

STAFF REPORT FOR THE PLANNING COMMISSION MEETING OF JULY 27, 2022

FILE NO: LU-2022-0296

AGENDA ITEM: 6.B

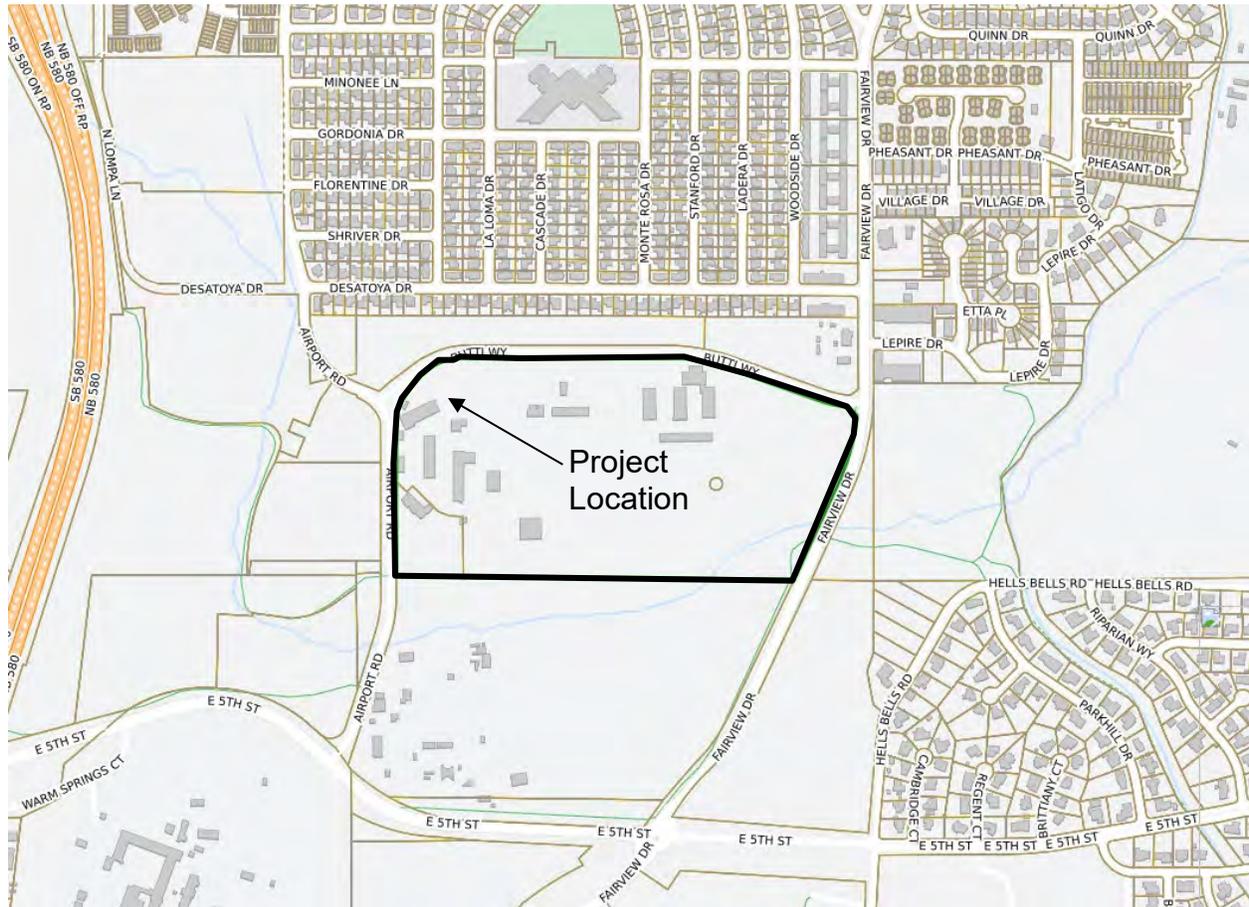
STAFF AUTHOR: Heather Ferris, Planning Manager

AGENDA TITLE: For Possible Action: Discussion and possible action regarding a request from the Carson City Public Works Department (“Applicant”) for a Special Use Permit to allow an addition to the existing fleet maintenance building for tire and welding operations on a parcel zoned Public Regional (“PR”), located at 3303 Butti Way, Assessor’s Parcel Number (“APN”) 010-031-04. (Heather Ferris, hferris@carson.org)

Staff Summary: The Applicant is requesting a Special Use Permit for a 2,111 square foot addition to the existing fleet maintenance building to house tire repair, tire storage and welding operations. The proposed addition will be located at the end of the existing building and will be designed to match the existing façade in materials and colors. The Planning Commission is authorized to approve a Special Use Permit.

RECOMMENDED MOTION: “I move to approve LU-2022-0296 based on the ability to make the required findings and subject to the conditions of approval included in the staff report.”

VICINITY MAP:



RECOMMENDED CONDITIONS OF APPROVAL:

1. All development must be substantially in accordance with the approved plans, except as otherwise modified by the conditions of approval.
2. All on and off-site improvements must conform to City standards and requirements.
3. The use for which this permit is approved shall commence within twelve (12) months of the date of final approval. A single, one (1) year extension of time must be requested in writing to the Planning Division of the Community Development Department thirty (30) days prior to the one (1) year expiration date. If this permit is not initiated within one (1) year and no extension is granted, the permit becomes null and void.
4. The Applicant must sign and return the Notice of Decision for conditions of approval within ten (10) days of receipt of notification. If the Notice of Decision is not signed and returned within ten (10) days, then the item may be rescheduled for the next Planning Commission meeting for further consideration.
5. Building materials must be consistent with the approved plans. All exposed metal surfaces must be painted in flat, non-glossy paint or an earth tone or muted color to match the existing building.
6. All exterior lighting must be directed downward. The design of the light standards must include cutoffs and shields, if necessary, to prevent spillover of light or glare onto adjacent properties.

LEGAL REQUIREMENTS: CCMC 18.02.050 (Review); 18.02.080 (Special Use Permit); 18.04.185 (Public Regional)

MASTER PLAN DESIGNATION: Public / Quasi-Public

ZONING DISTRICT: Public Regional (PR)

KEY ISSUES: Will the use be compatible with the surrounding neighborhood and be in keeping with the standards of the Carson City Municipal Code?

SURROUNDING ZONING AND LAND USE INFORMATION:

NORTH: Multi-Family Apartment & Public Regional / vacant & Jump Around Carson Office

EAST: Public / vacant

WEST: Single-Family 6,000 SPA & Public Regional / vacant

SOUTH: Public Regional / City sewer plant

ENVIRONMENTAL INFORMATION:

FLOOD ZONE: Zone X (minimal flood hazard)

EARTHQUAKE FAULT: Zone I and III (Beyond 500 feet)

SLOPE/DRAINAGE: Site is generally flat

SITE DEVELOPMENT INFORMATION:

LOT SIZE: 52 +/- acres

STRUCTURE SIZE: 2,111 square foot addition to existing 14,000+/- square foot fleet maintenance facility.

VARIANCES REQUESTED: None

PREVIOUS REVIEWS:

- SUP-08-094: Special Use Permit for continued phased development of the Carson City Corporate Yard including use of commercial coach as an office, vehicle maintenance building, 20 metal storage containers, expansion of asphalt storage building, expansion of the Public Works office building.
- SUP-14-007: Special Use Permit for construction and operation of a 110-foot public safety communication radio tower.
- SUP-14-079: Special Use Permit for the construction and operation of a 10,955 square foot animal services facility.
- LU-2020-0030: Special Use Permit for the construction of a 3,000 square foot, four bay, equipment storage building.

DISCUSSION:

The subject property is approximately 52 acres in size and is the site of the Carson City Public Works Corporate Yard. The site includes office buildings for the Public Works Department and the Department of Parks, Recreation and Open Space, storage and maintenance buildings.

The Applicant is seeking to construct a 2,111 square foot addition to the existing fleet maintenance building, to house the City's tire shop and welding facility. The proposed addition will be located at the east end of the existing building and will be designed to match the existing façade in materials and colors. Per CCMC 18.04.185, the use may only be established subject to a Special Use Permit. The Planning Commission is authorized to approve a Special Use Permit.

PUBLIC COMMENTS:

Public notices were mailed to 246 property owners within 900 feet of the subject site on July 14, 2022. As of the writing of this report, staff has not received any written comments. Any comments that are received after this report is completed will be submitted to the Planning Commission prior to or at the meeting on July 27, 2022, depending on the date of submission of the comments to the Planning Division.

OTHER CITY DEPARTMENTS OR OUTSIDE AGENCY COMMENTS:

Plans were routed to commenting agencies, and the following comments were received. Comments have been incorporated into the conditions of approval, as appropriate.

Engineering Division

Development Engineering has no preference or objection to the special use request provided

that the following conditions are met:

- The project must meet all Carson City Development Standards and Standard Details.

Development Engineering has reviewed the application within the areas of purview relative to adopted standards and practices and the provisions of CCMC 18.02.080, Conditional Uses. Development Engineering offers the following discussion:

CCMC 18.02.080(5)(a) - Master Plan

The request is not in conflict with any Engineering Master Plans.

CCMC 18.02.080(5)(b) – Use, Peaceful Enjoyment, Economic Value, Compatibility

Development Engineering has no comment on this finding.

CCMC 18.02.080(5)(c) - Traffic/Pedestrians

The project will have a negligible impact on pedestrian and vehicular traffic.

CCMC 18.02.080(5)(d) - Public Services

The project will have a negligible impact to sewer, water and stormwater infrastructure.

CCMC 18.02.080(5)(e) – Title 18 Standards

Development Engineering has no comment on this finding.

CCMC 18.02.080(5)(f) – Public health, Safety, Convenience, and Welfare

The project meets engineering standards for health and safety.

CCMC 18.02.080(5)(g) – Material Damage or Prejudice to Other Property

Development Engineering has no comment on this finding.

CCMC 18.02.080(5)(h) – Adequate Information

The plans and reports provided were adequate for this analysis.

Fire Department Comments

1. The project shall comply with the 2018 International Fire Code.
2. The project shall comply with the 2018 Northern Nevada Amendments.
3. All access roads shall be not less than 26 feet clear width.
4. All access roads shall meet the minimum turn radius per the 2018 International Fire Code.
5. All buildings shall be accessible to the Fire Department within 150 feet.
6. Fire Hydrants shall be provided per Carson City Municipal Code and the 2018 International Fire Code.

FINDINGS:

Staff's recommendation is based upon the findings as required by CCMC 18.02.080 (Special Use Permits) enumerated below and substantiated in the public record for the project.

1. Will be consistent with the objectives of the Master Plan elements.

The proposed addition to the existing Public Works fleet maintenance building to house a tire shop and welding facility is consistent with the Master Plan. The subject property is in the Public/Quasi-Public (PQP) master plan designation. The PQP designation is intended for schools, government offices, community centers, fire stations, airports, libraries, hospitals and other similar uses. The building will be constructed on the Public Works Corporate Yard property and will be used to support city services.

2. Will not be detrimental to the use, peaceful enjoyment, economic value, or development of surrounding properties or the general neighborhood; and is compatible with and preserves the character and integrity of adjacent development and neighborhoods or includes improvements or modifications either on-site or within the public right-of-way to mitigate development related to adverse impacts such as noise, vibrations, fumes, odors, dust, glare or physical activity.

The project will not be detrimental to the use, peaceful enjoyment, economic value or development of surrounding properties or the general neighborhood. The proposed addition will be consistent with other buildings and uses on the site. The site currently operates as the Public Works Corporate Yard and contains office buildings, and storage and maintenance buildings. The site is immediately adjacent to other similarly zoned parcels with the Animal Services facility south-west of the proposed location and the sewer plant to the south. The parcel to the east is vacant and zoned Public and parcels to the north are zoned Multi-Family Apartment and Public Regional. The Multi-Family Apartment property is vacant, and the Public Regional zoned parcel is the site of the Jump Around Carson transit offices. The addition to the City's fleet maintenance building will have little impact resulting from noise, vibrations, fumes, odors, dust, glare or physical activity. Any exterior lighting will be required to meet Division 1.3 of the Development Standards to ensure that lights are shielded and directed downward away from adjoining properties and the night sky, and the addition will be designed and constructed to match the existing building in materials and color.

3. Will have little or no detrimental effect on vehicular or pedestrian traffic.

The proposed project is within the existing Public Works Corporate Yard. Due to the project's limited scope and existing access and drive aisles, there will be negligible effect on vehicular or pedestrian traffic.

4. Will not overburden existing public services and facilities, including schools, police and fire protection, water, sanitary sewer, public roads, storm drainage, and other public improvements.

The proposed project is within the existing Public Works Corporate Yard. The proposed addition will not overburden existing public services and facilities. The proposed use will have a negligible impact to City sewer, water and storm drainage. The Fire Department currently serves this site. The building permit will be reviewed for compliance with the Carson City Fire Code, Northern Nevada Amendments (2018 IFC).

5. Meets the definition and specific standards set forth elsewhere in this Title for such particular use and meets the purpose statement of that district.

The primary purpose of the Public Regional zoning district is to provide for federal, state and city facilities whose main purpose is to serve regional needs. Public uses such as government facilities are the primary purpose of the Public Regional zoning district. The addition of a tire shop and welding facility to the existing fleet services facility at the Public Works Corporate Yard property is consistent with this purpose. Per CCMC 18.04.185, the use may only be established subject to a Special Use Permit. As conditioned, the project will meet the definition and specific standards set forth in Title 18.

6. *Will not be detrimental to the public health, safety, convenience and welfare.*

The proposed addition to the fleet services building is consistent with other existing uses within the Public Works Corporate Yard property. The project will not be detrimental to the public health, safety, convenience and welfare. The structure will require a building permit to ensure that the buildings are constructed to current standards.

7. *Will not result in material damage or prejudice to other property in the vicinity, as a result of proposed mitigation measures.*

The proposed addition is consistent with other buildings and uses on the site. The site currently operates as the Public Works Corporate Yard and contains office buildings, and storage and maintenance buildings. The site is immediately adjacent to other similarly zoned parcels with the Animal Services facility south-west of the proposed project and the sewer plant to the south. The parcel to the east is vacant and zoned Public and parcels to the north are zoned Multi-Family Apartment and Public Regional. The Multi-Family Apartment property is vacant, and the Public Regional zoned parcel is the site of the Jump Around Carson transit offices. Due to the projects design, location and limited scope, it will not result in material damage or prejudice to other property in the vicinity.

Attachments:

Application LU-2022-0296

Carson City Planning Division
 108 E. Proctor Street • Carson City NV 89701
 Phone: (775) 887-2180 • E-mail: planning@carson.org

FOR OFFICE USE ONLY:

CCMC 18.02.080

SPECIAL USE PERMIT

FEE*: \$2,450.00 MAJOR
 \$2,200.00 MINOR (Residential zoning districts)
 + noticing fee
 *Due after application is deemed complete by staff

SUBMITTAL PACKET – 4 Complete Packets (1 Unbound Original and 3 Copies) including:

- Application Form
- Detailed Written Project Description
- Site Plan
- Building Elevation Drawings and Floor Plans
- Special Use Permit Findings
- Master Plan Policy Checklist
- Applicant's Acknowledgment Statement
- Documentation of Taxes Paid-to-Date
- Project Impact Reports (Engineering)

CD or USB DRIVE with complete application in PDF

Application Received and Reviewed By: _____

Submission Deadline: Planning Commission application submittal schedule.

Note: Submittals must be of sufficient clarity and detail for all departments to adequately review the request. Additional information may be required.

FILE #

APPLICANT PHONE #
 Carson City Public Works 775-887-2355

MAILING ADDRESS, CITY, STATE, ZIP
 3505 Butti Way, Carson City, NV 89701

EMAIL ADDRESS
 belder@carson.org

PROPERTY OWNER PHONE #
 Carson City 775-887-2100

MAILING ADDRESS, CITY, STATE, ZIP
 201 N. Carson Street, Carson City, NV 89701

EMAIL ADDRESS
 belder@carson.org

APPLICANT AGENT/REPRESENTATIVE PHONE #
 Brian Elder, Carson City Public Works 775-283-7586

MAILING ADDRESS, CITY STATE, ZIP
 3505 Butti Way, Carson City, NV 89701

EMAIL ADDRESS

Project's Assessor Parcel Number(s): 010-031-04 Street Address 3303 Butti Way, Carson City, NV 89701

Project's Master Plan Designation: Public-Quasi Public Project's Current Zoning: Public Regional Nearest Major Cross Street(s): Airport Road

Please provide a brief description of your proposed project and/or proposed use below. Provide additional pages to describe your request in more detail. Carson City plans to expand the existing Fleet Maintenance Building to add room for Tire and Welding Operations. The addition will be attached to the east side of the existing fleet facility with additional area of 2,111 square feet.

PROPERTY OWNER'S AFFIDAVIT

I, Brian Elder, being duly deposed, do hereby affirm that I am the record owner of the subject property, and that I have knowledge of, and I agree to, the filing of this application.

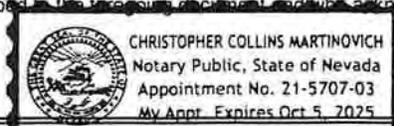
Signature: [Signature] Address: 3505 Butti Way, CC, NV 89701 Date: 6/15/22

Use additional page(s) if necessary for additional owners.

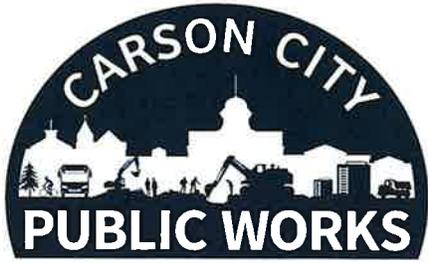
STATE OF NEVADA)
 COUNTY CARSON CITY)
 On June 15, 2022, Brian Elder

personally appeared before me, a notary public, personally known (or proved) to me to be the person whose name is subscribed to the foregoing document and he/she acknowledged to me that he/she executed the foregoing document.

[Signature]
 Notary Public



NOTE: If your project is located within the Historic District or airport area, it may need to be scheduled before the Historic Resources Commission or the Airport Authority in addition to being scheduled for review by the Planning Commission. Planning staff can help you make this determination.



CARSON CITY NEVADA
Consolidated Municipality and State Capit
PUBLIC WORKS

June 15, 2022

TO: Carson City Planning Division
108 E. Proctor Street
Carson City, NV 89701

RE: Special Use Permit Project Description – Carson City Fleet Facility Expansion

Carson City Public Works is requesting permission to construct an addition to the existing Carson City Fleet Facility located at 3303 Butti Way. The Fleet Facility is located at the Carson City Corporate Yard.

