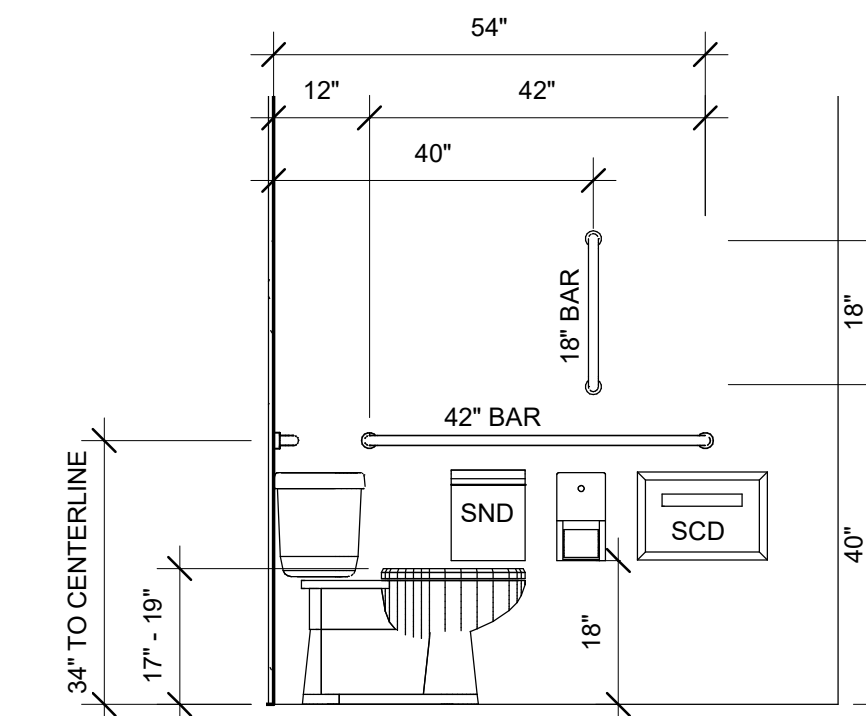
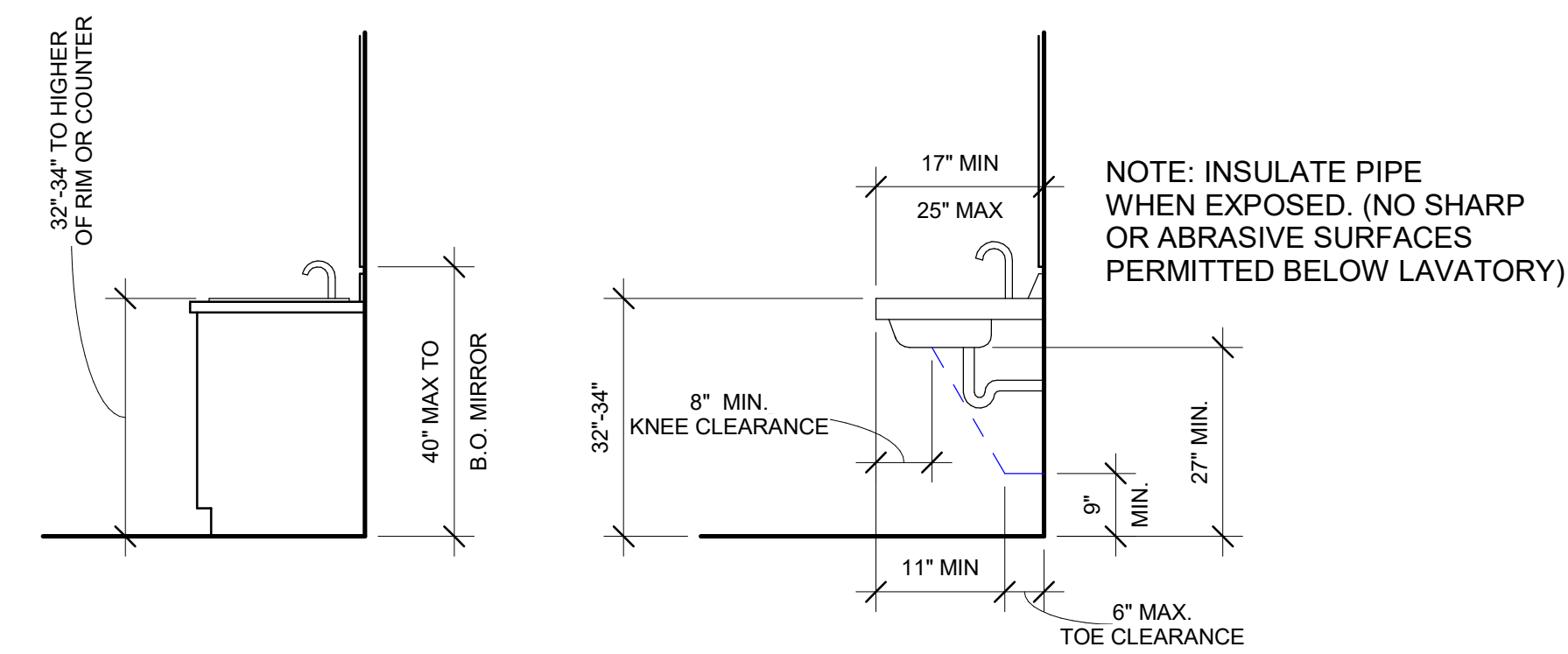
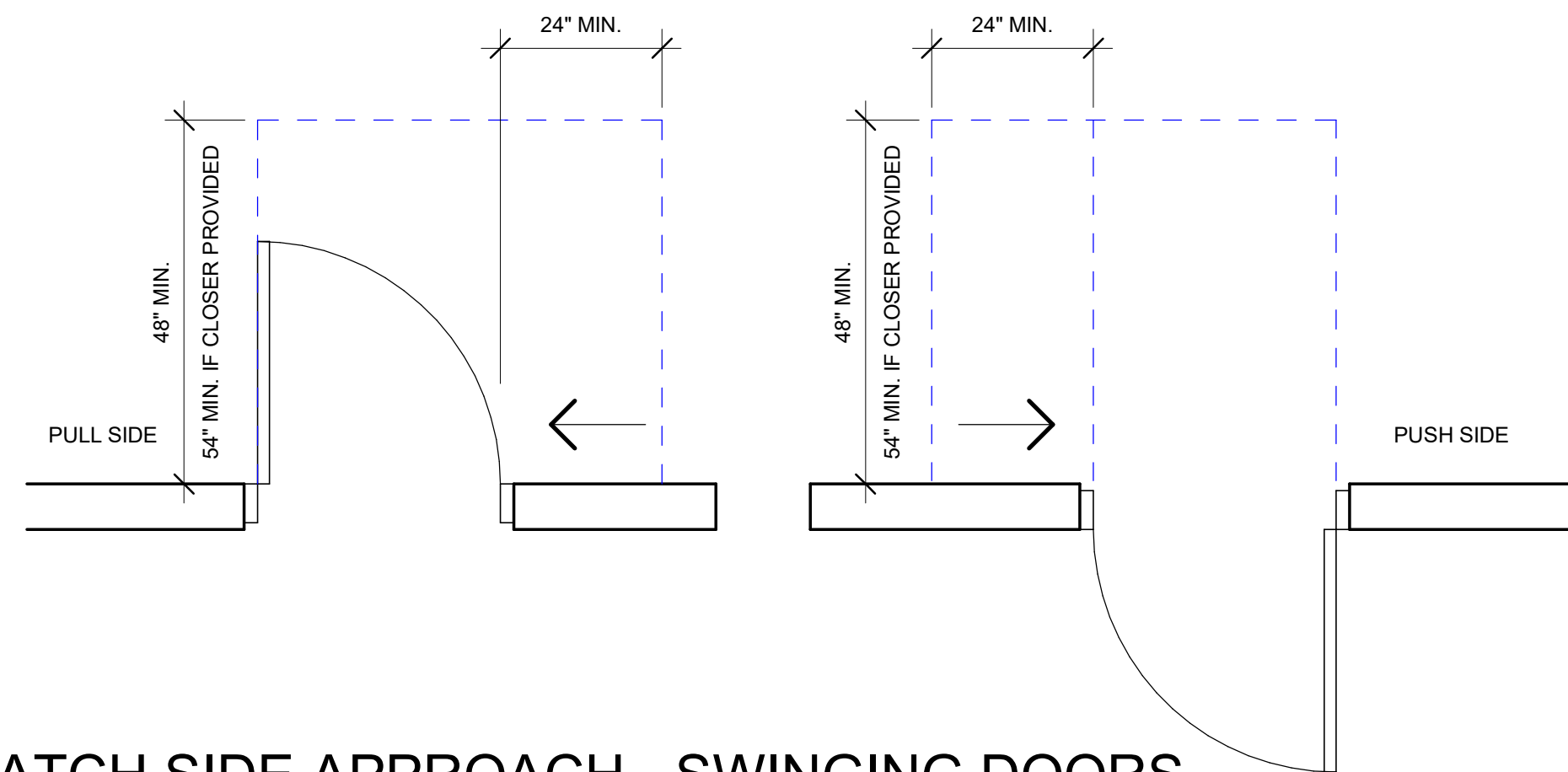
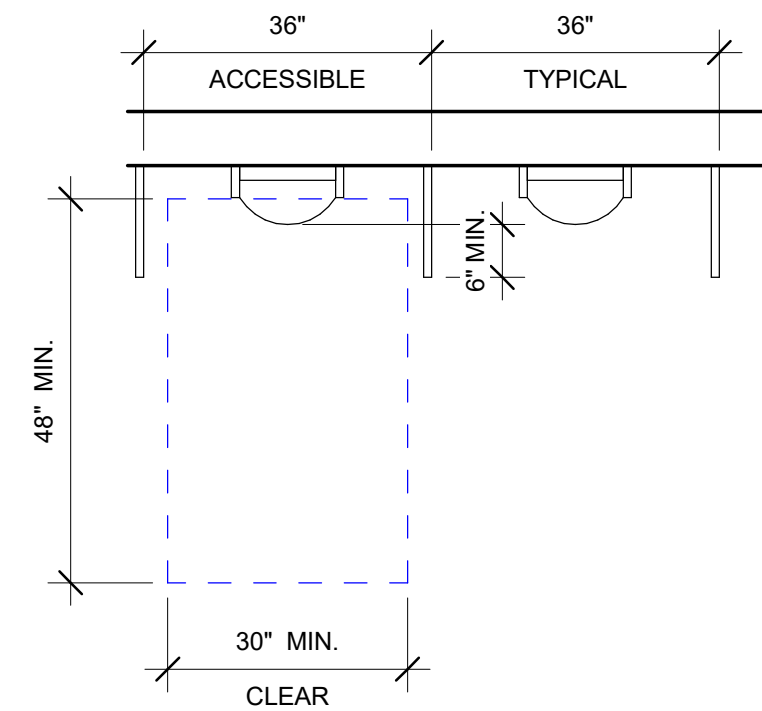
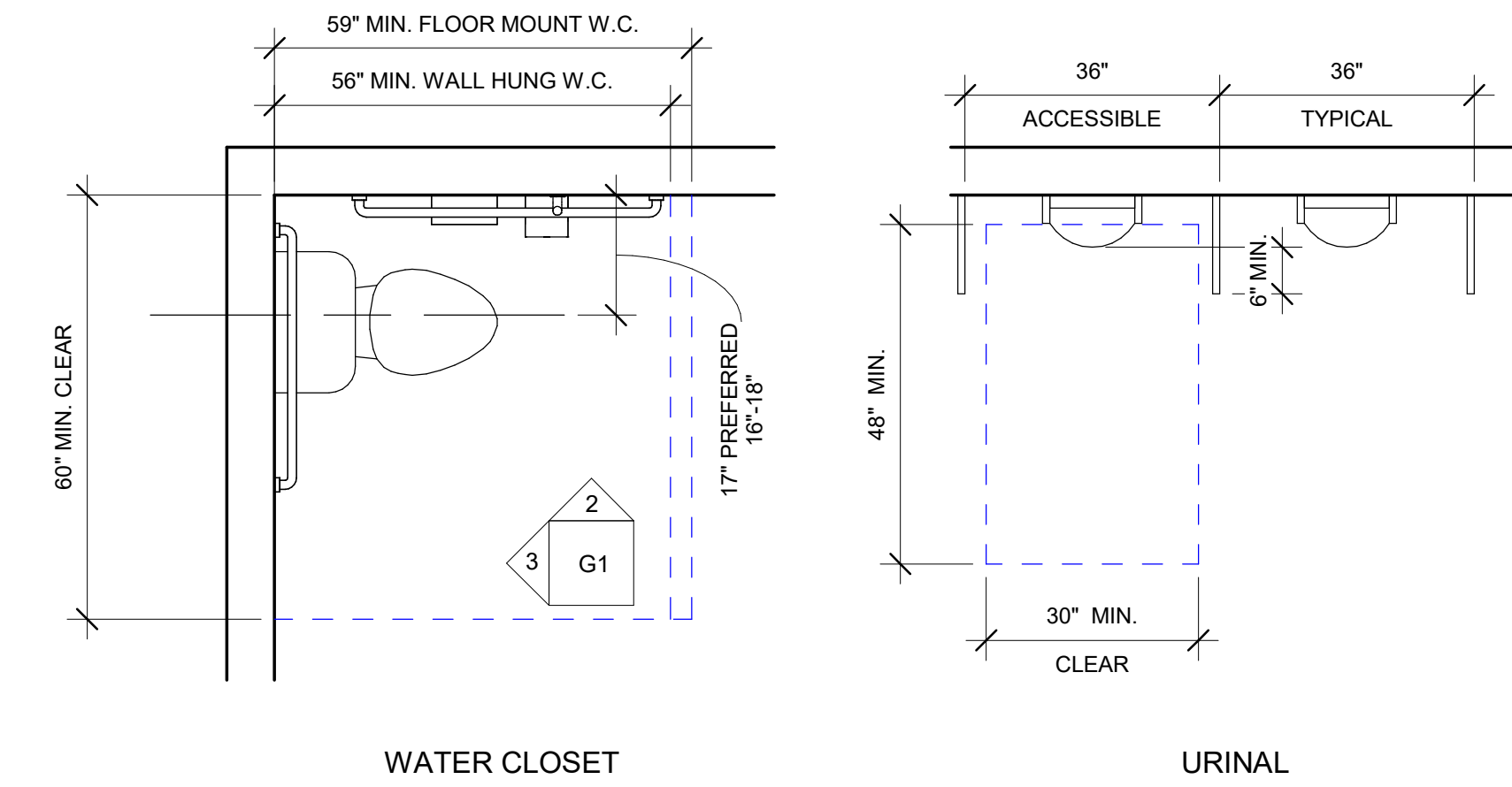
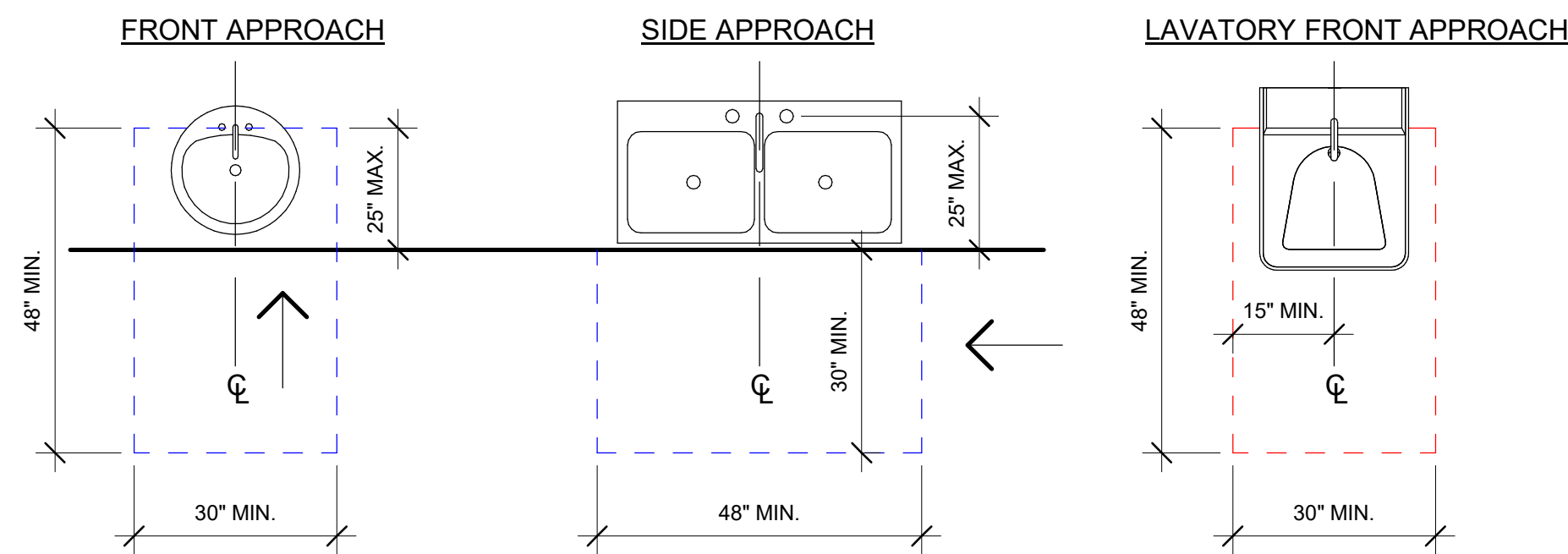
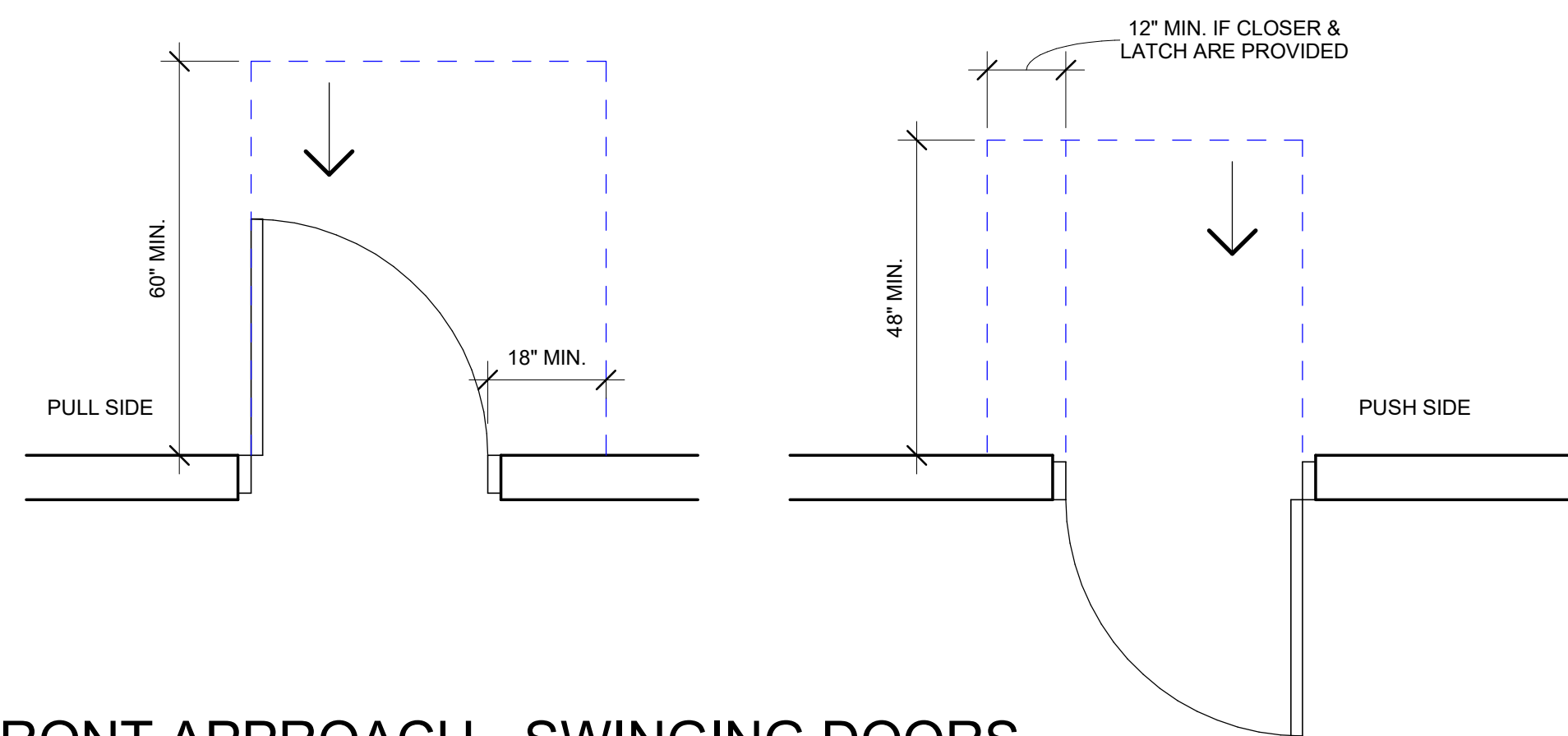
SHEET TITLE
PRELIM VIEWS

PROJECT NUMBER
0001

REVISIONS

SHEET NUMBER

PR1



GENERAL NOTES

1. DRAWINGS INCORPORATE THE 2010 ADA STANDARD AND ICC/ANSI A117.1, 2009 EDITION REQUIREMENTS FOR ACCESSIBILITY, THE MOST RESTRICTIVE REQUIREMENT IS SHOWN WHERE THE TWO STANDARDS DIFFER.
2. PRIOR TO INSTALLATION, COORDINATE MOUNTING HEIGHTS WITH MANUFACTURER RECOMMENDATIONS AND ADJUST AS REQUIRED TO COMPLY WITH ADA & ANSI REQUIREMENTS.
3. IF OTHER DRAWINGS PROVIDE DIFFERING INFORMATION, NOT VIOLATING ACCESSIBILITY STANDARDS, THAT INFORMATION SHALL GOVERN.

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PROJECT TITLE

SHEET TITLE

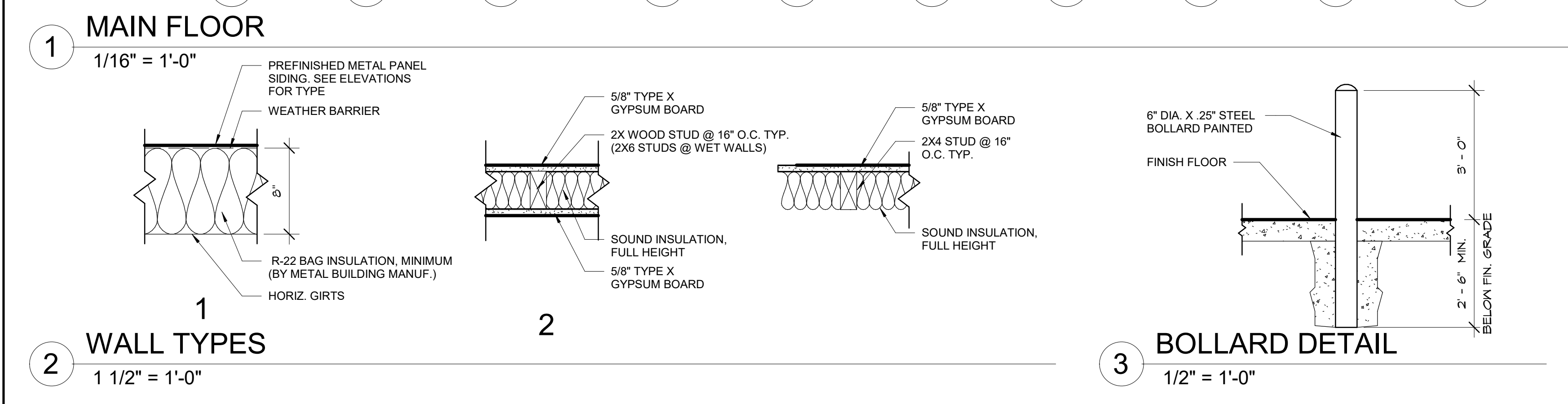
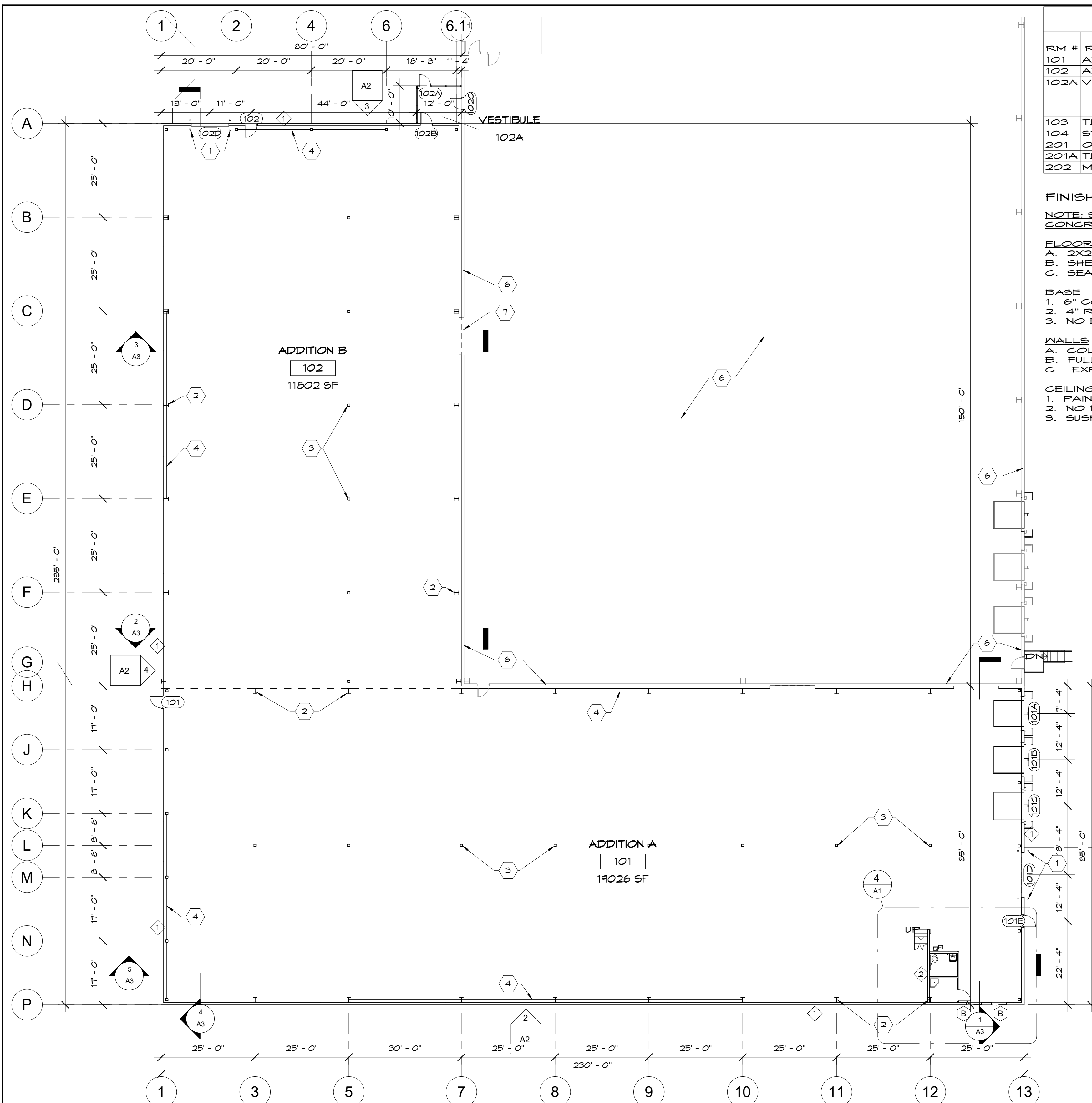
ADA DETAILS

PROJECT NUMBER

REVISIONS

SHEET NUMBER

G1



ROOM FINISH SCHEDULE									
RM #	ROOM NAME	FLOOR	BASE	WALL				CEILING	CEILING HT.
101	ADDITION A	C	3	C	C	C	C	2	
102	ADDITION B	C	3	C	C	C	C	2	
102A	VESTIBULE	C	2	C	C	C	C	1	8'-0"
103	TLT	B	2	C	A	C	C	1	9'-0"
104	STORAGE	C	2	A	A	A	A	2	
201	OFFICE	A	1	A	A	A	A	3	11'-0"
201A	TLT	B	2	C	A	C	C	1	9'-0"
202	MECH	C	2	A	A	A	A	2	

FINISH SCHEDULE LEGEND

NOTE: STAIRS TO BE PAINTED STEEL TOEKICK, STRINGERS, & RAILINGS W/ CONCRETE PAN TREADS. (DESIGN BY OTHERS)

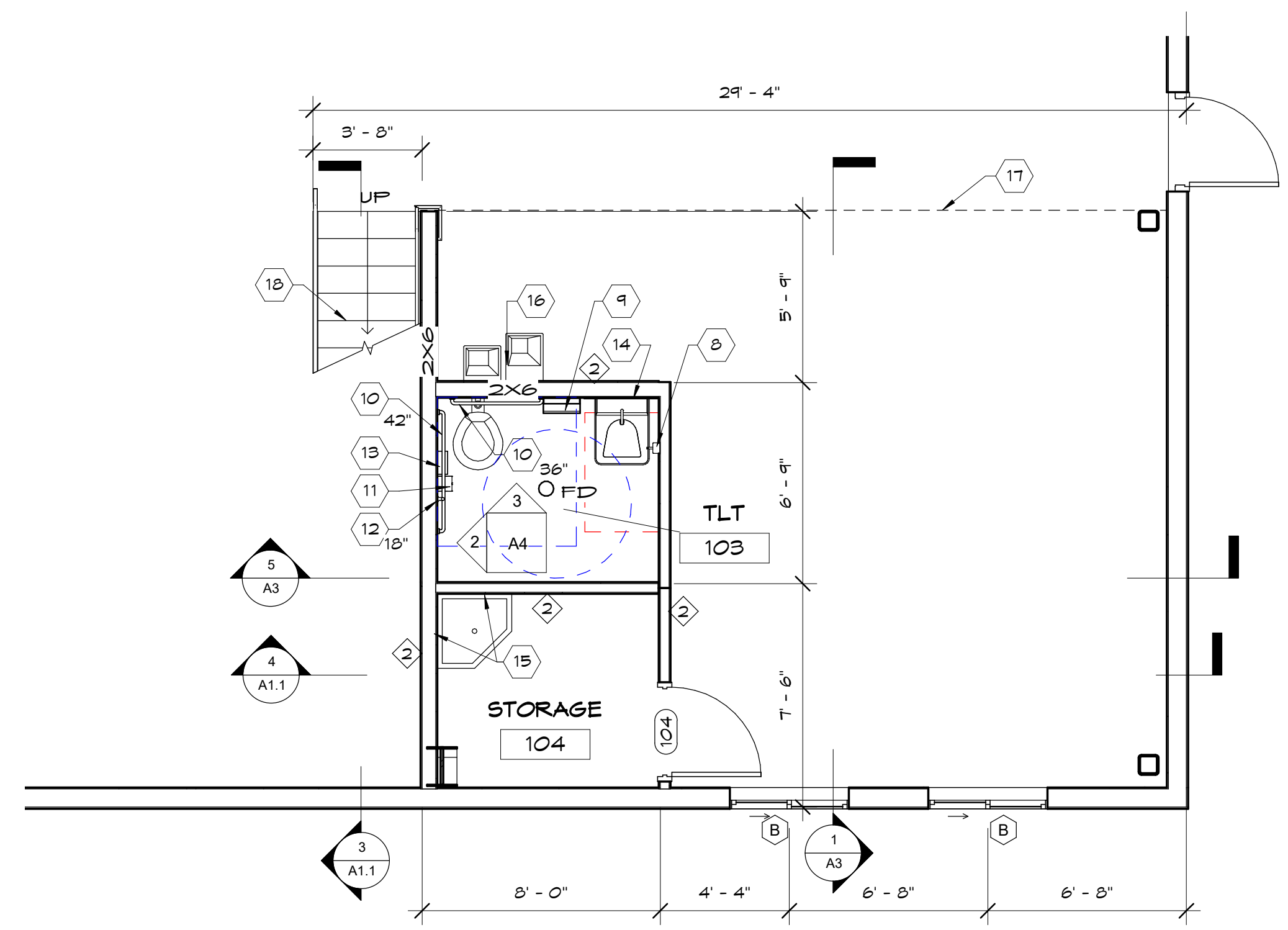
FLOOR
A. 2X2 CARPET TILES
B. SHEET VINYL FLOORING (COLOR BY OWNER)
C. SEALED CONCRETE - CLEAR FINISHED

BASE
1. 6" COVERED VINYL BASE
2. 4" RUBBER BASE
3. NO BASE

WALLS
A. COLOR #1 PAINT, SEMI-GLOSS WITH SMOOTH TEXTURE - TBD
B. FULL HEIGHT WHITE FRP WALL COVERING.
C. EXPOSED STRUCTURE - NO FINISH.