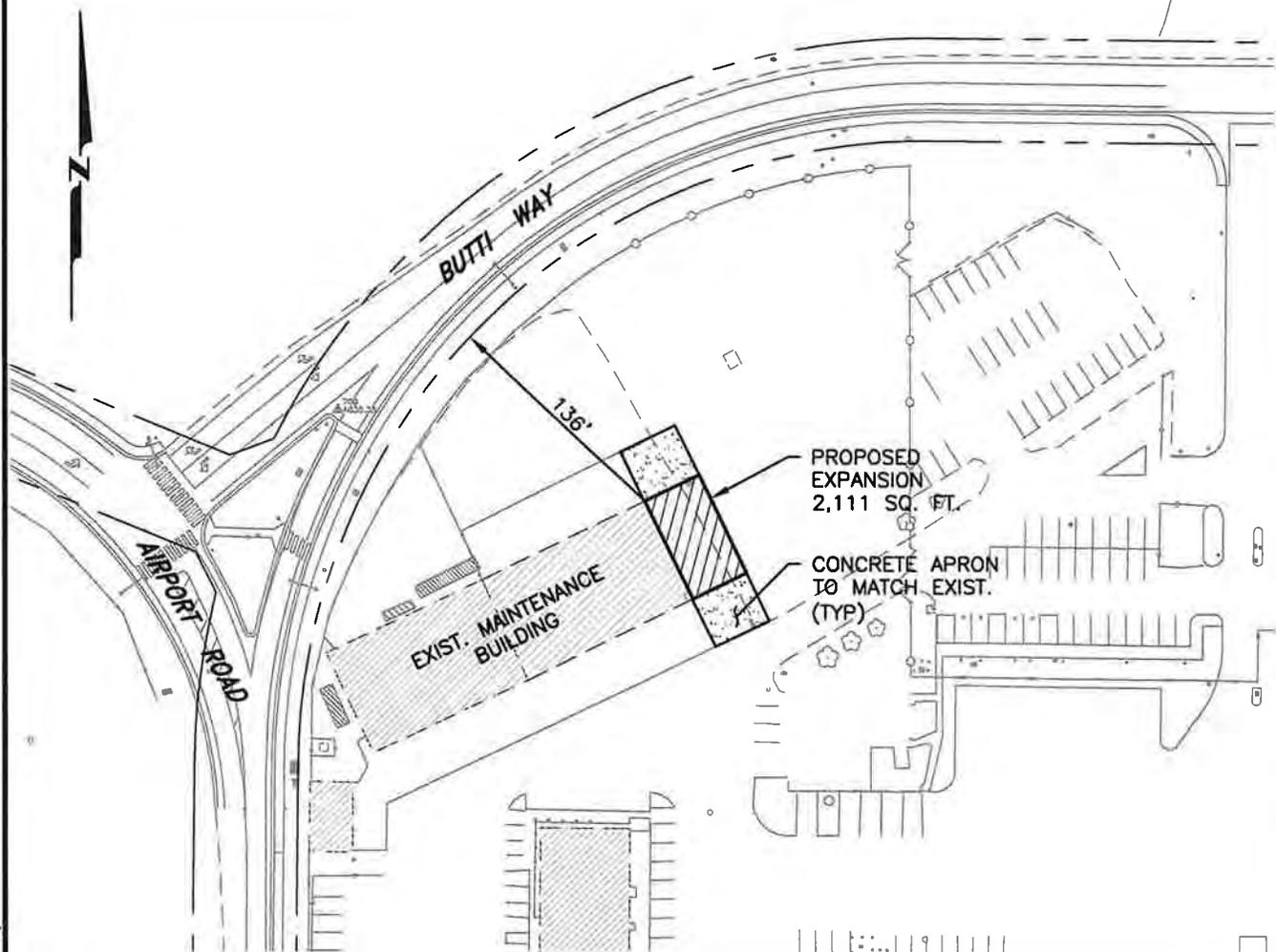
The expansion of the existing fleet building will be used for tire repair, tire storage and welding operations. Carson City Fleet Services has outgrown the existing tire shop located in the corporate yard and needs a larger area to perform these operations safely and efficiently. The proposed building expansion will be attached to east end of the existing fleet facility and will have total area of 2,111 square feet. The new addition will match the dimensions and facade of the existing fleet facility. Please see the attached special use permit application, site plan and drawings for more information.

If you have any questions, please call or email me.

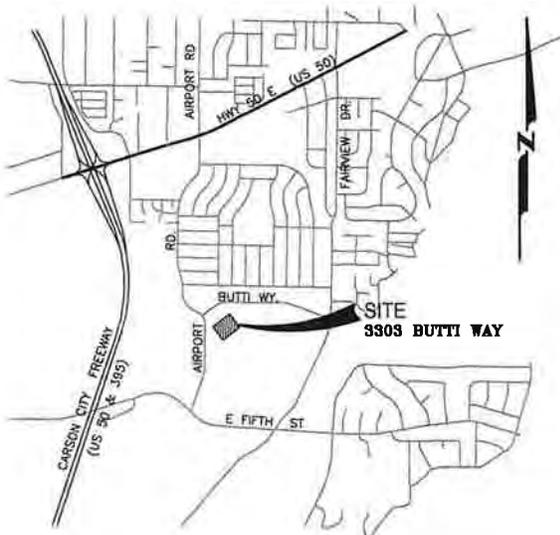
Sincerely,

Brian Elder, P.E.
Project Manager
Carson City Public Works Department
775-283-7586
belder@carson.org

SITE PLAN FOR BUILDING EXPANSION



SITE PLAN
SCALE: 1"=100'



LOCATION SKETCH
NO SCALE

OWNER: Property Management
Carson City
3505 Butti Way
Carson City, NV 89701

APPLICANT: Carson City Public Works
3505 Butti Way
Carson City, NV 89701

REQUEST: To allow for the expansion of the existing Carson City Fleet Maintenance Building, for tire repair & welding operations at Carson City Fleet services.

LOCATION: 3303 Butti Way, Carson City, NV 89701

ZONING: Public Regional

MASTER PLAN LAND USE DESIGNATION: Public-Quasi Public

APN: 010-031-04

Site Plan Prepared By: Carson City Public Works

I:\CAPITAL PROJECTS\Projects\302521001-FleetTireWeldingShop\02.Design\DWG\302521001-SUP_PLAN.dwg

STATEMENT OF FINDING

APPLICATION FOR SPECIAL USE PERMIT

CARSON CITY FLEET FACILITY EXPANSION

Question 1: Will be consistent with the objectives of the Master Plan.

The Carson City Fleet Facility Expansion Project will be in accordance with the Master Plan Goals 1.1d, 1.1e, 1.1f, 1.4c and 6.1a.

1.1d – Meet the provisions of the Growth Management Ordinance

1.1e,f – Use Sustainable building materials and construction techniques to promote water and energy conservation.

6.4a – Use durable, long-lasting building materials

The project will meet provisions of the Growth Management Ordinance. The building will be constructed of sustainable building materials with a steel frame and metal siding. The proposed structure will also match the existing building façade and colors. The new structure will incorporate construction techniques to promote energy conservation. The expansion will not result in more water usage, the proposed expansion will be used to relocate existing tire repair and welding operations from the existing tire shop (planned to be demolished) to the proposed building.

1.4c – Protect existing site features, as appropriate, including mature trees or other character-defining features

The proposed structure will be attached to the east end of the existing fleet services facility. The new addition will match the existing building façade and colors. No other site features of the corporate yard will be affected.

Question 2: Will not be detrimental to the use, peaceful enjoyment, economic value, or development of surrounding properties or the general neighborhood; and is compatible with and preserves the character and integrity of adjacent development and neighborhoods or includes improvements or modifications either on-site or within the public right-of-way to mitigate development related to adverse impacts such as noise, vibrations, fumes, odors, dust, glare, or physical activity.

This expansion will have no adverse effect on the surrounding properties or neighborhoods. The proposed expansion will be located at the Carson City Corporate Yard and will be used to replace

existing tire and welding operations that currently take place at this site. All surrounding parcels are currently vacant with the closest neighborhood located approximately 375 feet to the north. The zoning for the vacant parcels to the north are Public Regional and Single Family 6,000 SF. Zoning for the vacant parcels to the west are Multi-Family Apartment and General Commercial. The corporate yard surrounds the south and east directions of the site.

The fleet expansion is necessary due to the increase of city vehicles which are the responsibility of Carson City Fleet Services to repair and maintain. Fleet is responsible for maintaining all vehicles including Police, Fire, Public Work, Parks and Recreation and all city departments. The existing tire and welding facilities have been outgrown and the proposed expansion will allow more space to safely and efficiently continue the tire repair and welding operations which will benefit the city as a whole.

Question 3: Will have little or no detrimental effect on vehicular traffic.

The proposed expansion will have no effect on vehicular traffic. As stated above, this facility will be used to replace an existing facility and will be occupied by the same number of employees and will generate the same amount of traffic to and from the facility.

Question 4: Will not overburden existing public services and facilities, including schools, police and fire protection, water, sanitary sewer, public roads, storm drainage and other public improvements.

The proposed expansion will not result in any increases to any public service. The facility will be occupied by existing city staff, so there will be no additional water or sewer usage generated from this expansion. The site of the new building is currently paved, so there will be no further impact to storm drainage. This expansion will provide for improved service to citizens of Carson City.

Question 5: Meets the definition and specific standards set forth elsewhere in Carson City Municipal Code, Title 18 for such particular use and meets the purpose statement of that district.

This project meets the specific standard set forth for public zoning. As stated above, this facility will be used for operations that are currently being conducted at this site which are vital to maintaining the city fleet vehicles used by all departments.

Question 6: Will not be detrimental to the public health, safety, convenience, and welfare.

The proposed project will be an improvement to the public uses in place on this site and will be an asset to the public services offered to the community. There will be no detrimental effects to the public if this project is approved.

Question 7: Will not result in material damage or prejudice to other property in the vicinity.

If approved, this project will have no material damage or prejudice to adjacent properties. The surrounding parcels in the area are currently vacant, the new expansion will be built to match the existing structure and will be used for operations that are currently taking place at this location.

ACKNOWLEDGMENT OF APPLICANT

I certify that the forgoing statements are true and correct to the best of my knowledge and belief. I agree to fully comply with all conditions as established by the Planning Commission. I am aware that this permit becomes null and void if the use is not initiated within one-year of the date of the Planning Commission’s approval; and I understand that this permit may be revoked for violation of any of the conditions of approval. I further understand that approval of this application does not exempt me from all City code requirements.

	Brian Elder	6/15/2022
Applicant’s Signature	Print Name	Date

Master Plan Policy Checklist

Special Use Permits & Major Project Reviews & Administrative Permits

PURPOSE

The purpose of a development checklist is to provide a list of questions that address whether a development proposal is in conformance with the goals and objectives of the 2006 Carson City Master Plan that are related to non-residential and multi-family residential development. This checklist is designed for developers, staff, and decision-makers and is intended to be used as a guide only.

Development Name: Carson City Fleet Expansion

Reviewed By: Brian Elder

Date of Review: 6/15/2022

DEVELOPMENT CHECKLIST

The following five themes are those themes that appear in the Carson City Master Plan and which reflect the community's vision at a broad policy level. Each theme looks at how a proposed development can help achieve the goals of the Carson City Master Plan. A check mark indicates that the proposed development meets the applicable Master Plan policy. The Policy Number is indicated at the end of each policy statement summary. Refer to the Comprehensive Master Plan for complete policy language.

CHAPTER 3: A BALANCED LAND USE PATTERN



The Carson City Master Plan seeks to establish a balance of land uses within the community by providing employment opportunities, a diverse choice of housing, recreational opportunities, and retail services.

Is or does the proposed development:

- Meet the provisions of the Growth Management Ordinance (1.1d, Municipal Code 18.12)?
- Use sustainable building materials and construction techniques to promote water and energy conservation (1.1e, f)?
- Located in a priority infill development area (1.2a)?
- Provide pathway connections and easements consistent with the adopted Unified Pathways Master Plan and maintain access to adjacent public lands (1.4a)?

- Protect existing site features, as appropriate, including mature trees or other character-defining features (1.4c)?
- At adjacent county boundaries or adjacent to public lands, coordinated with the applicable agency with regards to compatibility, access and amenities (1.5a, b)?
- In identified Mixed-Use areas, promote mixed-use development patterns as appropriate for the surrounding context consistent with the land use descriptions of the applicable Mixed-Use designation, and meet the intent of the Mixed-Use Evaluation Criteria (2.1b, 2.2b, 2.3b, Land Use Districts, Appendix C)?
- Meet adopted standards (e.g. setbacks) for transitions between non-residential and residential zoning districts (2.1d)?
- Protect environmentally sensitive areas through proper setbacks, dedication, or other mechanisms (3.1b)?
- Sited outside the primary floodplain and away from geologic hazard areas or follows the required setbacks or other mitigation measures (3.3d, e)?
- Provide for levels of services (i.e. water, sewer, road improvements, sidewalks, etc.) consistent with the Land Use designation and adequate for the proposed development (Land Use table descriptions)?
- If located within an identified Specific Plan Area (SPA), meet the applicable policies of that SPA (Land Use Map, Chapter 8)?

CHAPTER 4: EQUITABLE DISTRIBUTION OF RECREATIONAL OPPORTUNITIES



The Carson City Master Plan seeks to continue providing a diverse range of park and recreational opportunities to include facilities and programming for all ages and varying interests to serve both existing and future neighborhoods.

Is or does the proposed development:

- Provide park facilities commensurate with the demand created and consistent with the City's adopted standards (4.1b)?
- Consistent with the Open Space Master Plan and Carson River Master Plan (4.3a)?

CHAPTER 5: ECONOMIC VITALITY



The Carson City Master Plan seeks to maintain its strong diversified economic base by promoting principles which focus on retaining and enhancing the strong employment base, include a broader range of retail services in targeted areas, and include the roles of technology, tourism, recreational amenities, and other economic strengths vital to a successful community.

Is or does the proposed development:

- Encourage a citywide housing mix consistent with the labor force and non-labor force populations (5.1j)
- Encourage the development of regional retail centers (5.2a)
- Encourage reuse or redevelopment of underused retail spaces (5.2b)?
- Support heritage tourism activities, particularly those associated with historic resources, cultural institutions and the State Capitol (5.4a)?
- Promote revitalization of the Downtown core (5.6a)?
- Incorporate additional housing in and around Downtown, including lofts, condominiums, duplexes, live-work units (5.6c)?

CHAPTER 6: LIVABLE NEIGHBORHOODS AND ACTIVITY CENTERS



The Carson City Master Plan seeks to promote safe, attractive and diverse neighborhoods, compact mixed-use activity centers, and a vibrant, pedestrian-friendly Downtown.

Is or does the proposed development:

- Use durable, long-lasting building materials (6.1a)?
- Promote variety and visual interest through the incorporation of varied building styles and colors, garage orientation and other features (6.1b)?
- Provide variety and visual interest through the incorporation of well-articulated building facades, clearly identified entrances and pedestrian connections, landscaping and other features consistent with the Development Standards (6.1c)?
- Provide appropriate height, density and setback transitions and connectivity to surrounding development to ensure compatibility with surrounding development for infill projects or adjacent to existing rural neighborhoods (6.2a, 9.3b 9.4a)?
- If located in an identified Mixed-Use Activity Center area, contain the appropriate mix, size and density of land uses consistent with the Mixed-Use district policies (7.1a, b)?
- If located Downtown:
 - Integrate an appropriate mix and density of uses (8.1a, e)?
 - Include buildings at the appropriate scale for the applicable Downtown Character Area (8.1b)?
 - Incorporate appropriate public spaces, plazas and other amenities (8.1d)?
- Incorporate a mix of housing models and densities appropriate for the project location and size (9.1a)?

CHAPTER 7: A CONNECTED CITY



The Carson City Master Plan seeks promote a sense of community by linking its many neighborhoods, employment areas, activity centers, parks, recreational

amenities and schools with an extensive system of interconnected roadways, multi-use pathways, bicycle facilities, and sidewalks.

Is or does the proposed development:

- Promote transit-supportive development patterns (e.g. mixed-use, pedestrian-oriented, higher density) along major travel corridors to facilitate future transit (11.2b)?
- Maintain and enhance roadway connections and networks consistent with the Transportation Master Plan (11.2c)?
- Provide appropriate pathways through the development and to surrounding lands, including parks and public lands, consistent with the Unified Pathways Master Plan (12.1a, c)?

Carson City Fleet Services Tire and Welding Shop

3505 Butti Way
Carson City, NV 89701

Carson City Public Works

January 28, 2022

100% Construction Documents

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2116 Carson City Fleet Services AR.rvt

1/28/2022 7:43:23 AM



Professional Seal

△ Date Revision

© Copyright H + K Architects

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

3505 Butti Way
Carson City, NV 89701

Title Sheet

January 28, 2022
H+K Project No: 2116

G100



Abbreviations			
& @ (e) ⊥ #	And Existing Perpendicular Pound or Number	E Ea. Etc. E.W.C. Elec. Elev. Emer. Encl. Eq. Equip. Exh. Exp. E.J. Ext.	Each Etcetera Electric Water Cooler Electrical Elevation Emergency Enclosure Equal Equipment Exhaust Expansion Expansion Joint Exterior
A Adj. Aggr. Alt. Alum. Approx. Arch. A.C.	Adjustable Aggregate Alternate Aluminum Approximately Architectural/Architect Asphalt Concrete	F F.O. Fin. F.G. F.E. F.E.C. Fprf. Fixt. Flash. Flr. F.D. F.L. F.L. Ft. Ftg. Fdn. FBO Furr. Fut.	Face of Finish Finish Grade Fire Extinguisher Fire Extinguisher Cabinet Fixture Flashing Floor Floor Drain Flow Line Foot Footing Foundation Furnished by Others Furring Future
B Bm. Blk. Bldg. Bd. B.O. Bldg. B.U.R.	Beam Block Blocking Board Bottom of Building Built up Roofing	G Galv. G.I. Ga. Gen. Gl. GLB Gyp.	Galvanized Galvanized Iron General Glass Glue-Laminated Beam Gypsum
C C.I. C.B. Clg. Cir. C.L. Cer. C.O. C.W. Col. Conc. Conn. Const. C.J. Contin. Contr. Cu. Ft.	Cast Iron Catch Basin Ceiling Center Center Line Ceramic Cleanout Cold Water Column Concrete Connection Construction Construction Joint Continuous Contractor Cubic Foot	H Ht. H.C. H.M. Horiz. H.B. H.W. Hr.	Height Hollow Core Hollow Metal Horizontal Hose Bibb Hot Water Hour
D D.G. Dept. Det. Dia. Diff. Dim. Dbl. DN D.S. Dwg. D.F.	Decomposed Granite Department Detail Diameter Diffuser Dimension Double Down Downspout Drawing Drinking Fountain	I In. I.D. Insul. Int.	Inch(es) Inside Diameter Insulation Interior
J Jt.	Joint	L Lab Lav. Lt.	Laboratory Lavatory Light
M Mfr. M.O. Max. Mech. Memb. Met. Min. Misc. MPH Mid.	Manufacturer Masonry Opening Maximum Mechanical Membrane Metal Minimum Miscellaneous Miles per hour Mounted	N Nom. N.I.C. N.T.S. No.	Nominal Not in Contract Not to Scale Number
O O.C. O.D. O.H.	On Center Outside Diameter Opposite Hand	P Pr. P. Lam. Pl. Plywd. Pl. Ply. Pnt. Prefab. Prop. PSF PSI	Pair Plastic Laminate Plate Plywood Point Prefabricated Property Pounds per square foot Pounds per square inch
R Rad. Ref. Reinf. Req. R.A. Rev. R.O.W. R.D. Rm. R.O.	Radius Reference Reinforced Required Return Air Revision Right of Way Roof Drain Room Rough Opening	S Sched. Sect. Sht. Sht. Sim. S.C. Spec. Sq. SF St. Stl. Std. Stl. Stg. Struc. Susp. Sym.	Schedule Section Sheet Sheet Similar Solid Core Specification Square Square foot Stainless Steel Standard Steel Storage Structural Suspended Symmetrical
T Tel. T.V. T.&G. T.C. T.O.	Telephone Television Tongue and Groove Top of Curb (or Concrete) Top of	U U.N.O.	Unless Noted Otherwise
V Vert. V.C.T.	Vertical Vinyl Composition Tile	W W.C. Wt. W.F. Wdw. W/ W/O Wd. W.J.	Water Closet Weight Wide Flange Window With Without Wood Weakened Plane Joint
Y Yd.	Yard		

General Notes

- These general notes pertain to work described on all contract documents.
- The contract documents consist of the owner-contractor agreement, the conditions of the contract (general, supplementary and other conditions), the drawings, the specifications, and all addenda issued prior to and all modifications issued after execution of the contract.
- The work comprises the completed construction required by the contract documents and includes all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated in such construction.
- Shop drawings, product data and samples are not a part of the contract documents. The Architect will review them, but only for conformance with the design concept of the work and with the information given in the contract documents. The Contractor shall not be relieved of responsibility for any deviation from the requirements of the contract documents by the Architect's review of shop drawings, product data or samples.
- The Contractor shall carefully study and compare the contract documents and shall at once report to the Architect any error, inconsistency or omission he may discover. The Contractor shall perform no portion of the work at any time without contract documents or, where required, approved shop drawings, product data or samples for such portion of the work.
- All work is to conform with the contract documents. Drawings are NOT to be scaled for information. If unable to locate dimensions for any item of work, consult with the Architect before proceeding with construction.
- In the event certain features of the construction are not fully shown on the contract documents, then their construction shall be of the same character as for similar conditions that are shown or called for and shall be reviewed by the Architect.
- All work shall be performed within strict conformance to the minimum standards of the current edition of the adopted building codes of the authority having jurisdiction and all applicable national, state, and local laws, regulations, and ordinances.
- The Contractor shall be responsible for the general safety during construction, and all work shall conform to pertinent safety regulations.
- The Contractor shall coordinate locations of any and all mechanical, telephone, electrical, lighting and plumbing including all piping, ductwork and conduit. Coordinate all required clearances for installation and maintenance of the above equipment.
- The Contractor shall supervise and direct the work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the work under the contract.
- The Contractor shall be responsible for the acts and omissions of his employees, subcontractors, and their agents and employees, and other persons performing any work under a contract with the Contractor.
- The Contractor shall pursue work in a continuous and diligent manner to ensure a timely completion of the project.
- The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the work he shall remove all his waste materials and rubbish from and about the project as well as all his tools, construction equipment, machinery, and surplus materials.
- The Contractor shall be responsible for the location and/or protection of all existing and proposed piping, utilities, structures, adjacent streets and improvements during the period of construction.
- Unless otherwise provided in the contract documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the work.
- Where conflicts occur, coordinate the layout and exact location of all partitions, doors, telephones, and electrical/communication outlets and switches with Architect in the field before proceeding with construction.
- Where conflict is encountered between the contract documents that will materially affect the quality or extent of the work, such conflict shall be resolved to the satisfaction of the Architect before the affected items and/or material are purchased, fabricated and/or installed.
- Where pre-manufactured or prefabricated items and/or materials are to be installed - the Contractor shall verify rough or finished dimensions in the field prior to purchase or fabrication.
- The Contractor shall guarantee all work and materials to be free from defects for a minimum of one year from date of final acceptance, and promptly remedy such defects and any subsequent damage caused by the defects or repair thereof, at no expense to the owner. Guarantee periods of greater than one year may be required and contained within the contract documents.
- Where any item and/or material is indicated in the contract documents, and not necessarily detailed in each specific case, but is required for a complete and professional installation - such item and/or material shall be provided as if shown and detailed in full. Provide means to furnish and install.
- Contractor is requested to visit the site as part of the pre-bid site visit to compare the drawings and specifications with any work in place, and inform himself of all conditions, including the work, if any, being performed. Failure to visit the site will in no way relieve the Contractor from necessity of furnishing any materials or performing any work in accordance with the drawings and specifications that may be required to complete the work without additional cost to the owner.
- Existing conditions including material sizes, configurations, and locations as shown on the drawings may not be an exact illustration of existing as-built conditions. The Contractor shall include in his bid the cost of furnishing, installing, modifying, existing and/or new materials (minor in nature) required for a complete and professional installation that may be required by minor variations between existing conditions as shown, and actual as-built conditions.

Project Team

Owner:
Carson City Public Works
3505 Butti Way
Carson City, Nevada 89701
(775) 283-7584
Contact: Brian Elder, P.E.

Architect:
H+K Architects
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511
(775) 332-6640
Contact: Mark Johnson, A.I.A.

Civil Engineer:
Lumos Engineering
9222 Prototype Drive
Reno, Nevada 89521
(775) 827-6111
Contact: Larry Bibee, P.E.

Structural Engineer:
Will Engineering, L.L.C.
748 S. Meadows Parkway, Suite A-9
PMB #21
Reno, Nevada 89521
775-560-6554
Contact: Jeremy Will, P.E.

Mechanical Engineer:
Ainsworth Associates Mechanical Engineers
1420 Holcomb Avenue, Suite 201
Reno, Nevada 89502
(775) 329-9100
Contact: Greg Maestas

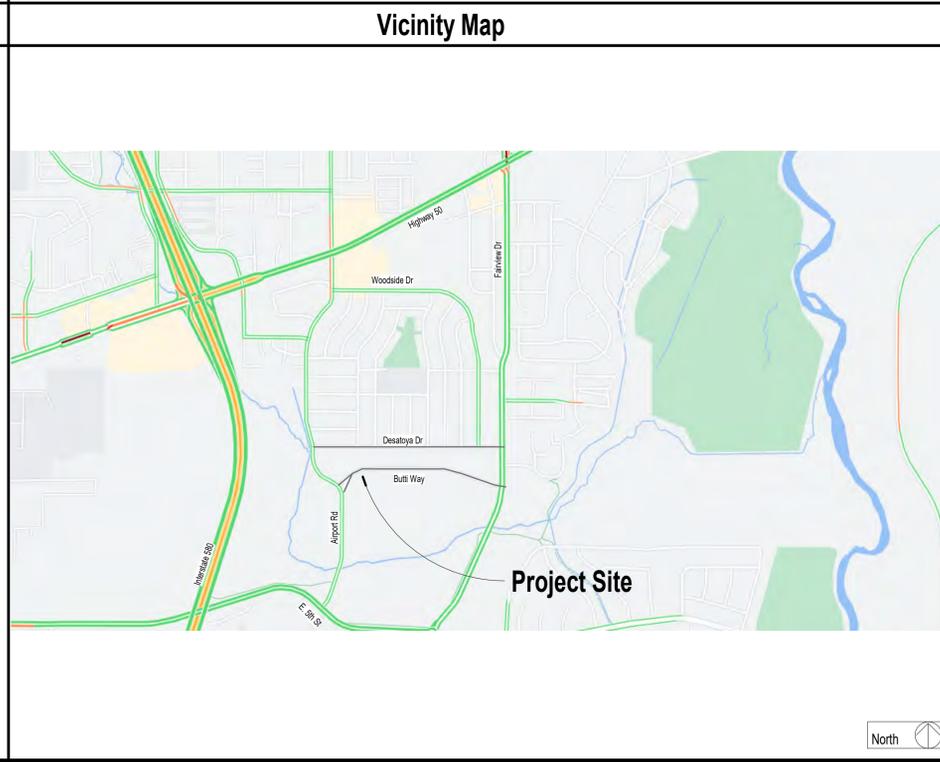
Electrical Engineer:
PK Electrical
681 Sierra Rose Drive, Suite B
Reno, Nevada 89511
(775) 826-9010
Contact: Bryan Dagerman, P.E.

Sheet Index

G100	Title Sheet
General	
G101	Project Data
G102	Code Analysis
G301	Accessibility Diagrams
Civil	
C100	Existing Conditions/Demo
C200	Site - Utility
C300	Site - Grading
C400	Details
Architectural	
A100	Architectural Site Plan
A101	Demolition Plan and Floor Plan
A101A	Equipment Plan
A201	Roof Plan, Reflected Ceiling Plan and Details
A301	Exterior Elevations
A401	Building Sections and Wall Sections
A701	Door Schedule and Details, Finish Schedule and Interior Elevations
Structural	
S001	Structural Cover Sheet
S002	General Notes and Quality Assurance
S011	Typical Earthwork and Concrete Details
S012	Typical Concrete Details
S101	Plans
S201	Details
Mechanical/Plumbing	
MP001	Legend, Schedules and General Notes
MP100	Mechanical Demolition Plan
MP101	Mechanical Floor Plan
MP102	Plumbing Demolition Plan
MP103	Plumbing Floor Plan
MP501	Control Diagrams
MP601	Details and Section Views
MP602	Details and Section Views
Electrical	
E001	Electrical Legend and Drawing Schedule
E002	Electrical Specifications
E003	Online Diagram and Panel Schedules
E004	Light Fixture Schedule and IECC Calculations
E005	Details
E006	Details
E007	Telecom Onelines
E101	Electrical Demolition
E110	Electrical Site Plan
E201	Lighting Plan
E301	Power Plan
E401	Low Voltage and Fire Alarm Plan

Symbols

	Drawing Number		Typical Indicator		Building Section
	Sheet Number		North Arrow		Wall Section
	Elevation		Detail		Detail Section
	Door Number		Spot Elevation		Elevation
	Window Type		Grid Line		Room Name/Number
	Wall Type Symbol				



Design Criteria

Applicable Codes

Building Code:	2018 International Building Code (IBC)
Mechanical Code:	2018 Uniform Mechanical Code (UMC)
Plumbing Code:	2018 International Mechanical Code (IMC)
Electrical Code:	2018 Uniform Plumbing Code (UPC)
Fire Code:	2017 National Electrical Code (NEC)
Accessibility Codes:	2018 International Fire Code, Vol. 1 (IFC)
	2010 Americans with Disabilities Act, Accessibility Guidelines and 2017 ICC/ANSI 117.1
Energy Code:	2018 International Energy Conservation Code

Code Analysis

Type of Construction:	Type V-B
Occupancy Group:	S-1
Allowable Height:	
Table 504.3	
Allowable Height:	60'
Actual Height:	30'
Allowable Number of Stories:	
Table 504.4	
Allowable Stories:	2
Actual Stories:	1
Allowable Area:	
Table 506.2	
Allowable Area:	36,000 SF
Existing Area:	13,742 SF
New Addition:	2,240 SF
Total Area:	15,982 SF
Incidental Use Separations:	None
Fire Resistance Rating for Building Elements (Table 601)	
Structural Frame:	0-hr
Exterior Bearing Walls:	0-hr
Interior Bearing Walls:	0-hr
Non-Bearing Walls:	0-hr (interior)
Floor Construction:	0-hr
Roof Construction:	0-hr
Insulation Requirements:	
Exterior Walls:	R13 + R13ci req.
Roof:	R38 req.
Zoning	
PR - Public Regional	Allowable Use
Deferred Submittals per IBC 107.3.4.1	
Fire and Life Safety Systems:	
1. Sprinkler System Plans	
2. Fire Alarm system.	
Performance based specifications requiring deferred submittals:	
1. Concrete Mix Design	
2. Metal Building Systems	
Design Loads:	Refer to Structural Sheet S001

Professional Seal

2/9/2022 5:39:38 AM

Date	Revision	Consultant

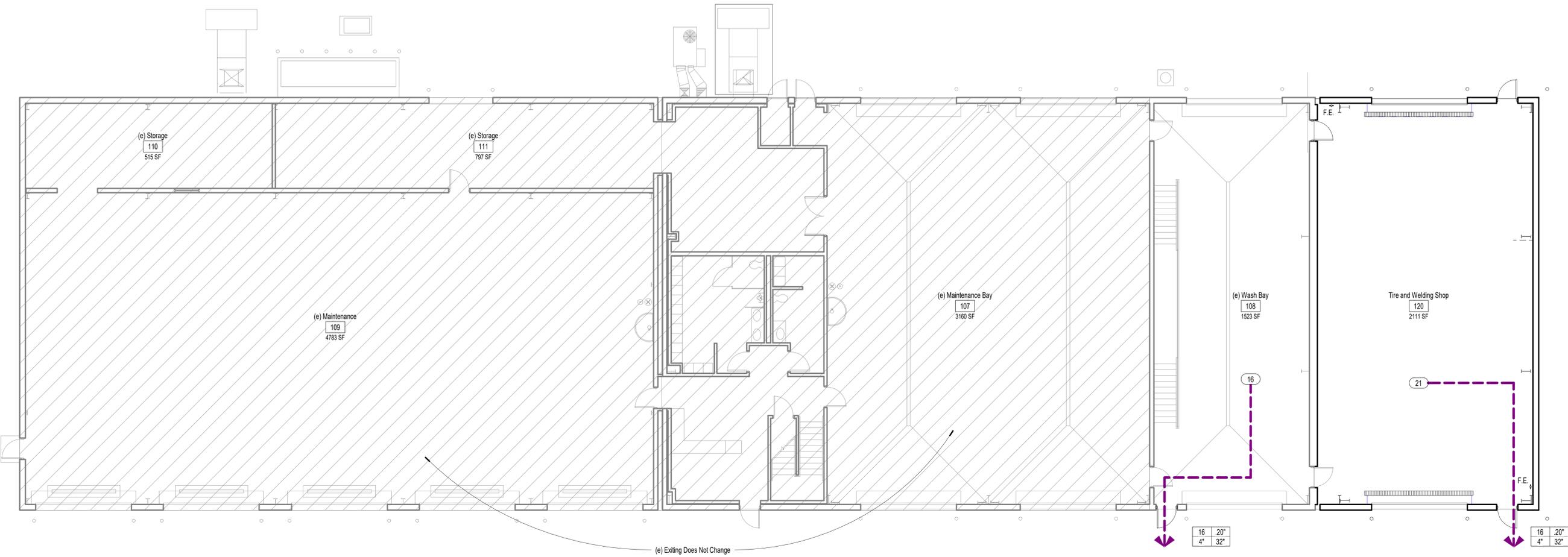
© Copyright H + K Architects

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775-332-6640
F 775-332-6642
hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**
3505 Butti Way
Carson City, NV 89701

Project Data
January 28, 2022
H+K Project No: 2116
G101

Exiting Legend				Occupant Schedule							
	Occupant Load for Room noted - see Schedule this sheet for calculations		Occupant Load attributed to Intervening Room or Corridor, arrows indicate that the load will split and exit in both directions.	Room Number	Room Name	Area	Occupancy	OLF	Occupants	Required Exits	Provided Exits
	Occupant Load attributed to Intervening Room or Corridor, arrows indicate the direction the occupant will travel.		Exit width calculation:	108	(e) Wash Bay	1523 SF		100	16		
	Occupant load attributed to exit		Width per occupant load in inches	120	Tire and Welding Shop	2111 SF		100	21		
	Route to determine Distance to Exit		Required opening width						37		
	Indicates travel route to the exit		Provided opening width								
	Indicates Existing Floor Plan - Exiting Does Not Change										



1 Exiting Plan

1/8" = 1'-0"



Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2116 Carson City Fleet Services AR.nt



Professional Seal △ Date Revision

Consultant

H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262
 P 775+332+6640
 F 775+332+6642
 hkarchitects.com

**Carson City Fleet Services
 Tire and Welding Shop**

3505 Butti Way
 Carson City, NV 89701

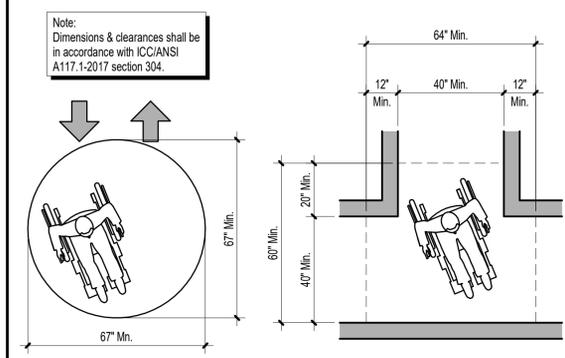
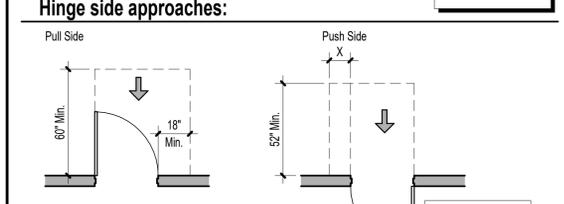
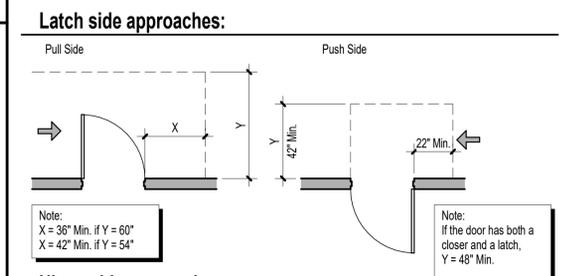
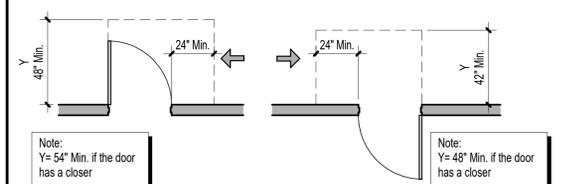
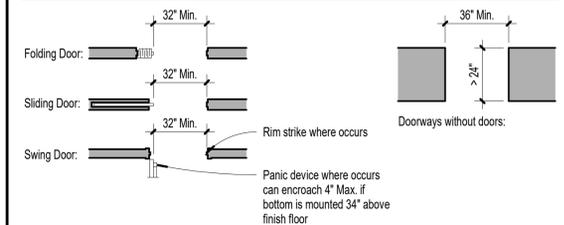
Code Analysis

January 28, 2022
 H+K Project No: 2116

G102



Notes:
 1. Dimensions & clearances shall be in accordance with ICC/ANSI A117.1-2017 section 404.2.3.
 2. All door in alcoves and recesses shall comply with clearances for front approaches.

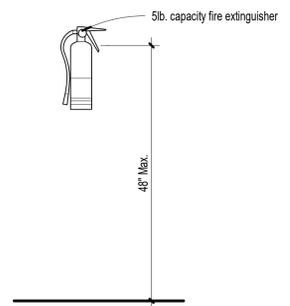


Diameter Space: **T-Shaped Space for 180° Turn:**

4 Wheelchair Turning Radius

3/8" = 1'-0"

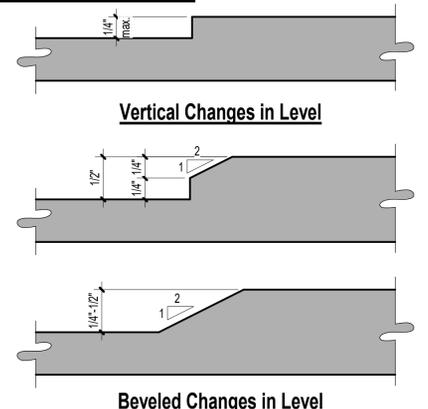
Note: The handle of the fire extinguisher shall be under 48" A.F.F. to meet the requirements of ICC/ANSI A117.1-2017 section 308.3.1.



3 Fire Extinguisher Mtg. Ht.

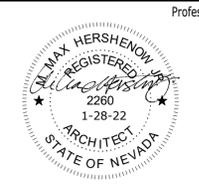
3/4" = 1'-0"

Changes in level shall meet the requirements of ICC/ANSI A117.1-2017 section 303 as shown. Changes in level greater than 1/2" shall be ramped.