CEILING
1. PAINTED GYP BD CEILING, SEMI GLOSS W/ SMOOTH TEXTURE
2. NO FINISH - EXPOSED STRUCTURE ABOVE
3. SUSPENDED ACOUSTIC PANEL

- KEYNOTES**
- CONCRETE-FILLED STEEL BOLLARD AT OVERHEAD DOORS, TYP. SEE 3/A1
 - STEEL STRUCTURE BY METAL BUILDING MANUFACTURER
 - COLUMNS BY METAL BUILDING MANUFACTURER
 - CROSS BRACING BY METAL BUILDING MANUFACTURER, TYP.
 - 6" CONCRETE PAD OVER COMPACTED GRAVEL
 - EXISTING BUILDING
 - 10' x 10' OPENING IN NEW AND EXISTING BUILDING WALL
 - SOAP DISPENSER
 - PAPER TOWEL DISPENSER
 - HORIZONTAL GRAB BAR - SEE SIZE ON PLAN
 - TOILET TISSUE DISPENSER
 - VERTICAL GRAB BAR - SEE SIZE ON PLAN
 - SANITARY NAPKIN DISPOSAL
 - MIRROR, 36" W X 42" H
 - 4' HIGH X 4' WIDE FRP WALL COVERING OVER WATER-RESISTANT GYP BOARD @ MOP SINK, TYP.
 - DRINKING FOUNTAIN
 - FINISH EDGE OF WALL ABOVE
 - STEEL/CONCRETE STAIR SYSTEM DESIGNED BY STAIR MANUF. PAINTED STEEL, TYP. W/ EXPOSED CONCRETE



4 ENLARGED PLAN
1/4" = 1'-0"

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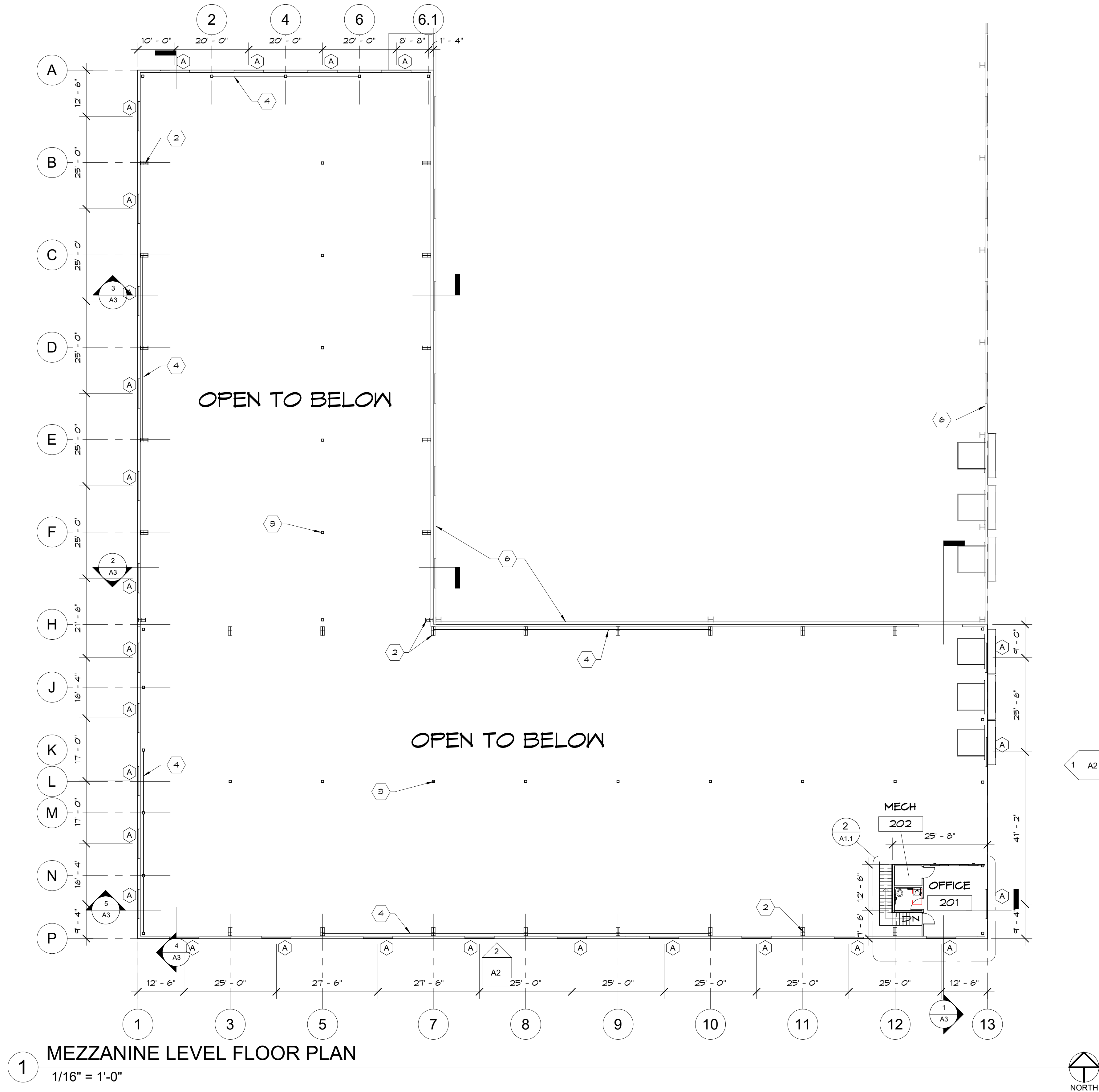
PROJECT TITLE
STANDER INC.
NIBLEY, UT

SHEET TITLE
FIRST LEVEL
FLOOR PLAN

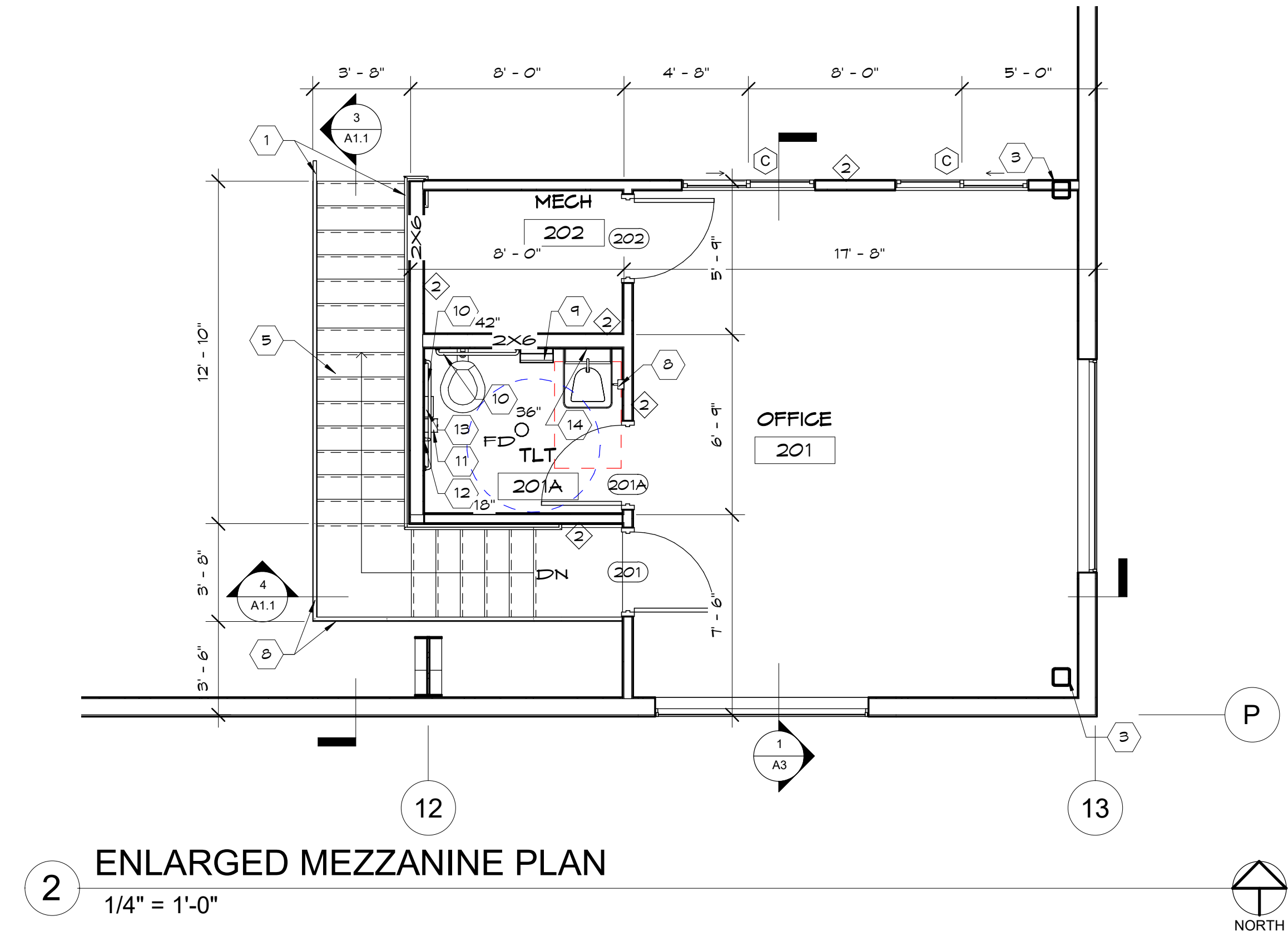
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0001

REVISIONS

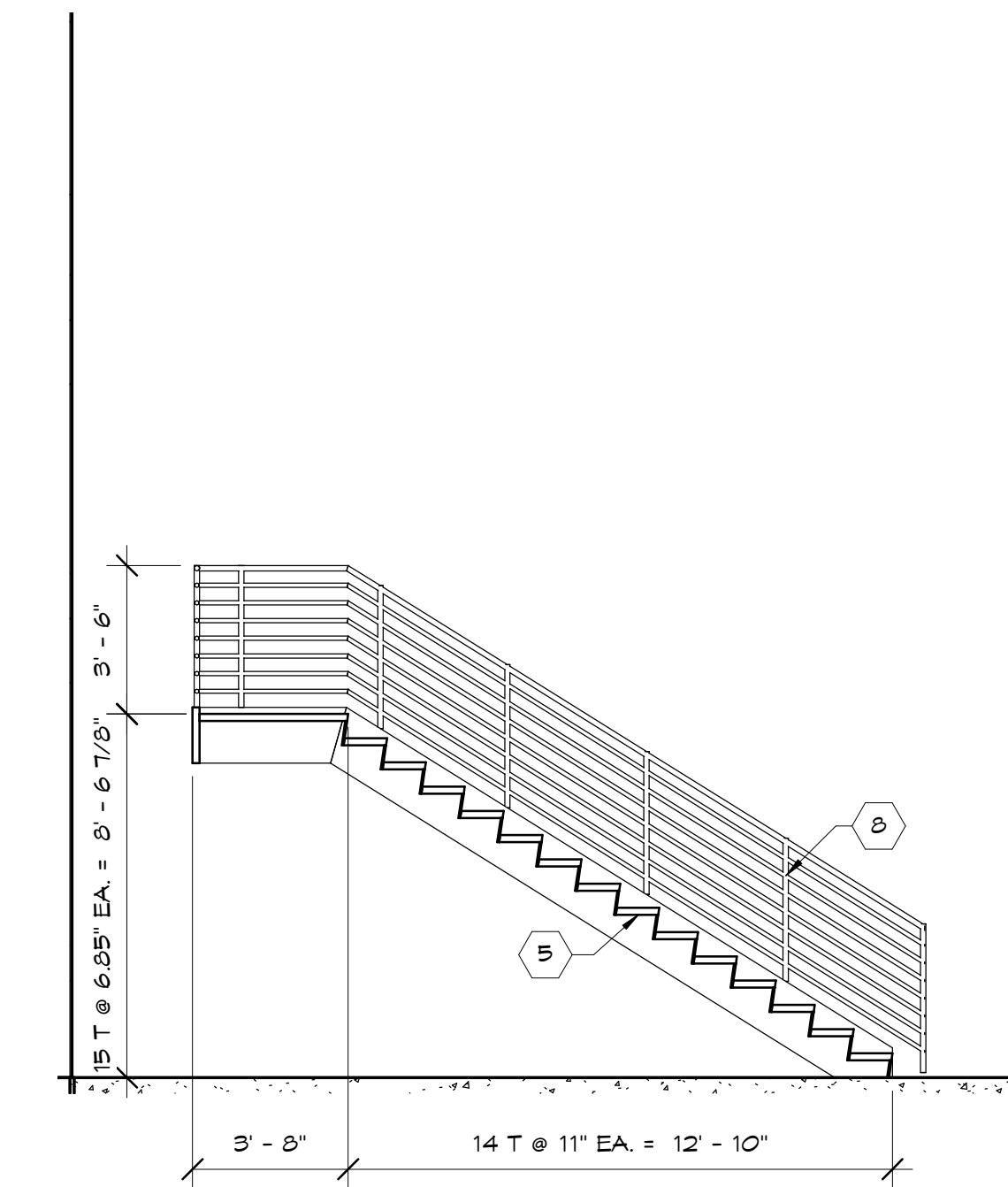
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A1



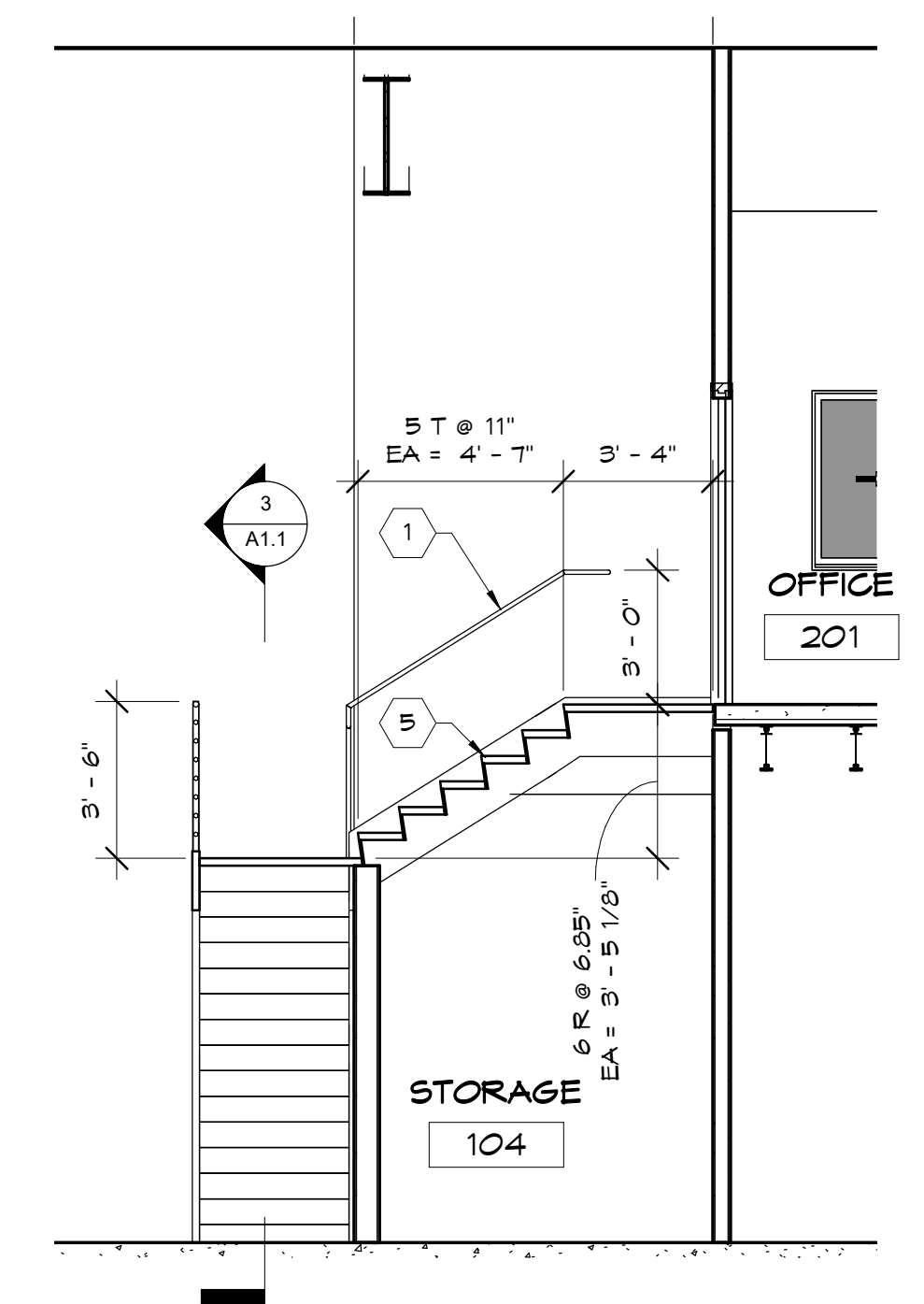
2 ENLARGED MEZZANINE PLAN
1/4" = 1'-0"



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



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



KEYNOTES

- 1 HANDRAILS AT EACH SIDE OF STAIRS. TYP. 1-1/2" DIA. PAINTED MTL.
- 2 STEEL STRUCTURE BY METAL BUILDING MANUFACTURER
- 3 COLUMNS BY METAL BUILDING MANUFACTURER
- 4 CROSS BRACING BY METAL BUILDING MANUFACTURER, TYP.
- 5 STEEL/CONCRETE STAIR SYSTEM DESIGNED BY STAIR MANUF. PAINTED STEEL, TYP. W/ EXPOSED CONCRETE
- 6 EXISTING BUILDING
- 7 SUSPENDED ACOUSTIC PANEL CEILING
- 8 42" HIGH METAL GUARDRAIL, TYP. 1-1/2" DIA. PAINTED MTL.

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DATE
08/06/2020

PROJECT TITLE
STANDER INC.
NIBLEY, UT

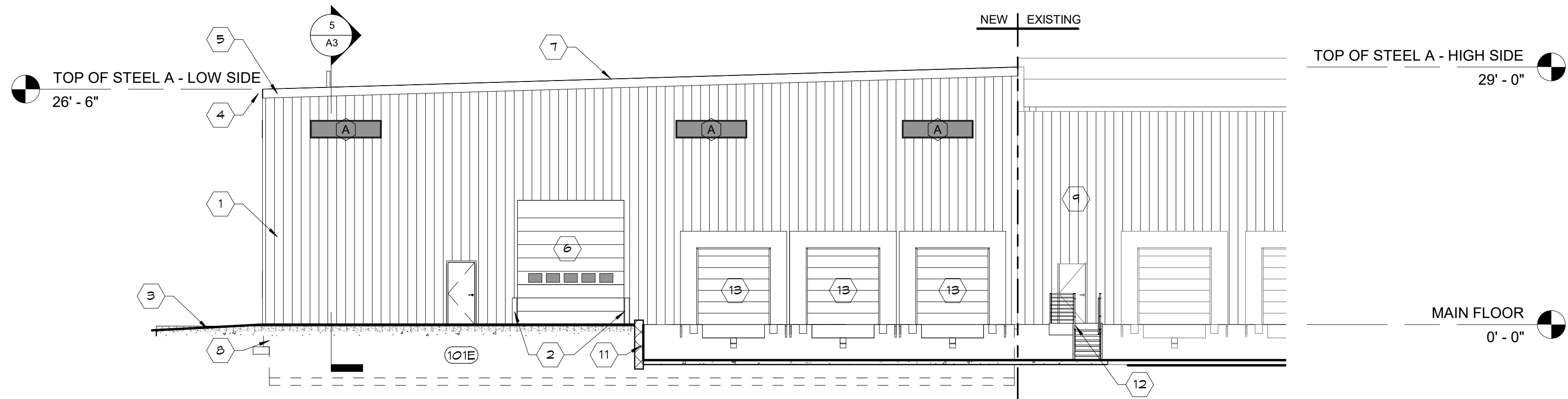
SHEET TITLE
MEZZANINE
LEVEL FLOOR
PLAN

PROJECT NUMBER
0001

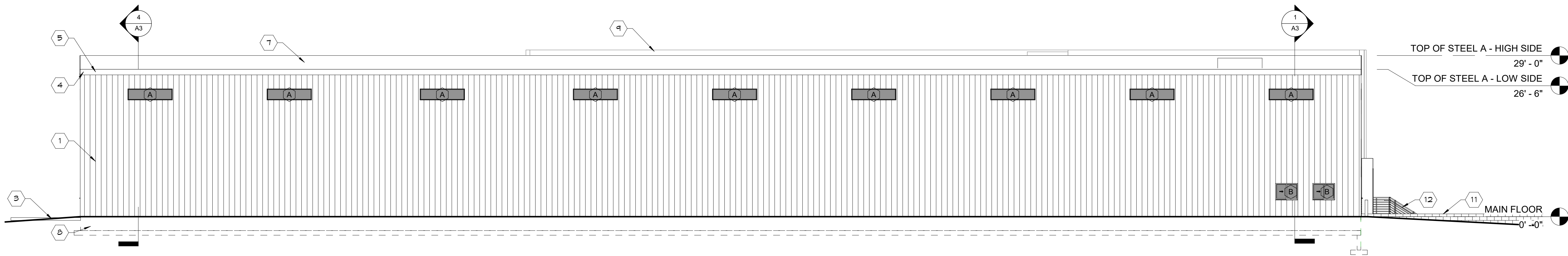
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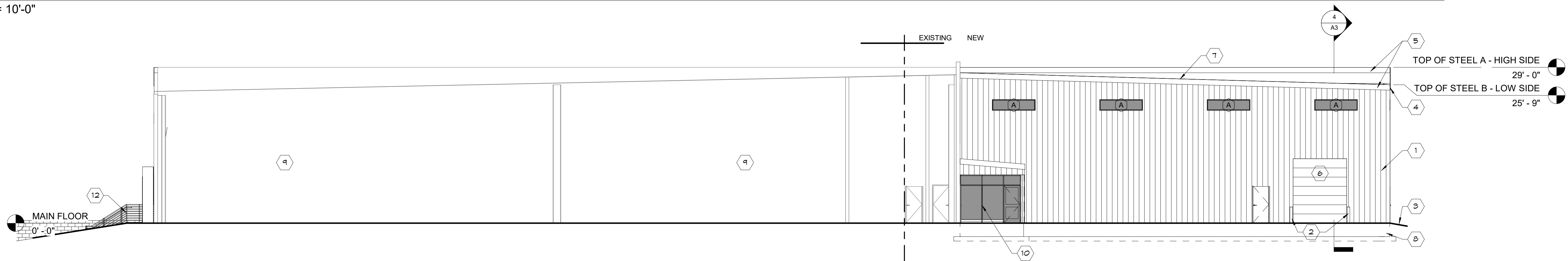
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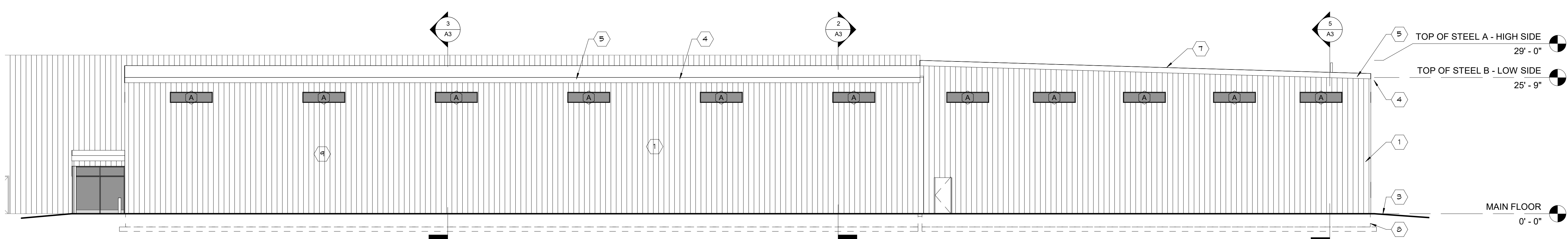
1 EAST ELEVATION
1" = 10'-0"



2 SOUTH ELEVATION
1" = 10'-0"



3 NORTH ELEVATION
1" = 10'-0"



4 WEST ELEVATION
1" = 10'-0"

KEYNOTES

- 1 VERTICAL METAL SIDING BY METAL BUILDING MANUFACTURER
- 2 CONCRETE FILLED STEEL BOLLARD AT EXTERIOR OF OVERHEAD DOORS, TYP. SEE 3/A1
- 3 FINISH GRADE - SLOPE AWAY FROM BUILDING, TYP.
- 4 PREFINISHED GUTTER & DOWNSPOUTS. COORDINATE COLOR & LOCATION W/ THE OWNER
- 5 PREFINISHED METAL FASCIA BY METAL BUILDING MANUFACTURER
- 6 INSULATED OVERHEAD DOOR
- 7 METAL PANEL ROOFING BY METAL BUILDING MANUFACTURER
- 8 CONCRETE FOUNDATION
- 9 EXISTING BUILDING
- 10 ALUMINUM STOREFRONT
- 11 RETAINING WALL
- 12 GALVANIZED METAL RAILING & STAIR
- 13 INSULATED OVERHEAD DOOR W/ DOCK LEVELER AND SHELTER

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NIBLEY, UT

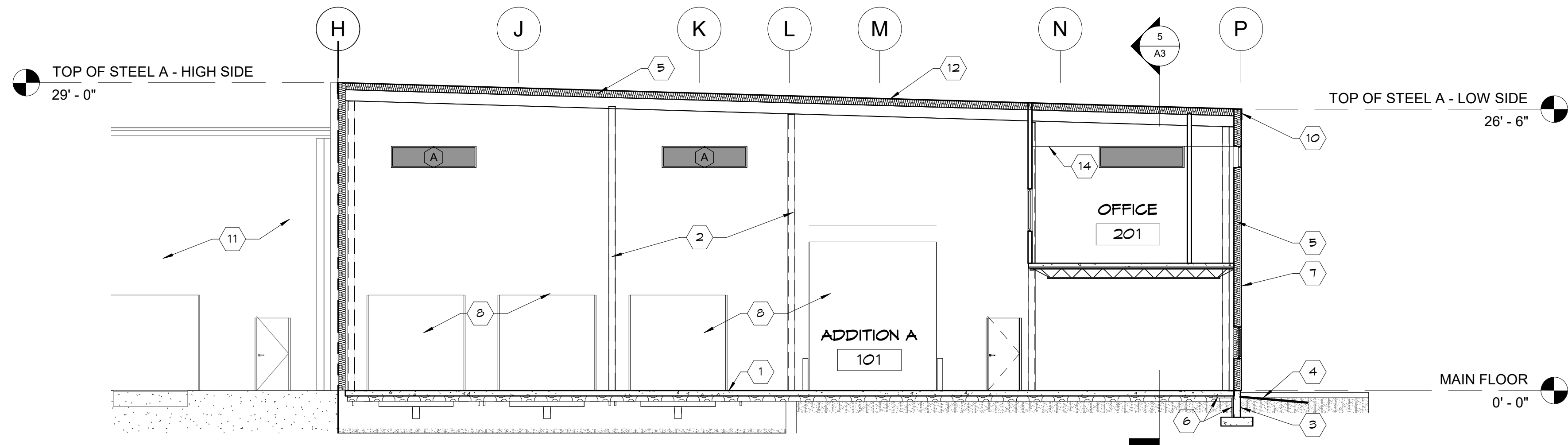
SHEET TITLE
ELEVATIONS

PROJECT NUMBER
0001

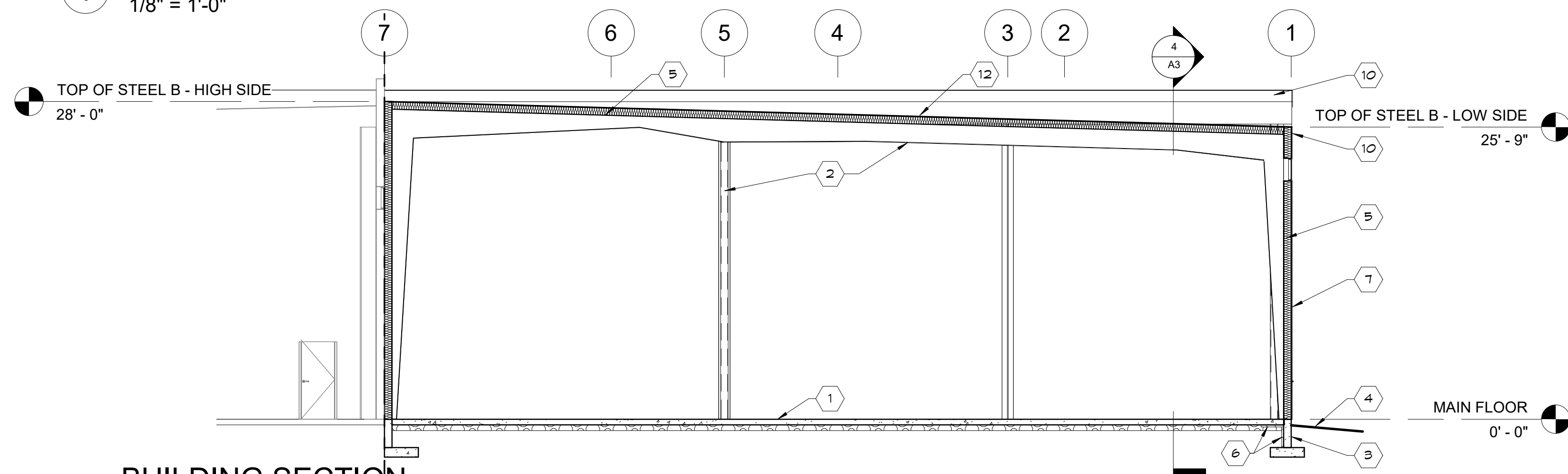
REVISIONS

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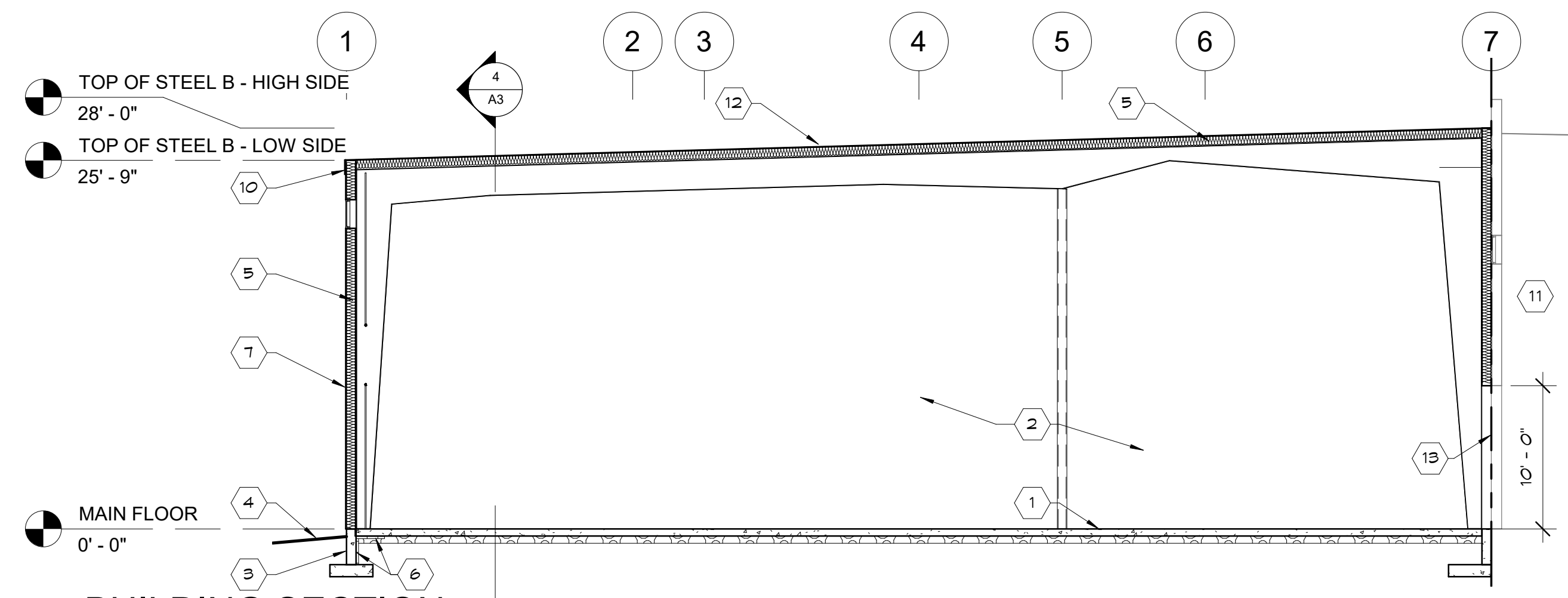
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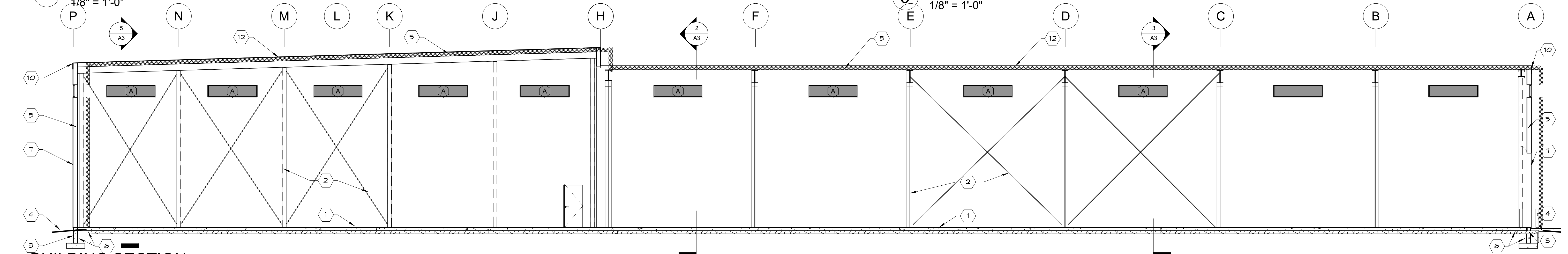
1 BUILDING SECTION
1/8" = 1'-0"



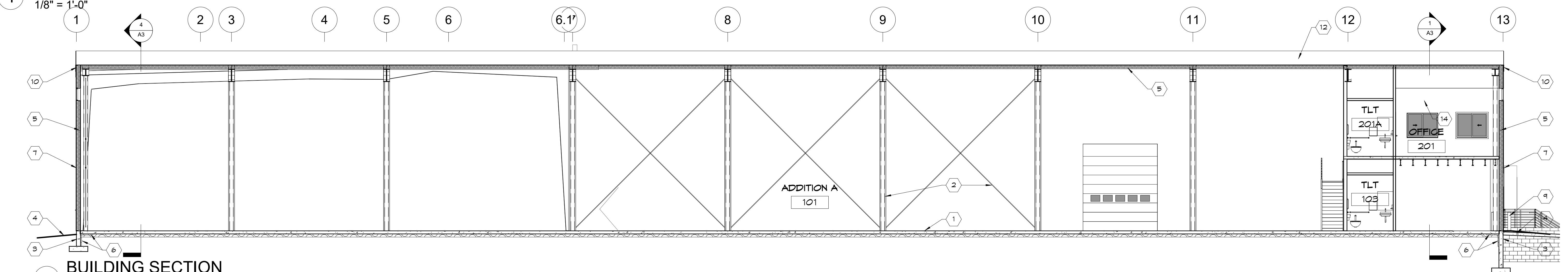
2 BUILDING SECTION
1/8" = 1'-0"



3 BUILDING SECTION
1/8" = 1'-0"



4 BUILDING SECTION
1/8" = 1'-0"



5 BUILDING SECTION
1/8" = 1'-0"

KEYNOTES

- 6" CONCRETE FLOOR OVER VAPOR RETARDER ON 6" COMPACTED GRAVEL
- STEEL STRUCTURE BY METAL BUILDING MANUF.
- 8" CONCRETE FOUNDATION
- FINISH GRADE - SLOPE AWAY FROM BUILDING, TYP.
- INSULATION BY METAL BUILDING MANUFACTURER
- 2" RIGID INSULATION AT BUILDING FOUNDATION PERIMETER, TYP
- VERTICAL METAL SIDING BY METAL BUILDING MANUFACTURER
- INSULATED OVERHEAD DOOR
- CONCRETE FILLED STEEL BOLLARD AT EXTERIOR OF OVERHEAD DOORS, TYP. SEE 3/A1
- PREFINISHED METAL FASCIA BY METAL BUILDING MANUF.
- EXISTING BUILDING
- METAL PANEL ROOFING BY METAL BUILDING MANUFACTURER
- 10' X 10' WALL OPENING IN NEW AND EXISTING BUILDING
- SUSPENDED ACOUSTIC PANEL CEILING.