1 Changes in Level

12" = 1'-0"



Professional Seal	Date	Revision

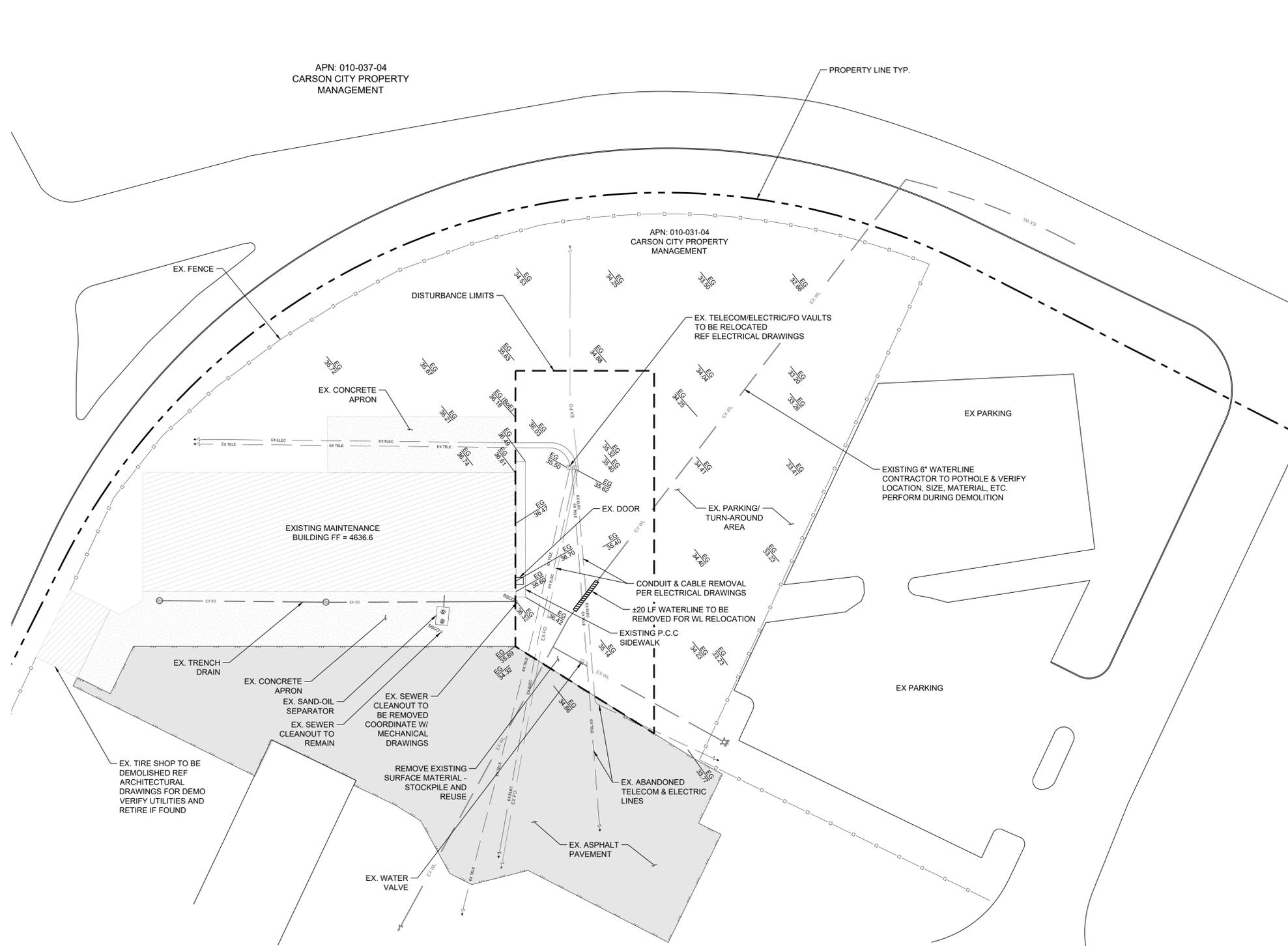
H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262
 P 775+332+6640
 F 775+332+6642
 hkarchitects.com

**Carson City Fleet Services
 Tire and Welding Shop**
 3505 Butti Way
 Carson City, NV 89701

Accessibility Diagrams

January 28, 2022
 H+K Project No: 2116

G301



LEGEND

- EX SD — EX STORM DRAIN
- SD — PROPOSED STORM DRAIN
- EX SS — EX SANITARY SEWER LINE
- EX TELE — EX TELECOM
- TELE — PROPOSED TELECOM
- EX ELEC — EX ELECTRIC
- ELEC — PROPOSED ELECTRIC
- EX FO — EX FIBER OPTIC
- FO — PROPOSED FIBER OPTIC
- EX WL — EX WATERLINE
- WL — PROPOSED WATERLINE
- EX ASPHALT PAVEMENT
- ASPHALT PAVEMENT
- EX FENCE
- X — PROPOSED FENCE
- EX BUILDING
- BUILDING
- EX CONCRETE PAVEMENT
- CONCRETE PAVEMENT
- EX AGG BASE
- AGG BASE
- DISTURBANCE LIMITS



0 30' 60'
 22x34 SHEETS = HORIZONTAL: 1"=30'
 11x17 SHEETS = HORIZONTAL: 1"=60'

DESIGN NOTES:

1. A TOPOGRAPHIC SURVEY WAS NOT COMPLETED BY LUMOS & ASSOCIATES INC. THE TOPOGRAPHIC INFORMATION SHOWN IN THESE PLANS WAS PROVIDED BY OTHERS, AND ALL DESIGN COMPLETED FOR THIS PROJECT WAS BASED ON THIS AVAILABLE OUTSIDE INFORMATION. CONTRACTOR TO VERIFY AND NOTIFY ENGINEER REGARDING ANY DISCREPANCIES.

GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.
2. THE CONTRACTOR SHALL REFER TO THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, AS ADOPTED BY THE PERMITTING ENTITY, FOR ALL DETAILING NOT SHOWN ON THESE PLANS.
3. CONTRACTOR SHALL PROVIDE MATERIALS AND EQUIPMENT SUBMITTALS AND/OR SHOP DRAWINGS TO THE PROJECT ENGINEER FOR REVIEW PRIOR TO ORDERING OR INSTALLATION. A SIGNED SET OF REVIEWED SUBMITTALS MUST ALWAYS BE AVAILABLE ONSITE DURING CONSTRUCTION.
4. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 1-800-642-2444 TO PROVIDE FIELD LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.
5. THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS OF POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING CONSTRUCTION. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND MAINTAIN ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE PLAN.
6. THE CONTRACTOR SHALL MAINTAIN A CLEAN PROJECT SITE, REMOVING CONSTRUCTION DEBRIS AT THE END OF EACH ACTIVITY DAY. THE CONTRACTOR SHALL MAINTAIN DEBRIS FREE CONSTRUCTION ROUTES, ADJACENT STREETS AND STORM DRAIN SYSTEMS.
7. THE CONTRACTOR SHALL USE ONLY AUTHORIZED SITES FOR STORAGE OF EQUIPMENT AND MATERIALS AND OBTAIN PROPER APPROVALS FROM THE LAND OWNER AND LOCAL GOVERNING AUTHORITY TO DO SO. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ALL EQUIPMENT AND MATERIALS.
8. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
9. ALL SALVAGED MATERIALS ARE THE PROPERTY OF THE OWNER AND SHALL REMAIN ONSITE UNLESS OTHERWISE ARRANGED WITH THE OWNER AND/OR PROJECT ENGINEER.
10. INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF EROSION AND SILTATION FROM ENTERING THE STORM DRAIN SYSTEM, NATURAL DRAINAGE COURSES, AND/OR INTRUDING UPON ADJACENT ROADWAYS AND PROPERTIES. EROSION CONTROL MEASURES SHOWN ON THESE PLANS ARE INTENDED AS A GUIDE. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DETERMINED IN THE FIELD. THIS RESPONSIBILITY SHALL APPLY THROUGHOUT THE COURSE OF CONSTRUCTION AND UNTIL ALL DISTURBED AREAS HAVE BECOME STABILIZED AND SHALL NOT BE LIMITED TO WET WEATHER PERIODS. THE CONTRACTOR IS RESPONSIBLE FOR SWPPP UPDATES.
11. PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED TO PROTECT ADJOINING PROPERTIES DURING CONSTRUCTION OF IMPROVEMENTS.

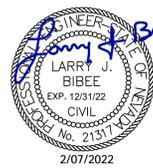
FOR REVIEW

Professional Seal △ Date Revision

© Copyright H + K Architects



9222 PROTOTYPE DRIVE
 RENO, NV 89521
 TEL: 775.827.6111



Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262

P 775+332+6640
 F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
 Tire and Welding Shop**

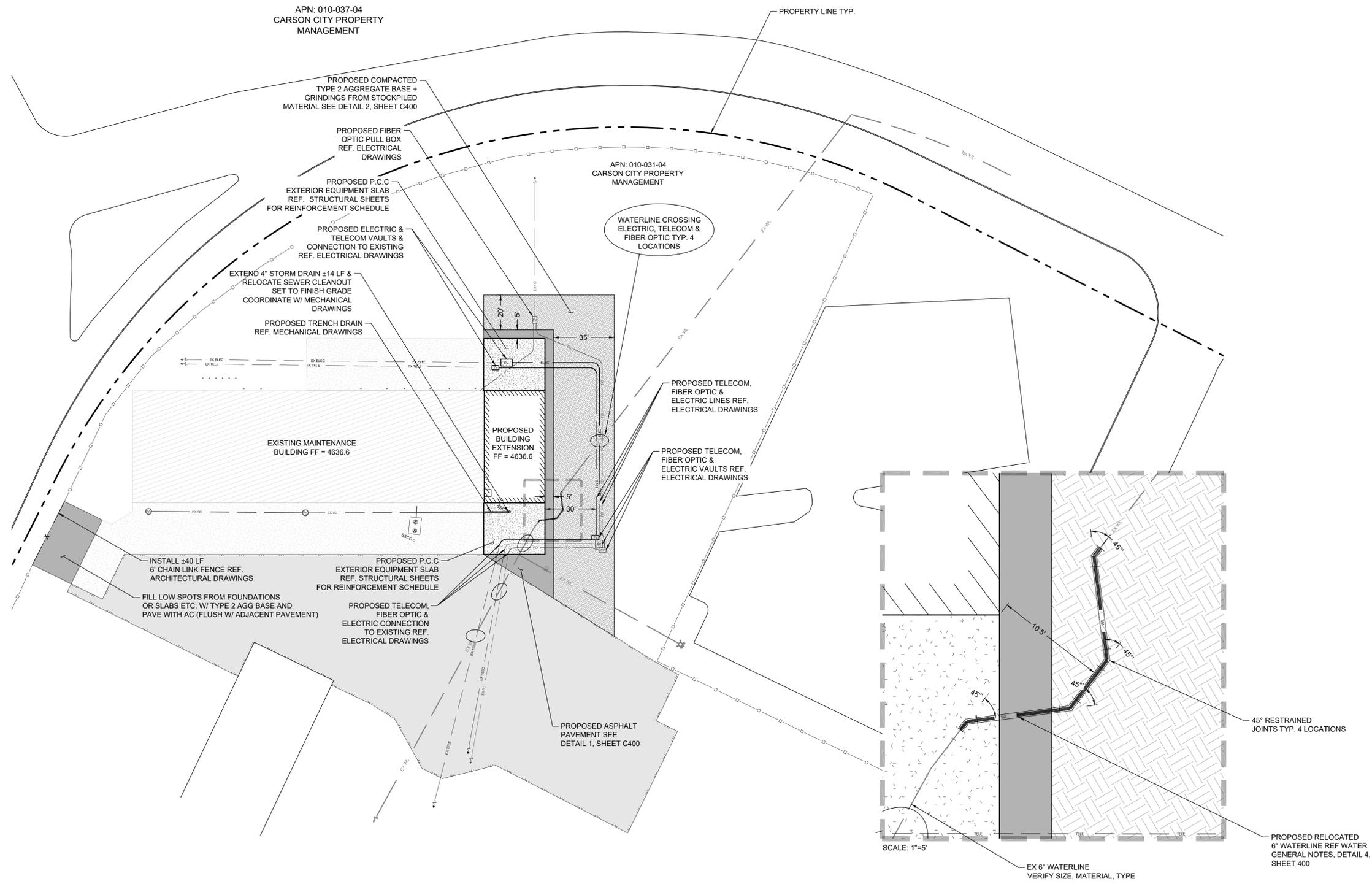
3505 Butti Way
 Carson City, NV 89701

Existing Conditions/Demo

February 7, 2022
 H+K Project No: 2116

C100





0 30' 60'
22x34 SHEETS = HORIZONTAL: 1"=30'
11x17 SHEETS = HORIZONTAL: 1"=60'

FOR REVIEW

Professional Seal	Date	Revision

© Copyright H + K Architects



9222 PROTOTYPE DRIVE
RENO, NV 89521
TEL: 775.827.6111



H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

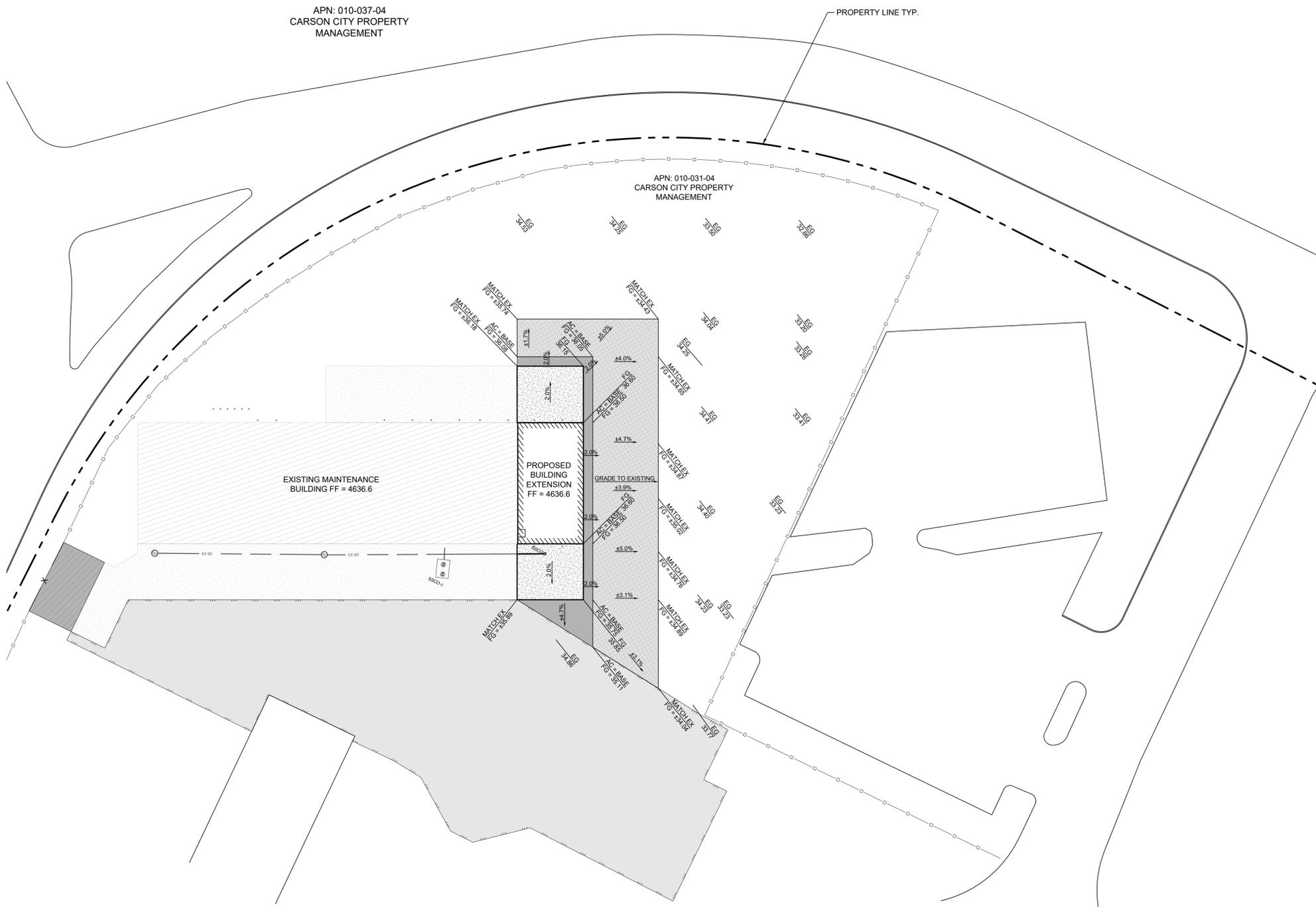
3505 Butti Way
Carson City, NV 89701

Site - Utility

February 7, 2022
H+K Project No: 2116

C200





0 30' 60'
 22x34 SHEETS = HORIZONTAL: 1"=30'
 11x17 SHEETS = HORIZONTAL: 1"=60'

FOR REVIEW

Professional Seal	Date	Revision

© Copyright H + K Architects

LUMOS & ASSOCIATES
 9222 PROTOTYPE DRIVE
 RENO, NV 89521
 TEL: 775.827.6111

Consultant

 LARRY J. BIBEE
 EXP. 12/31/22
 CIVIL
 No. 21317
 2/07/2022

H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262
 P 775+332+6640
 F 775+332+6642
 hkarchitects.com

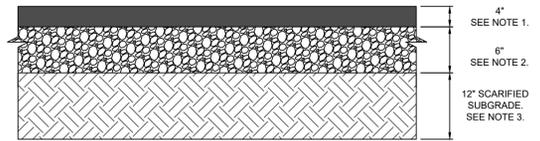
**Carson City Fleet Services
 Tire and Welding Shop**
 3505 Butti Way
 Carson City, NV 89701

Site - Grading

February 7, 2022
 H+K Project No: 2116

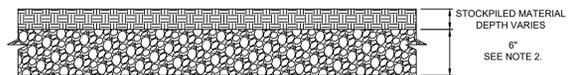
C300





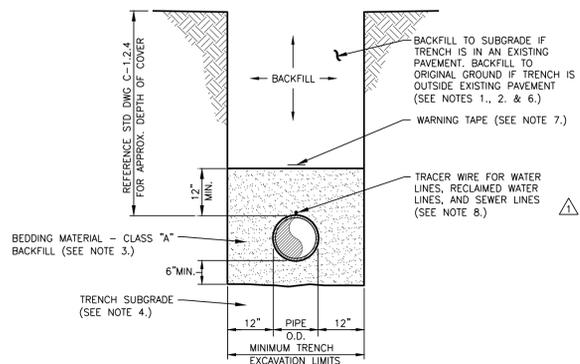
- NOTES:**
1. MINIMUM THICKNESS PLANTMIX BITUMINOUS PAVEMENT, TYPE III ASPHALT AGGREGATE WITH PG64-28NB BINDER, 50 BLOW WITH 4% AIR Voids.
 2. MINIMUM THICKNESS TYPE 2 CLASS B AGGREGATE BASE.
 3. PROPERLY PREPARED/SUITABLE SUBGRADE.
 4. ALL MATERIALS SHALL CONFORM TO SSPWC.

1 PAVEMENT SECTION SCALE: NTS



- NOTES:**
1. MAINTAIN 6" AGGREGATE BASE AND CAP WITH AVAILABLE STOCKPILED MATERIAL (GRINDINGS).
 2. MINIMUM THICKNESS TYPE 2 CLASS B AGGREGATE BASE.
 3. ALL MATERIALS SHALL CONFORM TO SSPWC.

2 COMPACTED STOCKPILED MATERIAL + AGGREGATE BASE SECTION SCALE: NTS



TYPICAL TRENCH SECTION NTS

- NOTES:**
1. WATER DENSIFIED BACKFILL AND TUNNELING SHALL BE BY SPECIAL PROVISION ONLY.
 2. BACKFILL SHALL CONFORM TO THE REQUIREMENTS OF CLASS E BACKFILL AS SPECIFIED IN SUBSECTION 200.03.06 OF THE SSPWC. MATERIAL SHALL BE PLACED IN LIFT THICKNESS SPECIFIED IN SUBSECTION 305.10 OF THE SSPWC AND DENSIFIED TO 90% RELATIVE COMPACTION PER ASTM D1557 MODIFIED PROCTOR.
 3. BEDDING SHALL CONFORM TO THE REQUIREMENTS OF CLASS A BACKFILL AS SPECIFIED IN SUBSECTION 200.03.02 OF THE SSPWC. MATERIAL SHALL BE DENSIFIED TO 90% RELATIVE COMPACTION PER ASTM D1557 MODIFIED PROCTOR.
 4. PLANS SHALL INCLUDE A DETAIL FOR SUBGRADE STABILIZATION INCLUDING BACKFILL MATERIAL, STRUCTURAL GEOTEXTILE FILTER FABRIC AND MODIFIED CUTOFF COLLARS WHEN POTENTIAL FOR UNSTABLE SUBGRADES EXIST, SUBJECT TO THE APPROVAL OF THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
 5. FOR TRENCHES IN ROADWAY SECTION, SEE PAVEMENT PATCH DETAIL 1, THIS SHEET.
 6. FOR THE PURPOSE OF PAYMENT, EXCAVATION AND BACKFILL QUANTITIES ARE BASED ON THESE STANDARD DRAWINGS, AND NO ADDITIONAL COMPENSATION WILL BE MADE. SHORING OR SLOPED CUT SLOPES MAY BE NECESSARY, BUT THERE WILL BE NO ADDITIONAL PAYMENT. ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
 7. PLACE WARNING TAPE 1 FOOT ABOVE ALL BURIED PIPES AND CONDUITS.
 8. TRACER WIRE SHALL BE 12 GAUGE (MINIMUM THICKNESS) INSULATED SOLID COPPER WIRE. INSULATION SHALL BE 30 MIL HDPE. PLANS SHALL SPECIFY WIRE STRENGTH AND INSULATION THICKNESS FOR BORING APPLICATIONS. SPLICES SHALL BE CONNECTED BY WIRE NUTS, SEALED WITH AQUA SEAL OR SILICON FILLED, AND DOUBLE WRAPPED WITH U/L LISTED ELECTRICAL TAPE. TRACER WIRE COLOR SHALL BE, BLUE FOR WATER, PURPLE FOR RECLAIMED WATER, GREEN FOR SEWER AND YELLOW FOR ELECTRICAL OR FIBER OPTIC.

3 TRENCH EXCAVATION & BACKFILL SCALE: NTS

1. ALL WORK MUST CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC) AND THE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS PER NAC 445A.67145 (1)(A).
2. WATER MAIN SHUTDOWNS/INTERRUPTION OF WATER/FIRE SERVICE:
 - A. THE CONTRACTOR MUST MAKE A WRITTEN REQUEST WITH A MINIMUM OF 5 BUSINESS DAYS IN ADVANCE OF ANY PLANNED WATER MAIN SHUTDOWN AND OBTAIN APPROVAL FROM THE CARSON CITY WATER UTILITY MANAGER OR THEIR DESIGNEE PRIOR TO PLANNED SHUTDOWN.
 - B. THE CONTRACTOR MUST PROVIDE WATER UTILITY CUSTOMERS TWO (2) DAYS WRITTEN NOTICE PRIOR TO ANY PLANNED WATER SERVICE SHUTDOWN. THE CONTRACTOR MUST USE THE CITY'S ESTABLISHED NOTIFICATION PROCEDURES AND MUST COORDINATE ALL WATER UTILITY CUSTOMER CORRESPONDENCE WITH THE WATER UTILITY MANAGER OR THEIR DESIGNEE. THE CONTRACTOR MUST PROVIDE THE CITY A COMPLETE LISTING OF THE DATE, TIME AND ADDRESS OF ALL PERSONS NOTIFIED FOR CITY APPROVAL AND VERIFICATION. THE CONTRACTOR WILL BE SUBJECT TO DAMAGE CLAIMS SHOULD THEY FAIL TO PROPERLY NOTIFY CUSTOMERS OR MAINTAIN DOCUMENTATION OF CUSTOMER NOTIFICATIONS.
 - C. REPORTING TO THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION (NDEP) WILL BE PERFORMED BY CITY STAFF.
 - D. NOTIFICATIONS FOR PRECAUTIONARY BOIL WATER SHUTDOWNS WILL BE DONE BY CITY STAFF. CITY STAFF IS RESPONSIBLE FOR SHUTTING OFF AFFECTED WATER METERS IMMEDIATELY BEFORE SHUTDOWN. CONTRACTOR TO COORDINATE SHUTDOWN WITH CITY STAFF TO LIMIT THE AMOUNT OF DISRUPTION TO CUSTOMERS.
 - E. THE TOTAL TIME OF ANY WATER SERVICE INTERRUPTION IS LIMITED TO 5 HOURS MAXIMUM UNLESS APPROVED OTHERWISE IN ADVANCE BY THE WATER UTILITY MANAGER OR THEIR DESIGNEE. IF SERVICE INTERRUPTION GOES LONGER THAN APPROVED TIME, THE CONTRACTOR MUST SUPPLY EACH RESIDENCE WITH 2 GALLONS OF BOTTLED WATER PER EXTRA HOUR OF OUTAGE ON THE HOUR.
 - F. PLANNED WATER MAIN SHUTDOWNS WILL ONLY BE SCHEDULED FOR MONDAYS THROUGH WEDNESDAYS, EXCLUDING THE WORKING DAYS BEFORE AND AFTER A HOLIDAY. IF A HOLIDAY IS ON A TUESDAY, WEDNESDAY OR THURSDAY, NO SHUTDOWN WILL BE ALLOWED THAT WEEK, UNLESS PERMISSION IS GIVEN BY THE WATER UTILITY MANAGER OR THEIR DESIGNEE.
 - G. ONCE WORK IS COMPLETED, TWO CONSECUTIVE BACTERIOLOGICAL SAMPLES TAKEN BY CITY WATER OPERATORS ARE NEEDED TO CONFIRM THE ABSENCE OF TOTAL COLIFORM BACTERIA. AFTER THE SECOND SUCCESSFUL TEST, THE PRECAUTIONARY BOIL WATER NOTICE MAY BE RESCINDED BY CITY STAFF. REPORTING TO THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION (NDEP) WILL BE PERFORMED BY CITY STAFF.
3. THE CONTRACTOR MUST NOT OPERATE ANY EXISTING CITY WATER VALVES, INCLUDING METER SHUT OFF VALVES. CONTRACTOR MUST NOTIFY THE FIRE DEPARTMENT OF ANY FIRE HYDRANTS AFFECTED BY THE CONSTRUCTION.
4. WATER MAINS MUST BE PVC C900, SDR 18 MINIMUM WALL THICKNESS UNLESS HIGHER PRESSURE IS SPECIFIED ON THE PLANS. ALL SEPARATIONS MUST BE IN ACCORDANCE WITH THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION RULES AND REGULATIONS. WATER SERVICES 2 INCHES OR LESS MUST BE C901 CTS PE TUBING, MINIMUM PRESSURE CLASS 200 PS. WATER SERVICES 4 INCHES OR GREATER MUST BE PVC C900, DR 18 OR AS SPECIFIED ON THE PLANS.
5. MAINTAIN 18 INCHES VERTICAL AND 5 FEET HORIZONTAL SEPARATION BETWEEN ALL UNDERGROUND UTILITY LINES AND WATER LINES. IF WATER LINE IS BELOW POWER LINE OR IS WITHIN 18 INCH VERTICAL SEPARATION OF POWER LINE, POWER/TELEPHONE LINE MUST BE ENCASED WITH 4 INCHES MINIMUM OF CONCRETE EXTENDING 5 FEET EACH SIDE OF CROSSING (SEE NV ENERGY SPECS). CONCRETE ENCASEMENT OF WATER LINES IS NOT ALLOWED. PIPELINE DEPTHS MUST BE INSTALLED PER PLAN TO AVOID ADDITIONAL HIGHPOINTS IN THE WATERLINE AND TO SUPPORT AIR RELIEF VALVE LOCATIONS SHOWN IN THE PLANS.
6. WATER VALVE MARKERS MUST BE BLUE CARSONITE UTILITY MARKER (CUM-375), 5 FEET-2 INCHES (5'-2") WITH CARSON CITY WATER VALVE DECAL (CWV-116) OR APPROVED EQUAL. PLACE MARKER NO MORE THAN 5 FEET FROM THE VALVE OR AS DIRECTED BY THE CARSON CITY INSPECTOR.
7. A WATER MAIN MUST NOT BE PLACED INTO SERVICE AFTER ITS INITIAL CONSTRUCTION UNTIL THE WATER MAIN HAS BEEN DISINFECTED AND TESTED IN ACCORDANCE WITH AWWA STANDARD C651, AS ADOPTED BY

REFERENCE IN NAC 445A.6663. CITY STAFF WILL BE RESPONSIBLE FOR PERFORMING AND FUNDING UP TO (2) TWO BACTERIOLOGICAL TESTS PER RUN OF PIPE CONSTRUCTED. IF MORE THAN TWO TESTS ARE REQUIRED THE COST WILL BE PLACED ON THE CONTRACTOR. TWO (2) SETS OF CONSECUTIVE BACTERIOLOGICAL TESTS MUST BE CONDUCTED AT LEAST 24 HOURS APART, FROM EVERY 1200 FEET OFF MAIN, AT THE END OF THE LINE, AND FROM EACH BRANCH. BACTERIOLOGICAL TEST SAMPLES WILL NOT BE COLLECTED ON FRIDAYS, WEEKENDS, CARSON CITY OBSERVED HOLIDAYS OR THE DAY BEFORE A CARSON CITY OBSERVED HOLIDAY, UNLESS AUTHORIZED BY THE WATER UTILITY MANAGER OR THEIR DESIGNEE. THE RESULTS OF THE WATER MAIN ANALYSIS INDICATING THAT THE WATER MEETS PRIMARY DRINKING WATER STANDARDS FOR COLIFORM BACTERIA (ABSENT OF COLIFORM BACTERIA) MUST BE OBTAINED AND REPORTED TO THE BUREAU OF SAFE DRINKING WATER BY CITY STAFF PER AWWA STANDARD C651.

8. DISINFECTION TABLETS MUST BE PLACED USING TITEBOND MULTI-PURPOSE CLEAR 100% SILICONE OR APPROVED EQUAL FOOD GRADE SILICONE. THE DISPOSAL OF ANY SPENT CHLORINE SOLUTIONS MUST BE COORDINATED WITH THE DIVISION.
9. PRIOR TO ANY PRESSURE TESTING, A SAMPLE OF THE WATER IN THE MAIN MUST PASS AN INITIAL BACTERIOLOGICAL WATER QUALITY TEST.

THE PIPING INSTALLED IN A DISTRIBUTION SYSTEM MUST, IF THE PIPING CONSISTS OF:

- A. DUCTILE IRON, BE PRESSURE TESTED IN ACCORDANCE WITH AMERICAN WATER WORKS ASSOCIATION STANDARD C600, AS ADOPTED BY REFERENCE IN NAC 445A.6663.
- B. PVC, BE PRESSURE TESTED IN ACCORDANCE WITH AMERICAN WATER WORKS ASSOCIATION STANDARD C605, AS ADOPTED BY REFERENCE IN NAC 445A.6663, OR
- C. ANOTHER MATERIAL, BE PRESSURE TESTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, AS ADOPTED BY REFERENCE IN NAC 445A.6663.

10. ALL PARTS OF THE PIPELINE MUST BE BACKFILLED AND BRACED SUFFICIENTLY TO PREVENT MOVEMENT UNDER PRESSURE. DO NOT PRESSURE TEST AGAINST FRESHLY POURED CONCRETE THRUST BLOCKS. ALLOW A MINIMUM OF 24 HOURS FOR CONCRETE TO SET BEFORE SUBJECTING THEM TO TEST PRESSURE. IF THE 24 HOUR SET TIME IS NOT POSSIBLE, ALL FITTINGS MUST BE RESTRAINED. ALL TESTING MUST BE DONE UNDER THE DIRECT SUPERVISION OF CITY INSPECTOR OR THEIR DESIGNEE.

11. DURING CONSTRUCTION OF WATER MAINS, ANY OPENINGS IN UNFINISHED PIPING OR APPURTENANCES MUST BE SEALED AT THE END OF EACH WORKING DAY OR WHENEVER THE OPENINGS ARE LEFT UNATTENDED WITH WATERTIGHT PLUGS TO PREVENT THE ENTRY OF BIRDS AND OTHER ANIMALS, DIRT, TRENCH WATER AND OTHER SOURCES OF POLLUTION OR CONTAMINATION.

15. ALL PIPE, FITTINGS, AND ASSOCIATED APPURTENANCES MUST BE INSPECTED FOR DEFECTS PRIOR TO INSTALLATION. ANY DEFECTIVE, DAMAGED OR MATERIALS MUST BE REPAIRED OR REPLACED. ALL FOREIGN MATTER OR DIRT MUST BE REMOVED FROM THE INTERIOR OF THE PIPE, FITTINGS, AND APPURTENANCES BEFORE LOWERING INTO POSITION IN THE TRENCH AND MUST BE KEPT CLEAN DURING AND AFTER LAYING.

16. ALL WATERLINE MATERIALS MUST BE CERTIFIED TO NATIONAL SANITATION FOUNDATION/AMERICAN NATIONAL STANDARDS INSTITUTE (NSF/ANSI) 61 AND 372 STANDARDS (OR APPROVED EQUIVALENT).

18. RESTRAINED PUSH-ON JOINTS AND MECHANICAL JOINTS FOR PIPE AND FITTINGS MUST BE DESIGNED FOR 235 PSI WATER OPERATING PRESSURE UNLESS OTHERWISE NOTED. THE CONTRACTOR MUST COMPLY WITH THE MANUFACTURERS RECOMMENDATIONS REGARDING MECHANICALLY RESTRAINED JOINTS AND MUST ENSURE THAT SUFFICIENT PIPE LENGTH IS RESTRAINED TO RESTRICT MOVEMENT. CONTRACTOR MUST VERIFY THRUST RESTRAINT REQUIREMENTS FOR ALL PROPOSED JOINTS. CONCRETE THRUST BLOCKING MAY BE USED WHEN CONNECTING TO EXISTING PIPING THAT HAS INSUFFICIENT THRUST RESTRAINT.

19. ALL STANDARD SERVICE (NOT SUBMERGED) BOLTS, ANCHOR BOLTS AND NUTS MUST BE STAINLESS STEEL 304 COATED WITH TRIPAC 2000 BLUE, XYLAN 1424 OR APPROVED EQUAL, EXCEPT AS OTHERWISE SHOWN OR SPECIFIED. SUBMERGED SERVICE BOLTS, NUTS, WASHERS, TIE RODS, AND OTHER THREADED FASTENERS MUST BE TYPE 316 STAINLESS STEEL COATED WITH TRIPAC 2000 BLUE, XYLAN 1424 OR APPROVED EQUAL.

20. CONTRACTOR'S PERSONNEL PERFORMING WORK ON ASBESTOS OR TRANSITE PIPE, INCLUDING WITHOUT LIMITATION CUTTING, TAPPING, REPAIRING, OR REMOVING, MUST HAVE SUCCESSFULLY COMPLETED SPECIALIZED OSHA TRAINING IN THE HANDLING AND DISPOSAL OF ASBESTOS PRIOR TO THE PERFORMANCE OF ANY SUCH WORK, OR CONTRACTOR MUST HIRE A SUBCONTRACTOR THAT HAS SUCCESSFULLY COMPLETED SPECIALIZED OSHA TRAINING IN THE HANDLING AND DISPOSAL OF ASBESTOS TO PERFORM SUCH WORK.

21. VIOLATIONS OF TESTING PROCEDURES CAN BE PENALIZED WITH UP TO A \$5,000 FINE PER CCMC 12.07.070

4 WATER GENERAL NOTES SCALE: NTS

FOR REVIEW

Professional Seal Date Revision

© Copyright H + K Architects



9222 PROTOTYPE DRIVE
RENO, NV 89521
TEL: 775.827.6111



Consultant

2/07/2022

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

3505 Butti Way
Carson City, NV 89701

Details

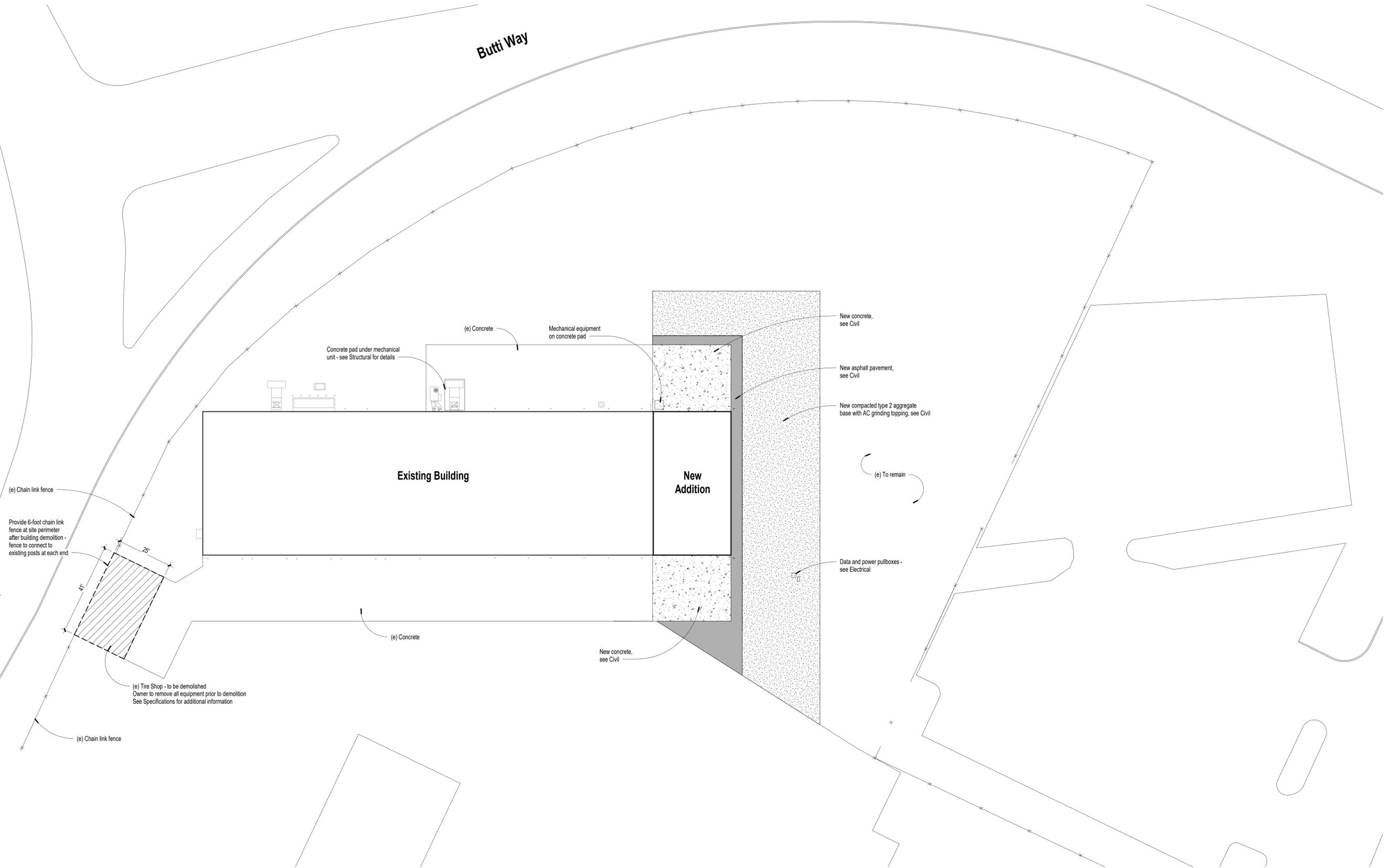
February 7, 2022
H+K Project No: 2116

C400



Butti Way

Airport Road



1 Architectural Site Plan

1" = 20'-0"