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DATE
08/06/2020

PROJECT TITLE
STANDER INC.
NIBLEY, UT

SHEET TITLE
BUILDING
SECTIONS

PROJECT NUMBER
0001

REVISIONS

SHEET NUMBER

A3

- 1 P-LAM COUNTERTOP
- 2 REFRIGERATOR
- 3 MELAMINE CASEWORK. COLOR BY OWNER
- 4 SOAP DISPENSER
- 5 MIRROR, 36" X 42"
- 6 PAPER TOWEL DISPENSER
- 7 HORIZONTAL GRAB BAR - SEE SHEET 60.1
- 8 TOILET TISSUE DISPENSER
- 9 VERTICAL GRAB BAR - SEE SHEET 60.1
- 10 SANITARY NAPKIN DISPOSAL
- 11 FINISH END PANEL
- 12 ADJUSTABLE SHELVEING, TYP.
- 13 VERIFY GLASS IN DOOR WITH OWNER, TYP.

JOSEPH T. BECK
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650 N. 400 W.
SMITHFIELD, UTAH
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08/06/2020

PROJECT TITLE

STANDER INC.
NIBLEY, UT

SHEET TITLE

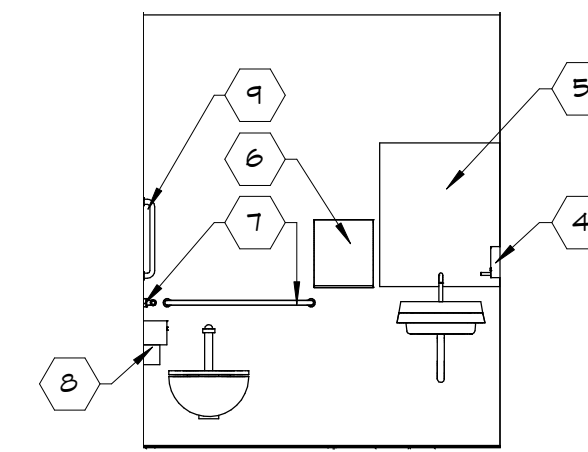
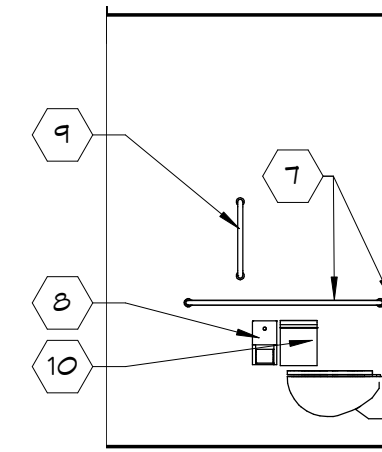
DOOR, WINDOW
& INTERIOR
ELEVATIONS &
SCHEDULES

PROJECT NUMBER
0001

REVISIONS

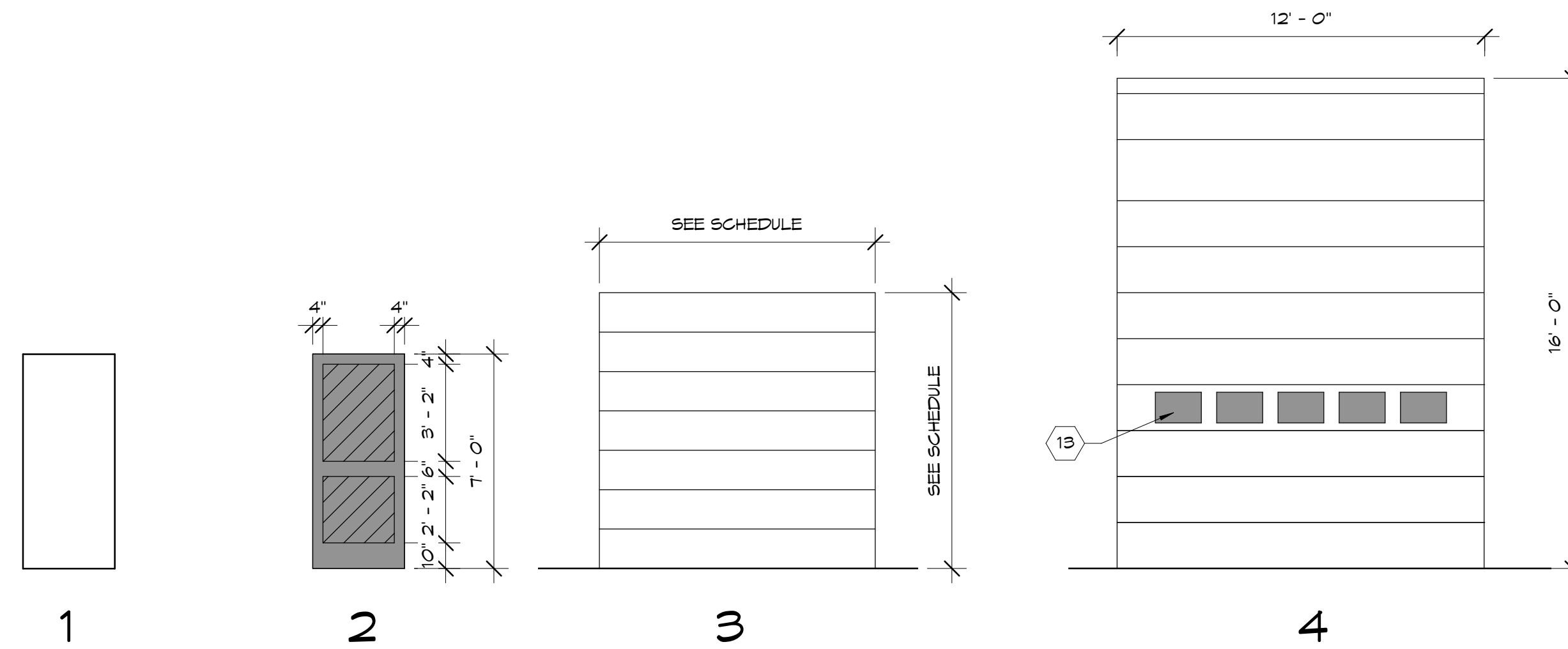
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A4



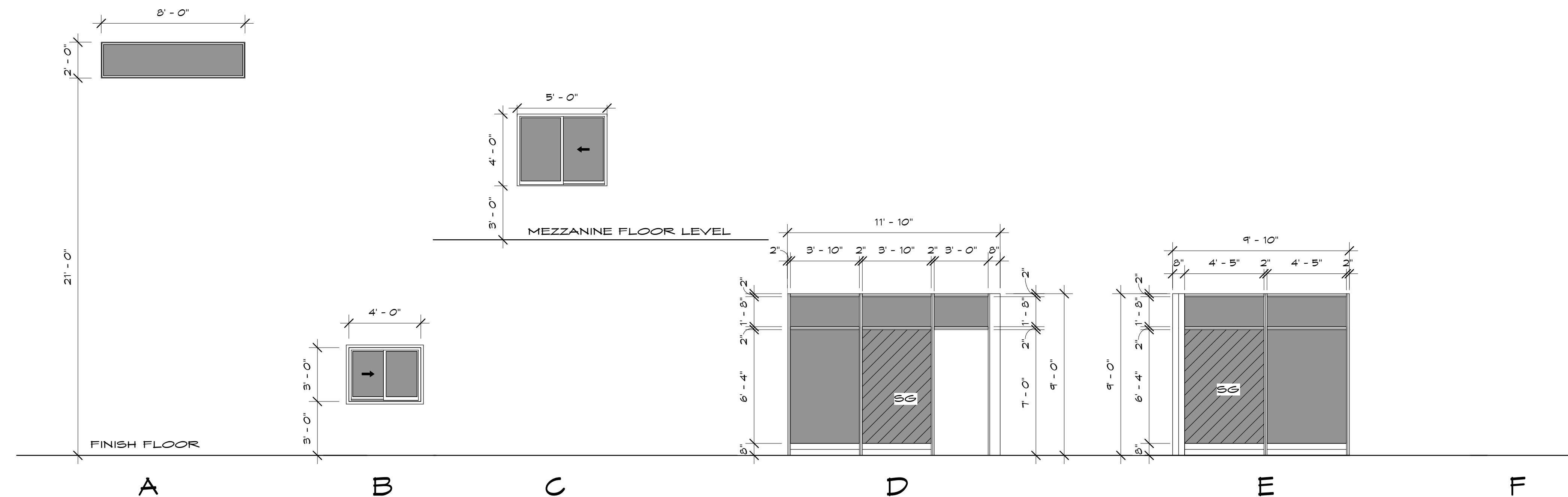
2 INTERIOR ELEVATION
1/4" = 1'-0"

3 INTERIOR ELEVATION



1 DOOR TYPES

NO.	WIDTH	HEIGHT	DOOR TYPE	FINISH	FRAME TYPE	FRAME MTL	COMMENTS
101	3' - 0"	7' - 0"	1	PAINT	F	HM	
101A	9' - 0"	9' - 0"	3	PAINT	-	-	OVERHEAD INSULATED DOOR W/ DOCK LEVELER & SHELTER
101B	9' - 0"	9' - 0"	3	PAINT	-	-	OVERHEAD INSULATED DOOR W/ DOCK LEVELER & SHELTER
101C	9' - 0"	9' - 0"	3	PAINT	-	-	OVERHEAD INSULATED DOOR W/ DOCK LEVELER & SHELTER
101D	12' - 0"	16' - 0"	4	PAINT	-	-	OVERHEAD INSULATED DOOR
101E	3' - 0"	7' - 0"	1	PAINT	F	HM	
102	3' - 0"	7' - 0"	1	PAINT	F	HM	
102A	3' - 0"	7' - 0"	2	CLEAR ANODIZED	D	ALUM	
102B	3' - 0"	7' - 0"	2	CLEAR ANODIZED	F	ALUM	
102C	3' - 0"	7' - 0"	1	PAINT	F	HM	
102D	10' - 0"	12' - 0"	3	PAINT	-	-	OVERHEAD INSULATED DOOR
104	3' - 0"	7' - 0"	1	PAINT	F	HM	
201	3' - 0"	7' - 0"	1	PAINT	F	HM	
201A	3' - 0"	7' - 0"	1	PAINT	F	HM	
202	3' - 0"	7' - 0"	1	PAINT	F	HM	



9 DOOR & WINDOW FRAME TYPES

A4

SINE SOURCE ENGINEERING

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ADDENDUM #1

Stander Building Addition

DIVISION 26

August 28, 2020

1. SHEET E001 ABBREVIATIONS, G.P.N., LEGEND, & SHEET INDEX
 - A. Added new sheet ES102- ELECTRICAL SITE PHOTOMETRIC PLAN to sheet index.
 - B. Updated Electrical legend to clarify Low Voltage lighting control is to comply with sheet E201 General Sheet Note #7
 - C. Added missing symbol in electrical legend for Load Controller/Power Pack.
2. SHEET ES102- ELECTRICAL SITE PHOTOMETRIC PLAN
 - A. Added exterior lighting photometric.
 - B. Adjusted lighting layout to shorten egress lighted pathway.
3. SHEET E201- LIGHTING PLAN
 - A. Eliminated egress path lighting along South Wall
 - B. Added egress path lighting along the West wall.
 - C. Changed exterior fixture callouts to match new optical distribution.
4. SHEET E602- ELECTRICAL SCHEDULES
 - A. Changed optical distribution of LED exterior fixtures. Updated fixture callouts to match new optical distribution.
 - B. Updated exterior lighting circuit information for Panel's 'F' and 'G'

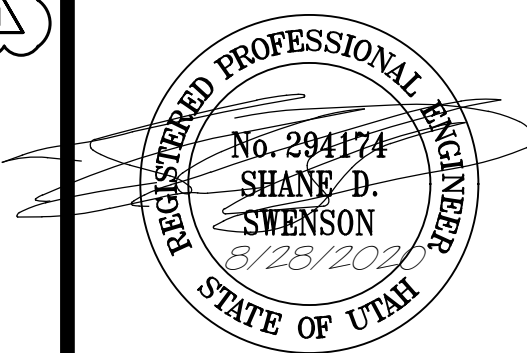
GENERAL PROJECT NOTES

1. ALL ELECTRICAL INSTALLATIONS TO CONFORM TO THE LATEST NEC AND LOCAL CODES.	HOME-RUNS. HOME RUNS TO BE RAN IN CONDUIT COMPLETE FROM PANEL TO FIRST DEVICE OR FIXTURE ON CIRCUIT.
2. THE ELECTRICAL CONTRACTOR SHALL HAVE A COORDINATION MEETING WITH THE MECHANICAL CONTRACTOR, CONSTRUCTION SUPERINTENDANT AND ANY OTHER TRADES AS REQUIRED WITHIN SEVEN DAYS OF THE START OF THE JOB TO REVIEW CODE CLEARANCE REQUIREMENTS FOR PANELS, SWITCHES, AND OTHER ELECTRICAL GEAR SPECIFICALLY FOR THIS JOB. RECORD THE MEETING IN THE SUPERINTENDENT'S LOG. REPORT UNRESOLVED CONFLICTS TO THE ARCHITECT IMMEDIATELY.	37. DO NOT INSTALL MORE THAN THREE PHASE CONDUCTORS IN ANY HOME-RUN CONDUITS UNLESS SPECIFICALLY INDICATED ON DRAWINGS.
3. ELECTRICAL CONTRACTOR'S PROJECT MANAGER AND ON-SITE PROJECT FOREMAN SHALL REVIEW VENDOR SUBMITTALS FOR ACCURACY PRIOR TO SUBMITTING TO ENGINEER. INACCURACIES SHALL BE CORRECTED PRIOR TO ENGINEER SUBMITTAL.	38. A GFI OUTLET SHALL BE INSTALLED AT EACH LOCATION DESIGNATED BY "GFI" ON THE DRAWINGS. DOWNSTREAM PROTECTION BY A GFI OUTLET UPSTREAM IS NOT ALLOWED.
4. SUBMITTALS FOR EACH SYSTEM WILL BE REVIEWED BY ENGINEER UP TO TWO TIMES—ONE FULL SUBMITTAL FOR OVERALL COMPLIANCE AND ONE RESUBMITTAL. ADDITIONAL REVIEWS WILL BE CHARGED TO CONTRACTOR AT ENGINEER'S STANDARD BILLING RATE.	39. ALL CONVENIENCE OUTLETS MUST BE MOUNTED FLUSH WITH THE COVER PLATE AND SECURED FIRMLY TO THE OUTLET BOX.
5. SUBMITTALS TO ENGINEER SHALL INCLUDE ALL SPECIFIED SYSTEMS IN FIRST SUBMITTAL. PARTIAL SUBMITTALS WILL BE RETURNED TO CONTRACTOR AS INCOMPLETE AND WILL BE CONSIDERED ONE OF TWO INCLUDED SUBMITTAL REVIEWS.	40. ALL PATCH, REPAIR, REPAINT AND COVER UP REQUIRED AS A RESULT OF ELECTRICAL REMODEL IS TO BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR, BUT ACTUAL WORK IS TO BE PERFORMED BY QUALIFIED PERSONNEL.
6. THE CLARITY OF RECORD DRAWING CHANGES MADE BY THE CONTRACTOR SHALL BE EQUAL TO THE ORIGINAL DRAWINGS AS JUDGED BY THE ARCHITECT OR THE RECORD SET WILL BE RETURNED TO THE CONTRACTOR FOR CLARIFICATION.	41. COORDINATE LOCATION OF CEILING LIGHT FIXTURES WITH THE REFLECTED CEILING PLAN.
7. WHEN THE GENERAL CONTRACT CALLS FOR "RECORD" OR "AS-BUILT" DRAWINGS TO BE FURNISHED BY THE CONTRACTOR AT JOB COMPLETION, THE ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO FURNISH A COMPLETE SET OF "BLUE-PRINT READY" AUTOCAD ELECTRICAL DRAWINGS FOR ALL CONTRACTOR GENERATED CHANGES FROM THE DRAWINGS OF A CLARITY EQUAL TO THE ORIGINAL DRAWINGS AS JUDGED BY THE ENGINEER. CONTACT ARCHITECT FOR DISKS OR REPRODUCIBLE ORIGINAL MEDIA. PROVIDE DRAWINGS ON CD IN AUTOCAD FORMAT.	42. FIXTURE COUNTS SHOWN ON DRAWINGS ARE FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE TO VERIFY FIXTURE COUNTS AS PART OF BIDDING PROCESS.
8. DO NOT SCALE ELECTRICAL FLOOR PLANS. SEE ARCHITECTURAL DRAWINGS FOR ACCURATE DIMENSIONS AND FLOOR PLANS.	43. CONNECT EMERGENCY CIRCUIT OF EMERGENCY LIGHT BATTERY PACK TO UNSWITCHED LIGHTING CIRCUIT SERVING FIXTURES IN AREA. INSTALL EXTRA CONDUCTORS AS REQUIRED. WIRE SO LAMPS IN NORMAL MODE ARE CONTROLLED AS NOTED ON LIGHTING PLANS. PROVIDE ADDITIONAL BALLASTS AS REQUIRED.
9. ELECTRICAL DEVICES CANNOT BE SHOWN TO SCALE AND SOMETIMES OVERLAP BUILDING ELEMENTS. REFER TO ARCHITECTURAL ELEVATIONS FOR ACCURATE MOUNTING LOCATIONS.	44. EMERGENCY LIGHT BATTERY PACKS SHALL BE CONNECTED SO AS TO BE ABLE TO OPERATE IN THE TEST MODE WHEN THE NORMAL SWITCH LEG IS TURNED ON, AND SHALL ILLUMINATE ONE FIXTURE LAMP UNLESS OTHERWISE NOTED.
10. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY ALL PANEL CLEARANCES PER NEC 110.26 AND NOTIFY ALL OTHER TRADES ON THE JOB OF THESE CODE REQUIREMENTS.	45. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW ALL SWITCH LOCATIONS WITH THE GENERAL CONTRACTOR PRIOR TO ROUGH-IN TO PREVENT ANY SWITCHES FROM BEING LOCATED ON THE WRONG SIDE OF THE DOOR.
11. THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY WITH THE GENERAL CONTRACTOR ADEQUATE WALL DEPTH FOR MOUNTING FLUSH CIRCUIT BREAKER PANELS.	46. COORDINATE LOCATION OF EXIT LIGHTS WITH ARCHITECT.
12. PANEL INDEXES SHALL INCLUDE ALL PERTINENT INFORMATION ON THE PANEL SCHEDULES INCLUDING INFORMATION ON LIGHTS AND OUTLETS. DO NOT SIMPLY COPY THE CIRCUIT DESCRIPTION COLUMN. INDEXES TO BE TYPEWRITTEN.	47. VERIFY FIXTURE COUNT WITH REFLECTED CEILING PLAN.
13. CONDUITS ENTERING MAIN PANEL FROM THE BOTTOM SHALL BE ARRANGED IN STRAIGHT ROWS FASTENED TO UNISTRUT. HOLES SHALL BE PUNCHED IN PANEL BOTTOM AND CONDUITS FASTENED BY TWO LOCKNUTS AND A CONDUIT BUSHING. CUTTING OUT THE BOTTOM OF THE PANEL IS NOT PERMITTED.	48. THE BOTTOM OF WALL MOUNTED FIXTURES MUST BE A MINIMUM OF 6" AFF UNLESS FIXTURES ARE ADA COMPLIANT.
14. DO NOT INSTALL PANELS IN FIRE WALLS.	49. REFER TO MECHANICAL PLANS FOR EXACT LOCATION OF MECHANICAL EQUIPMENT.
15. COORDINATE MOUNTING HEIGHT AND LOCATION OF ALL OUTLETS, SWITCHES, AUXILIARY EQUIPMENT, AND OTHER DEVICES WITH THE ARCHITECTURAL DRAWINGS. PRIOR TO INSTALLATION, REVIEW WITH THE GENERAL CONTRACTOR THE LOCATION OF MILLWORK AS A FINAL CHECK TO PREVENT COVERING OF ELECTRICAL ITEMS.	50. ELECTRICAL CONTRACTOR SHALL FURNISH ALL MOTOR DISCONNECTS, STARTERS, AND CONTROL STATIONS FOR MECHANICAL EQUIPMENT UNLESS THE SAME IS FURNISHED AS AN INTEGRAL PART OF THE EQUIPMENT. VERIFY WITH MECHANICAL CONTRACTOR PRIOR TO BID.
16. MOUNTING HEIGHT OF GENERAL PURPOSE OUTLETS AND SWITCHES SHALL BE 16" TO BOTTOM AND 48" TO TOP RESPECTIVELY UNLESS OTHERWISE NOTED.	51. THERMOSTAT AND CONTROL WIRING FOR MECHANICAL EQUIPMENT BY MECHANICAL CONTRACTOR.
17. ALL ELECTRICAL EQUIPMENT SHALL BE LOCATED SO AS NOT TO INTERFERE WITH WOOD TRIM AND MOLDING. THE ELECTRICAL CONTRACTOR SHALL REVIEW FINISH SCHEDULES AND ARCHITECTURAL DETAILS BEFORE ROUGH-IN OF OUTLET OR SWITCH BOXES TO PREVENT BOXES AND PLATES FROM BEING PLACED BEHIND OR IN TRIMS AND MOLDINGS. REFER SPECIAL CONDITIONS TO ARCHITECT PRIOR TO ROUGH-IN.	52. ELECTRICAL CONTRACTOR SHALL COORDINATE THE ROUTING OF CONDENSATE LINES ON MECHANICAL PADS WITH THE MECHANICAL CONTRACTOR. WIREWAYS AND DISCONNECTS REQUIRE 3-FEET FRONTAL CLEARANCE AND A MINIMUM 30" WIDTH CLEARANCE, OR THE WIDTH OF THE UNIT, WHICHEVER IS GREATER.
18. EMT IS NOT ALLOWED OUT OF DOORS.	53. WHERE AUTOMATIC SPRINKLER CONTROLS ARE SHOWN ON THE LANDSCAPE OR ARCHITECTURAL DRAWINGS, PROVIDE A FLUSH SINGLE-GANG J-BOX BEHIND THE CONTROL AND CONNECT TO THE NEAREST OUTLET CIRCUIT WITH AVAILABLE CAPACITY.
19. CIRCUIT WIRE SIZES, AT MINIMUM, MUST MATCH BRANCH CIRCUIT BREAKERS PER NEC. VERIFY WITH PANEL SCHEDULES BEFORE PULLING WIRE.	54. BEFORE RUNNING CONDUITS, PLACING OUTLETS OR ORDERING EQUIPMENT, THE CONTRACTOR SHALL REVIEW THE SPECIFICATIONS AND DESIGN AND SHOP DRAWINGS OF THE OTHER TRADES SERVED BY THE CONDUIT, OUTLETS, AND/OR EQUIPMENT.
20. THE ELECTRICAL CONTRACTOR SHALL RUN BRANCH CIRCUIT CONDUITS IN A NEAT AND WORKMANLIKE MANNER SO AS TO CONSERVE OPEN SPACES AS MUCH AS POSSIBLE. HVAC DUCTWORK AND PLUMBING SHALL HAVE LOCATION PRIORITY OVER BRANCH CIRCUIT CONDUIT RUNS.	55. PROVIDE NEUTRAL CONNECTION TO 208/240/480V, SINGLE-PHASE EQUIPMENT. RUN SEPARATE GROUND WIRE TO ALL OUTDOOR UNITS AND BOND TO THE EQUIPMENT GROUND LUG.
21. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR, PULLED INTO THE CONDUIT WITH THE PHASE CONDUCTOR, IN ALL SERVICE, FEEDER, AND BRANCH CIRCUITS.	56. FIELD VERIFY THE EXACT LOCATION OF THE MAIN FIRE ALARM PANEL WITH THE ARCHITECT PRIOR TO INSTALLATION.
22. PROVIDE A NEUTRAL CONDUCTOR FOR EACH BREAKER TRIP HANDLE. NEUTRALS SHALL NOT BE SHARED BETWEEN CIRCUITS.	57. COORDINATE LOCATION OF ALL FIRE ALARM DEVICES WITH NFPA AND ADA REQUIREMENTS. COORDINATE LOCATIONS WITH MILLWORK AS REQUIRED.
23. ALL CIRCUITS TO BE MINIMUM #12 CU IN MINIMUM 3/4" CONDUIT UNLESS OTHERWISE NOTED.	58. WHERE THERE ARE CONFLICTS IN THE DRAWINGS AND/OR SPECIFICATIONS THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO BID. WHERE NO NOTIFICATION IS GIVEN THE MORE STRINGENT INTERPRETATION (GENERALLY INTERPRETED TO BE THE MORE COSTLY) WILL BE ENFORCED.
26. WHERE ALLOWED BY CODE, MC CABLE IS AN APPROVED ALTERNATE TO CONDUCTORS IN CONDUIT FOR CONCEALED BRANCH CIRCUIT WIRING BETWEEN DEVICES, BUT NOT FOR	

ANNOTATIONS					
	DETAIL CALL-OUT; TOP "X" REFERS TO DETAIL NUMBER & BOTTOM "XXX" REFERS TO SHEET NUMBER		DISCONNECT; NO OVER-CURRENT PROTECTION		POINT OF DISCONNECTION
	KEYED NOTE CALLOUT		COMBINATION DISCONNECT/MOTOR STARTER; NO OVER-CURRENT PROTECTION		UTILITY POLE
	EQUIPMENT CALLOUT		COMBINATION DISCONNECT/MOTOR STARTER WITH OVERCURRENT PROTECTION (CIRCUIT BREAKER STYLE OR AS SPECIFIED)		
			MOTOR PROTECTIVE THERMAL SWITCH	ONE-LINE	
			MOTOR PROTECTIVE FUSED THERMAL SWITCH		BREAKER : "X" = BREAKER AMPERAGE "Y" = QUANTITY OF POLES
LIGHTING FIXTURES			QUANTITY OF CONDUCTORS: SHORT LINES = PHASE /SWITCH, LONG LINES = NEUTRAL		BRANCH PANEL
	EMERGENCY LIGHT		HOME-RUN		BRANCH PANEL WITH MAIN BREAKER
	BATTERY PACK				BRANCH PANEL WITH SUB FEED BREAKER
	EXIT LIGHT: CEILING - FACE(S) AS SHOWN	POWER AND DISTRIBUTION			FEEDER SIZE (REFER TO CONDUIT AND CONDUCTOR SCHEDULE UNLESS OTHERWISE NOTED)
	EXIT LIGHT: WALL - FACE(S) AS SHOWN		DISTRIBUTION PANEL		GROUND
	EXIT LIGHT: FACE SIDE		PANELBOARD		DIRECT METER
	EXIT LIGHT: DIRECTIONAL ARROWS, DOUBLE FACE		METER / METER SOCKET		TRANSFORMER
	RECESSED FIXTURE				SURGE PROTECTIVE DEVICE
	STRIP LIGHT	COMMUNICATIONS			MOTOR : hp = MOTOR HORSEPOWER
	LINEAR FIXTURE		COMMUNICATIONS RACK		
	LIGHT FIXTURE LOCATED IN IECC DAY-LIGHTING ZONE		COMMUNICATIONS RACEWAY; OPEN D-RINGS OR J-HOOKS. SEE DETAILS AND SPECIFICATIONS	GENERAL WALL-MOUNTED BOX HEIGHT DETAIL	
	EMERGENCY FIXTURE		PHONE BACKBOARD		
	WALL MOUNT FIXTURE		COMMUNICATIONS ENCLOSURE		
	POLE LIGHT; ONE HEAD		TELEVISION OUTLET (5" SQ x 2-7/8"D J-BOX; 1-GANG x 5/8"D MUD-RING; 1" CONDUIT; 1-RG-6 COAX)		
	POLE LIGHT; TWO HEAD		COMMUNICATIONS OUTLET (5" SQ x 2-7/8"D J-BOX; 1-GANG x 5/8"D MUD-RING; 1" CONDUIT; 1 CAT 6 CABLE)		
			COMMUNICATIONS OUTLET (5" SQ x 2-7/8"D J-BOX; 1-GANG x 5/8"D MUD-RING; 1" CONDUIT; 2 CAT 6 CABLES)		
LIGHTING CONTROL			COMMUNICATIONS OUTLET (5" SQ x 2-7/8"D J-BOX; 1-GANG x 5/8"D MUD-RING; 1" CONDUIT; 3 CAT 6 CABLES)		
	SINGLE POLE SWITCH; "X" INDICATES SWITCH GROUP		COMMUNICATIONS OUTLET (5" SQ x 2-7/8"D J-BOX; 1-GANG x 5/8"D MUD-RING; 1" CONDUIT; x CAT 6 CABLES)		
	THREE WAY SWITCH		COMMUNICATIONS OUTLET: WIRELESS ACCESS POINT (5" SQ x 2-7/8"D J-BOX; 1-GANG x 5/8"D MUD-RING; 1" CONDUIT; 1 CAT 6 CABLE)		
	FOUR WAY SWITCH				
	LOW VOLTAGE SWITCH; REFER TO GENERAL SHEET NOTE #7 SHEET E201	FIRE ALARM			
	LOW VOLTAGE DIMMER SWITCH;REFER TO GENERAL SHEET NOTE #7 SHEET E201		FIRE ALARM FLOW SWITCH		
	POWER PACK; SINGLE LOAD CONTROLLER;REFER TO GENERAL SHEET NOTE #7 SHEET E201		FIRE ALARM TAMPER SWITCH		
	WALL MOUNT OCCUPANCY SENSOR; ADAPTIVE TECHNOLOGY		FIRE ALARM STROBE; "X" = MINIMUM CANDELA RATING		
	OS=OCCUPANCY SENSOR/ VS=VACANCY SENSOR, REFER TO GENERAL SHEET NOTE #7 SHEET E201		FIRE ALARM HORN AND STROBE; "X" = MINIMUM CANDELA RATING		
	OCCUPANCY SENSOR: DUAL TECHNOLOGY		CEILING MOUNTED FIRE ALARM HORN AND STROBE; "X" = MINIMUM CANDELA RATING		
	OCCUPANCY SENSOR: PASSIVE INFRARED		FIRE ALARM PULL STATION		
	PUSH BUTTON		NOTIFICATION APPLIANCE CIRCUIT PANEL		
		SITE ELECTRICAL			
			1-PHASE UNDERGROUND PRIMARY POWER		
BRANCH CIRCUITING			1-PHASE UNDERGROUND SECONDARY POWER		
	SIMPLEX OUTLET		3-PHASE OVERHEAD PRIMARY POWER : EXISTING		
	SIMPLEX OUTLET: GROUND FAULT INTERRUPTER		3-PHASE OVERHEAD PRIMARY POWER		
	DUPLEX OUTLET		3-PHASE OVERHEAD SECONDARY POWER		
	FACELESS GFCI PROTECTION DEVICE		3-PHASE UNDERGROUND PRIMARY POWER : EXISTING		
	DUPLEX OUTLET: GROUND FAULT INTERRUPTER		3-PHASE UNDERGROUND SECONDARY POWER : EXISTING		
	ELECTRIC WATER COOLER OUTLET: GFCI UNLESS NOTED		3-PHASE UNDERGROUND PRIMARY POWER		
	DUPLEX OUTLET: WEATHERPROOF		3-PHASE UNDERGROUND SECONDARY POWER		
	DUPLEX OUTLET: WEATHERPROOF-IN-USE COVER		UNDERGROUND TELEPHONE : EXISTING		
	DOUBLE DUPLEX OUTLET		UNDERGROUND TV : EXISTING		
	DOUBLE DUPLEX OUTLET: GROUND FAULT INTERRUPTER		UNDERGROUND TELEPHONE		
	SPECIAL OUTLET: SEE PANEL SCHEDULE		UNDERGROUND TV		
	JUNCTION BOX		3-PHASE UNDERGROUND FEEDER		

#	Sheet Title
E001	ABBREVIATIONS, G.P.N., LEGEND & SHEET INDEX
E002	ELECTRICAL SPECIFICATIONS
E003	ELECTRICAL SPECIFICATIONS
ES101	ELECTRICAL SITE PLAN
ES102	ELECTRICAL SITE PHOTOMETRIC PLAN
E201	LIGHTING PLANS
E301	POWER PLANS
E401	ELECTRONIC SYSTEMS PLANS
ES01	ELECTRICAL DETAILS
E601	ELECTRICAL ONE-LINE DIAGRAM
E602	ELECTRICAL SCHEDULES

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DATE
AUG 15 2020

PROJECT TITLE

STANDER BUILDING ADDITION

NIBLEY, UT

SHEET TITLE
ABBREVIATIONS, G.P.N.,
LEGEND & SHEET INDEX

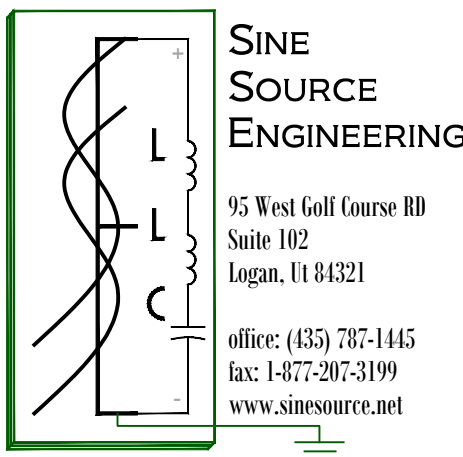
PROJECT NUMBER
SSE# 2020045

REVISIONS
 CITY REVIEW 2020-08-28

SHEET NUMBER

E001

A	AMPERE	CAB	CABINET	ELEC	ELECTRICAL	FT	FEET OR FOOT	MAX	MAXIMUM	NIC	NOT IN CONTRACT	SCHED	SCHEDULE	XFMR	TRANSFORMER
AF	AMP FUSE	CAT	CATALOG/CATEGORY	ELEV	ELEVATOR	GFI	GROUND FAULT INTERRUPTER	MCB	MAIN CIRCUIT BREAKER	NL	NIGHT LITE	SECT	SECTION	T-STAT	THERMOSTAT
AFB	ABOVE FINISHED FLOOR	CB	CIRCUIT BREAKER	EMER. EM	EMERGENCY	GND	GROUND	MECH	MECHANICAL	NO	NORMALLY OPEN	SP	SINGLE POLE	TYP	TYPICAL
AFG	ABOVE FINISHED GRADE	CKT	CIRCUIT	EMT	ELECTRICAL METALLIC TUBING	HP	HORSEPOWER	MFR	MANUFACTURER	NTS	NOT TO SCALE	SN	SOLID NEUTRAL	UBC	UNIFORM BUILDING CODE
AFI	ARC-FAULT CIRCUIT-INTERRUPTER	CLG	CEILING	EOLR	END OF LINE RESISTOR	HVAC	HEATING, VENTILATING & AIR CONDITIONING	MIN	MINIMUM	OCP	OVERCURRENT PROTECTION	SPEC	SPECIFICATION	UL	UNDERWRITERS LABORATORY
AIC	AMPERE INTERRUPTING CAPACITY	CO	CONDUIT ONLY	EQUIP	EQUIPMENT	IG	ISOLATED GROUND	MLO	MAIN LUGS ONLY	P	POLE	SW	SWITCH	UMC	UNIFORM MECHANICAL CODE
AL	ALUMINUM	COMM	COMMUNICATION	EX. EXIST	EXISTING	IMC	INTERMEDIATE METAL CONDUIT	MTD	MOUNTED	PH	PHASE	SWBD	SWITCHBOARD	UNO	UNLESS NOTED OTHERWISE
ARCH	ARCHITECT(URAL)	CONN	CONNECTION	FBO	FURNISHED BY OTHERS	IN	INCH(ES)	NEC	NATIONAL ELECTRICAL CODE	PNL	PANEL	SWGR	SWITCH GEAR	V	VOLT OR VOLTAGE
AS	AMP SWITCH	CJ	COPPER	FCU	FAN COIL UNIT	ISC	SHORT CIRCUIT AMPERES, KA	NECA	NATIONAL ELECTRICAL CONTRACTOR'S ASSOCIATION	PWR	POWER	SYS	SYSTEM	VA	VOLT AMPERE
AWG	AMERICAN WIRE GAUGE	DEMO	DEMOLITION/DEMOLISH	FF	FINISHED FLOOR	JB, J-BOX	JUNCTION BOX	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	QTY	QUANTITY	TEMP	TEMPORARY	W	WATT
BLDG	BUILDING	DISC	DISCONNECT	FIXT	FIXTURE	KMIL	THOUSAND CIRCULAR MILS	NEUT	NEUTRAL	RECEP	RECEPTACLE	TELE	TELEPHONE	W/	WITH
BKBD	BACKBOARD	DN	DOWN	FLEX	FLEXIBLE METALLIC CONDUIT (STEEL)	KVA	KILOVOLT AMPERE	NFC	NATIONAL FIRE CODE	REQ'D	REQUIRED	TWP	TWISTED PAIR	WG	WIRE GUARD
C	CONDUIT	DWG	DRAWING	FLUOR	FLUORESCENT	KW	KILOWATT	NC	NORMALLY CLOSED	RGSC	RIGID GALVANIZED STEEL CONDUIT	TVSP	TWISTED SHIELDED PAIR	WP	UL LISTED WEATHERPROOF, NEMA 3R or 4
		EA	EACH			LTG	LIGHTING			RM	ROOM				



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- SECTION 260500 - COMMON WORK RESULTS FOR ELECTRICAL
- 1.1 PERFORMANCE REQUIREMENTS
- A. Seismic Performance: Electrical equipment shall withstand the effects of earthquake motions determined according to SEIASCSE 7.
1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified."
- 1.2 QUALITY ASSURANCE
- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- 1.3 SLEEVES FOR RACEWAYS AND CABLES
- A. Steel Sleeves: ASTM A 53A S3M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.
- B. Sleeves for Rectangular Openings: Galvanized steel, Schedule 40.
- 1.4 SLEEVE SEALS
- A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.
1. Sealing Elements: EPDM or NBR interlocking links shaped to fit surface of cable or conduit. Include type and number required for material and size of raceway or cable.
2. Pressure Plates: Stainless steel. Include two for each sealing element.
3. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements. Include one for each sealing element.
- 1.5 ELECTRICAL ENCLOSURES
- A. Flush- and surface-mounted cabinets.
1. Rated for environmental conditions at installed location.
- a. Indoor Dry and Clean Locations: NEMA 250, Type 1.
- b. Outdoor Locations: NEMA 250, Type 3R.
- c. Kitchen Areas: NEMA 250, Type 4X, stainless steel.
- d. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
- 1.6 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION
- A. Comply with NECA 1.
- B. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.
- C. Right of Way: Give to piping systems installed at a required slope.
- 1.7 SLEEVE INSTALLATION FOR ELECTRICAL PENETRATIONS
- A. Concrete Slabs and Walls: Install sleeves for penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of slabs and walls.
- B. Fire-Rated Assemblies: Install sleeves for penetrations of fire-rated floor and wall assemblies unless openings compatible with firestop system used are fabricated during construction of floor or wall.
- C. Seal space outside of sleeves with grout for penetrations of concrete and masonry.
- D. Fire-Rated-Assembly Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at raceway and cable penetrations. Install sleeves and seal raceway and cable penetration sleeves with firestop materials.
- E. Roof-Penetration Sleeves: Seal penetration of individual raceways and cables with flexible boot-type flashing units applied in coordination with roofing work.
- 1.8 FIRESTOPPING
- A. Apply firestopping to penetrations of fire-rated floor and wall assemblies for electrical installations to restore original fire-resistance rating of assembly.