Professional Seal △ Date Revision

Consultant

H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262
 P 775+332+6640
 F 775+332+6642
 hkarchitects.com

**Carson City Fleet Services
 Tire and Welding Shop**

3505 Butti Way
 Carson City, NV 89701

Architectural Site Plan

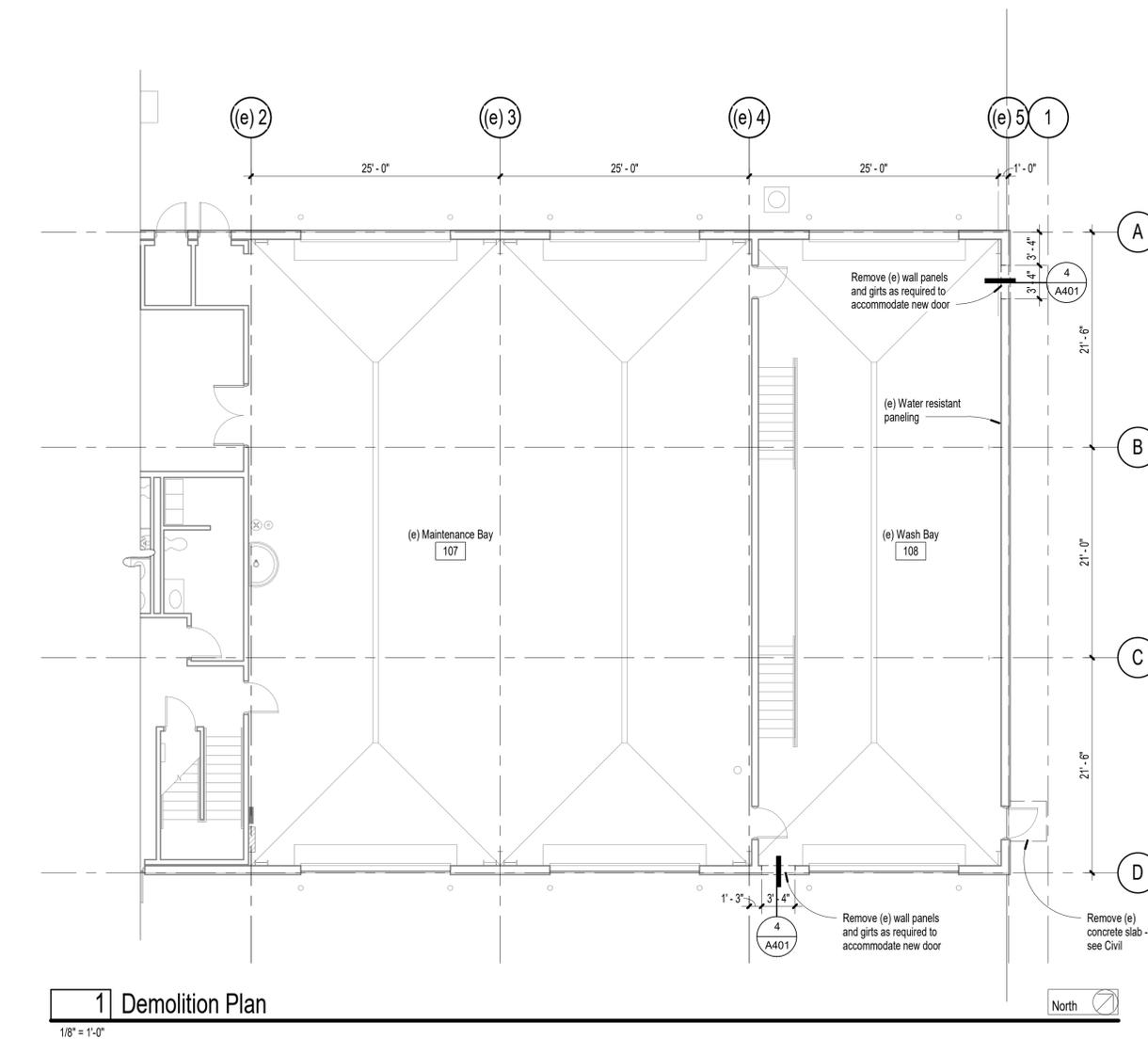
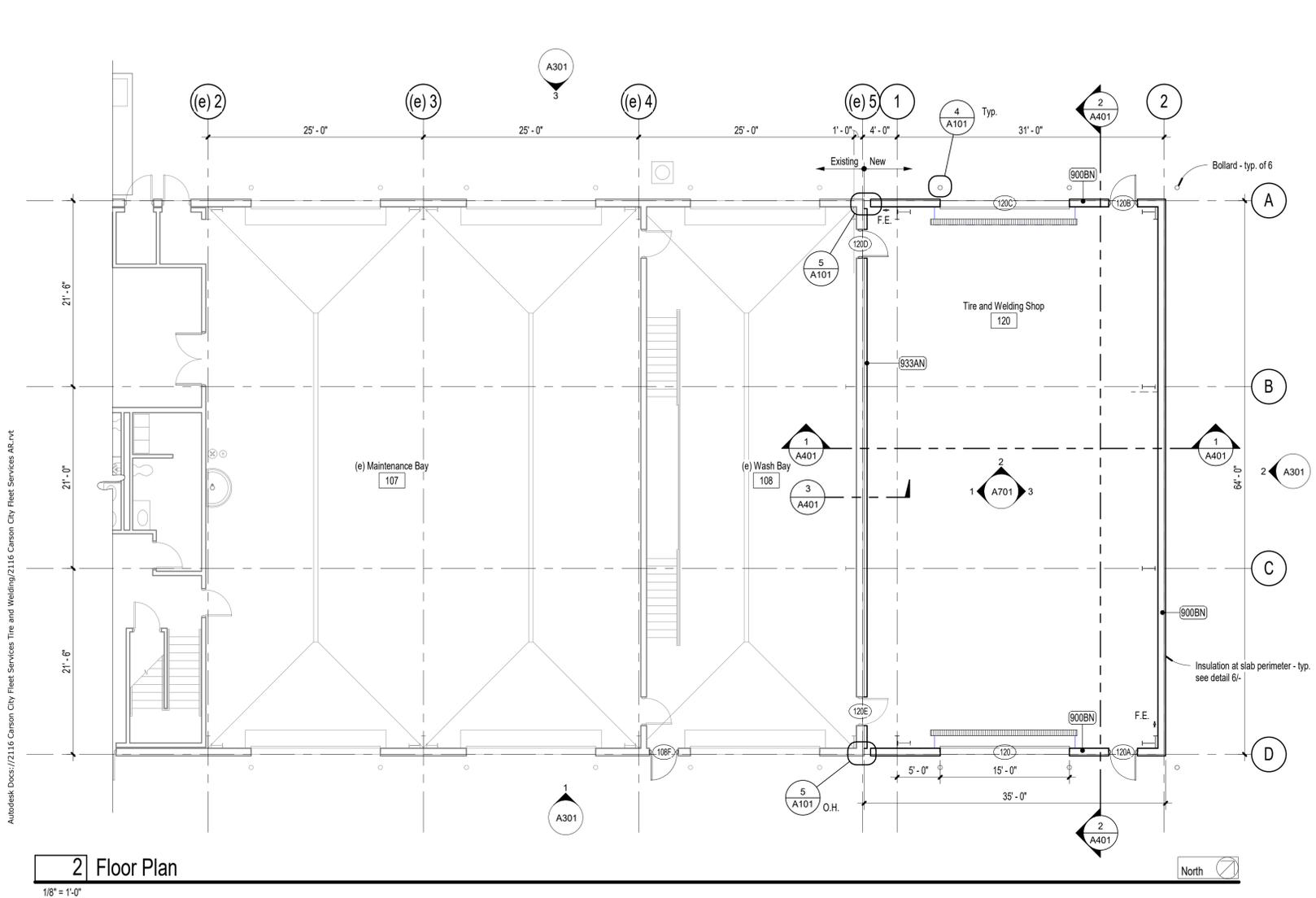
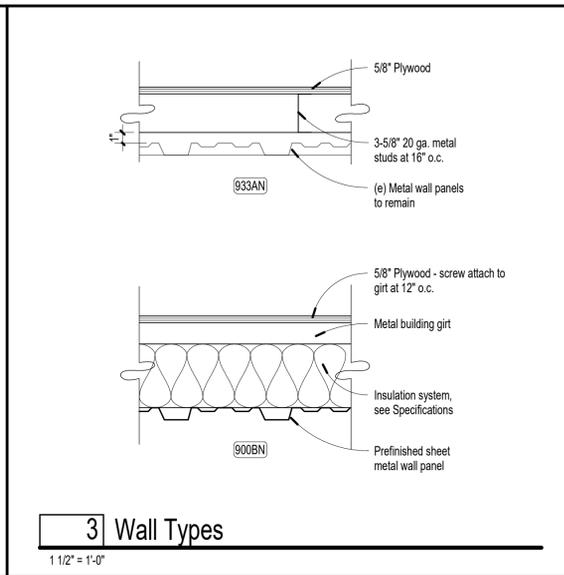
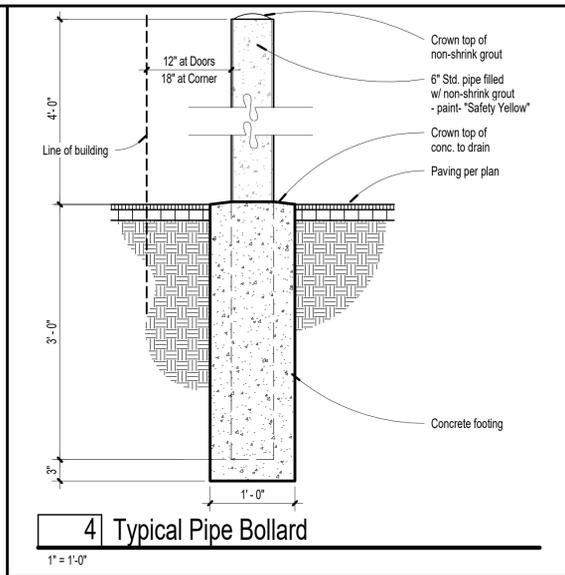
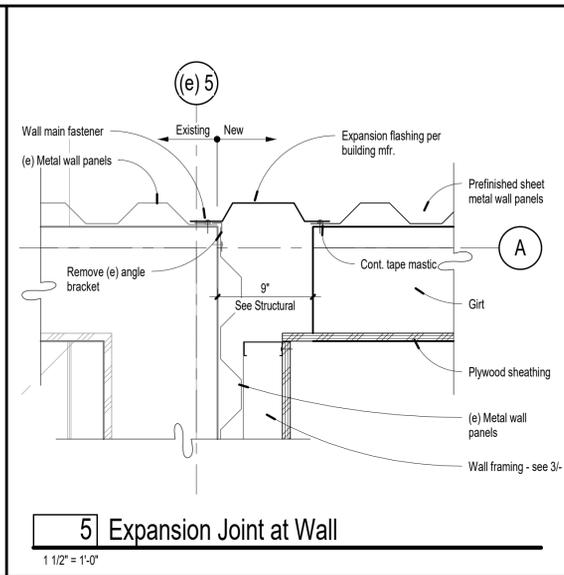
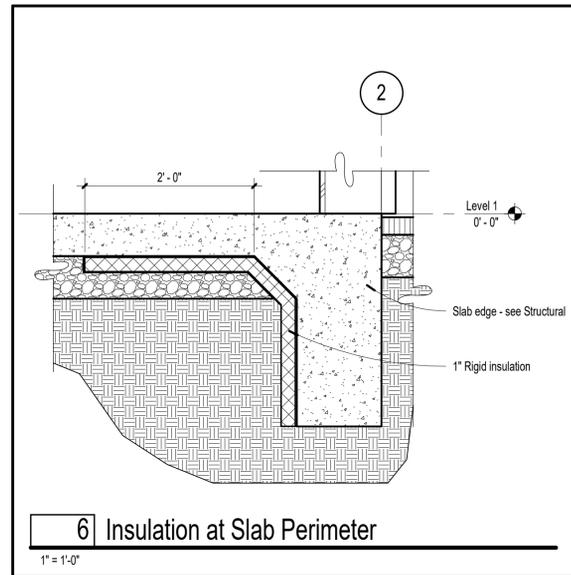
January 28, 2022
 H+K Project No: 2116

A100



Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2116 Carson City Fleet Services AR.rvt

1/28/2022 7:43:13 AM



Professional Seal

1/28/2022 7:43:15 AM

Date	Revision	Consultant

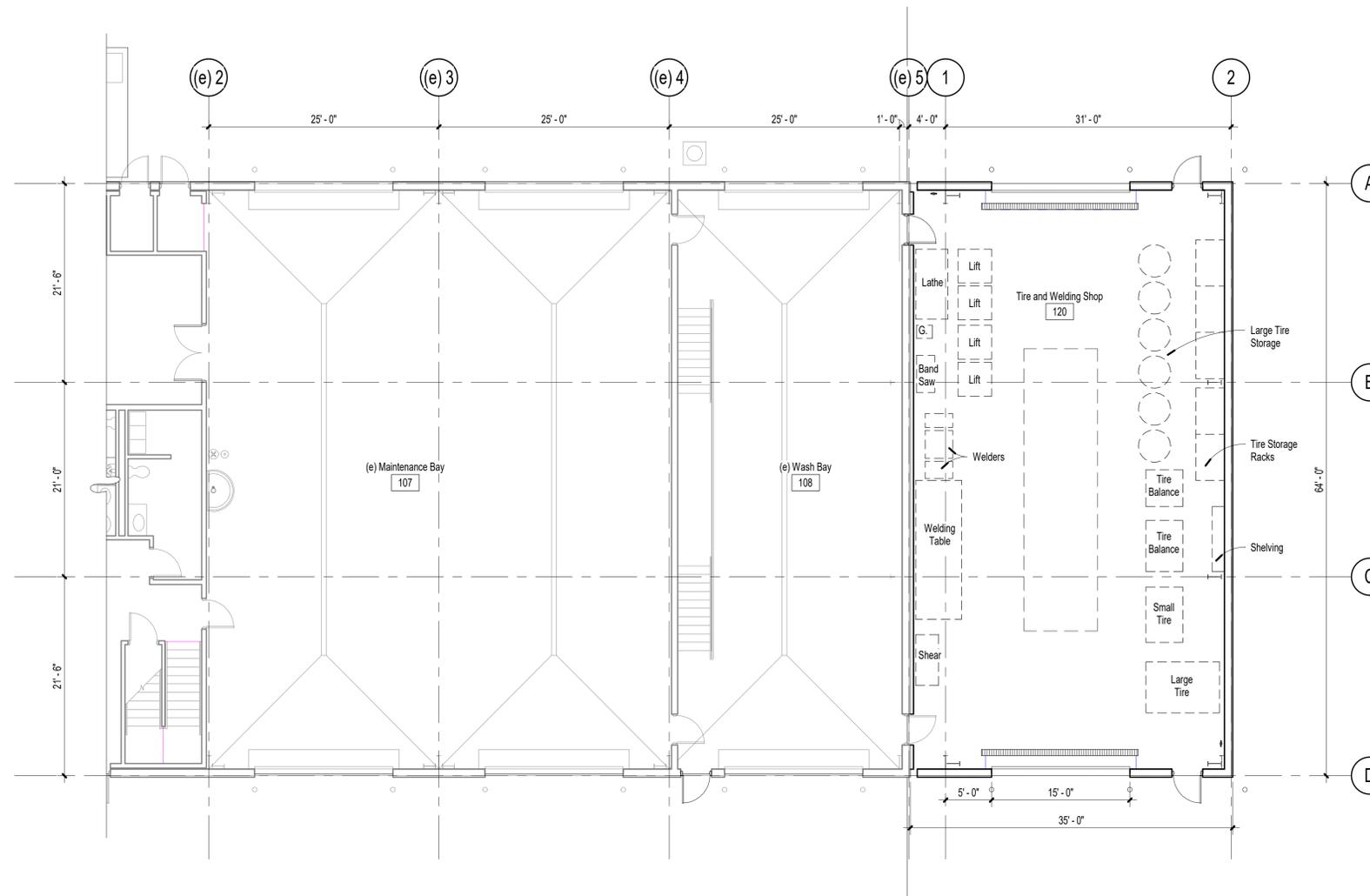
H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**
3505 Butti Way
Carson City, NV 89701

Demolition Plan and Floor Plan

January 28, 2022
H+K Project No: 2116

A101



Note:
Equipment shown is Owner Furnished / Owner
Installed (OFO) unless noted otherwise

1 Equipment Plan
1/8" = 1'-0"



Professional Seal △ Date Revision

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

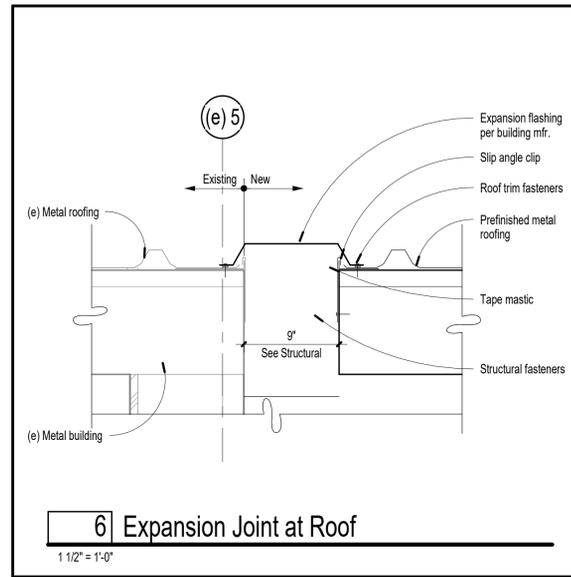
3505 Butti Way
Carson City, NV 89701

Equipment Plan

January 28, 2022
H+K Project No: 2116

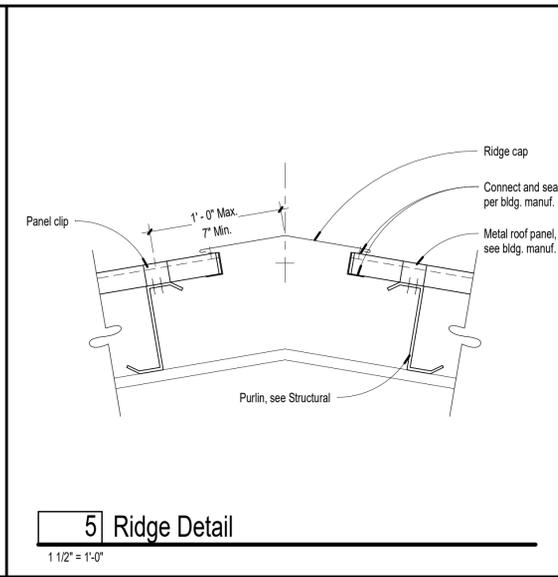
A101A





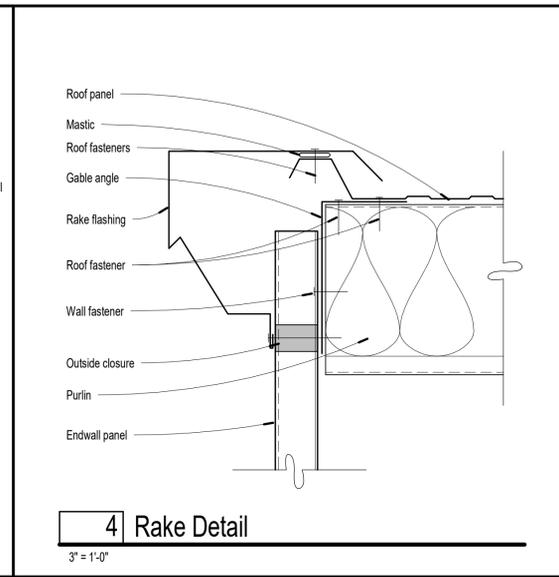
6 Expansion Joint at Roof

1 1/2" = 1'-0"



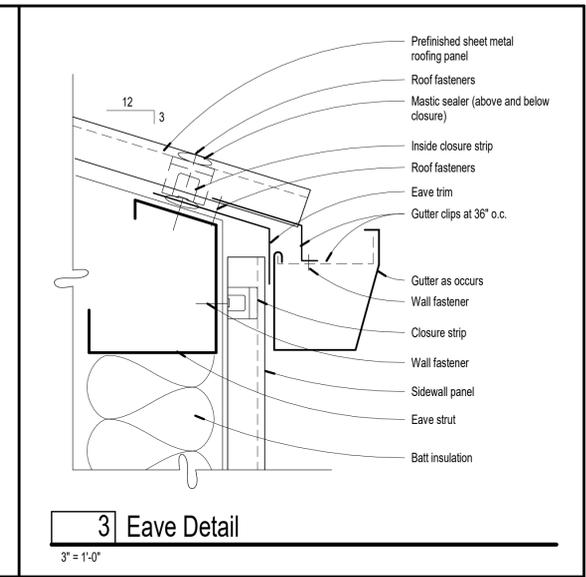
5 Ridge Detail

1 1/2" = 1'-0"



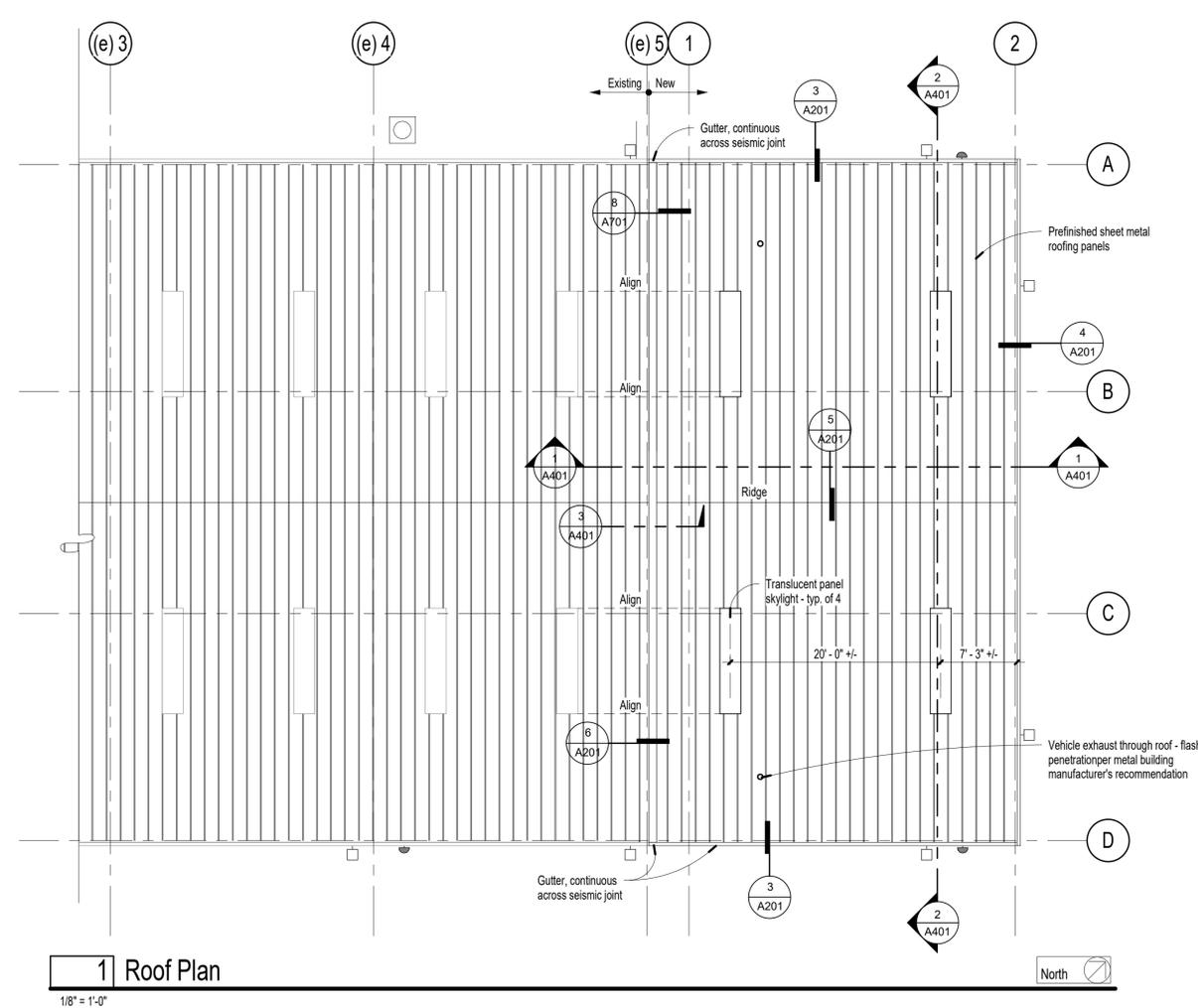
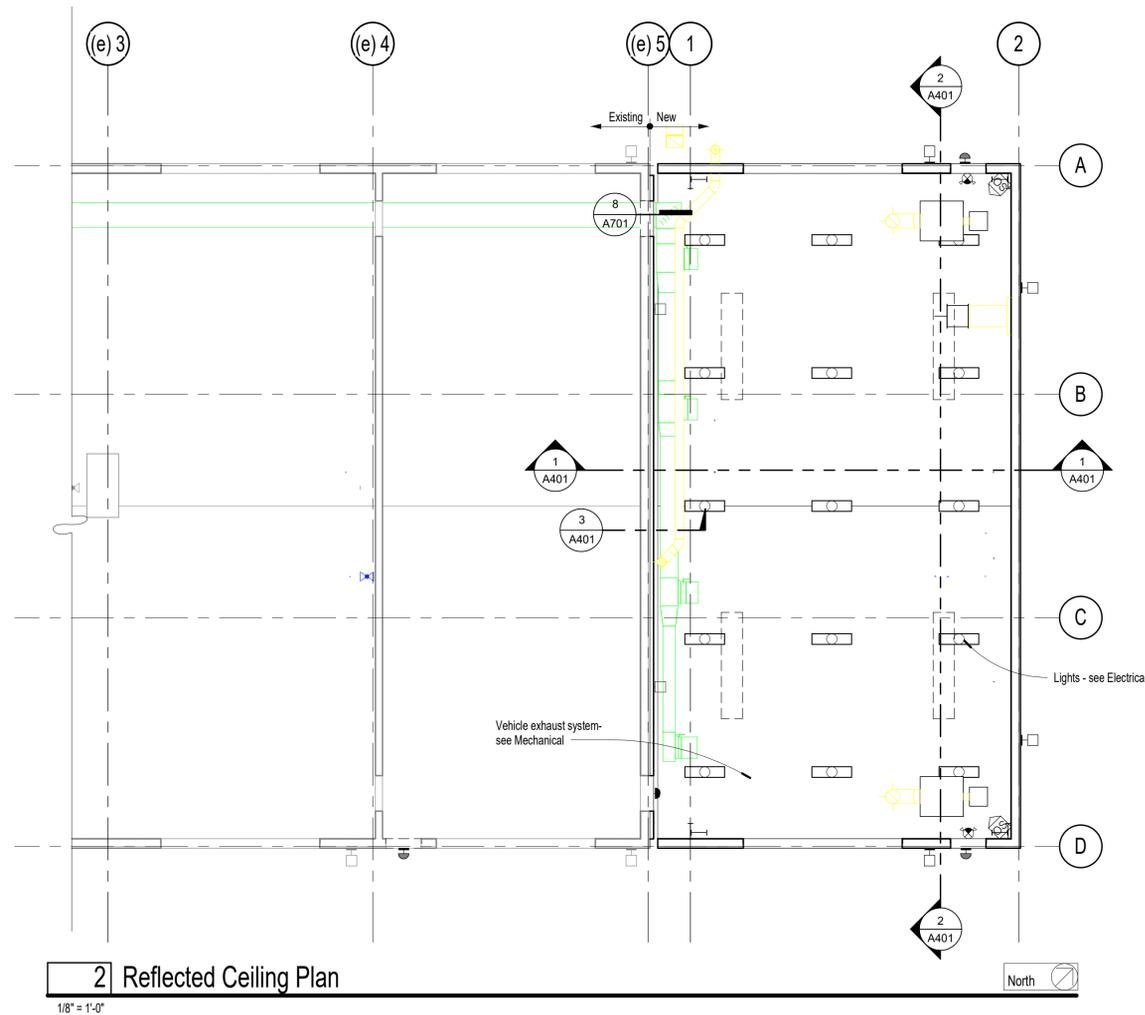
4 Rake Detail

3" = 1'-0"



3 Eave Detail

3" = 1'-0"



Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2116 Carson City Fleet Services AR.rvt



Professional Seal △ Date Revision

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775-332-6640
F 775-332-6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

3505 Butti Way
Carson City, NV 89701

Roof Plan, Reflected
Ceiling Plan and Details

January 28, 2022
H+K Project No: 2116

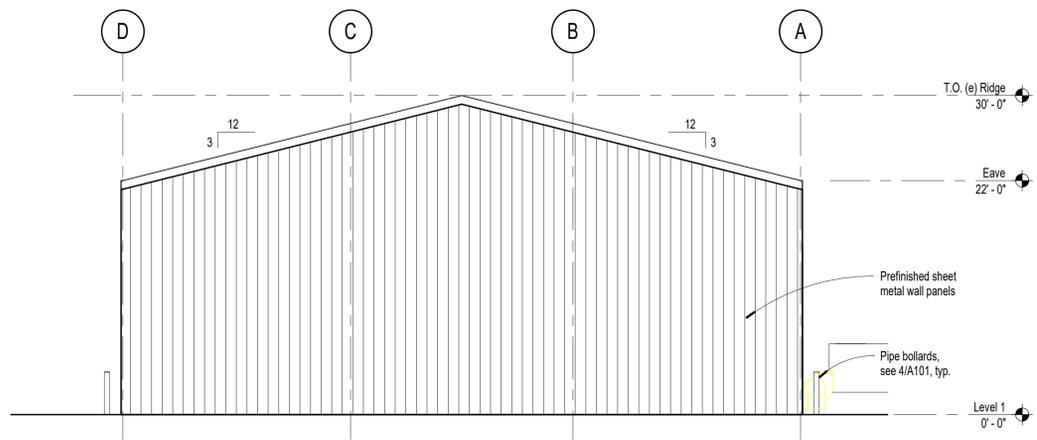
A201



1/28/2022 7:43:18 AM

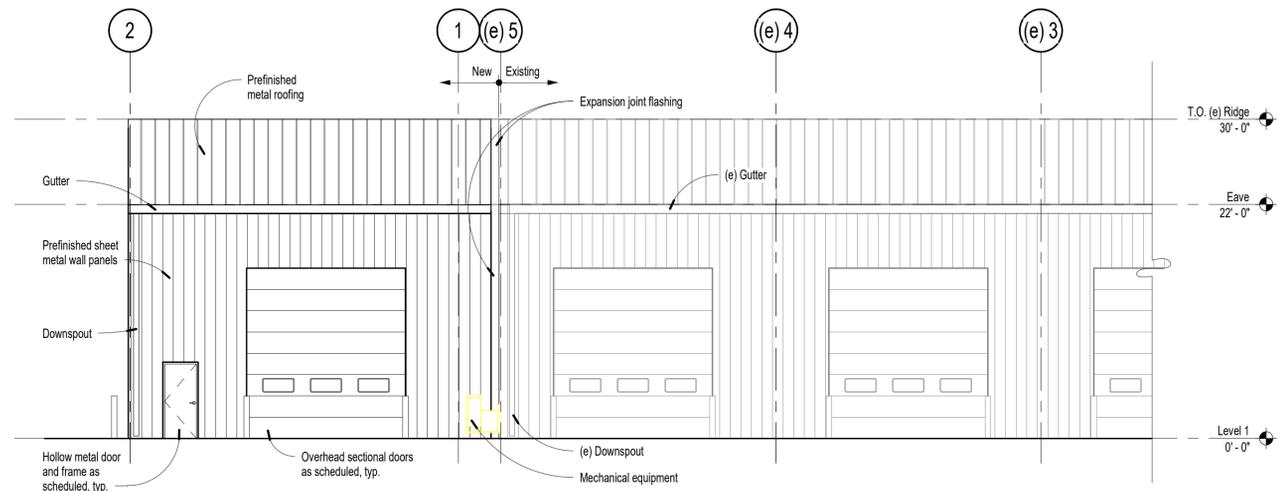
© Copyright H + K Architects

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2116 Carson City Fleet Services AR.rvt



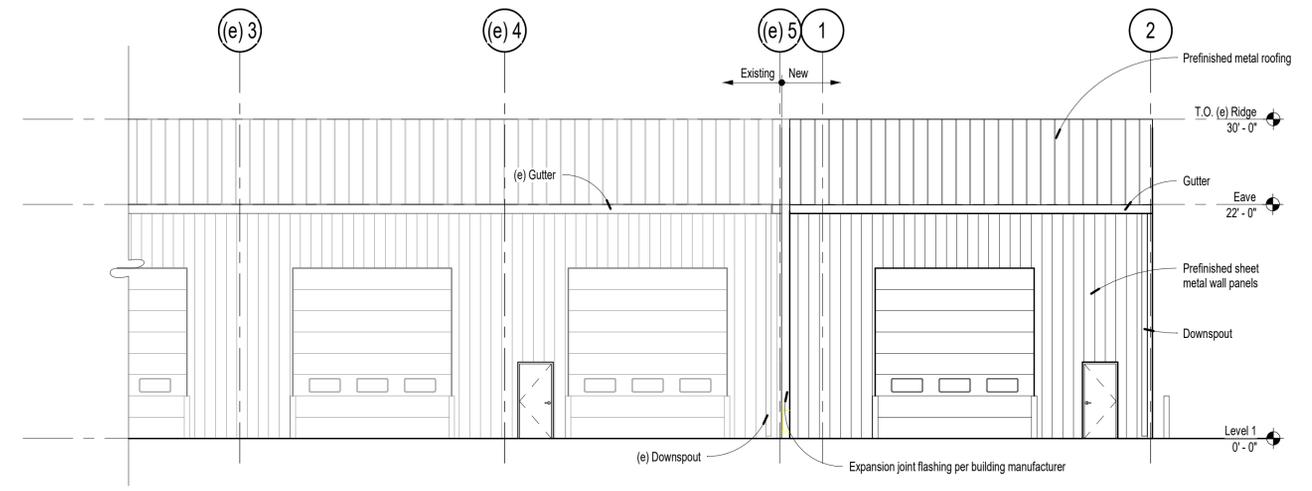
2 East Elevation

1/8" = 1'-0"



3 North Elevation

1/8" = 1'-0"



1 South Elevation

1/8" = 1'-0"