- SECTION 260510 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES
- 1.1 CONDUCTORS AND CABLES
- A. Conductor Insulation: Conductor with NEMA WC 70/IECA S-95-658 for Type THHN-2-THWN-2 or Type XHHW-2.
- B. Multiconductor Cable: Conductor with NEMA WC 70/IECA S-95-658 for metal-clad cable, Type MC and Type SOW with ground wire.
- 1.2 CONNECTORS AND SPLICES
- A. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for applications and services indicated.
- B. Branch Circuits: Copper.
- 1.3 CONDUCTOR MATERIAL APPLICATIONS
- A. Feeders: Copper for feeders smaller than No. 4 AWG; copper or aluminum for feeders No. 4 AWG and larger.
- B. Branch Circuits: Copper.
- 1.4 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS
- A. Feeders: Type THHN-2-THWN-2 or Type XHHW-2, single conductors in raceway.
- B. Exposed Branch Circuits: Including in Concealed Spaces: Type THHN-2-THWN-2, single conductors in raceway.
- C. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN-2-THWN-2, single conductors in raceway or Metal-clad cable, Type MC, (for connections between devices on the same circuit, but not for home-runs).
- D. Cord Drops and Portable Appliance Connections: Type SOW, hard service cord with stainless-steel, wire-mesh, strain relief device at terminations to suit application.
- 1.5 INSTALLATION OF CONDUCTORS AND CABLES
- A. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.
- B. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- C. Install exposed cables parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.
- D. Support cables according to Section 260529 "Hangers and Supports for Electrical Systems."
- 1.6 CONNECTIONS
- A. Make splices, terminations, and taps that are compatible with conductor material.
1. Use oxide inhibitor in each splice, termination, and tap for aluminum conductors.
- B. Wiring at Outlets: Install conductor at each outlet, with at least 12 inches of slack.
- 1.7 IDENTIFICATION
- A. Identify and color-code conductors and cables according to Section 260553 "Identification for Electrical Systems."

- SECTION 260520 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS
- 1.1 CONDUCTORS
- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
1. Solid Conductors: ASTM B 3.
2. Stranded Conductors: ASTM B 8.
3. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.
- 1.2 CONNECTORS
- A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.
- B. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.
- 1.3 GROUNDING ELECTRODES
- A. Ground Rods: Copper-clad Zinc-coated steel, 3/4 inch by 10 feet in diameter.
- 1.4 APPLICATIONS
- A. Isolated Grounding Conductors: Green-colored insulation with continuous yellow stripe. On feeders with isolated ground, identify grounding conductor where visible to normal inspection, with alternating bands of green and yellow tape, with at least three bands of green and yellow, two bands of yellow.
- B. Conductor Terminations and Connections:
1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
2. Connections to Ground Rods: Bolted connectors.
3. Connections to Structural Steel: Welded connectors.
- 1.5 EQUIPMENT GROUNDING
- A. Install insulated equipment grounding conductors with all service, feeder, and branch circuits, in addition to those required by NFPA 70.
- 1.6 INSTALLATION
- A. Ground Rods: Drive rods until tops are 2 inches below finished floor or final grade unless otherwise indicated.
- B. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance except where routed through short lengths of conduit.
1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install bonding so vibration is not transmitted to rigidly mounted equipment.

- SECTION 260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS
- 1.1 PERFORMANCE REQUIREMENTS
- A. Design equipment supports capable of supporting combined operating weight of supported equipment and connected conduits and cable bends and deflections required.
- B. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of five times the applied force.
- 1.2 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS
- A. Steel Slotted Support Systems with galvanized metallic coatings and channel dimensions selected for applicable load criteria.
- B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- C. Conduit and Cable Support Devices: Steel and malleable-iron hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- D. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- E. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened Portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
2. Mechanical-Expansion Anchors: Insert-wedge-type, stainless steel, for use in hardened Portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18, complying with MFMA-4 or MSS SP-58.
4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
6. Toggle Bolts: All-steel springhead type.
7. Hanger Rods: Threaded steel.
- 1.3 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES
- A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.
- 1.4 APPLICATION
- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.
- 1.5 SUPPORT INSTALLATION
- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
1. To Wood: Fasten with lag screws or through bolts.
2. To New Concrete: Bolt to concrete inserts.
3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
4. To Existing Concrete: Expansion anchor fasteners.
5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches thick.
6. To Steel: Welded threaded studs complying with AWS D1.1/D1.1M, with lock washers and nuts or Beam Clamps MSS J19, E1, 21, 23, 25, 26, or 27 complying with MSS SP-69.
7. To Light Steel: Sheet metal screws.
8. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate by means that meet seismic-restraint strength and anchorage requirements.

- SECTION 260533 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS
- 1.1 METAL CONDUITS, TUBING, AND FITTINGS
- A. Listing and Labeling: Metal conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Fittings for Metal Conduit: Comply with NEMA FB 1 and UL 5148.
1. Conduit Fittings for Hazardous (Classified) Locations: Comply with UL 886 and NFPA 70.
2. Fittings for EMT:
- a. Material: Steel or die cast.
- b. Type: Setscrew or compression.
- 1.2 NONMETALLIC CONDUITS, TUBING, AND FITTINGS
- A. Listing and Labeling: Nonmetallic conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- 1.3 METAL WIREWAYS AND AUXILIARY GUTTERS
- A. Description: Sheet metal, complying with UL 870 and NEMA 250, unless otherwise indicated, and sized according to NFPA 70.
- B. Fittings and Accessories: Include covers, couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- 1.4 BOXES, ENCLOSURES, AND CABINETS
- A. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.
- B. Sheet Metal Outlet, Device, Pull, and Junction Boxes: Comply with NEMA OS 1 and UL 514A.
- C. Cast-Metal Outlet, Device, Pull, and Junction Boxes: Comply with NEMA FB 1, ferrous alloy or aluminum, Type FD, with gasketed cover.
- D. Metal Floor Boxes:
1. Material: Sheet metal.
2. Type: Fully adjustable.
3. Shape: Rectangular.
4. Listing and Labeling: Metal floor boxes shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- E. Hinged-Cover Enclosures: Comply with UL 50 and NEMA 250, with continuous-hinge cover with flush latch unless otherwise indicated.
- 1.5 HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING
- A. General Requirements for Handholes and Boxes:
1. Boxes and handholes for use in underground systems shall be designed and identified as defined in NFPA 70, for intended location and application.
2. Boxes installed in wet areas shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Polymer-Concrete Handholes and Boxes with Polymer-Concrete Cover: Molded of sand and aggregate, bound together with polymer resin, and reinforced with steel, fiberglass, or a combination of the two.
1. Cover Legend: Molded lettering, "ELECTRIC."
- 1.6 RACEWAY APPLICATION
- A. Outdoors: Apply raceway products as specified below unless otherwise indicated:
1. Above-grade: GRC.
2. Underground Conduit: RNC, Type EPC-40-PVC or Type EPC-80-PVC where required by utility.
3. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
4. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R.
- B. Indoors: Apply raceway products as specified below unless otherwise indicated.
1. Exposed, Not Subject to Physical Damage: EMT.
2. Exposed and Subject to Physical Damage: GRC.
3. Concealed in Ceilings and Interior Walls and Partitions: EMT.
4. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC, except use LFMC in damp or wet locations.
5. Damp or Wet Locations: GRC.
6. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4 stainless steel in institutional and commercial kitchens and damp or wet locations.
- C. Minimum Raceway Size: 3/4-inch trade size.
- D. Do not install aluminum conduits, boxes, or fittings in contact with concrete or earth.
- 1.7 INSTALLATION
- A. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NECA 102 for aluminum conduits. Comply with NFPA 70 limitations for types of raceways allowed in specific environments and number of floors.
- B. Raceways Embedded in Slabs: Change from RNC to wrapped, RNC before rising above floor.
- C. Install devices to seal raceway interiors at accessible locations. Locate seals so no fittings or boxes are between the seal and the following changes of environments. Seal the interior of all raceways where required by NFPA 70.
- D. Mount boxes at heights indicated on Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to top of box unless otherwise indicated.
- E. Horizontally separate boxes mounted on opposite sides of walls so they are not in the same vertical channel.
- F. Locate boxes so that cover or plate will not span different building finishes.
- G. Support boxes of three gangs or more from more than one by spanning two framing members or mounting on brackets specifically designed for the purpose.
- H. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.
- I. Set metal floor boxes level and flush with finished floor surface.
- 1.8 INSTALLATION OF UNDERGROUND CONDUIT
- A. Direct-Buried Conduit:
1. Excavate trench bottom to provide firm and uniform support for conduit.
2. Install backfill.
3. Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment and at building entrances through floor.
- a. Couple steel conduits to conduits with adapters designed for this purpose, and encase coupling with 3 inches of concrete for a minimum of 12 inches on each side of the coupling.
- b. For stub-ups at equipment mounted on outdoor concrete bases and where conduits penetrate building foundations, extend steel conduit horizontally a minimum of 80 inches from edge of foundation or equipment base. Install insulated grounding bushings on terminations at equipment.
4. Underground Warning Tape: Comply with requirements in Section 260553 "Identification for Electrical Systems."
- 1.9 INSTALLATION OF UNDERGROUND HANDHOLES AND BOXES
- A. Install handholes and boxes level and plumb and with orientation and depth coordinated with connecting conduits to minimize bends and deflections required for proper entries.
- B. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch sieve to No. 4 sieve and compacted to same density as adjacent undisturbed earth.
- C. Elevation: In paved areas, set so cover surface will be flush with finished grade. Set covers of other enclosures 1 inch above finished grade.

- SECTION 260548 - VIBRATION AND SEISMIC CONTROLS FOR ELECTRICAL SYSTEMS
- 1.1 PERFORMANCE REQUIREMENTS
- A. Seismic-Restraint Labeling:
1. Site Class as Defined in the IBC: D.
2. Assigned Seismic Use Group or Building Category as Defined in the IBC: III.
- a. Component Importance Factor:
1. General: 1.0
2. Life Safety (EMT): 1.5
- b. Component Response Modification Factor:
1. Fixtures: 1.0
2. Equipment: 2.5
3. Conduit and Cables: 5.0
- c. Component Amplification Factor: 2.5
- d. Design Spectral Response Acceleration at Short Periods (0.2 Second): 173%.
2. Design Spectral Response Acceleration at 1.0-Second Period: 76%.
- 1.2 SEISMIC-RESTRAINT DEVICES
- A. General Requirements for Restraint Components: Rated strengths, features, and application requirements shall be as defined in reports by an agency acceptable to authorities having jurisdiction.
1. Structural Safety Factor: Allowable strength in tension, shear, and pullout force of components shall be at least four times the maximum seismic forces to which they will be subjected.
- B. Restraint Cables: ASTM A 603 galvanized-steel cables with end connections made of steel assemblies with thimbles, brackets, swivels, and bolts designed for restraining cable service; and with a minimum of two clamping bolts for cable engagement.
- C. Mechanical Anchor: Drilled-in and stud-wedge or female-wedge type in zinc-coated steel for interior applications and stainless steel for exterior applications. Select anchors with strength required for anchor and as tested according to ASTM E 488.
- D. Adhesive Anchor: Drilled-in and capsule anchor system containing polyvinyl or urethane methacrylate-based resin and accelerator, or injected polymer or hybrid mortar adhesive. Provide anchor bolts and hardware with zinc-coated steel for interior applications and stainless steel for exterior applications. Select anchor bolts with strength required for anchor and as tested according to ASTM E 488.
- 1.3 APPLICATIONS
- A. Strength of Support and Seismic-Restraint Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static and seismic loads within specified loading limits.
- 1.4 SEISMIC-RESTRAINT DEVICE INSTALLATION
- A. Install bushing assemblies for mounting bolts for wall-mounted equipment, arranged to provide resilient media where equipment or equipment-mounting channels are attached to wall.
- B. Attachment to Structure: If specific attachment is not indicated, anchor bracing to structure at flanges of beams, at upper truss chords of bar joists, or at concrete members.
- C. Drilled-in Anchors:
1. Identify position of reinforcing steel and other embedded items prior to drilling holes for anchors. Do not damage existing reinforcing or embedded items during coring or drilling. Notify the structural engineer if reinforcing steel or other embedded items are encountered during drilling. Locate and avoid prestressed tendons, electrical and telecommunications conduit, and gas lines.
2. Do not drill holes in concrete or masonry until mortar, or grout has achieved full design strength.
3. Wedge Anchors: Protect threads from damage during anchor installation. Heavy-duty steel design anchors shall be installed with sleeve fully engaged in the structural element to which anchor is to be fastened.
4. Adhesive Anchors: Clean holes to remove loose material and drilling dust prior to installation of adhesive. Place adhesive in holes proceeding from the bottom of the hole and progressing toward the surface in such a manner as to avoid introduction of air pockets in the adhesive.
5. Set anchors to manufacturer's recommended torque, using a torque wrench.
6. Install zinc-coated steel anchors for interior and stainless-steel anchors for exterior applications.
- 1.5 ADJUSTING
- A. Adjust slottors after installed equipment is at operating weight.
- B. Adjust limit stops on restrained spring isolators to mount equipment at normal operating height. After equipment installation is complete, adjust limit stops so they are out of contact during normal operation.
- C. Adjust active height of spring isolators.
- D. Adjust restraints to permit free movement of equipment within normal mode of operation.

- SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS
- 1.1 INSTALLATION
- A. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.
- B. Apply identification devices to surfaces that require finish after completing finish work.
- C. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.
- D. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.
- E. Underground-Line Warning Tape: During backfilling of trenches install continuous underground-line warning tape directly above line at 6 to 8 inches (150 to 200 mm) below finished grade. Use multiple tapes where width of multiple lines installed in a common trench exceeds 16 inches (400 mm) overall.
- 1.2 IDENTIFICATION SCHEDULE
- A. Power Conductors: NEMA PB 1, lighting and appliance branch-circuit type.
- B. Branch Overcurrent Protective Devices: Plug-in or Bolt-on circuit breakers.
- C. Doors: Concealed hinges; secured with flush latch with tumblers lock; keyed alike.
- D. Disconnecting and Overcurrent Protective Devices:
1. Molded-Case Circuit Breaker (MCCB): Comply with UL 489, with interrupting capacity to meet available fault current.
2. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads, and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
3. GFCI Circuit Breakers: Single- and two-pole configurations with Class A ground-fault protection (6-mA trip).
4. Molded-Case Circuit-Breaker (MCCB) Features and Accessories:
- a. Standard frame sizes, trip ratings, and number of poles.
- b. Lugs: Mechanical style, suitable for number, size, trip ratings, and conductor materials.
- c. Application Listing: Appropriate for application; Type SWD for switching fluorescent lighting loads; Type HID for feeding fluorescent and high-intensity discharge (HID) lighting circuits.
- d. Shunt Trip: 120 or 24V (per system requirements) trip coil energized from separate circuit, set to trip at 75 percent of rated voltage.
- e. Handle Padlocking Device: Fixed attachment, for locking circuit-breaker handle in on or off position.
- 1.7 INSTALLATION
- A. Comply with mounting and anchoring requirements specified in Section 260548 "Vibration and Seismic Controls for Electrical Systems."
- B. Mount panelboard cabinet plumb and rigid without distortion of box. Mount recessed panelboards with fronts uniformly flush with wall finish and mating with back box.
- C. Install overcurrent protective devices and controllers not already factory installed.
- D. Set field-adjustable, circuit-breaker trip ranges.
- E. Install filter plates in unused spaces.
- F. Arrange conductors in gutters into groups and bundle and wrap with wire ties.
- G. Comply with NECA 1.
- 1.8 IDENTIFICATION
- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs complying with Section 260553 "Identification for Electrical Systems."
- B. Create a directory to include installed circuit loads and incorporating Owner's final room designations. Obtain approval before installing. Use a computer or typewriter to create directory; handwritten directories are not acceptable.
- C. Panelboard Nameplates: Label each panelboard with a nameplate complying with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
- D. Device Nameplates: Label each branch circuit device in distribution panelboards with a nameplate complying with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
- SECTION 262726 - WIRING DEVICES
- 1.1 ADMINISTRATIVE REQUIREMENTS
- A. Coordination:
1. Receptacles for Owner-Furnished Equipment: Match plug configurations.
- 1.2 GENERAL WIRING-DEVICE REQUIREMENTS
- A. Wiring Devices, Components, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- 1.3 STRAIGHT-BLADE RECEPTACLES
- A. Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 Configuration 5-20R, UL 498, and FS W-C-596.
- B. Isolated-Ground, Duplex Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 Configuration 5-20R, UL 498, and FS W-C-596.
1. Description: Straight blade, equipment grounding contacts shall be connected only to the green grounding screw terminal of the device and with inherent electrical isolation from mounting strap. Isolation shall be integral to receptacle construction and not dependent on removable parts.
- 1.4 GFCI RECEPTACLES
- A. General Description:
1. Straight blade, feed-through type.
2. Comply with NEMA WD 1, NEMA WD 6, UL 498, UL 943 Class A, and FS W-C-596.
3. Include indicator light that shows when the GFCI has malfunctioned and no longer provides proper GFCI protection.
- B. Duplex GFCI Convenience Receptacles, 125 V, 20 A:
1. 5 LOW-VOLTAGE SWITCHES
- A. Push-Button:
1. Match color and style specified in Section 262726 "Wiring Devices."
2. Integral green LED pilot light to indicate when circuit is off.
- B. Legend: Engraved or permanently silk-screened on wall plate. Use designations indicating load controlled.
- C. 24-volt: Powered from associated power pack serving controlled switching group.
- 1.6 LOW-VOLTAGE WALL-BOX DIMMERS
- A. Push-Button Switches: Modular, analog interface, for operating one or more relays and to work in conjunction with automatic controls.
1. Match color and style specified in Section 262726 "Wiring Devices."
2. Integral green LED pilot light to indicate when circuit is on.
3. Integral red LED pilot light to indicate when circuit is off.
- B. Legend: Engraved or permanently silk-screened on wall plate. Use designations indicating load controlled.
- C. 24-volt: Powered from associated power pack serving controlled switching group.
- D. Control: Continuously adjustable; with single- or multi-location connections.
- E. LED Lamp Dimmer Switches: Modular, compatible with dimmer drivers; trim potentiometer to adjust low-end dimming; dimmer-driver combination capable of consistent dimming with low end not greater than 1 percent of full brightness.
- 1.7 WALL PLATES
- A. Single and combination types shall match corresponding wiring devices.
1. Plate-Securing Screws: Metal with head color to match plate finish.
2. Material for Finished Spaces: 0.035-inch-thick, satin-finished, Type 302 stainless steel.

- switchbox.
1. Operating Ambient Conditions: Dry interior conditions, 32 to 120 deg F.
2. Switch Rating: Not less than 800-VA fluorescent at 120 V, 1200-VA fluorescent at 277 V, and 800-W incandescent.
- 1.5 INSTALLATION
- A. Install and aim sensors in locations to achieve not less than 90 percent coverage of areas indicated. Do not exceed coverage limits specified in manufacturer's written instructions.
- B. Occupancy Adjustments: When requested within 12 months from date of Substantial Completion, provide on-site assistance in adjusting sensors to suit actual occupied conditions. Provide up to two visits to Project during other-than-normal occupancy hours for this purpose.
1. For occupied spaces and motion sensors, verify operation at outer limits of detector range. Set time delay to suit Owner's requirements.
- C. Identify components and power and control wiring according to Section 260553 "Identification for Electrical Systems."
- 1.6 FIELD QUALITY CONTROL
- A. Perform the following tests and inspections:
1. Operational Test: After installing time switches and sensors, and after electrical circuitry has been energized, start units to confirm proper unit operation.
2. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

- SECTION 262416 - PANELBOARDS
- 1.1 ACTION SUBMITTALS
- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For each panelboard and related equipment.
- 1.2 QUALITY ASSURANCE
- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- 1.3 GENERAL REQUIREMENTS FOR PANELBOARDS
- A. Fabricate and test panelboards according to IEEE 344 to withstand seismic forces defined in Section 260548 "Vibration and Seismic Controls for Electrical Systems."
- B. Enclosures: Flush- and surface-mounted cabinets.
1. Rated for environmental conditions at installed location.
2. Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlay box.
3. Directory Card: Inside panelboard door, mounted in transparent card holder.
- C. Phase, Neutral, and Ground Buses: Tin-plated aluminum or Hard-drawn copper, 98 percent conductivity.
- D. Conductor Connectors: Suitable for use with conductor material and sizes.
1. Material: Tin-plated aluminum or Hard-drawn copper, 98 percent conductivity.
2. Mechanical type.
3. Subfeed (Doubling Lugs): Mechanical type suitable for use with conductor material. Locate at same end of bus as incoming buses or main device.
- E. Service Equipment Label: NRTL labeled for use as service equipment for panelboards with one or more main service disconnecting and overcurrent protective devices.
- F. Future Devices: Mounting brackets, bus connectors, filler plates, and necessary appurtenances required for future installation of devices.
- G. Panelboard Short-Circuit Current Rating: Fully rated to interrupt symmetrical short-circuit current available at terminals.
- 1.4 DISTRIBUTION PANELBOARDS
- A. Panelboards: NEMA PB 1, power and feeder distribution type.
- B. Doors: Secured with vault-type latch with tumbler lock; keyed alike.
- C. Branch Overcurrent Protective Devices: For Circuit-Breaker Frame Sizes 125 A and Smaller: Plug-in or Bolt-on circuit breakers.
- D. Branch Overcurrent Protective Devices: For Circuit-Breaker Frame Sizes Larger than 125 A: Bolt-on circuit breakers; plug-in circuit breakers where individual positive-locking device requires mechanical release for removal.
- 1.5 LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS
- A. Panelboards: NEMA PB 1, lighting and appliance branch-circuit type.
- B. Branch Overcurrent Protective Devices: Plug-in or Bolt-on circuit breakers, replaceable without disturbing adjacent units.
- C. Doors: Concealed hinges; secured with flush latch with tumbler lock; keyed alike.
- 1.6 DISCONNECTING AND OVERCURRENT PROTECTIVE DEVICES
- A. Molded-Case Circuit Breaker (MCCB): Comply with UL 489, with interrupting capacity to meet available fault current.
1. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads, and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
2. GFCI Circuit Breakers: Single- and two-pole configurations with Class A ground-fault protection (6-mA trip).
3. Molded-Case Circuit-Breaker (MCCB) Features and Accessories:
- a. Standard frame sizes, trip ratings, and number of poles.
- b. Lugs: Mechanical style, suitable for number, size, trip ratings, and conductor materials.
- c. Application Listing: Appropriate for application; Type SWD for switching fluorescent lighting loads; Type HID for feeding fluorescent and high-intensity discharge (HID) lighting circuits.
- d. Shunt Trip: 120 or 24V (per system requirements) trip coil energized from separate circuit, set to trip at 75 percent of rated voltage.
- e. Handle Padlocking Device: Fixed attachment, for locking circuit-breaker handle in on or off position.

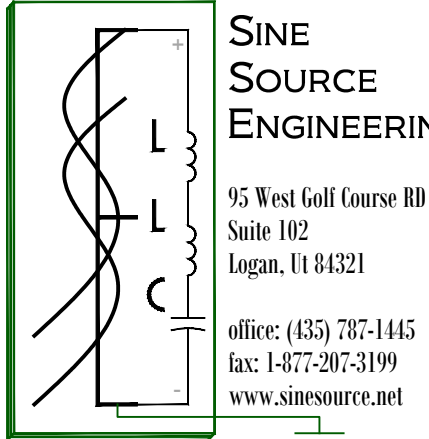
- 1.7 IDENTIFICATION
- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs complying with Section 260553 "Identification for Electrical Systems."
- B. Create a directory to include installed circuit loads and incorporating Owner's final room designations. Obtain approval before installing. Use a computer or typewriter to create directory; handwritten directories are not acceptable.
- C. Panelboard Nameplates: Label each panelboard with a nameplate complying with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
- D. Device Nameplates: Label each branch circuit device in distribution panelboards with a nameplate complying with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
- SECTION 265100 - INTERIOR LIGHTING
- 1.1 ACTION SUBMITTALS
- A. Product Data: For each type of lighting fixture, arranged in order of fixture designation. Include data on features, accessories, and finishes.
- 1.2 QUALITY ASSURANCE
- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.
- 1.3 GENERAL REQUIREMENTS FOR LIGHTING FIXTURES AND COMPONENTS
- A. Recessed Fixtures: Comply with NEMA LE-4 for ceiling compatibility for recessed fixtures.
- B. Metal Parts: Free of burrs and sharp corners and edges.
- C. Diffusers and Globes:
1. Acrylic Lighting Diffusers: 100 percent virgin acrylic plastic. High resistance to yellowing and other changes due to aging; exposure to heat, and UV radiation.
- a. Lens Thickness: At least 0.125 inch minimum unless otherwise indicated.
- b. UV stabilized.
- 1.4 LED LUMINAIRE
- A. Solid State Drivers and LED: Comply with DOE LM 79
1. Total Harmonic Distortion Rating: Less than 10 percent
2. Transient Voltage protection
3. Power factor: 0.90 or higher
4. Temperature: Minus 40 deg F (minus 40 deg C) and higher
5. Heat sink to remove heat from circuits
6. L70 compliant to 70,000 hours minimum
7. Color Rendering Index: 80 CRI minimum
8. Dimmable
- a. Dimming Range: 100 to 1 percent of rated lamp lumens
- b. Input Watts: Can be reduced to 20 percent of normal

3. Material for Damp Locations: Thermoplastic or Cast aluminum with spring-loaded lift cover, and listed and labeled for use in wet and damp locations.
- B. Wet-Location, Weatherproof Cover Plates: NEMA 250, complying with Type 3R, weather-resistant, die-cast aluminum or thermoplastic with lockable cover.
- 1.8 FINISHES
- A. Device Color:
1. Wiring Devices Connected to Normal Power System: As selected by owner unless otherwise indicated or required by NFPA 70 or device listing.
2. Isolated Ground Devices: Orange.
- B. Wall Plate Color: For plastic covers, match device color.
- 1.9 INSTALLATION
- A. Comply with NECA 1, including mounting heights listed in that standard, unless otherwise indicated.
- B. Conductors:
1. Do not strip insulation from conductors until right before they are spliced or terminated on devices.
2. Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.
3. The length of free conductors at outlets for devices shall meet provisions of NFPA 70, Article 300, without pigtails.
4. Existing Conductors:
- a. Cut back and pigtail, or replace all damaged conductors.
- b. Straighten conductors that remain and remove corrosion and foreign matter.
- c. Pigtail existing conductors is permitted, provided the outlet box is large enough.
- C. Device Installation:
1. Replace devices that have been in temporary use during construction and that were installed before building finishing operations were complete.
2. Connect devices to branch circuits using pigtails that are not less than 12 inches in length.
3. When conductors larger than No. 12 AWG are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
- D. Dimmer Installation:
1. Install unshared neutral conductors on line and load side of dimmers according to manufacturers' device listing conditions in the written instructions.

- SECTION 262816 - ENCLOSED SWITCHES AND CIRCUIT BREAKERS
- 1.1 QUALITY ASSURANCE
- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.
- 1.2 NONUSABLE SWITCHES
- A. Type GD, General Duty, Single Throw, 600 A and Smaller: UL 98 and NEMA KS 1, horsepower rated, lockable handle with capability to accept two padlocks, and interlocked with cover in closed position.
- B. Accessories:
1. Equipment Ground Kit: Internally mounted and labeled for copper and aluminum ground conductors.
2. Neutral Kit: Internally mounted; insulated, capable of being grounded and bonded; labeled for copper and aluminum neutral conductors.
3. Lugs: Suitable for number, size, and conductor material.
- 1.3 MOLDED-CASE CIRCUIT BREAKERS
- A. General Requirements: Comply with UL 489, NEMA AB 1, and NEMA AB 3, with interrupting capacity to comply with available fault current.
- B. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
- C. Features and Accessories:
1. Standard frame sizes, trip ratings, and number of poles.
2. Lugs: Suitable for number, size, trip ratings, and conductor material.
3. Application Listing: Appropriate for application; Type SWD for switching fluorescent lighting loads; Type HID for feeding fluorescent and high-intensity discharge lighting circuits.
- 1.4 INSTALLATION
- A. Install individual wall-mounted switches and circuit breakers with tops at uniform height unless otherwise indicated.
- B. Comply with NECA 1.
- 1.5 IDENTIFICATION
- A. Comply with requirements in Section 260553 "Identification for Electrical Systems."

- SECTION 262913 - ENCLOSED CONTROLLERS
- 1.1 SUBMITTALS
- A. Operation and maintenance data.
- 1.2 FULL-VOLTAGE CONTROLLERS
- A. General Requirements for Full-Voltage Controllers: Comply with NEMA ICS 2, general purpose, Class A.
- B. Motor-Starting Switches: "Quick-make, quick-break" toggle or push-button action; marked to show whether unit is off or on.
1. Configuration: Nonreversing.
2. Surface mounting.
3. Pilot light.
- C. Fractional Horsepower Manual Controllers: "Quick-make, quick-break" toggle or push-button action; marked to show whether unit is off or on, or tripped.
1. Configuration: Nonreversing.
2. Overload Relays: Inverse-time-current characteristics; NEMA ICS 2, Class 10 tripping characteristics; heaters matched to nameplate full-load current of actual protected motor; external reset push button; bimetallic type or melting alloy type.
3. Surface mounting.
4. Pilot light.
- 1.3 INSTALLATION
- A. Wall-Mounted Controllers: Install enclosed controllers on walls with tops at uniform height, and with disconnect operating handles not higher than 79 inches (2006 mm) above finished floor, unless otherwise indicated, and by bolting units to wall or mounting on lightweight structural-steel channels bolted to wall. For controllers not at walls, provide freestanding racks complying with Section 260529 "Hangers and Supports for Electrical Systems."
- B. Seismic Bracing: Comply with requirements specified in Section 260548 "Vibration and Seismic Controls for Electrical Systems."
- C. Install heaters in thermal overload relays. Select heaters based on actual nameplate full-load amperes after motors have been installed.
- D. Identify enclosed controllers, components, and control wiring. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
1. Label each enclosure with engraved nameplate.
- 1.4 ADJUSTING
- A. Set field-adjustable switches and overload-relay pickup and trip ranges.

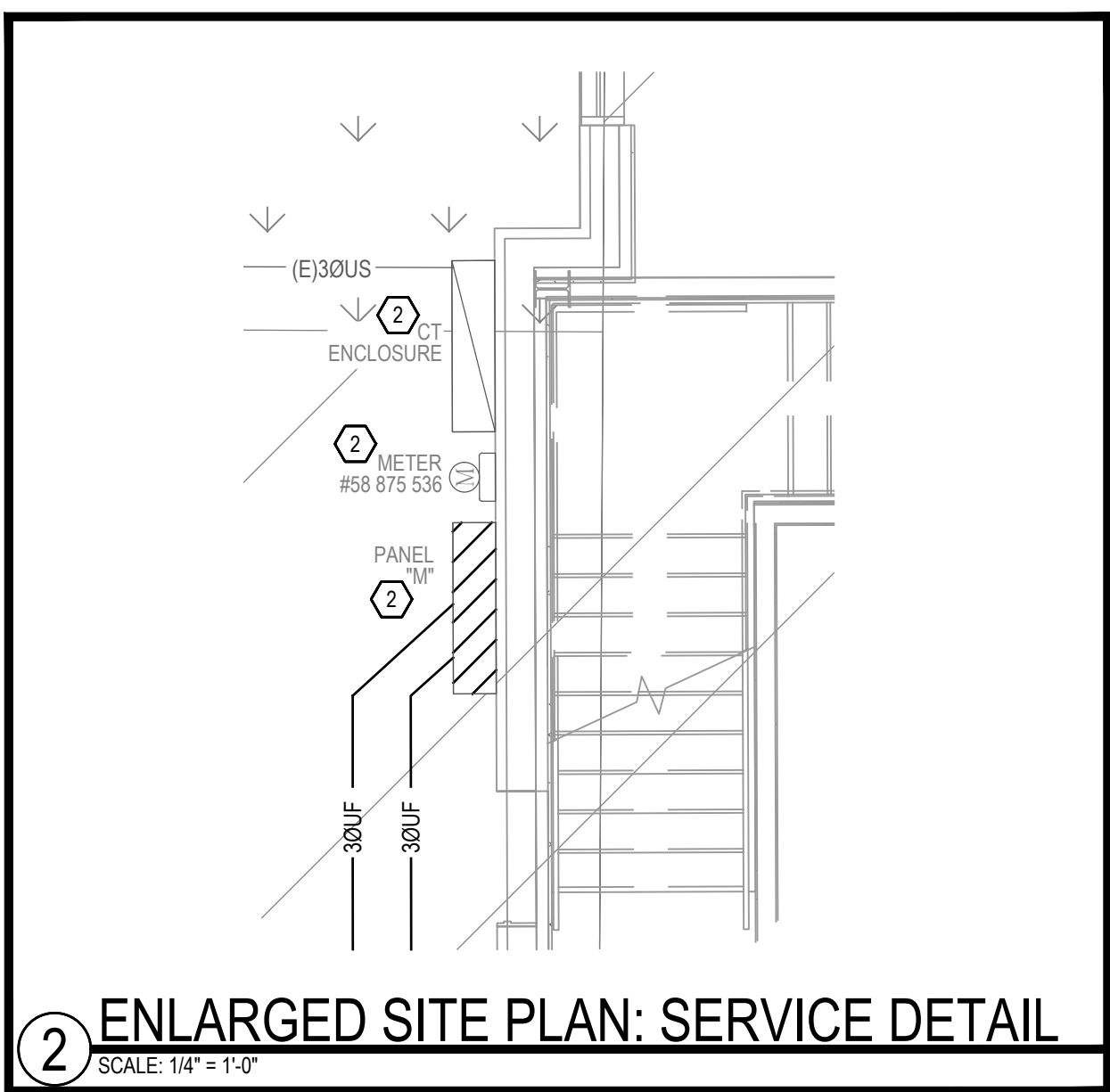
- SECTION 265100 - INTERIOR LIGHTING
- 1.1 ACTION SUBMITTALS
- A. Product Data: For each type of lighting fixture, arranged in order of fixture designation. Include data on features, accessories, and finishes.
- 1.2 QUALITY ASSURANCE
- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.
- 1.3 GENERAL REQUIREMENTS FOR LIGHTING FIXTURES AND COMPONENTS
- A. Recessed Fixtures: Comply with NEMA LE-4 for ceiling compatibility for recessed fixtures.
- B. Metal Parts: Free of burrs and sharp corners and edges.
- C. Diffusers and Globes:
1. Acrylic Lighting Diffusers: 100 percent virgin acrylic plastic. High resistance to yellowing and other changes due to aging; exposure to heat, and UV radiation.
- a. Lens Thickness: At least 0.125 inch minimum unless otherwise indicated.
- b. UV stabilized.
- 1.4 LED LUMINAIRE
- A. Solid State Drivers and LED: Comply with DOE LM 79
1. Total Harmonic Distortion Rating: Less than 10 percent
2. Transient Voltage protection
3. Power factor: 0.90 or higher
4. Temperature: Minus 40 deg F (minus 40 deg C) and higher
5. Heat sink to remove heat from circuits
6. L70 compliant to 70,000 hours minimum
7. Color Rendering Index: 80 CRI minimum
8. Dimmable
- a. Dimming Range: 100 to 1 percent of rated lamp lumens
- b. Input Watts: Can be reduced to 20 percent of normal



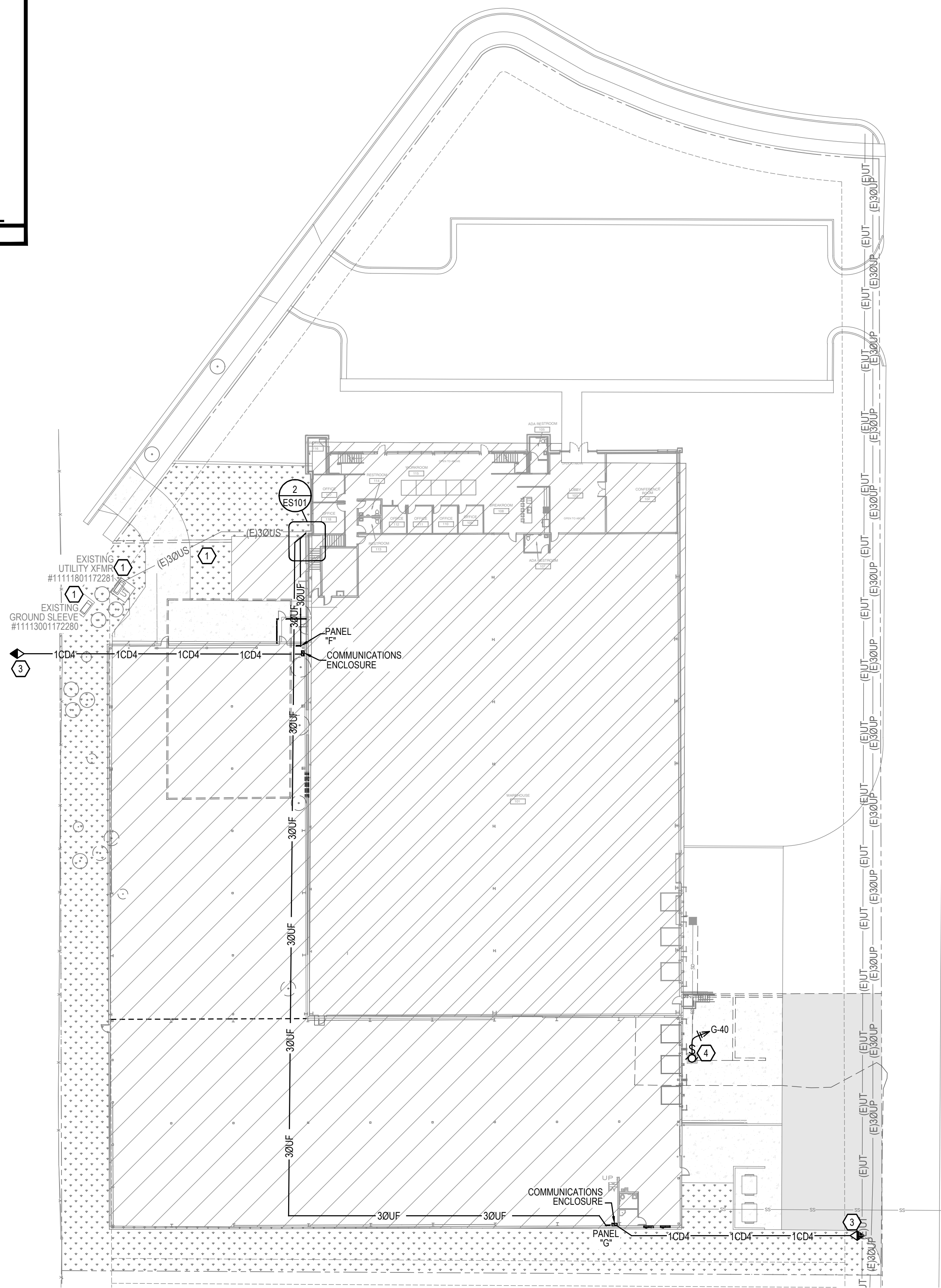
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ELECTRICAL SPECIFICATIONS	
1.5 EMERGENCY POWER UNIT A. Internal Type: Self-contained, modular, battery-inverter unit, factory mounted within lighting fixture body and compatible with ballast or driver. Comply with UL 924. 1. Emergency Connection: Operate one lamp(s) continuously at an output of 1100 lumens each. Connect unswitched circuit to battery-inverter unit and switch circuit to fixture ballast or driver. 2. Nightlight Connection: Operate one lamp continuously. 3. Test Push Button and Indicator Light: 4. Battery: Sealed, maintenance-free, nickel-cadmium type. 5. Charger: 6. Integral Self-Test: 1.6 EXIT SIGNS A. General Requirements for Exit Signs: Comply with UL 924; for sign colors, visibility, luminance, and lettering size, comply with authorities having jurisdiction. B. Internally Lighted Signs: 1. Lamps for AC Operation: LEDs, 50,000 hours minimum rated lamp life. 2. Self-Powered Exit Signs (Battery Type): Integral automatic charger in a self-contained power pack. 1.7 LIGHTING FIXTURE SUPPORT COMPONENTS A. Wires: ASTM A 841/A 841M, Class 3, soft temper, zinc-coated steel, 12 gage. B. Wires for Humid Spaces: ASTM A 580/A 580M, Composition 302 or 304, annealed stainless steel, 12 gage. 1.8 INSTALLATION A. Lighting fixtures: Set level, plumb, and square with ceilings and walls. Install lamps in each fixture. B. Comply with NFPA 70 for minimum fixture supports. 1.9 FIELD QUALITY CONTROL A. Test for Emergency Lighting: Interrupt power supply to demonstrate proper operation. Verify transfer from normal power to battery and retransfer to normal. SECTION 265600 - EXTERIOR LIGHTING 1.1 STRUCTURAL ANALYSIS CRITERIA FOR POLE SELECTION A. Dead Load: Weight of luminaire and its horizontal and vertical supports, lowering devices, and supporting structure, applied as stated in AASHTO LTS-4-M. B. Wind Load: Pressure of wind on pole and luminaire and banners and banner arms, calculated and applied as stated in AASHTO LTS-4-M. 1. Basic wind speed for calculating wind load for poles 50 feet high or less is 100 mph. a. Wind Importance Factor: 1.0. b. Minimum Design Life: 25 years. c. Velocity Conversion Factors: 1.0. 1.2 SUBMITTALS A. Product Data: For each luminaire, pole, and support component, arranged in order of lighting unit designation. Include data on features, accessories, and finishes. B. Shop Drawings: Anchor-bolt templates keyed to specific poles and certified by manufacturer. 1.3 MANUFACTURERS A. Products: Subject to compliance with requirements, provide product indicated on Drawings. 1.4 GENERAL REQUIREMENTS FOR LUMINAIRES A. Sheet Metal Components: Corrosion-resistant aluminum unless otherwise indicated. Form and support to prevent warping and sagging. B. Housings: Rigidly formed, weather- and light-tight enclosures that will not warp, sag, or deform in use. Provide filter/breather for enclosed luminaires. C. Exposed Hardware Material: Stainless steel. D. Plastic Parts: High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation. E. Light Shields: Metal baffles, factory installed and field adjustable, arranged to block light distribution to indicated portion of normally illuminated area or field. F. Lenses and Refractors Gaskets: Use heat- and aging-resistant resilient gaskets to seal and cushion lenses and refractors in luminaire doors. G. Luminaire Finish: Manufacturer's standard paint applied to factory-assembled and -tested luminaire before shipping. Where indicated, match finish process and color of pole or support materials. 1.5 LED LUMINAIRES A. Solid State Drivers and LED: Comply with DOE LM 79 1. Total Harmonic Distortion Rating: Less than 10 percent 2. Transient Voltage protection 3. Power factor: 0.90 or higher 4. Temperatures: Minus 40 deg F (minus 40 deg C) and higher 5. Heat sink to remove heat from circuits 6. L70 compliant to 70,000 hours minimum 7. Color Rendering Index: 80 CRI minimum 8. Dimmable a. Dimming Range: 100 to 1 percent of rated lamp lumens b. Input watts: Can be reduced to 20 percent of normal 1.6 GENERAL REQUIREMENTS FOR POLES AND SUPPORT COMPONENTS A. Structural Characteristics: Comply with AASHTO LTS-4-M. 1. Wind-Load Strength of Poles: Adequate at indicated heights above grade without failure. 2. Strength Analysis: For each pole, multiply the actual equivalent projected area of luminaires and brackets by a factor of 1.1 to obtain the equivalent projected area to be used in pole selection strength analysis. B. Mountings, Fasteners, and Appurtenances: Corrosion-resistant items compatible with support components. 1. Materials: Shall not cause galvanic action at contact points. 2. Anchor Bolts, Leveling Nuts, Bolt Caps, and Washers: Hot-dip galvanized after fabrication unless otherwise indicated. 3. Anchor-Bolt Template: Plywood or steel. C. Handhole: Oval-shaped, with minimum clear opening of 2-1/2 by 5 inches, with cover secured by stainless-steel captive screws. D. Concrete Pole Foundations: Cast in place, with anchor bolts to match pole-base flange. 1.7 ALUMINUM POLES A. Poles: Seamless, extruded structural tube complying with ASTM B 429/B 429M, Alloy 6063-T6 with access handhole in pole wall. B. Grounding and Bonding Lug: Welded 1/2-inch threaded lug, complying with requirements in Section 260526 "Grounding and Bonding for Electrical Systems," listed for attaching grounding and bonding conductors of type and size listed in that Section. C. Brackets for Luminaires: Detachable, with pole and adapter fittings of cast aluminum. Adapter fitting welded to pole and bracket, then bolted together with stainless-steel bolts. D. Aluminum Finish: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. E. Base Covers: Manufacturers' standard metal units, arranged to cover pole's mounting bolts and nuts. Finish same as pole. 1.8 LUMINAIRE INSTALLATION A. Install lamps in each luminaire. B. Fasten luminaire to indicated structural supports. 1. Use fastening methods and materials selected to resist seismic forces defined for the application and approved by manufacturer. 1.9 INSTALLATION OF INDIVIDUAL GROUND-MOUNTED LUMINAIRES A. Aim as indicated on Drawings. B. Install on concrete base with top 4 inches (100 mm) above finished grade or surface at luminaire location. Cast conduit into base, and finish by troweling and rubbing smooth. 1.10 POLE INSTALLATION A. Alignment: Align pole foundations and poles for optimum directional alignment of luminaires and their mounting provisions on the pole. B. Clearances: Maintain the following minimum horizontal distances of poles from surface and underground features unless otherwise indicated on Drawings: 1. Fire Hydrants and Storm Drainage Piping: 60 inches. 2. Water, Gas, Electric, Communication, and Sewer Lines: 10 feet. 3. Trees: 15 feet from tree trunk. C. Concrete Pole Foundations: Set anchor bolts according to anchor-bolt templates furnished by pole manufacturer. D. Raise and set poles using web fabric slings (not chain or cable). 1.11 GROUNDING A. Ground metal poles and support structures according to Section 260526 "Grounding and Bonding for Electrical Systems." 1. Install grounding electrode for each pole unless otherwise indicated. 2. Install grounding conductor pigtail in the base for connecting luminaire to grounding system. SECTION 270528 - PATHWAYS FOR COMMUNICATIONS SYSTEMS 1.1 ACTION SUBMITTALS A. Product Data: For each type of product. B. Shop Drawings: For each type of cable tray. C. Delegated-Design Submittal: For seismic restraints. 1.2 METAL CONDUITS AND FITTINGS A. See section 260533 "Raceways and boxes for Electrical Systems". 1.3 BOXES, ENCLOSURES, AND CABINETS A. See section 260533 "Raceways and boxes for Electrical Systems" unless otherwise indicated below. B. Device Box Dimensions: 4 inches square by 2-1/2 inches deep. 1.4 HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND CABLING A. See section 260533 "Raceways and boxes for Electrical Systems". 1.5 WIRE-BASKET CABLE TRAYS A. Description: 1. Configuration: Wires are formed into a standard 2-by-4-inch wire mesh pattern with intersecting wires welded together. Mesh sections must have at least one bottom longitudinal wire along entire length of section. 2. Materials: High-strength-steel longitudinal wires with no bends. 3. Safety Provisions: Wire ends along wire-basket sides (flanges) rounded during manufacturing to maintain integrity of cables and installer safety. 4. Sizes: a. Straight sections shall be furnished in standard 118-inch lengths. b. Wire-Basket Depth: 4-inch usable loading depth by 12 inches wide. 5. Connector Assemblies: Bolt welded to plate shaped to fit around adjoining tray wires and mating plate. Mechanically joins adjacent tray wires to splice sections together or to create horizontal fittings. 6. Connector Assembly Capacity: Splices located within support span shall not diminish rated loading capacity of cable tray. 7. Hardware and Fasteners: ASTM F 593 and ASTM F 594 stainless steel, Type 316. 1.6 PATHWAY APPLICATION A. See section 260533 "Raceways and boxes for Electrical Systems" unless otherwise indicated below. B. Indoors: Apply pathway products as specified below unless otherwise indicated: C. Minimum Pathway Size: 1 inch. 1.7 INSTALLATION A. See section 260533 "Raceways and boxes for Electrical Systems" unless otherwise indicated below. B. Install no more than the equivalent of two 90-degree bends in any pathway run. Support within 12 inches of changes in direction. Use long radius elbows for all optical-fiber cables. C. Stub-ups to Above Recessed Ceilings: 1. Use a conduit bushing or insulated fitting to terminate stub-ups not terminated in hubs or in an enclosure. D. Coat field-cut threads on PVC-coated pathway with a corrosion-preventing conductive compound prior to assembly. E. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install insulated bushings on conduits terminated with locknuts. F. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path. G. Spare Pathways: Install pull wires in empty pathways. Cap underground pathways designated as spare above grade alongside pathways. H. Pathways for Communications Cable: Install pathways as follows: 1. 1-inch Trade Size and Larger: Install pathways in maximum lengths of 75 feet. 2. Install with a maximum of two 90-degree bends or equivalent for each length of pathway unless Drawings show stricter requirements. 1.8 INSTALLATION OF UNDERGROUND CONDUIT A. See section 260533 "Raceways and boxes for Electrical Systems" unless otherwise indicated below. 1.9 INSTALLATION OF UNDERGROUND HANDHOLES AND BOXES A. See section 260533 "Raceways and boxes for Electrical Systems" unless otherwise indicated below. SECTION 271500 - COMMUNICATIONS CABLING 1.1 PERFORMANCE REQUIREMENTS A. General Performance: Horizontal cabling system shall comply with transmission standards in TIA/EIA-568-B.1, when tested according to test procedures of this standard. 1.2 QUALITY ASSURANCE A. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency. 1. Flame-Spread Index: 25 or less. 2. Smoke-Developed Index: 50 or less. B. Telecommunications Pathways and Spaces: Comply with TIA/EIA-569-A. C. Grounding: Comply with ANSI-J-STD 607-A. 1.3 DELIVERY, STORAGE, AND HANDLING A. Test cables upon receipt at Project site. Test each pair of UTP cable for open and short circuits. 1.4 PATHWAYS A. Cable Support: NRTL labeled for support of Category 6A cabling, designed to prevent degradation of cable performance and pinch points that could damage cable. 1. Support brackets with cable tie slots for fastening cable ties to brackets. 2. Lacing bars, spools, J-hooks, and D-rings. 3. Straps and other devices. B. Conduit and Boxes: Comply with requirements in Division 26 Section "Raceway and Boxes for Electrical Systems." Flexible metal conduit shall not be used. 1. Outlet boxes shall be no smaller than 2 inches wide, 3 inches high, and 2-1/2 inches deep. 1.5 LABELING A. Comply with TIA/EIA-606-A and UL 969 for a system of labeling materials, including label stocks, laminating adhesives, and inks used by label printers. 1.6 GROUNDING A. Comply with requirements in Division 26 Section "Grounding and Bonding for Electrical Systems" for grounding conductors and connectors. 1.7 BACKBOARDS A. Backboards: Plywood, fire-retardant treated, 3/4 by 48 by 96 inches. 1.8 UTP CABLE A. Description: 100-ohm, 4-pair UTP, covered with a blue thermoplastic jacket. 1. Comply with ICEA S-90-661 for mechanical properties. 2. Comply with TIA/EIA-568-B.1 for performance specifications. 3. Comply with TIA/EIA-568-B.2, Category 6A. 4. Listed and labeled by an NRTL acceptable to authorities having jurisdiction as complying with UL 444 and NFPA 70 for the following types: a. Communications, General Purpose: Type CM or CMG; or MPP, CMP, MPR, CMR, MP, or MPG. b. Communications, Plenum Rated: Type CMP or MPP, complying with NFPA 262. 1.9 UTP CABLE HARDWARE A. General Requirements for Cable Connecting Hardware: Comply with TIA/EIA-568-B.2, IDC type, with modules designed for punch-down caps or tools. Cables shall be terminated with connecting hardware of same category or higher. B. Connecting Blocks: 110-style IDC for Category 6A. C. Cross-Connect: Modular array of connecting blocks arranged to terminate building cables and permit interconnection between cables. 1. Number of Terminals per Field: One for each conductor in assigned cables. D. Patch Panel: Modular panels housing multiple-numbered jack units with IDC-type connectors at each jack for permanent termination of pair groups of installed cables. 1. Number of Jacks per Field: One for each four-pair UTP cable indicated. E. Jacks and Jack Assemblies: Modular, color-coded, eight-position modular receptacle units with integral IDC-type terminals. F. Patch Cords: Factory-made, four-pair cables in varying lengths; terminated with eight-position modular plug at each end. 1. Patch cords shall have bend-relief-compliant boots and color-coded icons to ensure Category 6A performance. Patch cords shall have latch guards to protect against snagging. 1.10 COAXIAL CABLE A. General Coaxial Cable Requirements: Broadband type, recommended by cable manufacturer specifically for broadband data transmission applications. Coaxial cable and accessories shall have 75-ohm nominal impedance with a return loss of 20 dB maximum from 7 to 806 MHz. B. RG-6/U (Plenum Rated): NFPA 70, Type CMP. C. Coaxial Cable Connectors: Type BNC, 75 ohms. 1.11 TELECOMMUNICATIONS OUTLET/CONNECTORS A. Jacks: 100-ohm, balanced, twisted-pair connector, four-pair, eight-position modular. Comply with TIA/EIA-568-B.1. B. Workstation Outlets: Four and six-port-connector assemblies mounted in single faceplate. 1. For use with snap-in cables accommodating any combination of UTP work area cords. 2. Legend: Snap-in, clear-label covers and machine-printed paper inserts. 1.12 IDENTIFICATION PRODUCTS A. Comply with TIA/EIA-606-A and UL 969 for a system of labeling materials, including label stocks, laminating adhesives, and inks used by label printers. B. Comply with requirements in Division 26 Section "Identification for Electrical Systems." 1.13 WIRING METHODS A. Wiring Method: Install cables in raceways and cable trays except within consoles, cabinets, desks, and counters and except in accessible ceiling spaces, in attics, and in gypsum board partitions where unenclosed wiring method may be used. Conceal raceway and cables except in unfinished spaces. 1. Install plenum cable in environmental air spaces, including plenum ceilings. 2. Comply with requirements for raceways and boxes specified in Division 26 Section "Raceway and Boxes for Electrical Systems." B. Wiring within Enclosures: Bundle, lace, and train cables to terminal points with no excess and without exceeding manufacturer's limitations on bending radii. Provide and use lacing bars and distribution spoils. 1.14 INSTALLATION OF PATHWAYS A. Comply with TIA/EIA-569-A for pull-box sizing and length of conduit and number of bends between pull points. B. Comply with requirements in Division 26 Section "Raceway and Boxes for Electrical Systems" for installation of conduits and wireways. C. Install maintenance conduit sweeps and long-radius elbows. D. Pathway Installation in Communications Equipment Rooms: 1. Position conduit ends adjacent to a corner on backboard where a single piece of plywood is installed, or in the corner of room where multiple sheets of plywood are installed around perimeter walls of room. 2. Secure conduits to backboard when entering room from overhead. 3. Install metal conduits with grounding bushings and connect with grounding conductor to grounding system. 1.15 INSTALLATION OF CABLES A. Comply with NECA 1. B. General Requirements for Cabling: 1. Comply with TIA/EIA-569-B.1. 2. Comply with BICSI ITSM, Ch. 6, "Cable Termination Practices." 3. Install 110-style IDC termination hardware unless otherwise indicated. 4. Terminate conductors; no cable shall contain unterminated elements. 5. Pulling Cable: Comply with BICSI ITSM, Ch. 4, "Pulling Cable." Monitor cable pull tensions. C. UTP Cable Installation: 1. Comply with TIA/EIA-568-B.2. D. Separation from EMI Sources: 1. Comply with BICSI TDM and TIA/EIA-569-A for separating unshielded copper voice and data communication cable from potential EMI sources, including electrical power lines and equipment. 1.16 IDENTIFICATION A. Identify system components, wiring, and cabling complying with TIA/EIA-606-A. Comply with requirements for identification specified in Division 26 Section "Identification for Electrical Systems." 1. Color-code cross-connect fields. Apply colors to voice and data service backboards, connections, covers, and labels. B. Labels shall be preprinted or computer-printed type with printing area and font color that contrasts with cable jacket color but still complies with requirements in TIA/EIA-606-A. SECTION 283111 - DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM 1.1 SYSTEM DESCRIPTION A. Noncoded, addressable system, with multiplexed signal transmission, dedicated to fire-alarm service only. 1.2 SUBMITTALS A. Product Data: For each type of product indicated. B. Shop Drawings: For fire-alarm system. Include plans, elevations, sections, details, and attachments to other work. C. General Submittal Requirements: 1. Submittals shall be approved by authorities having jurisdiction prior to submitting them to Architect. 2. Shop Drawings shall be prepared by persons with the following qualifications: a. Trained and certified by manufacturer in fire-alarm system design. b. NICET-certified fire-alarm technician, Level III minimum. D. Delegated-Design Submittal: For smoke and heat detectors indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation. 1. Drawings showing the location of each smoke and heat detector, ratings of each, and installation details as needed to comply with listing conditions of the detector. 2. Design Calculations: Calculate requirements for selecting the spacing and sensitivity of detection, complying with NFPA 72. E. Seismic Qualification Certificates: For fire-alarm control unit, accessories, and components, from manufacturer. F. Field quality-control reports. G. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals. 1. Comply with the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72. 2. Provide "Record of Completion Documents" according to NFPA 72 article "Permanent Records" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter. 3. Record copy of site-specific software. 4. Provide "Maintenance, Inspection and Testing Records" according to NFPA 72 article of the same name and include the following: a. Frequency of testing of installed components. b. Frequency of inspection of installed components. c. Requirements and recommendations related to results of maintenance. d. Manufacturer's user training manuals. 5. Manufacturer's required maintenance related to system warranty requirements. 6. Abbreviated operating instructions for mounting at fire-alarm control unit. 1.3 SYSTEMS OPERATIONAL DESCRIPTION A. Fire-alarm signal initiation shall be by one or more of the following devices: 1. Manual stations 2. Heat detectors. 3. Automatic sprinkler system water flow. B. Fire-alarm signal shall initiate the following actions: 1. Continuously operate alarm-notification appliances. 2. Identify alarm at the fire-alarm control unit. 3. Transmit an alarm signal to the remote alarm receiving station. 4. Unlock electric door locks in designated egress paths. 5. Record events in the system memory. C. Supervisory signal initiation shall be by one or more of the following devices and actions: 1. Valve supervisory switch. D. System trouble signal initiation shall be by one or more of the following devices and actions: 1. Open circuits, shorts, and grounds in designated circuits. 2. Opening, tampering with, or removing alarm-initiating and supervisory signal-initiating devices. 3. Loss of primary power at fire-alarm control unit. 4. Ground or a single break in fire-alarm control unit internal circuits. 5. Abnormal ac voltage at fire-alarm control unit. 6. Break in standby battery circuitry. 7. Failure of battery charging. 8. Abnormal position of any switch at fire-alarm control unit or annunciator. E. System Trouble and Supervisory Signal Actions: Initiate notification appliance and annunciate at fire-alarm control unit. 1.4 FIRE-ALARM CONTROL UNIT A. General Requirements for Fire-Alarm Control Unit: 1. Field programmable, microprocessor-based, modular, power-limited design with electronic modules, complying with UL 864 and listed and labeled by an NRTL. 2. Addressable control circuits for operation of mechanical equipment. B. Alphanumeric Display and System Controls: Arranged for interface between human operator at fire-alarm control unit and addressable system components including annunciation and supervision. Display alarm, supervisory, and component status messages and the programming and control menu. C. Circuits: 1. Initiating Device, Notification Appliance, and Signaling Line Circuits: NFPA 72, Class A. a. Initiating Device Circuits: Style D. b. Notification Appliance Circuits: Style Z. c. Signaling Line Circuits: Style E. D. Notification Appliance Circuit: Operation shall sound in a repeating pattern. E. Transmission to Remote Alarm Receiving Station: Automatically transmit alarm, supervisory, and trouble signals to a remote alarm station. F. Primary Power: 24-V dc obtained from 120-V ac service and a power-supply module. Initiating devices, notification appliances, signaling lines, trouble signals, supervisory and digital alarm communicator transmitters shall be powered by 24-V dc source. 1. Alarm current draw of entire fire-alarm system shall not exceed 80 percent of the power-supply module rating. G. Secondary Power: 24-V dc supply system with batteries, automatic battery charger, and automatic transfer switch. 1.5 MANUAL FIRE-ALARM BOXES A. General Requirements for Manual Fire-Alarm Boxes: Comply with UL 38. Boxes shall be finished in red with molded, raised-letter operating instructions in contrasting color; shall show visible indication of operation; and shall be mounted on recessed outlet box. If indicated as surface mounted, provide manufacturer's surface back box. 1. Double-act mechanism requiring two actions to initiate an alarm, pull-lever type, with integral addressable module arranged to communicate manual-station status (normal, alarm, or trouble) to fire-alarm control unit. 2. Station Reset: Key or wrench-operated switch. 3. Indoor Protective Shield: Factory-fabricated clear plastic enclosure hinged at the top to permit lifting for access to initiate an alarm. Lifting the cover actuates an integral battery-powered audible horn intended to discourage false-alarm operation. 1.6 SYSTEM SMOKE DETECTORS A. General Requirements for System Smoke Detectors: 1. Comply with UL 268, operating at 24 V dc, nominal. 2. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit. B. Photoelectric Smoke Detectors: 1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting. 2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector: a. Primary status. b. Device type. c. Present average value. d. Present sensitivity selected. e. Sensor range (normal, dirty, etc.). 1.7 NOTIFICATION APPLIANCES A. General Requirements for Notification Appliances: Connected to notification appliance signal circuits, zoned as indicated, equipped for mounting as indicated and with screw terminals for system connections. 1. Combination Devices: Factory-integrated audible and visible devices in a single-mounting assembly, equipped for mounting as indicated and with screw terminals for system connections. B. Horns: Electric-vibrating-polarized type, 24-V dc, with provision for housing the operating mechanism behind a grille. Comply with UL 464. Horns shall produce a sound-pressure level of 90 dBA, measured 10 feet from the horn, using the coded signal prescribed in UL 464 test protocol. C. Visible Notification Appliances: Xenon strobe lights comply with UL 1971, with clear or nominal white polycarbonate lens mounted on an aluminum faceplate. The word "FIRE" is engraved in minimum 1-inch-high letters on the lens. 1. Rated Light Output: a. 1530/75/110 cd, selectable in the field. 2. Mounting: Wall mounted unless otherwise indicated. 3. For units with guards to prevent physical damage, light output ratings shall be determined with guards in place. 4. Flashing shall be in a temporal pattern, synchronized with other units. 5. Strobe Leads: Factory connected to screw terminals. 6. Mounting Faceplate: Factory finished, red. 1.8 ADDRESSABLE INTERFACE DEVICE A. Description: Microelectronic monitor module, NRTL listed for use in providing a system address for alarm-initiating devices for wired applications with normally open contacts. 1.9 DIGITAL ALARM COMMUNICATOR TRANSMITTER A. Digital alarm communicator transmitter shall be acceptable to the remote central station and shall comply with UL 632 and be listed and labeled by an NRTL. B. Functional Performance: Unit shall receive an alarm, supervisory, or trouble signal from fire-alarm control unit and automatically capture two telephone line(s) and dial a preset number for a remote central station. When contact is made with central station(s), signals shall be transmitted. If service on either line is interrupted for longer than 45 seconds, transmitter shall initiate a local trouble signal and transmit the signal indicating loss of telephone line to the remote alarm receiving station over the remaining line. Transmitter shall automatically report telephone service restoration to the central station. If service is lost on both telephone lines, transmitter shall initiate the local trouble signal. C. Local functions and display at the digital alarm communicator transmitter shall include the following: 1. Verification that both telephone lines are available. 2. Programming device. 3. LED display. 4. Manual test report function and manual transmission clear indication. 5. Communications failure with the central station or fire-alarm control unit. D. Digital data transmission shall include the following: 1. Address of the alarm-initiating device. 2. Address of the supervisory signal. 3. Address of the trouble-initiating device. 4. Loss of ac supply or loss of power. 5. Low battery. 6. Abnormal test signal. 7. Communication bus failure. E. Secondary Power: Integral rechargeable battery and automatic charger. F. Self-Test: Conducted automatically every 24 hours with report transmitted to central station. 1.10 FIRE ALARM WIRE AND CABLE A. General Wire and Cable Requirements: NRTL listed and labeled as complying with NFPA 70, Article 760. B. Signaling Line Circuits: Twisted, shielded pair, size as recommended by system manufacturer, but not less than No. 16 AWG. 1. Circuit Integrity Cable: Twisted shielded pair, NFPA 70, Article 760, Classification CI, for power-limited fire alarm signal service Type FPL. NRTL listed and labeled as complying with UL 1424 and UL 2196 for a 2-hour rating. C. Non-Power-Limited Circuits: Solid-copper conductors with 600-V rated, 75 deg C, color-coded insulation. 1. Low-Voltage Circuits: No. 16 AWG, minimum. 2. Line-Voltage Circuits: No. 12 AWG, minimum. 3. Multiconductor Armored Cable: NFPA 70, Type MC, copper conductors, Type TFF/HHN conductor insulation, copper drain wire, copper armor with outer jacket with red identifier stripe, NRTL listed for fire alarm and cable tray installation, plenum rated, and complying with requirements in UL 2196 for a 2-hour rating. 1.11 EQUIPMENT INSTALLATION A. Comply with NFPA 72 for installation of fire-alarm equipment. B. Install wall-mounted equipment, with tops of cabinets not more than 72 inches above the finished floor. 1. Comply with requirements for seismic-restraint devices specified in Section 260548 "Vibration and Seismic Controls for Electrical Systems." C. Smoke or Heat Detector Spacing: 1. Comply with NFPA 72, "Smoke-Sensing Fire Detectors" Section in the "Initiating Devices" Chapter, for smoke-detector spacing. 2. Comply with NFPA 72, "Heat-Sensing Fire Detectors" Section in the "Initiating Devices" Chapter, for heat-detector spacing. D. Audible Alarm-Indicating Devices: Install not less than 6 inches below the ceiling. Install bells and horns on Fire-Rated Cable Boxes: Use of 2-hour, fire-rated fire alarm cables, NFPA 70, Types MI and CI, is not permitted. E. Visible Alarm-Indicating Devices: Install adjacent to each alarm bell or alarm horn and at least 6 inches below the ceiling. 1.12 IDENTIFICATION A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260533 "Identification for Electrical Systems." B. Install framed instructions in a location visible from fire-alarm control unit. 1.13 GROUNDING A. Ground fire-alarm control unit and associated circuits, comply with IEEE 1100. Install a ground wire from main service ground to fire-alarm control unit. 1.14 FIRE ALARM WIRING INSTALLATION A. Comply with NECA 1 and NFPA 72. B. Wiring Method: Install wiring in metal raceway according to Section 260533 "Raceways and Boxes for Electrical Systems." 1. Fire alarm circuits and equipment control wiring associated with the fire alarm system shall be installed in a dedicated raceway system. This system shall not be used for any other wire or cable. C. Wiring Method: 1. Cables and raceways used for fire alarm circuits, and equipment control wiring associated with the fire alarm system, may not contain any other wire or cable. 2. Fire-Rated Cable Boxes: Use of 2-hour, fire-rated fire alarm cables, NFPA 70, Types MI and CI, is not permitted. 3. Signaling Line Circuits: Power-limited fire alarm cables shall not be installed in the same cable or raceway as signaling line circuits. D. Wiring within Enclosures: Separate power-limited and non-power-limited conductors as recommended by manufacturer. Install conductors parallel with or at right angles to sides and back of the enclosure. Bundle, lace, and train conductors to terminal points with no excess. Connect conductors that are terminated, spliced, or interrupted in any enclosure associated with the fire alarm system to terminal blocks. Mark each terminal according to the system's wiring diagrams. Make all connections with approved crimp-on terminal spade lugs, pressure-type terminal blocks, or plug connectors. E. Cable Taps: Use numbered terminal strips in junction, pull, and outlet boxes, cabinets, or equipment enclosures where circuit connections are made. F. Color-Coding: Color-code fire alarm conductors differently from the normal building power wiring. Use one color-code for alarm circuit wiring and another for supervisory circuits. Color-code audible alarm-indicating circuits differently from alarm-initiating circuits. Use different colors for visible alarm-indicating devices. Paint fire alarm system junction boxes and covers red. 1.15 FIELD QUALITY CONTROL A. Field tests shall be witnessed by authorities having jurisdiction. B. Tests and Inspections: 1. Visual Inspection: Conduct visual inspection prior to testing. a. Inspection shall be based on completed Record Drawings and system documentation that is required by NFPA 72 in its "Completion Documents, Preparation" Table in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter. b. Comply with "Visual Inspection Frequencies" Table in the "Inspection" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72; retain the "Initial/Reacceptance" column and list only the installed components. 2. System Testing: Comply with "Test Methods" Table in the "Testing" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72. 3. Test audible appliances for the public operating mode according to manufacturer's written instructions. Perform the test using a portable sound-level meter complying with Type 2 requirements in ANSI S1.4. 4. Test audible appliances for the private operating mode according to manufacturer's written instructions. 5. Test visible appliances for the public operating mode according to manufacturer's written instructions. 6. Factory-authorized service representative shall prepare the "Fire Alarm System Reacceptance" in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter in NFPA 72 and the "Inspection and Testing Form" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72. C. Reacceptance Testing: Perform reacceptance testing to verify the proper operation of added or replaced devices and appliances. D. Fire-alarm system will be considered defective if it does not pass tests and inspections. E. Prepare test and inspection reports. F. Maintenance Test and Inspection: Perform tests and inspections listed for weekly, monthly, quarterly, and semiannual periods. Use forms developed for initial tests and inspections. G. Annual Test and Inspection: One year after date of Substantial Completion, test fire-alarm system complying with visual and testing inspection requirements in NFPA 72. Use forms developed for initial tests and inspections.	JOSEPH T. BECK ARCHITECT, INC. 650 N. 400 W. SMITHFIELD, UTAH (435) 764-6742 REGISTERED PROFESSIONAL ENGINEER No. 294174 SHANE D. SWENSON 8/28/2020 STATE OF UTAH DATE AUG 15 2020 PROJECT TITLE STANDER BUILDING ADDITION NIBLEY, UT SHEET TITLE ELECTRICAL SPECIFICATIONS PROJECT NUMBER SSE# 2020045 REVISIONS CITY REVIEW 2020-08-28 SINE SOURCE ENGINEERING 95 West Golf Course RD Suite 102 Logan, UT 84321 office: (435) 782-1445 fax: 1-877-207-3199 www.sinesource.net E003

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2 ENLARGED SITE PLAN: SERVICE DETAIL
SCALE: 1/4" = 1'-0"



1 ELECTRICAL SITE PLAN
Scale: 1"=30'-0"

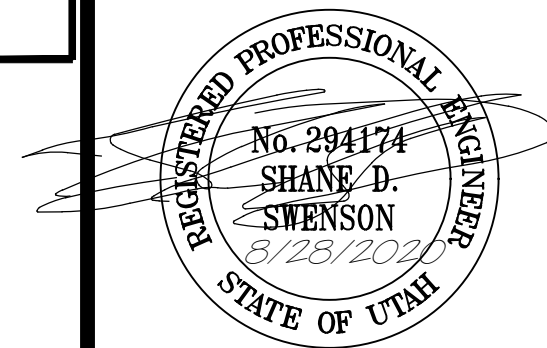
SHEET KEYED NOTES

- EXISTING UTILITY EQUIPMENT AND LINES TO REMAIN.
- EXISTING SERVICE TO REMAIN.
- STUB CONDUIT TO PROPERTY LINE FOR FUTURE COMMUNICATION SERVICE.
- PROVIDE POWER FOR DOCK STORM DRAIN SUMP PUMP. TERMINATE CONDUCTORS IN WATERTIGHT J-BOX.

GENERAL SHEET NOTES

- EXISTING ITEMS TO BE REMOVED ARE INDICATED AS BOLD/DASHED. ITEMS TO REMAIN ARE SHOWN AS LIGHT/SOLID.
- CIRCUIT ROUTING IS SCHEMATIC UNLESS OTHERWISE NOTED.

JOSEPH T. BECK
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DATE
AUG 15 2020

PROJECT TITLE
STANDER BUILDING ADDITION
NIBLEY, UT

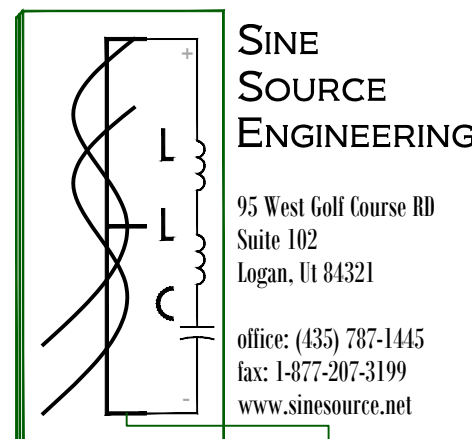
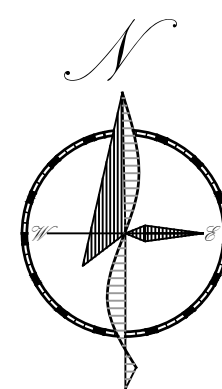
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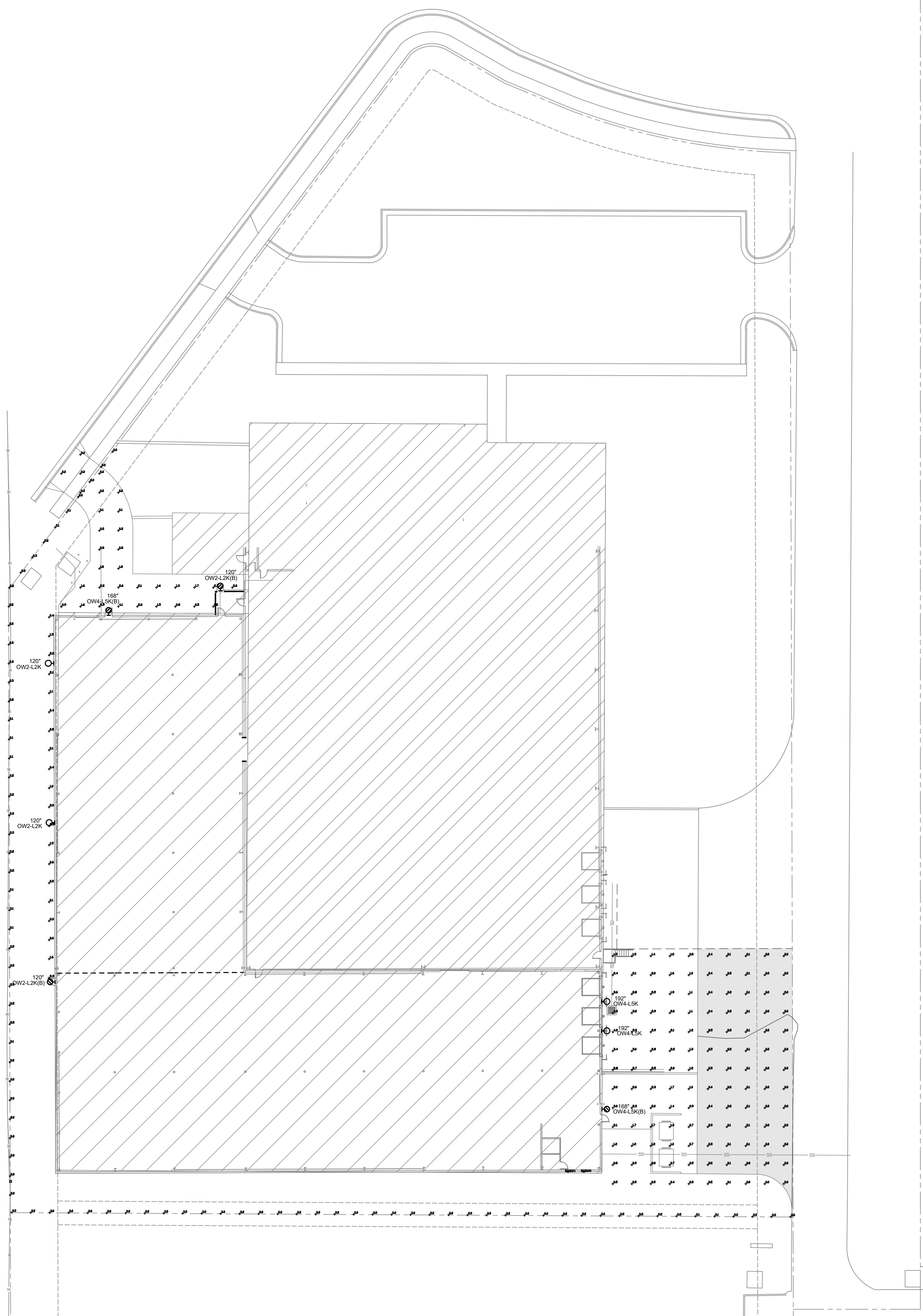
PROJECT NUMBER
SSE# 2020045

REVISIONS
CITY REVIEW 2020-08-28

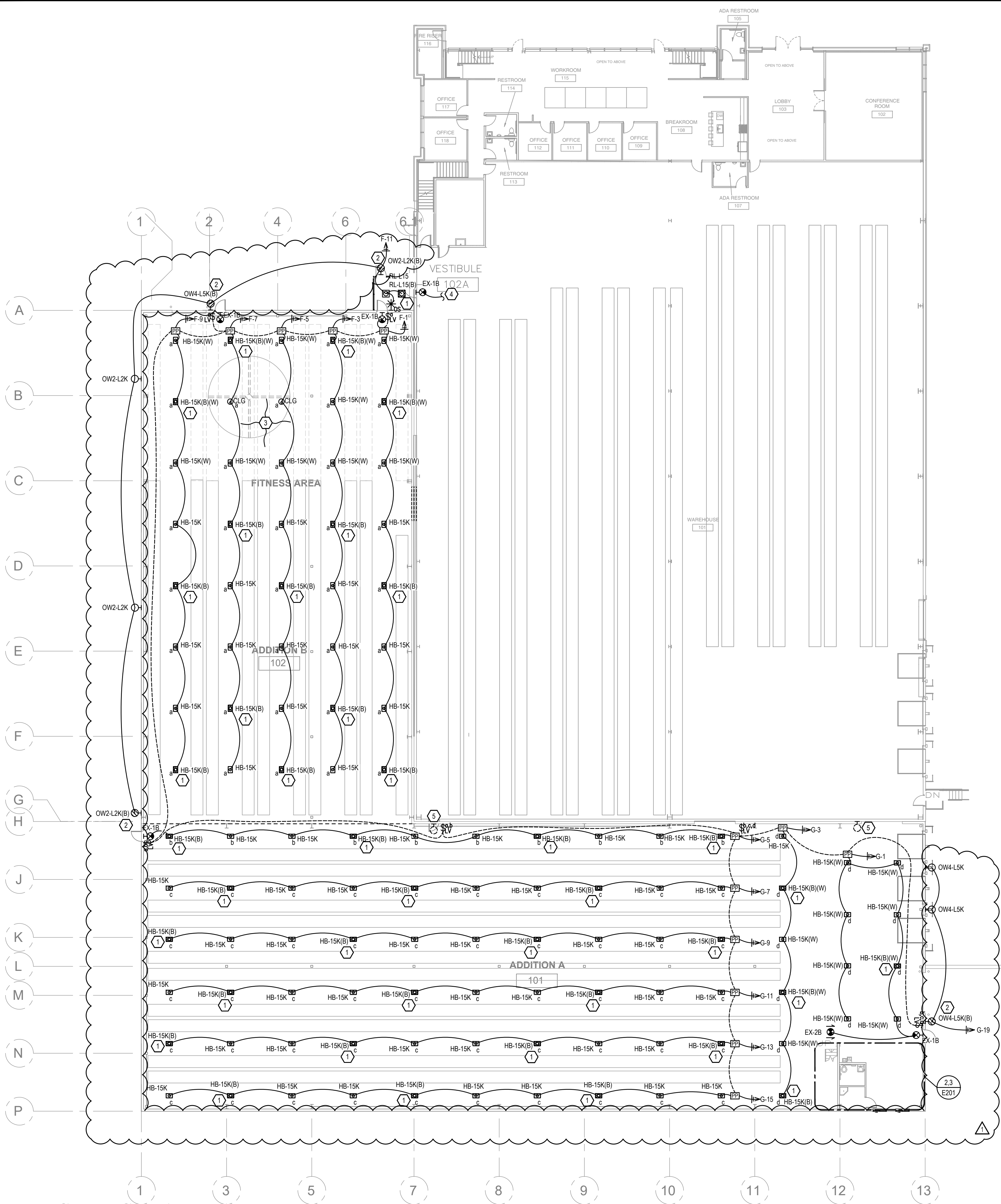
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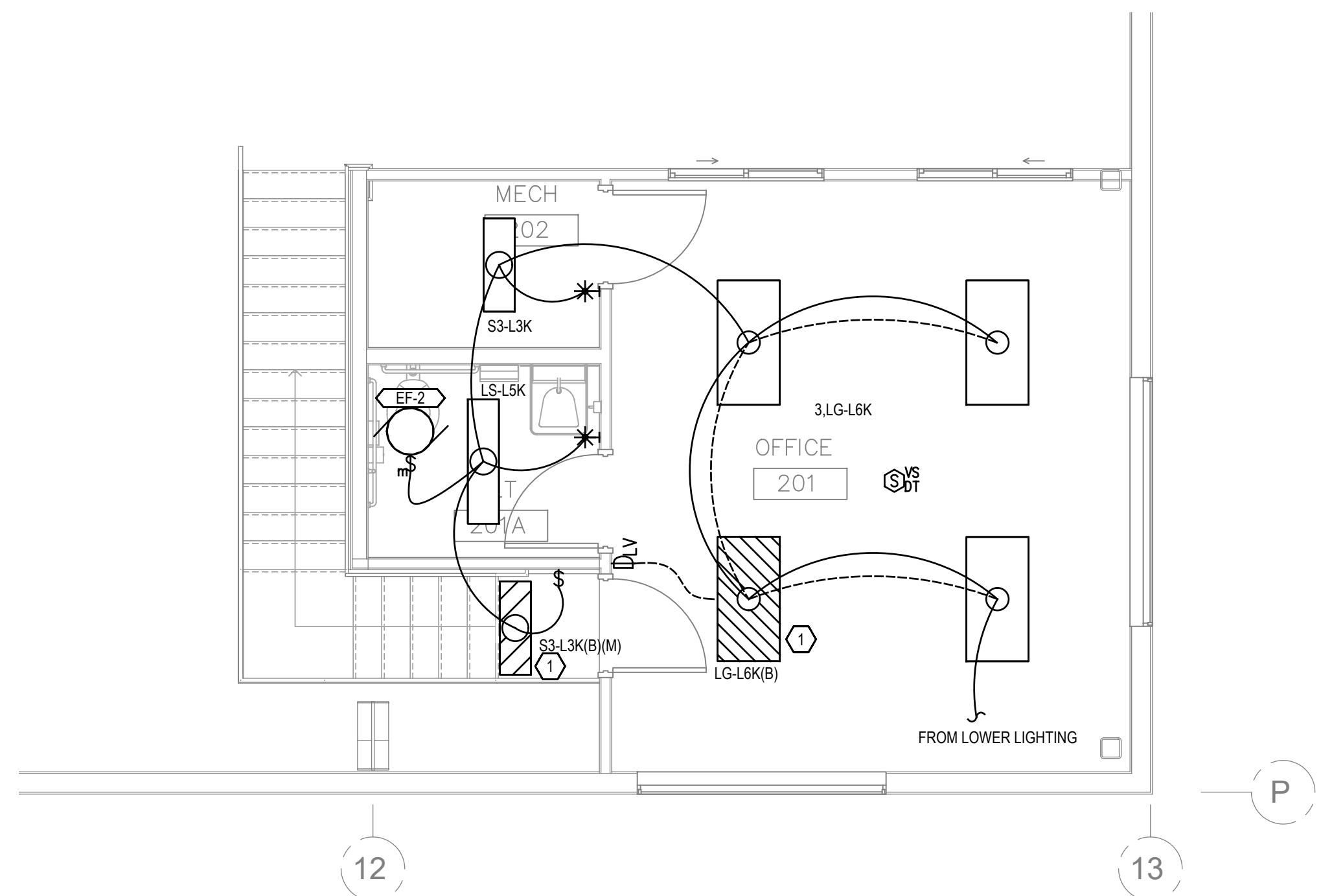


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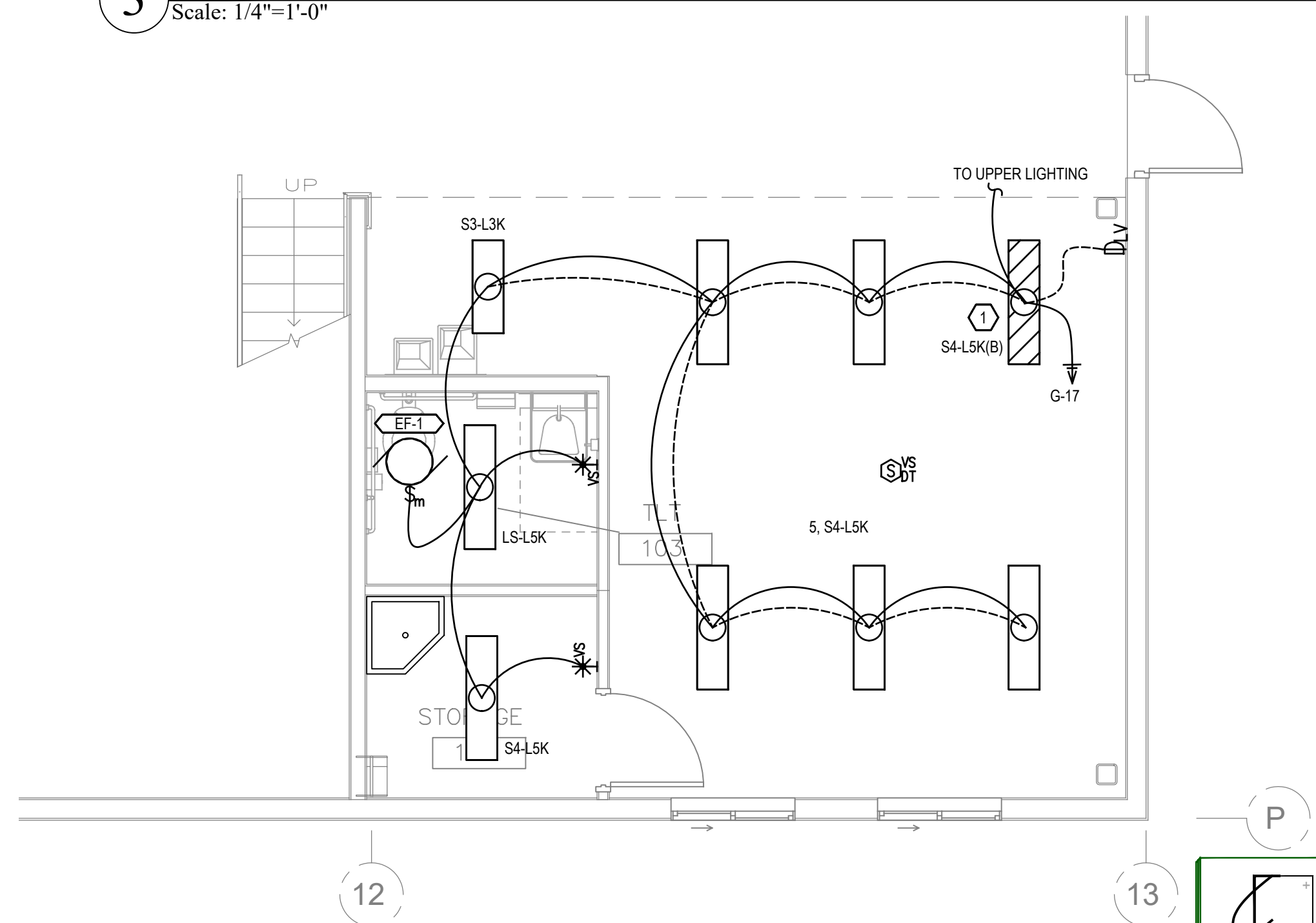


1 LIGHTING PLAN: MAIN LEVEL
Scale: 1/16"=1'-0"

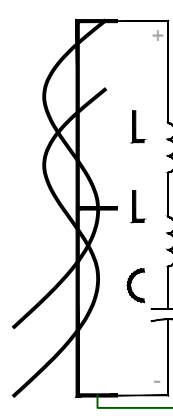
GENERAL SHEET NOTES	SHEET KEYED NOTES
1. CONTRACTOR TO FURNISH OCCUPANCY SENSORS WITH COVERAGE PATTERNS APPROPRIATE FOR THEIR INSTALLED LOCATIONS. COORDINATE WITH EQUIPMENT SUPPLIER PRIOR TO BID. 2. CONNECT OCCUPANCY SENSORS TO ENABLE ALL SWITCHES IN CONTROLLED SPACE. 3. CONNECT OCCUPANCY SENSORS, BATTERY BALLASTS, EXIT SIGNS, ETC. TO UNSWITCHED SOURCE CONDUCTOR. 4. SEE POWER PLAN FOR ELECTRICAL DISTRIBUTION, EQUIPMENT AND LIGHTING RELAY PANEL LOCATIONS. 5. EXISTING LIGHTING, ELECTRICAL AND ELECTRONIC DEVICES SHOWN LIGHT. NEW DEVICES SHOWN DARK. 6. NEW DEVICES SHOWN ON EXISTING WALLS SHALL FINISH FLUSH WITH WALL UNLESS OTHERWISE NOTED. CUT, PATCH AND REPAIR SURFACES AS REQUIRED. 7. ALL NEW LIGHTING CONTROLS (SWITCH, OCCUPANCY SENSORS, DIMMERS, ETC.) SHALL BE LITHONIA N-LIGHT, DOUGLASS DIALOG OR OTHER SIMILAR SYSTEM THAT ALLOWS SWITCHES AND SENSORS TO COMMUNICATE TO MEET REQUIREMENTS OF ENERGY CODE.	1. PROVIDE EM BATTERY PACK IN FIXTURES NOTED. CONNECT BATTERY TO UNSWITCHED CIRCUIT CONDUCTOR OF CIRCUIT SERVING FIXTURE. CONNECT FIXTURE TO OPERATE WITH SWITCH(S) IN NORMAL MODE. 2. PROVIDE COLD-WEATHER OR REMOTE EM BATTERY BACKUP FOR FIXTURES NOTED. CONNECT BATTERY TO UNSWITCHED CIRCUIT CONDUCTOR OF CIRCUIT SERVING FIXTURE. CONNECT LAMPS TO OPERATE WITH SWITCH(S) IN NORMAL MODE. 3. CABLE SUSPEND FIXTURES IN FITNESS AREA TO BOTTOM OF HVLS FAN BLADES. 4. CONNECT TO CIRCUIT SERVING EXIT LIGHTING IN EXISTING WAREHOUSE. 5. DEMO EXISTING EXTERIOR FIXTURE. SALVAGE FIXTURE AND GIVE TO OWNER. 6. USED.



3 ENLARGED LIGHTING PLAN: UPPER LEVEL
Scale: 1/4"=1'-0"

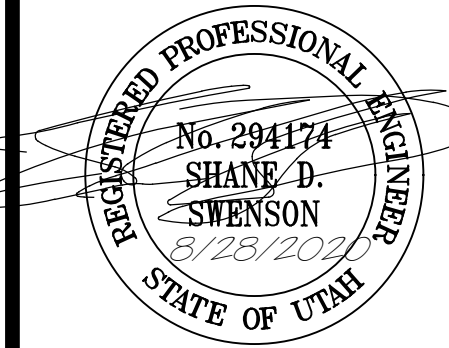


2 ENLARGED LIGHTING PLAN: MAIN LEVEL
Scale: 1/4"=1'-0"



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DATE
AUG 15 2020

PROJECT TITLE
**STANDER BUILDING ADDITION
NIBLEY, UT**

SHEET TITLE
LIGHTING PLANS

PROJECT NUMBER
SSE# 2020045

REVISIONS
CITY REVIEW 2020-08-28

SHEET NUMBER
E201



1. COORDINATE ALL SWITCH, OUTLET, LIGHT AND OTHER DEVICE LOCATIONS WITH ARCHITECTURAL ELEMENTS (CABINETS, WINDOWS ETC.) PRIOR TO ROUGH-IN. REVIEW ARCHITECTURAL INTERIOR ELEVATIONS PRIOR TO ROUGH-IN OF EACH AREA FOR ADDITIONAL INFORMATION.
2. PROVIDE 4SD-I BOX WITH 1 GANG MUD RING AND 1" CONDUIT TO ACCESSIBLE CEILING SPACE FOR ALL VOICEDATA/COMBO OUTLETS SHOWN ON FLOOR PLANS. PROVIDE INSULATED THROAT CONNECTORS ON BOTH ENDS OF CONDUIT. COMMUNICATIONS CABLING PROVIDED BY OWNER.
3. EXISTING LIGHTING, ELECTRICAL AND ELECTRONIC DEVICES SHOWN LIGHT, NEW DEVICE SHOWN DARK.
4. NEW DEVICES SHOWN ON EXISTING WALLS SHALL FINISH FLUSH WITH WALL UNLESS OTHERWISE NOTED. CUT, PATCH AND REPAIR SURFACES AS REQUIRED.

1. EXISTING PANEL TO REMAIN	7. PROVIDE CONTROL ROUGH-IN FOR OPENER AND SENSORS AS REQUIRED. PROVIDE CONTROL WIRING PER EQUIPMENT REQUIREMENTS. EQUIPMENT AND DEVICES INDICATED ARE SHOWN FOR INTENT ONLY AND SHALL BE ADJUSTED PER EQUIPMENT REQUIREMENTS.
2. DISCONNECT EXISTING HVLS FAN FOR RELOCATION BY OTHERS. PROTECT DISCONNECT AND CONTROL EQUIPMENT DURING CONSTRUCTION. REFER TO KEYED NOTE #3 FOR NEW LOCATION OF HVLS FAN AND FAN CONTROLS.	8. TREAD MILL LAYOUT TBD, COORDINATE TREAD MILL LOCATION WITH OWNER PRIOR TO ROUGH-IN.
3. RE-INSTALL HVLS FAN CONTROLS DEMO'D IN KEYED NOTE #2 AND RE-FED HVLS FAN.	9. DEMO EXISTING OUTLET.
4. PROVIDE HVAC EQUIPMENT SERVICE OUTLET LOCATED PER NEC REQUIREMENTS.	10. PROVIDE 4" CONCRETE REINFORCED BOLLARD TO PROTECT PANEL. PAINT BOLLARD OSHA YELLOW.
5. MOUNT EWC OUTLET BEHIND COOLER COVER. ROUTE CIRCUIT THROUGH FACELESS GFI (LEVITON 7590 OR EQUIVALENT) MOUNTED BELOW COOLER COVER. REFER TO DETAIL 2.E591.	11. LOCATE GFI OUTLET IN PIT FOR DOCK LEVELERS PER MANUFACTURERS REQUIREMENTS. PROVIDE RACEWAYS AND CONTROL WIRING FROM PIT TO WALL MOUNTED DOCK LEVELER CONTROLLER AS REQUIRED BY MANUFACTURER.
6. PROVIDE WP-IN-USE, FLUSH-MOUNT BOX (ARLINGTON STEEL IN-BOX OR EQUIVALENT). COORDINATE TYPE WITH WALL CONSTRUCTION. FIELD PAINT INTERIOR AND TRIM TO MATCH BUILDING TRIM COLOR.	12. PROVIDE CIRCUIT AND J-BOX FOR FUTURE CHARGER. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
	13. STUB CIRCUIT OUT FOR FUTURE SUMP PUMP. REFER TO SITE PLAN FOR STORM DRAIN SUMP PUMP CIRCUITING AND LOCATION.



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UG 15 2020

STANDER BUILDING ADDITION
NIBLEY, UT

POWER PLANS

PROJECT NUMBER
SSE# 2020045

CITY REVIEW 2020-08-20

SHEET NUMBER

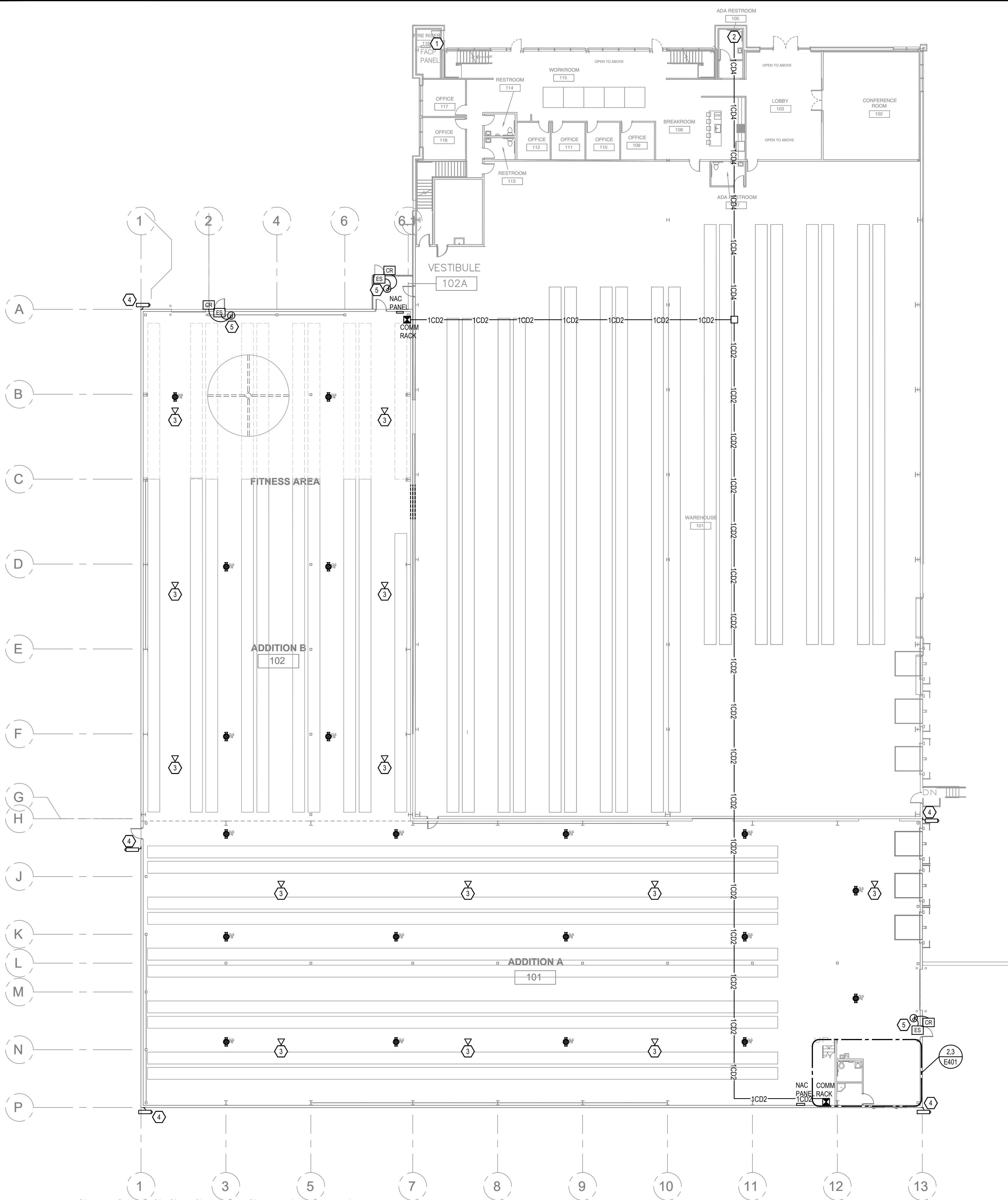
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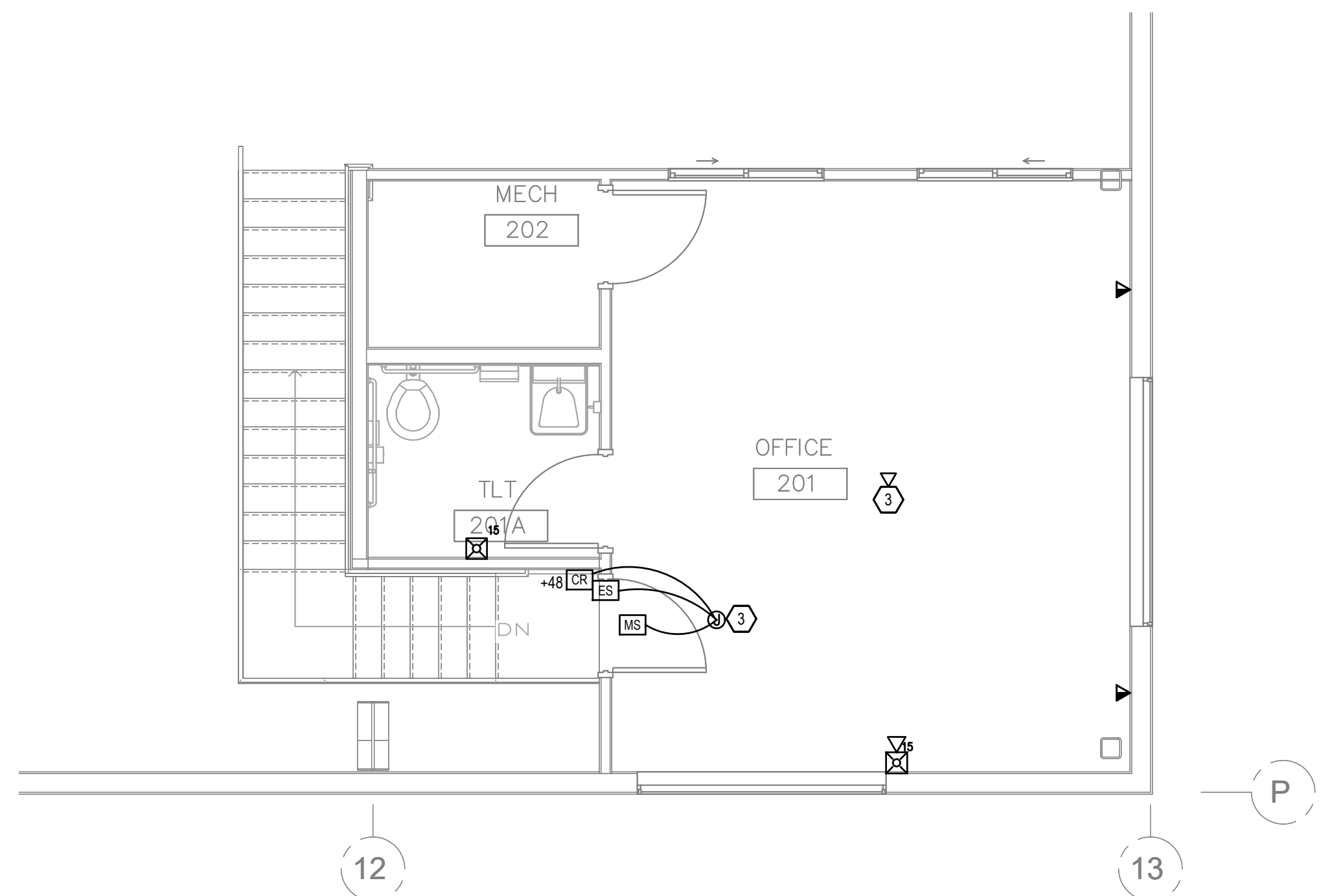
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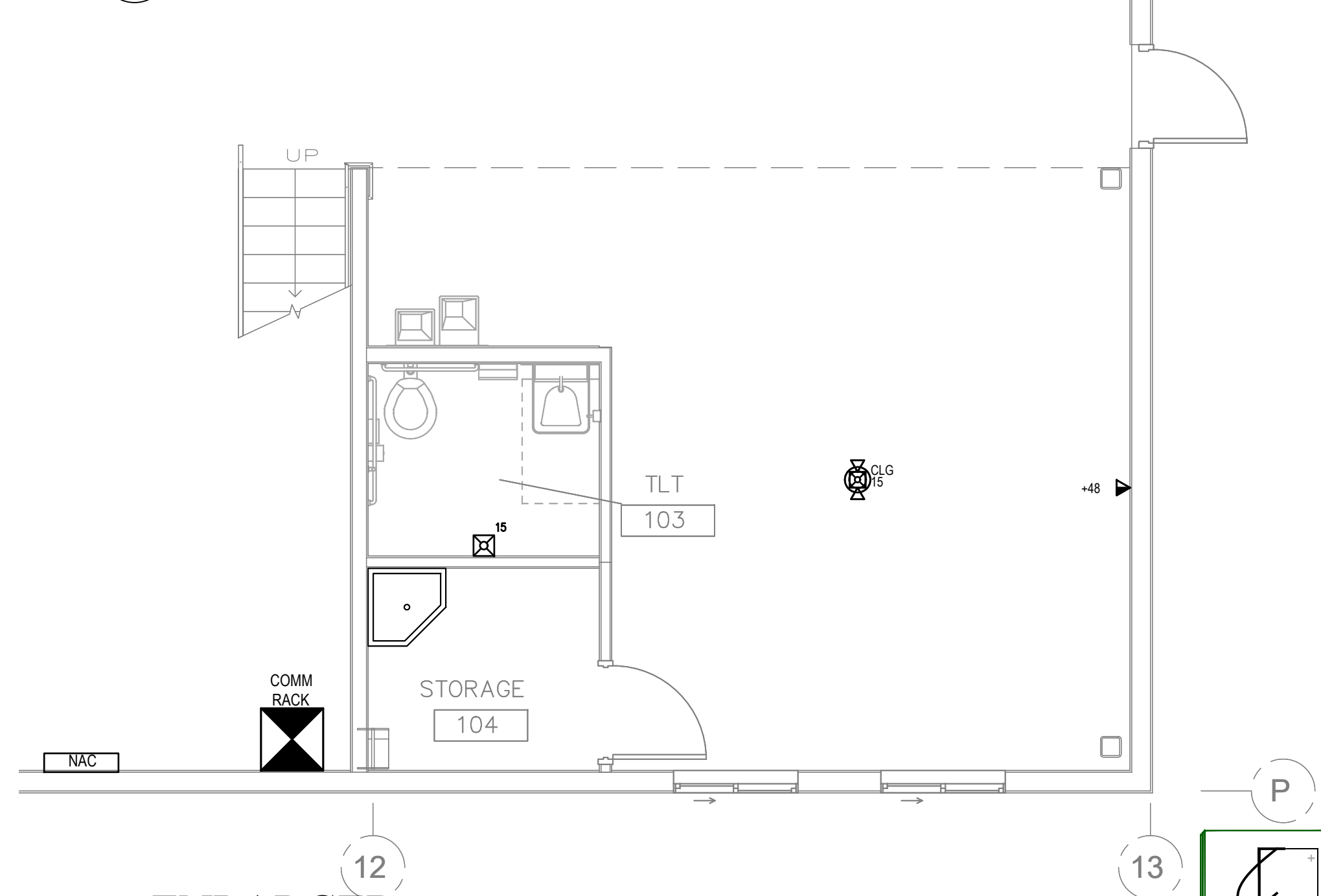


1 ELECTRONIC SYSTEMS PLAN: MAIN LEVEL
Scale: 1/16"=1'-0"

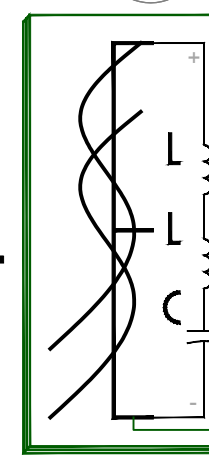
GENERAL SHEET NOTES	SHEET KEYED NOTES
1. SEE SYMBOL SCHEDULE AND COMMUNICATIONS RISER DIAGRAM FOR COMMUNICATIONS CABLING AND ROUGH-IN REQUIREMENTS. 2. FIRE ALARM CONTRACTOR SHALL ADJUST MANUFACTURER'S STANDARD CANDELA RATINGS AS NECESSARY TO MEET OR EXCEED MINIMUM REQUIREMENTS. 3. INTEGRATE NEW FIRE ALARM DEVICES INTO EXISTING SYSTEM. PROVIDE ALL UPGRADES TO EXISTING FIRE ALARM SYSTEM NEEDED FOR COMPLETE SYSTEM EXPANSION. COORDINATE WITH EQUIPMENT REPS PRIOR TO BID. 4. ALL FIRE ALARM CONDUITS AND BOXES TO BE IDENTIFIED AS FOLLOWS: a) CONCEALED: FACTORY APPLIED RED. b) EXPOSED: FIELD PAINTED TO MATCH ADJACENT SURFACE. 8. SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED AND FINAL. 9. PROVIDE SYNCHRONIZATION OF ALL VISUAL NOTIFICATION APPLIANCE CIRCUITS. PROVIDE ALL REQUIRED SYNC MODULES. PROVIDE A MULTI-SYNC MODE SLAVE CONNECTION BETWEEN ALL SYNC MODULES. 10. DESIGN AND FIELD VERIFY AUDIBILITY SETTINGS OF NOTIFICATION APPLIANCES. FIELD MEASURE SOUND PRESSURE LEVELS AND REPLACE HORN-STROBES WITH STROBE ONLY DEVICES WHERE REQUIRED. 11. POWER FOR ALL FIRE ALARM PANELS AND FIRE ALARM POWER SUPPLIES MUST BE PROVIDED BY A DEDICATED AC BRANCH CIRCUIT. 12. NEW DEVICES SHOWN ON EXISTING WALLS SHALL FINISH FLUSH WITH WALL UNLESS OTHERWISE NOTED. CUT, PATCH AND REPAIR SURFACES AS REQUIRED.	1. EXISTING SILENT NIGHT IFP-100 FIRE ALARM CONTROL PANEL. 2. ROUTE CONDUIT TO EXISTING COMM RACK LOCATED ON SECOND FLOOR. 3. PROVIDE CEILING OUTLET FOR WIRELESS ACCESS POINT. COORDINATE WITH OWNERS I.T. PERSONNEL PRIOR TO ROUGH-IN. 4. FIELD VERIFY CAMERA LOCATION WITH OWNER'S SECURITY SYSTEM CONTRACTOR PRIOR TO ROUGH-IN. CABLING BY OTHERS. 5. PROVIDE ACCESS DOOR ROUGH-IN: • INSTALL OWNER FURNISHED BOX FOR CARD READER • PROVIDE 4SD J-BOX ABOVE DOOR, PROVIDE 3/4" CONDUIT FROM CARD READER TO CEILING J-BOX • PROVIDE 1/2" CONDUIT FROM J-BOX INTO DOOR FRAME FOR CONTACT SENSOR • PROVIDE 1" CONDUIT FROM CEILING BOX TO CARD READER CONTROLLER CABLING PER ACCESS CONTROL CONTRACTOR



3 ENLARGED ELECTRONIC SYSTEMS: UPPER LEVEL
Scale: 1/4"=1'-0"



2 ENLARGED ELECTRONIC SYSTEMS: MAIN LEVEL
Scale: 1/4"=1'-0"



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DATE
AUG 15 2020

PROJECT TITLE
STANDER BUILDING ADDITION
NIBLEY, UT

SHEET TITLE
ELECTRONIC SYSTEMS
PLANS

PROJECT NUMBER
SSE# 2020045

REVISIONS
CITY REVIEW 2020-08-28

SHEET NUMBER
E401

LAST SAVE: 8/15/2020 1:00:05 PM SINE SOURCE PROJECT SHEET E501 ELECTRICAL DETAILS DWG
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COMMUNICATIONS RACEWAY SCHEDULE				
SYMBOL	DESCRIPTION	MANUFACTURER	MODEL	ACCESSORIES
xCDy	CONDUIT, QUANTITY "X", DIAMETER "Y" AS INDICATED ON SYMBOL SCHEDULE	AS SPECIFIED		INSULATED THROAT CONNECTORS ON ALL ENDS; PULL STRING
CMJ	CABLE HOOKS, 4"; RETAINING CLIP QUANTITY AS REQUIRED FOR CURRENT CABLING PLUS 50% SPARE CAPACITY	COOPER B-LINE	BCH84 SERIES (OR EQUIVALENT)	RETAINER (BCHR64) OTHER ACCESSORIES AS REQUIRED
xBTy	X"W X Y"D STEEL, WIRE MESH TRAY MAXIMUM 8" SUPPORT SPACING (MIN 83 LBS/FT LOAD CAPACITY)	COOPER	FT(X)(Y)-EG SERIES (OR EQUIVALENT)	ACCESSORIES AS REQUIRED
xLRy	X"W X Y"D ALUMINUM, LADDER STYLE; CABLE TRAY; 6" RUNG SPACING; 200 LBS/FT LOAD CAPACITY	COOPER B-LINE	H47-A-XX-YY-*** SERIES (OR EQUIVALENT)	ACCESSORIES AS REQUIRED
OUTLET BOX	5" SQUARE X 2 7/8" DEEP 3/4" MUD RING (1 OR 2-GANG AS NOTED)	STEEL CITY	82181T-1 SERIES 82C-G-3/4 (OR EQUIVALENT)	
AV BOX	6" SQUARE X 3 1/2" DEEP 3/4" MUD RING (3-GANG AS NOTED)	GARVIN	6350-1-1/2 6AMR-3 (OR EQUIVALENT)	

GENERAL DIAGRAM NOTES

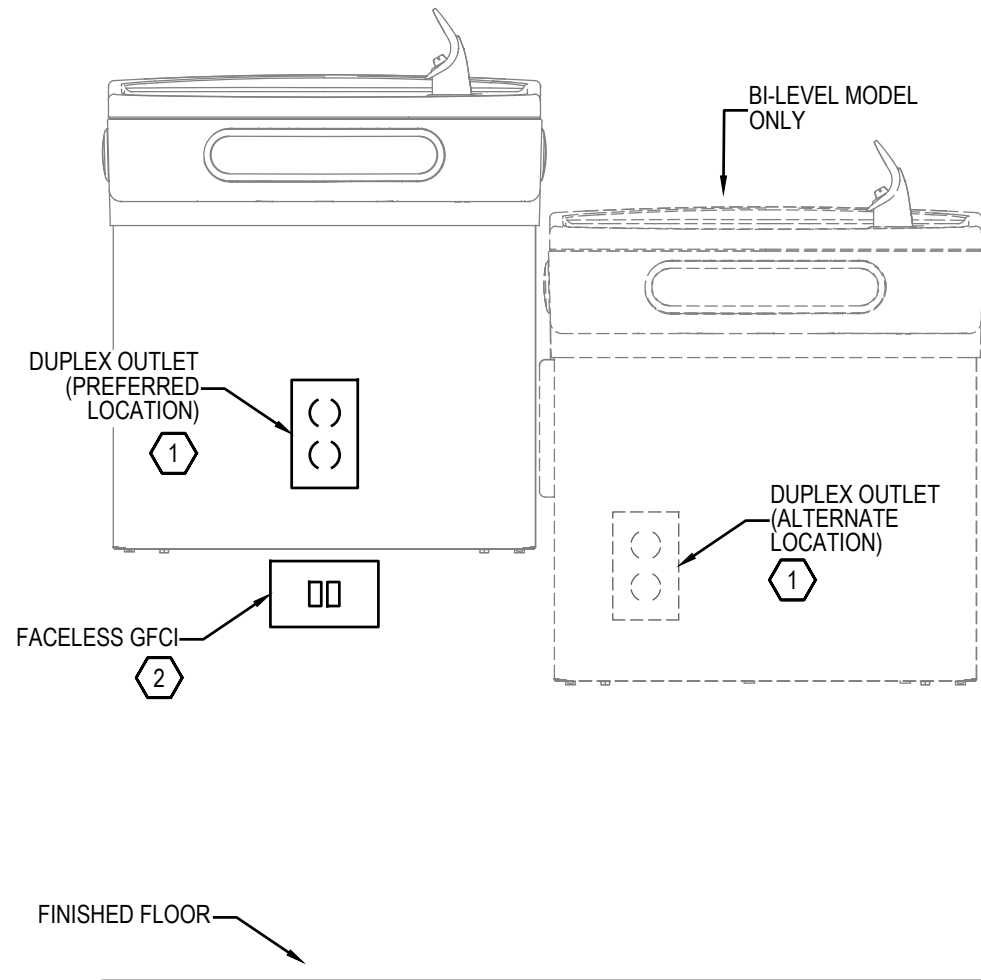
1. ALL INSTALLATIONS TO COMPLY WITH TIA/EIA STANDARD 586B FOR CAT 6 CABLE.
2. ALL STATION OUTLETS, ASSOCIATED CABLING, DATA RACKS, RACEWAYS, PUNCH BLOCKS, PATCH PANELS AND CROSS CONNECTS PROVIDED BY CONTRACTOR. ELECTRONICS BY OWNERS.
3. PROVIDE OWNER STANDARD OUTLET PLATES AT EACH OUTLET WITH PROVISIONS FOR FOUR JACKS IN EACH OUTLET. FILL UNUSED SPACES WITH BLANK INSERT.
4. FOLLOW OWNER'S IDENTIFICATION STANDARDS FOR ALL NEW INSTALLATIONS. COORDINATE WITH OWNER'S VOICE AND DATA PERSONNEL.
5. PROVIDE ONE PATCH CORD FOR EACH NEW CABLE/PORT INSTALLED. FIELD VERIFY LENGTHS, BUT ASSUME EQUAL QUANTITIES OF 2', 4', AND 10' CABLES FOR BID.
6. CONTRACTOR SHALL TEST ALL COPPER RUNS TO VERIFY dB LOSSES AND SHALL PROVIDE TEST RESULTS TO OWNER AND ENGINEER.
7. PROVIDE WIDE-SCWEEP BENDS FOR ALL CONDUITS.
8. PROVIDE CONNECTORS WITH INSULATED THROATS OR PLASTIC BUSHINGS ON ALL CONDUIT ENDS.

DIAGRAM KEYED NOTES

1. STUB CONDUIT OUT TO PROPERTY LINE.
2. PROVIDE PRE-DRILLED, CU GROUNDING BAR WITH STANDOFFS MOUNTED AT 12" AFF IN COMMUNICATIONS ENCLOSURE. PROVIDE #6 CU GROUND TO GROUNDING ELECTRODE SYSTEM. PROVIDE #6 BONDING CONDUCTORS TO ALL EQUIPMENT RACKS, CABLE-TRAYS, RACEWAYS, AND OTHER ASSOCIATED COMMUNICATIONS AND AUXILIARY SYSTEMS EQUIPMENT AS NECESSARY.
3. PROVIDE CONDUIT AS INDICATED WITH 1" INNER DUCT TO NEW COMM RACK. PROVIDE NEW CABLING AS INDICATED.
4. PROVIDE ELECTRICALLY BONDED RACEWAY SYSTEM - BOND COMM DEVICE CONDUITS TO COMM RACK, GROUND BUS, ETC. WHERE OUTLETS STUB TO ACCESSIBLE CEILING, BOND DEVICE BOX/CONDUIT TO ADJACENT ELECTRICAL OUTLET.
5. PROVIDE (3) DATA JACKS WITH (1) CAT 6 CABLE PER JACK FROM DATA RACK TO EACH COMPLETELY FILLED TRIANGLE OUTLET SHOWN ON FLOOR PLANS. WHERE OUTLETS HAVE A NUMERICAL SUPERScript, PROVIDE "X" QUANTITY OF JACKS AND CABLES WHERE "X" IS THE ASSOCIATED SUPERScript NUMBER.
6. PROVIDE (2) DATA JACKS WITH (1) CAT 6 CABLE PER JACK FROM DATA RACK TO EACH HALF-FILLED TRIANGLE OUTLET SHOWN ON FLOOR PLANS.
7. PROVIDE (1) DATA JACK WITH (1) CAT 6 CABLE FROM DATA RACK TO EACH EMPTY TRIANGLE OUTLET SHOWN ON FLOOR PLANS.
8. PROVIDE RECEPTACLE FOR EACH OUTLET. SEE ELECTRONIC SYSTEMS SHEETS, FOR LOCATIONS AND COUNTS. TV OUTLETS SHOWN ADJACENT TO COMM OUTLETS ON FLOOR PLAN MAY BE COMBINED INTO THE SAME BOX/RACEWAY/FACEPLATE.
9. PROVIDE 4-PORT MODULAR FACEPLATE FOR EACH COMMUNICATIONS OR TV OUTLET SHOWN. PROVIDE (1) CAT 6 RJ45 ANGLED JACK FOR EACH VOICE OR DATA CABLE TERMINATED IN OUTLET OR (1) ANGLED F-CONNECTOR FOR EACH COAX CABLE. PROVIDE BLANK INSERTS FOR UNUSED PLATE OPENINGS. PROVIDE ADDITIONAL GANGS WHERE MORE THAN 4 DEVICES ARE REQUIRED.
10. PROVIDE SURGE SUPPRESSOR OUTLET IN ENCLOSURE CIRCUITED AS SHOWN ON E301.
11. PROVIDE WALL-MOUNT DATA RACK WITH WIRING HOLDER FRAME.
12. PROVIDE CAT 6 PATCH PANELS AS INDICATED WITH QUANTITY OF PORTS TO TERMINATE EACH VOICE AND DATA CABLE PLUS 100% SPARE CAPACITY. ALLOW ONE CABLE PER STATION PORT.
13. EXISTING COMM RACK.
14. PROVIDE J-BOX MOUNTED AT CEILING HEIGHT AT LOCATIONS INDICATED IN DRAWINGS FOR OWNER PROVIDED WIRE ACCESS POINT.
15. PROVIDE 12-PORT (6-PAIR) FIBER PATCH PANEL.
16. PROVIDE 24"X 24" JUNCTION BOX.
17. PROVIDE J-BOX ON EXTERIOR WALL WITH WEATHER PROOF BLANK COVER PAINTED TO MATCH WALL SURFACE FOR CAMERA.
18. PAINT CONDUIT ROUTED THROUGH OPEN CORRIDOR BLACK TO MATCH CEILING.

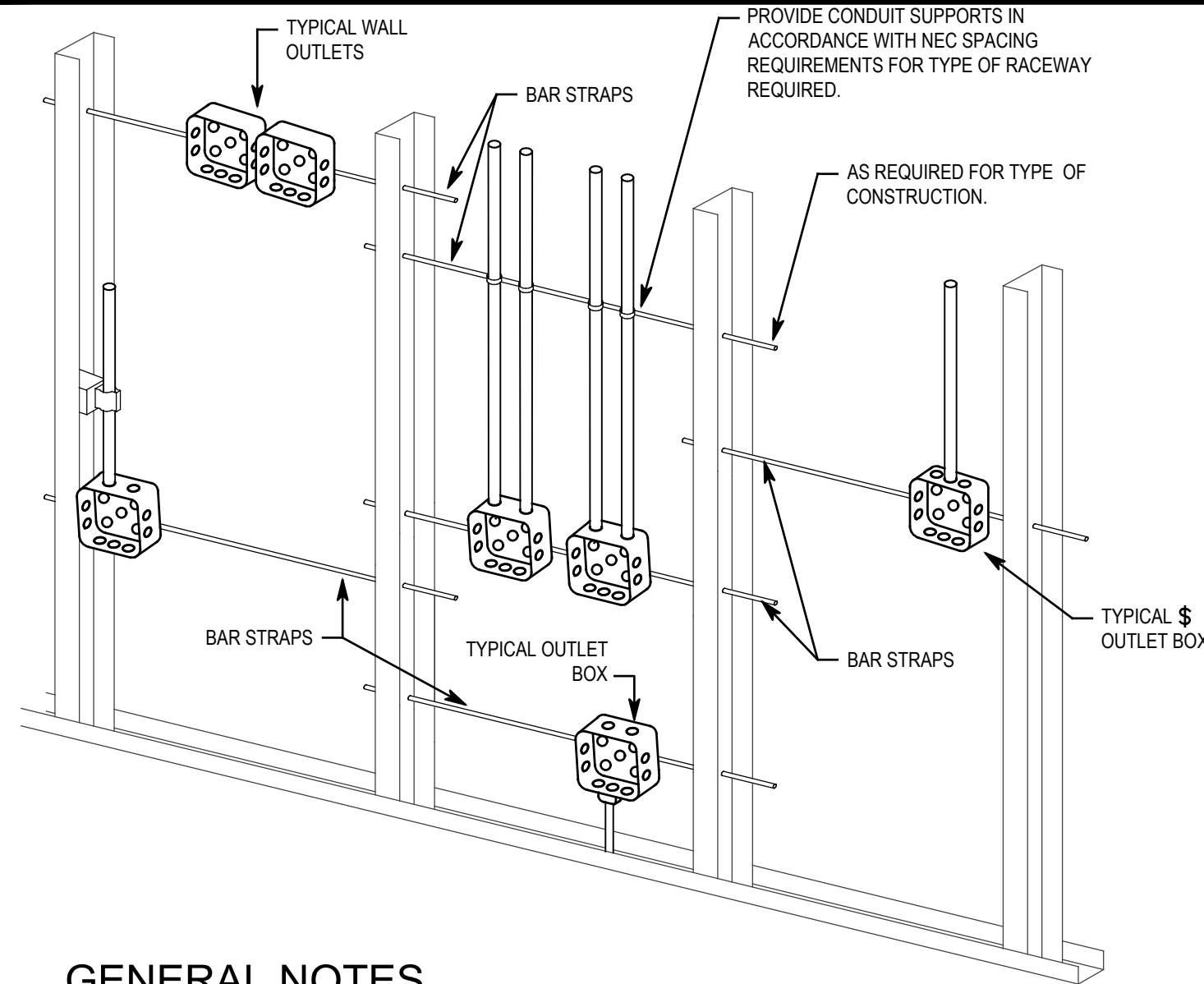
DETAIL KEYED NOTES

1. VERIFY OUTLET LOCATION WITH MANUFACTURER'S REQUIREMENTS AND FIELD CONDITIONS TO BE CONCEALED WITH COVER INSTALLED.
2. FACELESS GFCI - HORIZONTAL, FLUSH-MOUNT IMMEDIATELY BELOW COOLER COVER TO BE ACCESSIBLE WITH COVER IN PLACE. CONNECT OUTLETS TO LOAD-SIDE OF GFCI.



DRINKING FOUNTAIN ELECTRICAL DETAIL

SCALE: NO SCALE

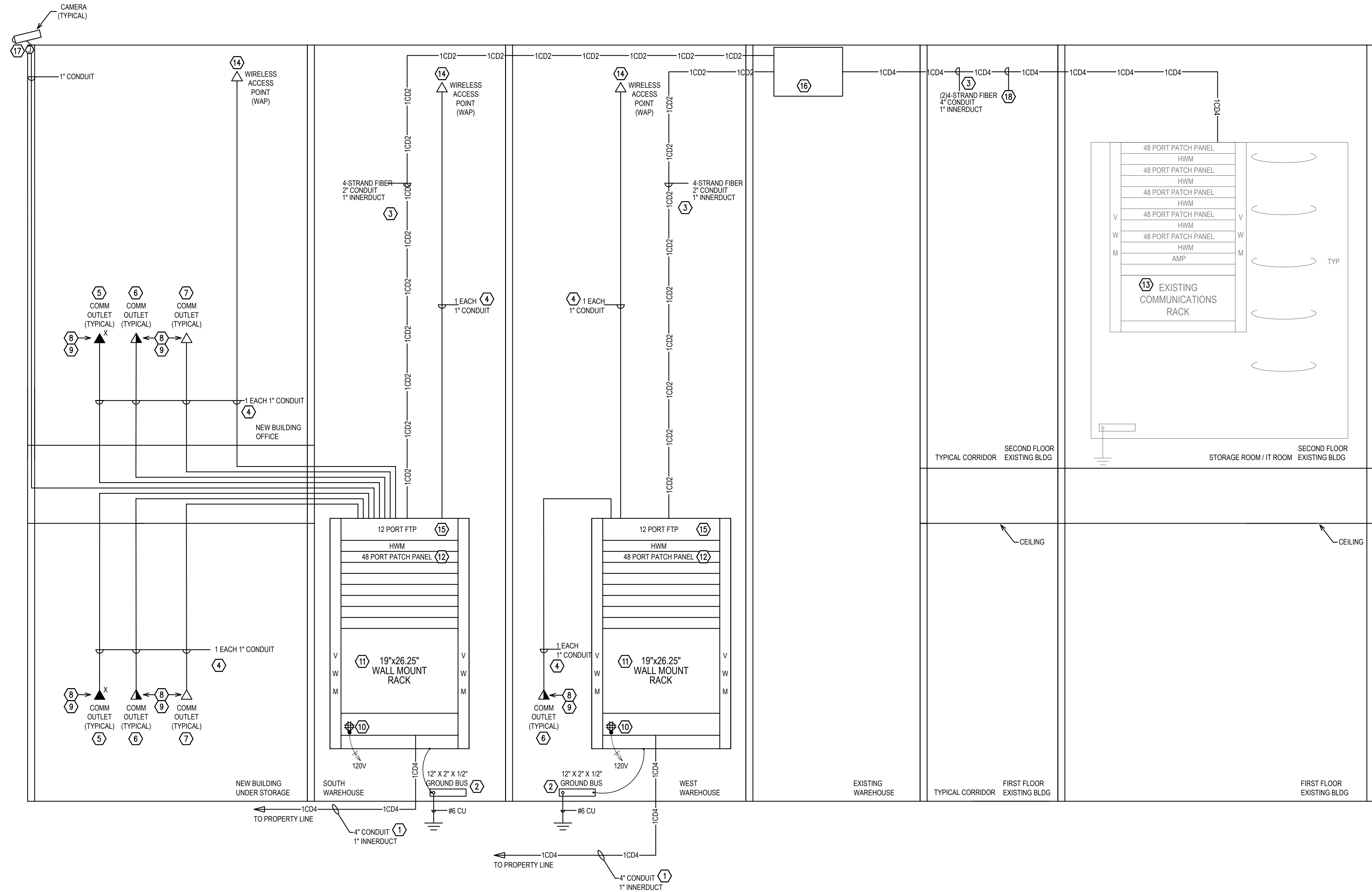


GENERAL NOTES

1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE IN A RATED FIRE SEPARATION WALL MUST BE SEPARATED BY A MINIMUM OF 24" HORIZONTAL DISTANCE.
5. IN NON-RATED WALLS, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY 16" FOR SOUND ATTENUATION.

TYPICAL ROUGH-IN REQUIREMENTS DETAIL

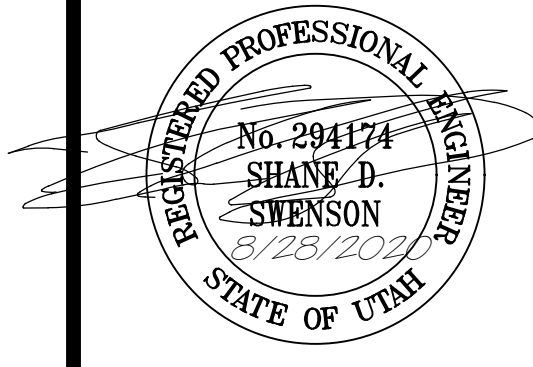
SCALE: NO SCALE



COMMUNICATION RISER DIAGRAM

SCALE: NO SCALE

JOSEPH T. BECK
ARCHITECT, INC.
650 N. 400 W.
SMITHFIELD, UTAH
(435) 764-6742



DATE
AUG 15 2020

PROJECT TITLE
STANDER BUILDING ADDITION
NIBLEY, UT

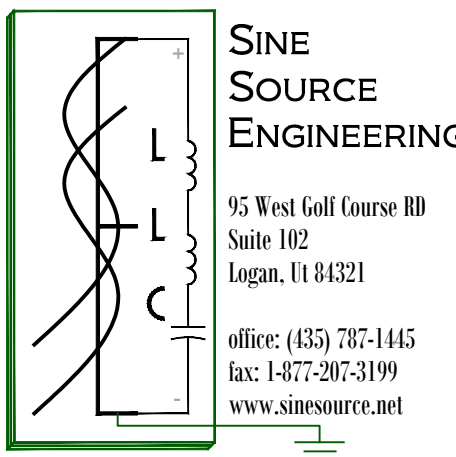
SHEET TITLE
ELECTRICAL DETAILS

PROJECT NUMBER
SSE# 2020045

REVISIONS
CITY REVIEW 2020-08-28

SHEET NUMBER

E501



1. AIC RATINGS SHOWN INDICATE MINIMUM REQUIRED VALUES.
2. ALL CONDUCTORS ARE CONSIDERED TO BE COPPER UNLESS SPECIFICALLY NOTED OTHERWISE.
3. A FULL SIZE EQUIPMENT GROUNDING CONDUCTOR SIZED FOR THE OVERCURRENT PROTECTIVE DEVICE PROTECTING THE CIRCUIT IS REQUIRED IN EACH RACEWAY OR CABLE FOR PARALLELLED CIRCUITS.
4. CONTRACTOR SHALL DOCUMENT FEEDER CONDUCTOR LENGTH ON FIELD REDLINE SET.

1. EXISTING UTILITY EQUIPMENT AND CONDUCTORS TO REMAIN.
2. EXISTING CT ENCLOSURE, CT METER, AND MAIN PANEL TO REMAIN.
3. PROVIDE NEW BREAKER AND BREAKER MOUNTING PLATES IN EXISTING PANEL. LABEL BREAKER AS SERVICE DISCONNECT

[illegible]

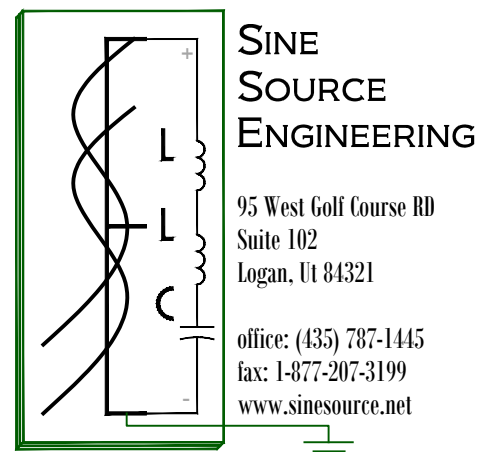
CONDUIT AND CONDUCTOR SCHEDULE NOTES

1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE #5. ALL CONDUCTORS SHOWN ARE THINW FOR CU OR THINW OR XHHW FOR AL UNLESS OTHERWISE NOTED.
2. PROVIDE EQUIPMENT GROUNDING CONDUCTORS PER NEC TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING IN TABLE.
3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4. GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
5. SYMBOL SUBSCRIPTS:
 - * "IG" INCLUDE IG (INSULATED/ISOLATED GROUND CONDUCTOR) SCHEDULED ALONG WITH THE GROUND OF EQUIPMENT GROUND CONDUCTOR.
 - * "S" SUBSTITUTE "SE" CONDUCTOR FOR "SE" CONDUIT SHOWN, WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEM.
 - * "2N" INCLUDE TWO NEUTRAL CONDUCTORS, SIZED AS SCHEDULED FOR PHASED AND NEUTRAL CONDUCTORS.
 - * "R" RAYWAY ONLY CONDUCTORS PROVIDED FOR UTILITY.
 - * "P" PHASE AND NEUTRAL CONDUCTORS ALLOWED FOR VOLTAGE DROP. UPSIZE GROUNDING CONDUCTOR(G) PER NEC 250.122(B).
 - * "A" ALUMINUM CONDUCTORS UPSIZED FOR FEEDER INSTALLED. ALUMINUM CONDUCTORS ARE NOT TO BE USED FOR CONNECTIONS TO MOTORS OR MOTOR DRIVEN EQUIPMENT.
6. A FULL SIZE GROUNDING CONDUCTOR (SE OR G AND/OR IG) SHALL BE INSTALLED IN EACH RAYWAY OR CABLE FOR PARALLELED CIRCUITS.
7. GROUNDING CONDUCTORS (G, IG, AND SE) SHALL BE OF THE SAME CONDUCTOR MATERIAL AS THE CORRESPONDING PHASE CONDUCTORS TO KEEP TABLE CALCULATIONS IN ACCORDANCE WITH NEC REQUIREMENTS.
8. INCREASE CONDUIT TO NEXT LARGEST STANDARD CONDUIT SIZE WHEN IG IS USED.

* CONDUIT SIZED FOR COMPACT ALUMINUM CONDUCTORS. USE COPPER CONDUIT SIZE FOR STANDARD SIZE CONDUCTORS



E601



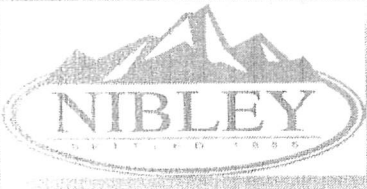
LAST SAVE 8/26/2021 11:05:30 AM STANDER01 DRAWINGS05 ELECTRICAL\SINE SOURCE PROJECT\SHEET\SSE602 ELECTRICAL SCHEDULES.DWG
LAST SAVED 28 Aug 20

MECHANICAL EQUIPMENT SCHEDULE									
SYM	DESCRIPTION	LOAD	VOLTS	PHASE	FIRE ALARM SHUTDOWN	CONTROL CIRCUITS BY	*STARTER BY	SAFETY DISCONNECT BY	REMARKS
CU- 1	CONDENSING UNIT	12.7 MCA	208	1	NO	MECH	MECH	ELEC	
EF- 1	EXHAUST FAN	113 WATTS	120	1	NO	ELEC	ELEC	ELEC	INTEGRATE TO OPERATE WITH LIGHTING CONTROL SERVING ROOM
EF- 2	EXHAUST FAN	113 WATTS	120	1	NO	ELEC	ELEC	ELEC	INTEGRATE TO OPERATE WITH LIGHTING CONTROL SERVING ROOM
F- 1	FURNACE	1/3 HP	120	1	NO	MECH	MECH	ELEC	
UH- 1	UNIT HEATER	1/2 HP	120	1	NO	MECH	MECH	ELEC	
UH- 2	UNIT HEATER	1/2 HP	120	1	NO	MECH	MECH	ELEC	
UH- 3	UNIT HEATER	1/2 HP	120	1	NO	MECH	MECH	ELEC	
UH- 4	UNIT HEATER	1/2 HP	120	1	NO	MECH	MECH	ELEC	
UH- 5	UNIT HEATER	1/2 HP	120	1	NO	MECH	MECH	ELEC	
WH- 1	WATER HEATER	1.5 KW	120	1	NO	MECH	MECH	ELEC	
* ELECTRICAL CONTRACTOR VERIFY SINGLE SPEED OR TWO SPEED STARTERS WITH MECHANICAL DRAWINGS.									

LIGHT FIXTURE SCHEDULE				
TYPE	MANUFACTURER/CATALOG NO.	DESCRIPTION	MOUNTING	POWER
EX- 1B	DUAL LITE NV3-G-EN-W-CVS SURE-LITES CCX7-0-70-G-WH-SD LIGHTQUIER LT-N-U-G-W-SD LITHONIA LOM S W 3 G 120/277 EL N SD EELP XE-2-GW-EM-SD EXITRONIX MCPHILBEN CXXL-3-G-W	EXIT SIGN; SINGLE FACE; UNIVERSAL MOUNTING; WHITE, THERMOPLASTIC HOUSING; SELF DIAGNOSTICS; WIRE GUARD WHERE NOTED ON DRAWINGS	WALL OR CEILING 1-FACE	3W LED
EX- 2B	DUAL LITE NV3-G-EN-W-CVS SURE-LITES CCX7-0-70-G-WH-SD LIGHTQUIER LT-N-U-G-W-SD LITHONIA LOM S W 3 G 120/277 EL N SD EELP XE-2-GW-EM-SD EXITRONIX MCPHILBEN CXXL-3-G-W	EXIT SIGN; DOUBLE FACE; UNIVERSAL MOUNTING; WHITE, THERMOPLASTIC HOUSING; SELF DIAGNOSTICS; WIRE GUARD WHERE NOTED ON DRAWINGS	PENDANT SUSPEND	3W LED
HB- 15K HB- 15K(B) HB- 15K(W)	LITHONIA IBE-L24-15000LM-ATC-ND(W-MD)-120V-GZ10-40K-80CRI-(EM-E15WCP-BPK)-LCH0S2U(W-LAHOSSU)-DWH-IBAC120 M100 OR EQUIVALENT	LED HIGH BAY FIXTURE INTEGRAL MOTION SENSOR WITH HIGH/LOW DIMMING WIDE OPTICAL DISTRIBUTION AND 360 MOTION WHERE INDICATED BY FIXTURE APPEND(W) ON DRAWINGS EM BATTERY PACK WHERE INDICATED BY FIXTURE APPEND(B) ON DRAWINGS	CABLE SUSPENDED TO 22.5' BOTTOM OF FIXTURE	107 W 15000 LUMEN NOMINAL LED 4000K
LG- L6K LG- L6K(B)	LITHONIA EPANEL-2X4-6800-80CRI-40K-MIN10-ZT-MVOLT-(EM-E10WCP) OR EQUIVALENT	2X4 LED FLAT PANEL; 0-10V DIMMING, 120/277V DRIVER EM BATTERY PACK WHERE INDICATED BY FIXTURE APPEND(B) ON DRAWINGS	GRID	50.1 W 6800 LUMEN NOMINAL LED 4000K
LS- L5K	LITHONIA FML4W-48-5000LM-840-ZT-MVOLT OR EQUIVALENT	LINEAR FLUSH MOUNT LED WRAP	SURFACE	53.4 W 5000 LUMEN NOMINAL LED 4000K
OW2- L2K OW2- L2K(B)	LITHONIA DSXW1 LED 10C-350-40K-T2S-MVOLT-PIR-HS-DWHXD-(EM-ELCW) OR EQUIVALENT WITH PRIOR APPROVAL	LED EXTERIOR AREA LIGHT; WALL MOUNT; TYPE 2 OPTICAL DISTRIBUTION INTEGRAL MOTION/AMBIENT LIGHTSENSOR EM BATTERY PACK WHERE INDICATED BY FIXTURE APPEND(B) ON DRAWINGS	WALL TOP OF FIXTURE 120"	13 W 1415 LUMEN NOMINAL LED 4000K
OW4- L5K OW4- L5K(B)	LITHONIA DSXW1 LED 20C-700-40K-T4M-MVOLT-PIR-HS-DWHXD-(EM-ELCW) OR EQUIVALENT WITH PRIOR APPROVAL	LED EXTERIOR AREA LIGHT; WALL MOUNT; TYPE 4 OPTICAL DISTRIBUTION INTEGRAL MOTION/AMBIENT LIGHTSENSOR EM BATTERY PACK WHERE INDICATED BY FIXTURE APPEND(B) ON DRAWINGS	WALL MATCH EXISTING EXTERIOR FIXTURE HEIGHT	46 W 4975 LUMEN NOMINAL LED 4000K
RL- L15 RL- L15(B)	50" HAM EY09-40-15-AR-MD-LD-MVOLT-GZ10-(EM-ELSD) OR EQUIVALENT	RECESSED CAN LED LAMPING, CLEAR, OPEN, SEMI-SPECULAR CONE, 6" NOMINAL OPENING, SELF-FLANGED TO MATCH CONE, DIMMABLE	RECESS	15 W 1500 LUMEN NOMINAL LED 4000K
S3- L3K S3- L3K(B) S3- L3K(M)	LITHONIA CLX-L36-3000LM-SEF-FDL-WD-MVOLT-GZ10-40K-80CRI-(EM-PS1050)-ZACVH-(M-MSDPDT7) OR EQUIVALENT	3' LED LINEAR STRIP; 0-10V DIMMING, 120/277V DRIVER EM BATTERY PACK WHERE INDICATED BY FIXTURE APPEND(B) ON DRAWINGS INTEGRAL MOTION SENSOR WHERE INDICATED BY FIXTURE APPEND (M) ON DRAWINGS	CABLE SUSPEND TO 10' AFF	21 W 3043 LUMEN NOMINAL LED 4000K
S4- L5K S4- L5K(B)	LITHONIA CLX-L48-5000LM-SEF-FDL-WD-MVOLT-GZ10-40K-80CRI-(EM-PS1050)-ZACVH OR EQUIVALENT	4' LED LINEAR STRIP; 0-10V DIMMING, 120/277V DRIVER EM BATTERY PACK WHERE INDICATED BY FIXTURE APPEND(B) ON DRAWINGS	CABLE SUSPEND TO 10' AFF	34 W 4902 LUMEN NOMINAL LED 4000K
LIGHT FIXTURE ACCESSORY SCHEDULE				
B	AS SPECIFIED	APPENDED TO FIXTURE TYPE; 1100 LUMEN EM BATTERY SUPPLY	AS SPECIFIED	PER FIXTURE TYPE
M	AS SPECIFIED	APPENDED TO FIXTURE TYPE; MOTION SENSOR RATED FOR FIXTURE SUSPENSION HEIGHT	FIXTURE	PER FIXTURE TYPE
W	AS SPECIFIED	APPENDED TO FIXTURE TYPE; REPLACE DISTRIBUTION WITH A WIDE DISTRIBUTION	FIXTURE	PER FIXTURE TYPE
NOTES -FIXTURE APPENDS ARE ADDED TO STANDARD FIXTURE TYPES. APPENDS ARE INTENDED TO MODIFY FIXTURE CATALOG NUMBERS GIVEN ABOVE AS NOTED IN APPEND DESCRIPTION				

PANEL	G		TYPE	EATON PRL1A		3		Ø	4		WIRE	120/208	VOLTS	LOCATION	MOUNTING																								
	X	NEW		REMARKS											SOUTH WAREHOUSE	FLUSH																							
																X	SURFACE																						
																225	AMP MAIN																						
1	EXISTING													225	LUGS																								
	NEMA RATING															BREAKER																							
	BOLT ON BREAKERS																																						
	ISOLATED GROUND BUS																																						
	SURGE PROTECT (SPD)																																						
No.	BRKR	CIRCUIT DESCRIPTION		L	O	M	WIRE/CND			CIRC. LOAD	WIRE/CND					L	O	M	CIRCUIT DESCRIPTION	BRKR	No.																		
	A	P					P	N	G	C		A	B	C	P	N	G	C				A	P	No.															
1	20	1	LTG. WAREHOUSE DOCK AREA	8			10	10	10	3/4S	856	2380			1524	12S	12S	12S	3/4S		1	CONDENSING UNIT CU-1	20	2	2														
3	20	1	LTG. WAREHOUSE DOCK AREA	6			10	10	10	3/4S	642		2166		1524	12S					1	-	-	4	4														
5	20	1	LTG.: WAREHOUSE AISLE	10			10	10	10	3/4S	1070			2270	1200	12S	12S	12S	3/4S	2	2	PLUGS: STORAGE	20	1	6														
7	20	1	LTG.: WAREHOUSE AISLE	10			10	10	10	3/4S	1070	2270			1200	12S	12S	12S	3/4S	2	2	PLUGS: STORAGE	20	1	8														
9	20	1	LTG.: WAREHOUSE AISLE	10			10	10	10	3/4S	1070		1790		720	12S	12S	12S	3/4S	4	4	PLUGS: RESTROOM	20	1	10														
11	20	1	LTG.: WAREHOUSE AISLE	10			10	10	10	3/4S	1070			1670	600	12S	12S	12S	3/4S	1	1	DRINKING FOUNTAIN	20	1	12														
13	20	1	LTG.: WAREHOUSE AISLE	10			10	10	10	3/4S	1070	1970			900	12S	12S	12S	3/4S	5	5	PLUGS: OFFICE	20	1	14														
15	20	1	LTG.: WAREHOUSE AISLE	10			10	10	10	3/4S	1070	1610			540	12S	12S	12S	3/4S	3	3	PLUGS: RESTROOM	20	1	16														
17	30	1	LTG. WAREHOUSE OFFICE	17		2	12S	12S	12S	3/4S	1600			1930	864	12S	12S	12S	3/4S	1	1	FURNACE F-1	20	1	18														
19	20	1	LTG. EXTERIOR	3			12S	12S	12S	3/4S	240	240												20	1	20													
21	20	1	SPARE										1500		1500	12S	12S	12S	3/4S		1	WATER HEATER WH-1	20	1	22														
23	20	1	SPARE											540	540	10	10	10	3/4S	3	3	PLUGS WAREHOUSE	20	1	24														
25	20	1	SPARE									900			900	10	10	10	3/4S	5	5	PLUGS WAREHOUSE	20	1	26														
27	20R	1	NAC PANEL		1		12S	12S	12S	3/4S	360		900		540	10	10	10	3/4S	3	3	PLUGS WAREHOUSE	20	1	28														
29	20	1	COMM RACK		1		12S	12S	12S	3/4S	1600			2776	1176	10	10	10	3/4S	1	1	UNIT HEATER UH-3	20	1	30														
31	20	1	COMM RACK		1		12S	12S	12S	3/4S	1600	2776			1176	10	10	10	3/4S	1	1	UNIT HEATER UH-4	20	1	32														
33	20	1	OVERHEAD DOOR			1	10	10	10	3/4S	1200		2376		1176	10	10	10	3/4S	1	1	UNIT HEATER UH-5	20	1	34														
35	20	1	DOCK LEVELER			1	10	10	10	3/4S	1200			1200										20	1	36													
37	20	1	OVERHEAD DOOR			1	10	10	10	3/4S	1200	1200												20	1	38													
39	20	1	DOCK LEVELER			1	10	10	10	3/4S	1200		2800		1600	10	10	10	3/4S					20G	1	40													
41	20	1	OVERHEAD DOOR			1	10	10	10	3/4S	1200		1200											20	1	42													
43	20	1	DOCK LEVELER			1	10	10	10	3/4S	1200	1200												20	1	44													
45	20	1	OVERHEAD DOOR			1	10	10	10	3/4S	1200		1200											20	1	46													
47	20	1	DOCK LIGHT		2		10	10	10	3/4S	1200			1200										20	1	48													
49	20	1	DOCK LIGHT		1		10	10	10	3/4S	1200	1200												20	1	50													
51	20	1	SPARE										0											20	1	52													
53	20	1	SPARE										0	0										20	1	54													
55	20	1	SPARE									0			8	8	8	8	1					30	3	56													
57	20	1	SPARE										0			8				-	-	-	-	-	-	58													
59	20	1	SPARE										0		8					-	-	-	-	-	-	60													
TOTALS																							14136	14342	12786														
FEEDER																							SEE ONE-LINE		AMPS/PHASE		118	120	107	AIC 10000									
																												SCCR 10000											
																												PARALLEL RUNS											
																							SEE ONE-LINE																
BREAKER CODES																																							
A=ARC-FAULT; G=GROUND FAULT; H=HACR; L=LOCKING HANDLE; S=SHUNT TRIP; R=RED PAINTED HANDLE																																							
WIRE CODES																																							
I=ADDD L ISO GROUND TO MATCH SAFETY GROUND; S=UNLESS OTHERWISE SPECIFIED																																							
GENERAL CODES																																							
1LIN=SEE ONE-LINE DIAGRAM																																							

PANEL	F		TYPE	EATON PRL1A		3		Ø		4		WIRE		120/208		VOLTS		LOCATION	MOUNTING																
	X	NEW		REMARKS	L	O	M	WIRE/CND				CIRC. LOAD	A	B	C	WIRE/CND				L	O	M	CIRCUIT DESCRIPTION		BRKR		No.								
								P	N	G	C					P	N		G				C	A	P										
	X	EXISTING																WEST WAREHOUSE	X	FLUSH SURFACE															
	1	NEMA RATING																	225	AMP MAIN															
		BOLT ON BREAKERS																	225	LUGS															
		ISOLATED GROUND BUS																			BREAKER														
		SURGE PROTECT (SPD)																																	
No.	BRKR	CIRCUIT DESCRIPTION					L	O	M	WIRE/CND				CIRC. LOAD	A	B	C	CIRC. LOAD	WIRE/CND				L	O	M	CIRCUIT DESCRIPTION					BRKR			No.	
	A	P																																	
1	20	1	LTG. WAREHOUSE AISLE	8			10	10	10	3/4S	856	2056		1200	12S	12S	12S	3/4S									OVER HEAD DOOR	20	1	2					
3	20	1	LTG. WAREHOUSE AISLE	8			10	10	10	3/4S	856		2456		1600	12S	12S	12S	3/4S		2						TREAD MILL	20	1	4					
5	20	1	LTG. WAREHOUSE AISLE	6			10	10	10	3/4S	642			2242	1600	12S	12S	12S	3/4S		2						TREAD MILL	20	1	6					
7	20	1	LTG. WAREHOUSE AISLE	6			10	10	10	3/4S	642	2242		1600	12S	12S	12S	3/4S		2							TREAD MILL	20	1	8					
9	20	1	LTG. WAREHOUSE AISLE	8			10	10	10	3/4S	856		2456		1600	12S	12S	12S	3/4S		2						TREAD MILL	20	1	10					
11	20	1	LTG. EXTERIOR	7			10	10	10	3/4S	380		900		1980	1600	12S	12S	12S	3/4S		2					TREAD MILL	20	1	12					
13	20	1	SPARE												900	12S	12S	12S	3/4S		5					PLUGS. WAREHOUSE	20	1	14						
15	20	3	HVLS FAN				1	12S	12S	12S	3/4S	900															SPARE	20	1	16					
17	-	-	-				1	12S				900			900												SPARE	20	1	18					
19	-	-	-				1	12S				900	900														SPARE	20	1	20					
21	30	3	FORKLIFT CHARGING STATION				1	8	8	8	1	2400		2400													SPARE	20	1	22					
23	-	-	-				1	8				2400															COMM RACK	20	1	24					
25	-	-	-				1	8				2400	4000			1600	12S	12S	12S	3/4S		1					COMM RACK	20	1	26					
27	20	1	UNIT HEATER UH-1				1	12S	12S	12S	3/4S	1176		1536		360	12S	12S	12S	3/4S							NAC PANEL	20	1	28					
29	20	1	UNIT HEATER UH-2				1	12S	12S	12S	3/4S	1176			1176												SPARE	20	1	30					
31	20	1	SPARE										0														SPARE	20	1	32					
33	20	1	SPARE										0		0												SPARE	20	1	34					
35	20	1	SPARE										0		0												SPARE	20	1	36					
37	20	1	SPARE										0														SPARE	20	1	38					
39	20	1	SPARE										0		0												SPARE	20	1	40					
41	20	1	SPARE										0		0												SPARE	20	1	42					
TOTALS																		10096	9748	10296															
FEEDER																		SEE ONE-LINE		AMPS/PHASE		84	81	86	AIC										22000
																						SCCR										22000			
																						PARALLEL RUNS										SEE ONE-LINE			
BREAKER CODES																																			
A=ARC-FAULT; G=GROUND FAULT; H=HACR; L=LOCKING HANDLE; S=SHUNT TRIP; R=RED PAINTED HANDLE																																			
WIRE CODES																																			
I=ADDD L ISO GROUND TO MATCH SAFETY GROUND; S=UNLESS OTHERWISE SPECIFIED																																			
GENERAL CODES																																			
1LIN=SEE ONE-LINE DIAGRAM																																			



APPLICATION FOR ACCESSORY BUILDING PERMIT

PROPERTY OWNER INFORMATION

Name Laura & David Frandsen
Address 3556 South 250 West
Phone 435-753-1121 Cell Fax _____
Email LSSSfamily@gmail.com

Proposed Building Size 41 x 39' Lot Size 1.00 - 1.99 acres

^{ours}
(1.33)

The allowed square footage of accessory buildings are limited based on the size of the lot, as shown below:

Lot Size	Max. Sq. Ft.	Height Max.	Lot Size	Max. Sq. Ft.	Height Max.
0-14,000 sq ft	1,000	20'	14,001 sq ft-.49 acre	1,200	20'
.5-.74 acre	1,500	20'	.75-.99 acres	3,000	30'
1.00-1.99 acres	5,000	30'	2.00+ acres	No Limit	30'

SUPPORTING MATERIALS: The following materials **must** be submitted with this Accessory Building Application, or the application will not be accepted by Nibley City.

Plot Plan showing: (please initial each item)

City Staff Review

- | | |
|--|-------|
| ☒ The applicant's name, address and the date the plan was completed | _____ |
| ☒ An arrow indicating North | _____ |
| ☒ An approximate scale | _____ |
| ☒ Property boundaries of the lot on which the building is being proposed | _____ |
| ☒ Roads or streets adjacent to the lot (include street names) | _____ |
| ☒ Public and private easements on the lot | _____ |
| ☒ Existing buildings | _____ |
| ☒ The location of the proposed accessory building or addition | _____ |
| ☒ Dimensions of the proposed accessory building or addition | _____ |
| ☒ Distance from the proposed accessory building or addition to lot boundaries | _____ |
| ☒ Distance from the proposed accessory building or addition to existing buildings | _____ |
| ☒ Vehicle access plan to the proposed accessory building or addition (if applicable) | _____ |

Elevation Drawings of the proposed accessory building or addition showing:

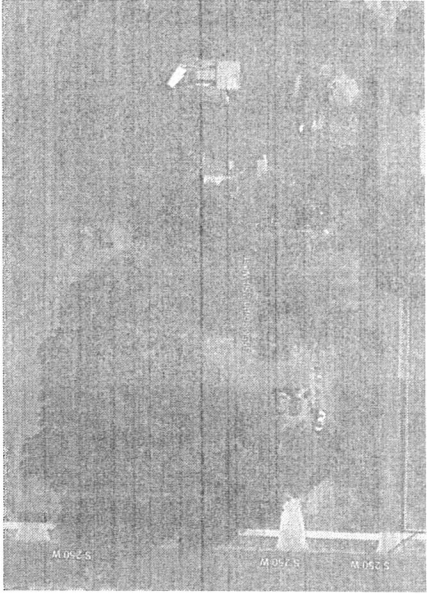
- | | |
|--|-------|
| ☒ Accessory building height, pitch and all other dimensions | _____ |
| ☒ Approximate location of doors and windows | _____ |
| ☒ Information sufficient to determine an approximate building appearance | _____ |
| ☒ How the addition will attach to the existing building (if applicable) | _____ |

Please describe the proposed use for this accessory building:

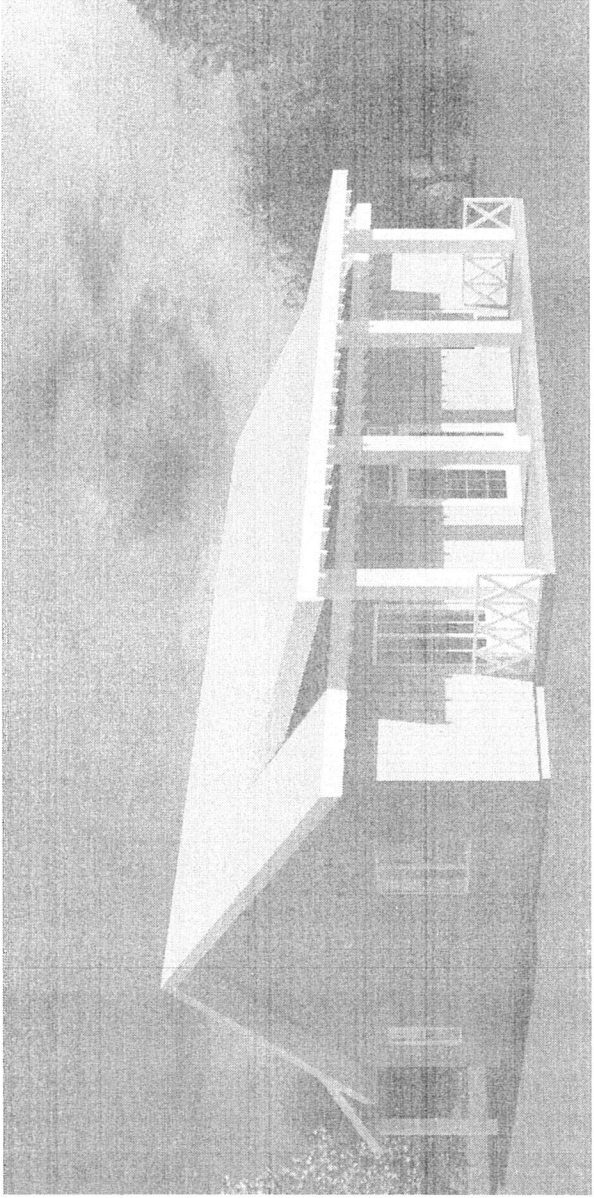
make floral arrangements / studio

SHEET INDEX	
A001	COVER SHEET
A002	SOUTH WEST AXON
A003	NORTH EAST AXON
A004	SITE PLAN
A100	FOOTING AND FOUNDATION PLAN
A101	FIRST FLOOR PLAN
A102	ROOF PLAN
A200	BUILDING ELEVATIONS
A201	BUILDING ELEVATIONS
A300	BUILDING SECTIONS
MAIN FLOOR S.F. : 1,460	

SITE ADDRESS



RENDERING



FLOWERS BY LAURA

OWNERS NAME
 LAURA FRANDSEN
 PROJECT ADDRESS
 3556 South, 250 West, Nibley, UT, 84321
 JACEE HAMMONS
 Interior Architecture and Design
 435-225-1397
 js1hae7@gmail.com

MARK	DATE	DESCRIPTION

PROJECT #
 DESIGNED BY: JAH
 DRAWN BY: JAH
 CHECKED BY: -
 ERODED

COVER SHEET
 A001

EXTERIOR VIEW FOR REFERENCE ONLY

1 NORTH EAST AXON

FLOWERS BY LAURA

OWNERS NAME
LAURA FRANDSEN

PROJECT ADDRESS

JACEE HAMMONS
Interior Architecture and Design
435-225-1397
jshae7@gmail.com

[illegible]

PROJECT # _____
DESIGNED BY: Designer _____
DRAWN BY: Author _____
CHECKED BY: Checker _____

A100

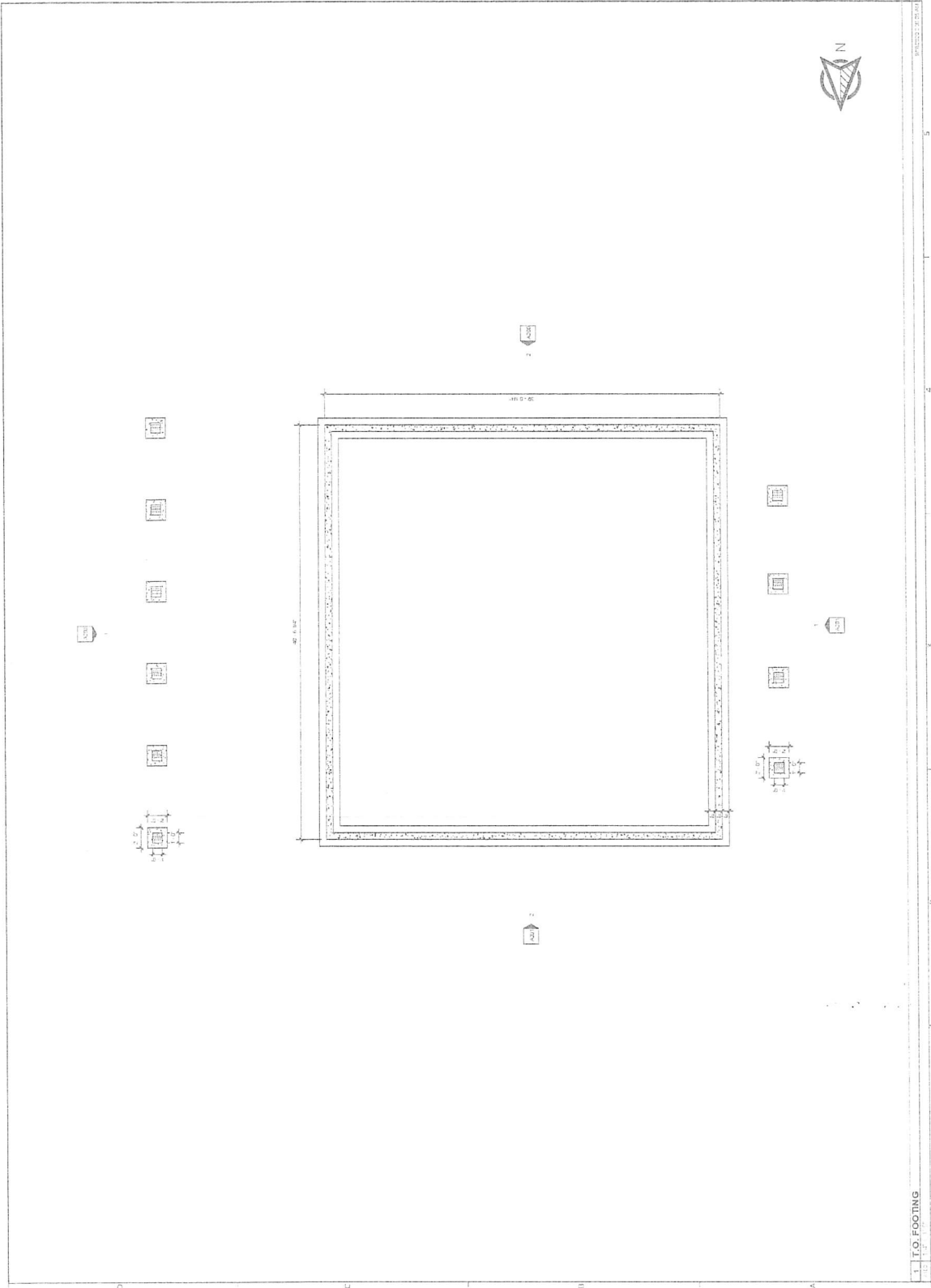
FOOTING
AND
FOUNDATION
PLAN

DESIGNED BY: *Shane Hammons*
DRAWN BY: *Shane Hammons*
CHECKED BY: *Shane Hammons*
DATE: *10/1/10*

NO.	DESCRIPTION

FLOWERS BY LAURA
OWNERS NAME
LAURA FRANDSEN
PROJECT ADDRESS
3556 South, 250 West, Midley, UT, 84321

JACIE HAMMONS
Interior Architecture and Design
435-225-1397
jshea7@gmail.com

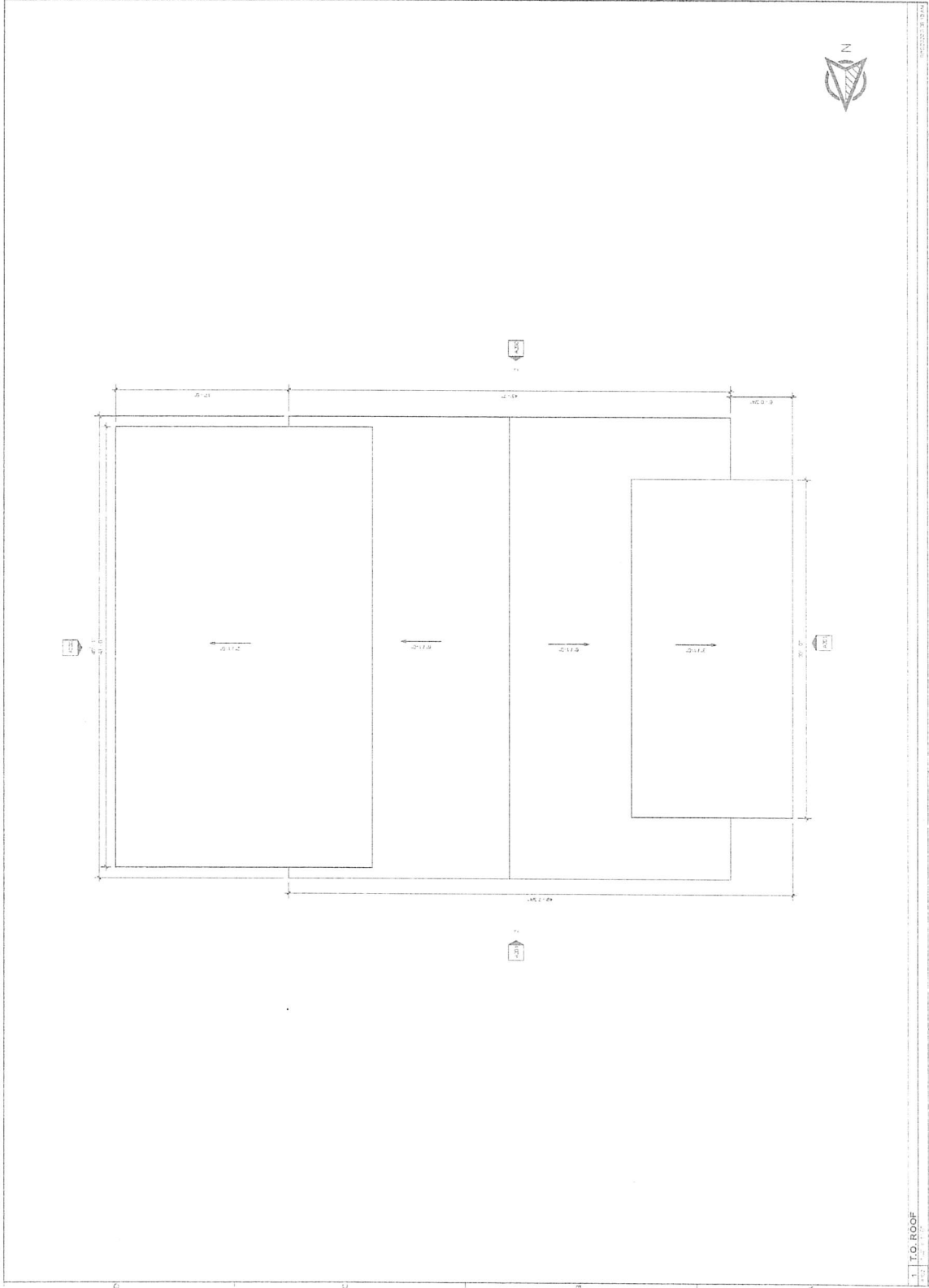


ROOF PLAN
A102

PROJECT #	
DESIGNED BY: <i>Shane</i>	
DRAWN BY: <i>Alan</i>	
CHECKED BY: <i>Chase</i>	
DATE	
DESCRIPTION	

FLOWERS BY LAURA
OWNERS NAME
LAURA FRANDSEN
PROJECT ADDRESS
3556 South, 250 West, Nibley, UT, 84321

JACEE HAMMONS
Interior Architecture and Design
435-225-1397
jshae7@gmail.com



BUILDING
ELEVATIONS
A201

PROJECT #	
DESIGNER'S NAME	
OWNER'S NAME	
DESIGNED BY	
CHECKED BY	
DATE	
DESCRIPTION	

FLOWERS BY LAURA

OWNERS NAME
LAURA FRANSEN

PROJECT ADDRESS
3556 South, 250 West, Nibley, UT, 84321

JACIE HAMMONS
Interior Architecture and Design
435-225-1237
jshae7@gmail.com