Professional Seal △ Date Revision

© Copyright H + K Architects

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

3505 Butti Way
Carson City, NV 89701

Exterior Elevations

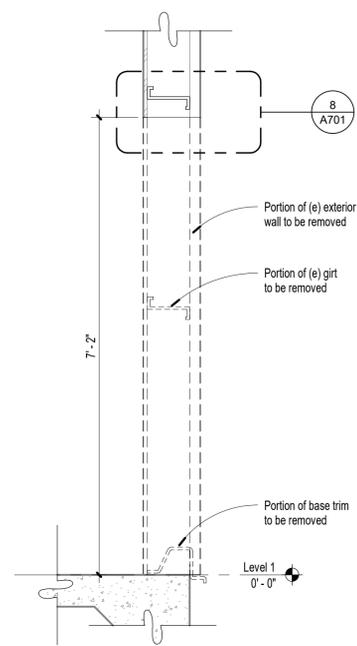
January 28, 2022
H+K Project No: 2116

A301

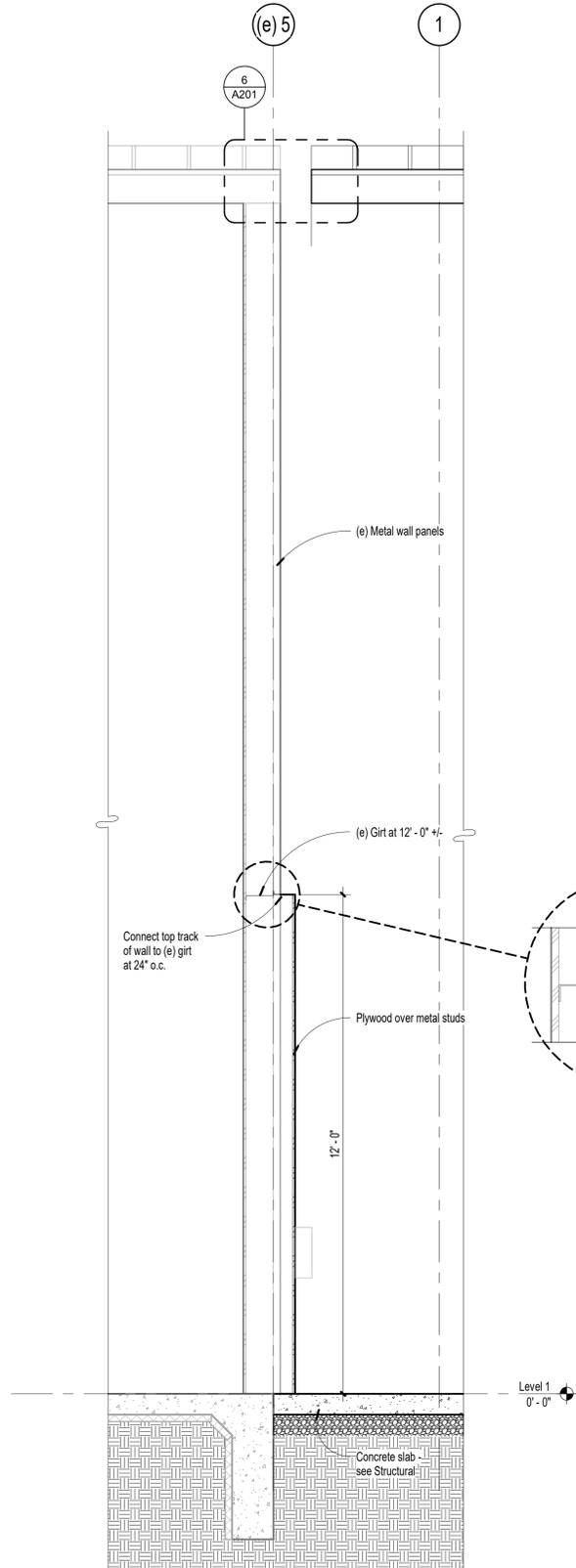


1/28/2022 7:43:19 AM

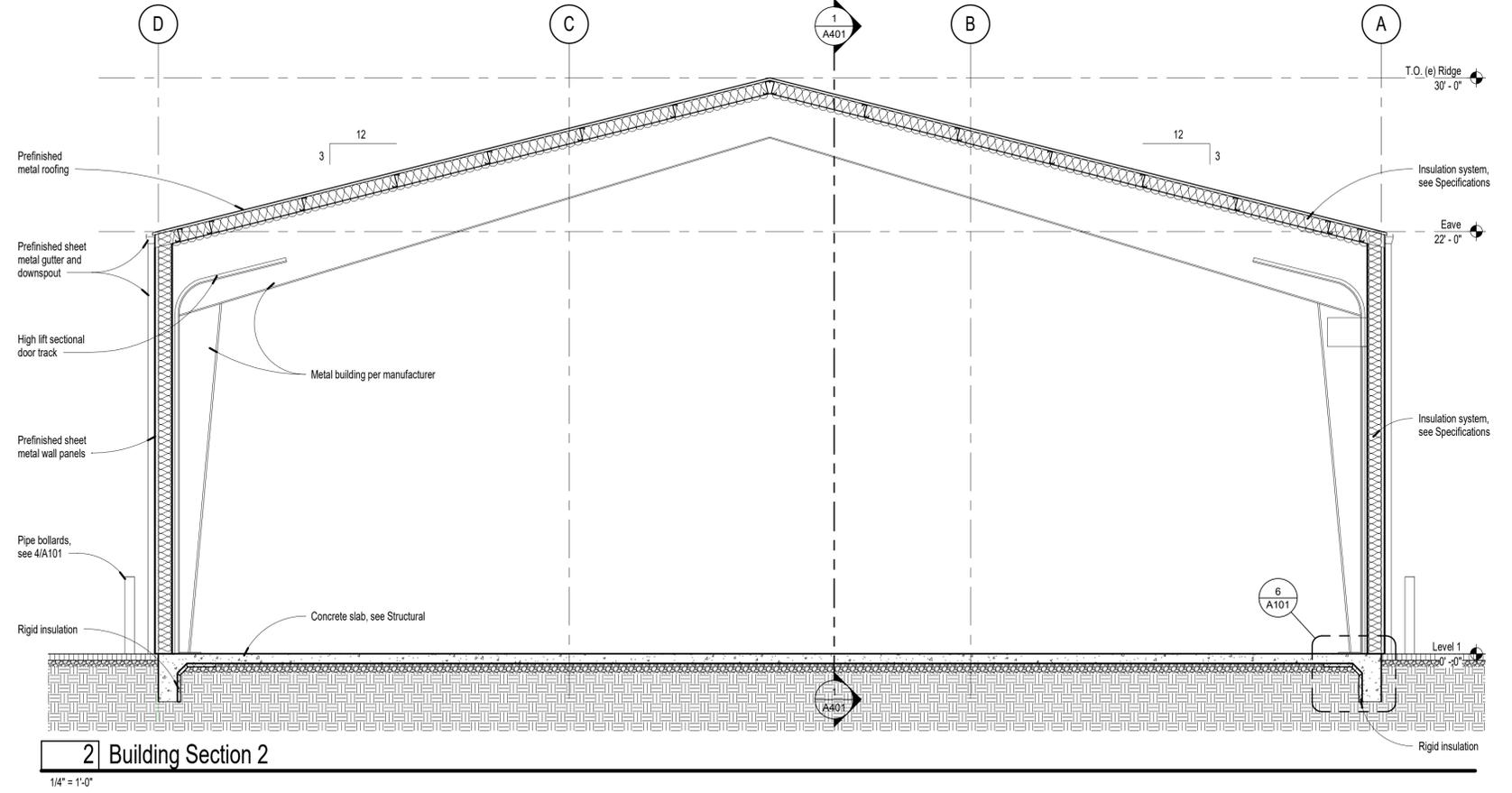
Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2116 Carson City Fleet Services AR.rvt



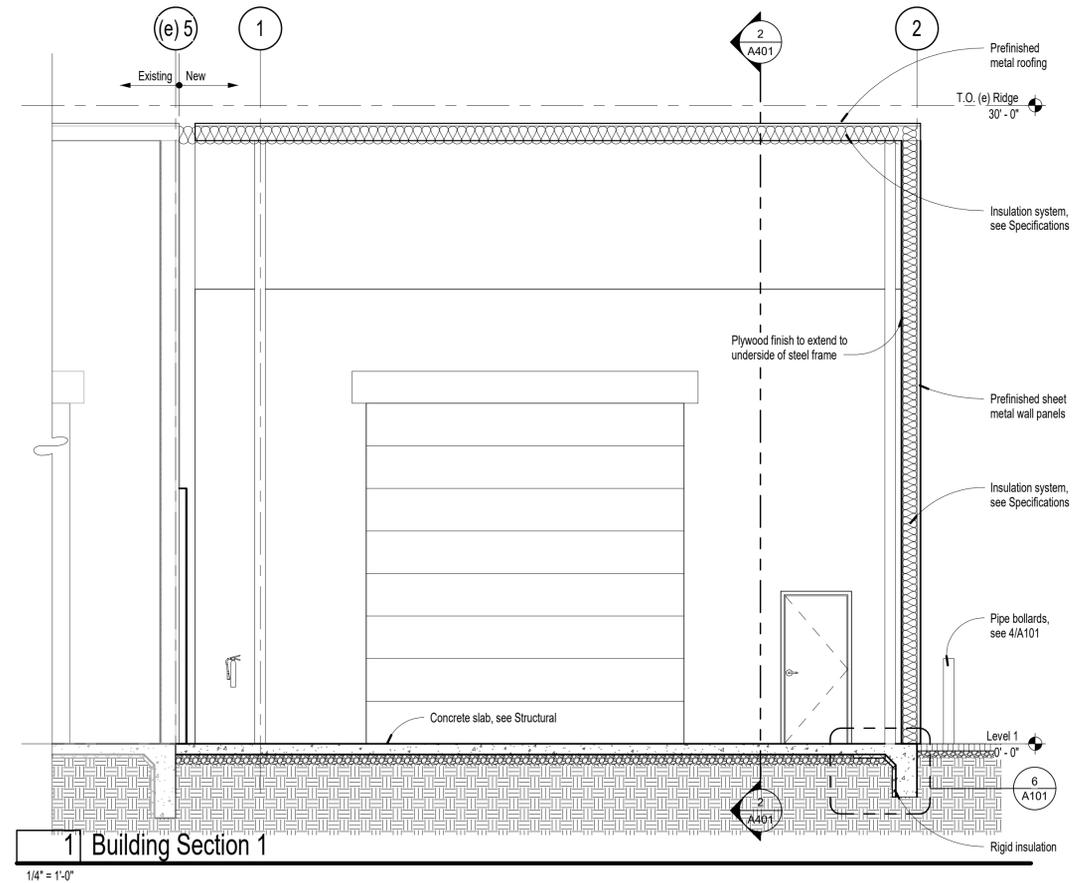
4 Section at Demolition for New Door
3/4" = 1'-0"



3 Wall Section 1
1/2" = 1'-0"



2 Building Section 2
1/4" = 1'-0"



1 Building Section 1
1/4" = 1'-0"



Professional Seal △ Date Revision

© Copyright H + K Architects

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

3505 Butti Way
Carson City, NV 89701

Building Sections and
Wall Sections

January 28, 2022
H+K Project No: 2116

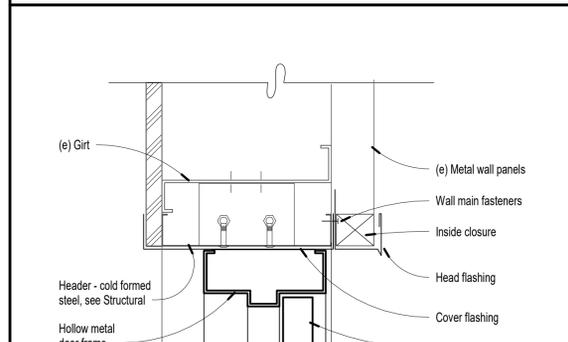
A401



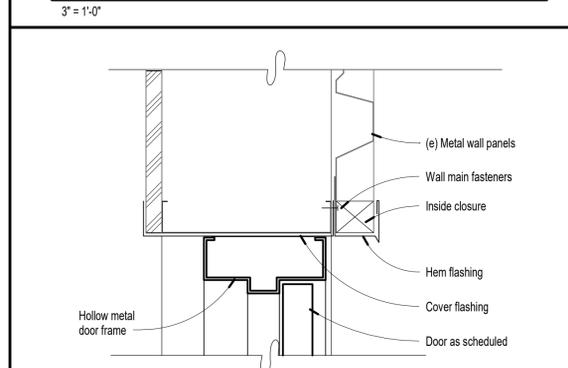
Room Finish Schedule											
Number	Room Name	Floor Finish	Base Finish	Walls				Ceiling Finish	Countertop Finish	Millwork Finish	Remarks
				North	East	South	West				
120	Tire and Welding Shop	F1	B1	W1	W1	W1	W1/W2	C1	--	--	

Finishes:
 F1 Sealed Concrete
 B1 6" Rubber Base
 W1 Painted Plywood Sheathing
 W2 Existing Metal Wall Panels
 C1 Open to Structure Above

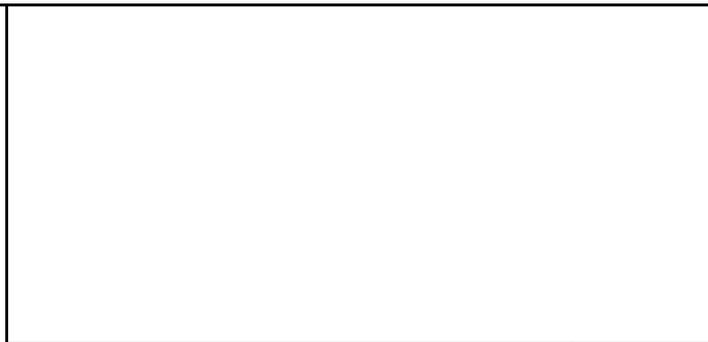
Door Schedule																			
Door Number	Width	Height	Pair	DOORS			FRAME			DETAILS				Hardware Group	Comments				
				Material	Type	Glass	Door Rating	Material	Frame Rating	Elev.	Glass	Head	Strike			Hinge	Sill		
108F	3' - 0"	7' - 0"	--	HM	F		--	HM	--				10/A701	9/A701	9/A701	4/A701	H1		
120	15' - 0"	16' - 0"	--	GS	SD		--	--	--				6/A701	5/A701	5/A701	4/A701	H3	Overhead sectional door	
120A	3' - 0"	7' - 0"	--	HM	F		--	HM	--				Per Bldg. Mfr.	Per Bldg. Mfr.	Per Bldg. Mfr.	4/A701	H1		
120B	3' - 0"	7' - 0"	--	HM	F		--	HM	--				Per Bldg. Mfr.	Per Bldg. Mfr.	Per Bldg. Mfr.	4/A701	H1		
120C	15' - 0"	16' - 0"	--	GS	SD		--	--	--				6/A701	5/A701	5/A701	4/A701	H3	Overhead sectional door	
120D	3' - 0"	7' - 0"	--	HM	F		--	HM	--				8/A701	7/A701	7/A701	4/A701	H2		
120E	3' - 0"	7' - 0"	--	--	F		--	--	--				--	--	--	--	H2	Existing door to remain, modify hardware	



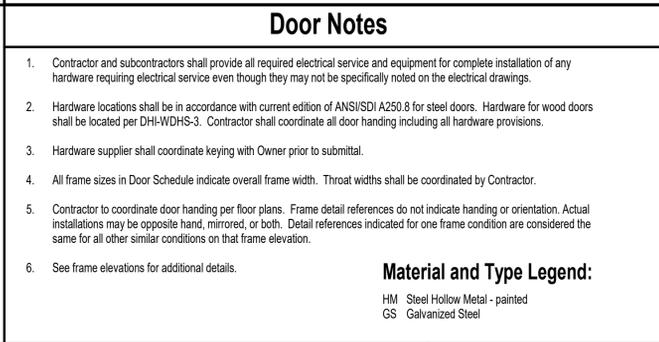
10 Hollow Metal Door Head
3" = 1'-0"



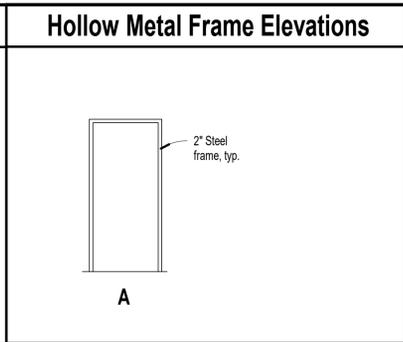
9 Hollow Metal Door Jamb
3" = 1'-0"



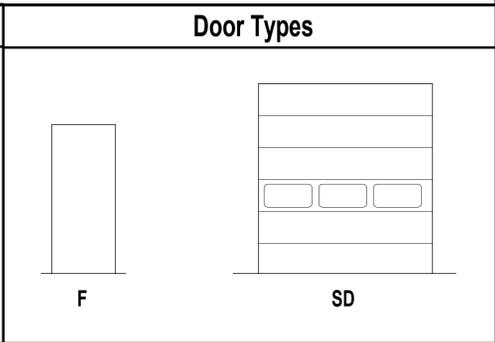
8 Hollow Metal Door Head at New Ext. Door
3" = 1'-0"



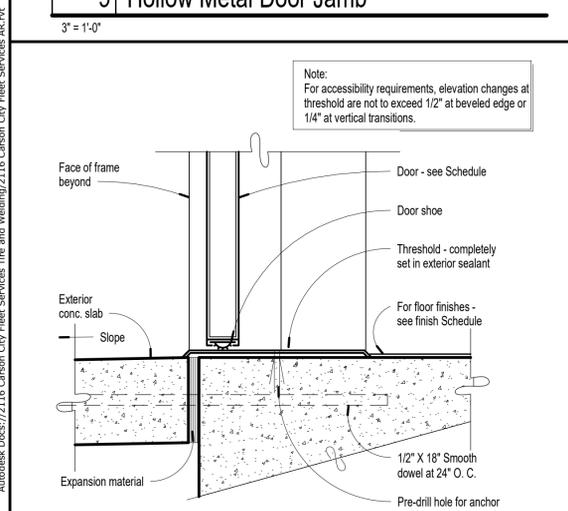
7 Hollow Metal Door Jamb at New Ext. Door
3" = 1'-0"



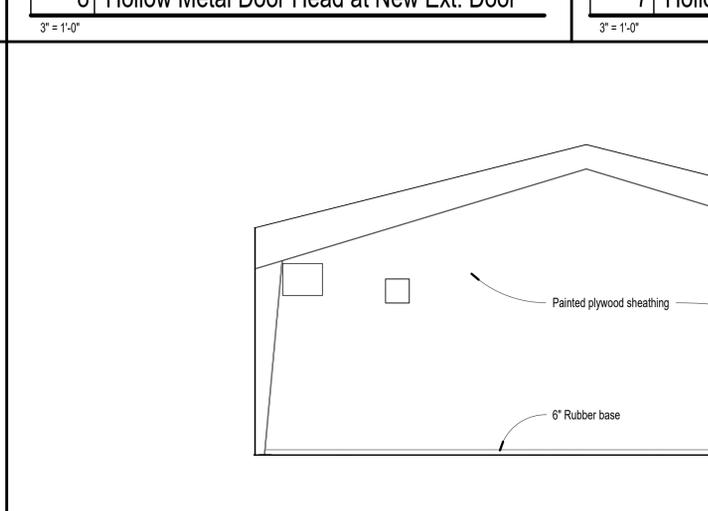
6 Overhead Sectional Door Head
3" = 1'-0"



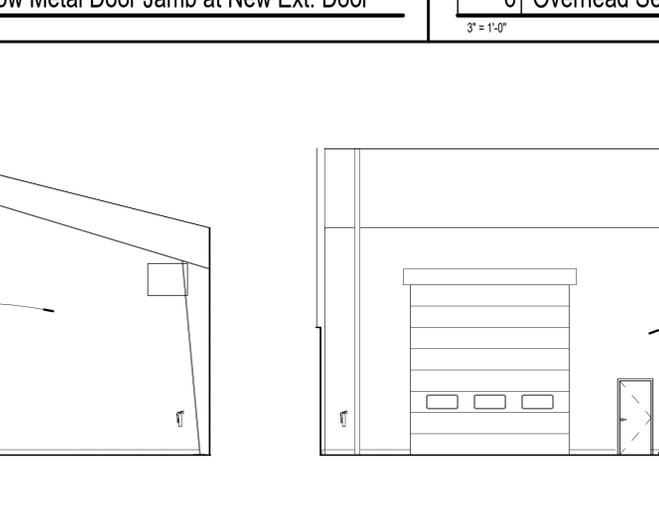
5 Overhead Sectional Door Jamb
3" = 1'-0"



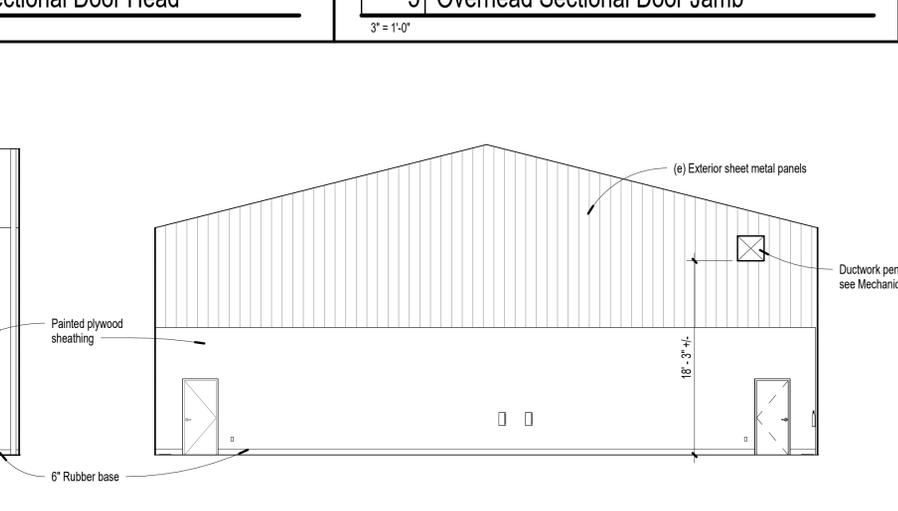
4 Door Sill at Concrete Slab
3" = 1'-0"



3 Tire and Welding Shop 120 - East
1/8" = 1'-0"



2 Tire and Welding Shop 120 - North
1/8" = 1'-0"

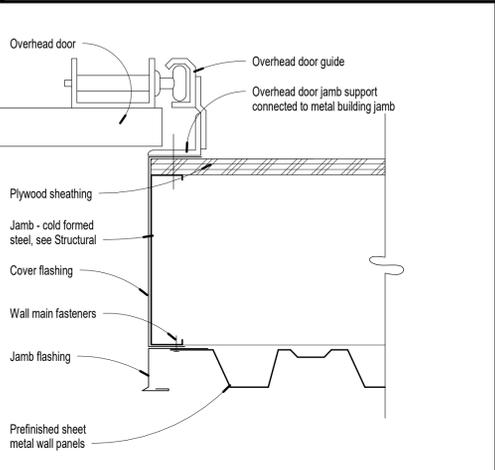
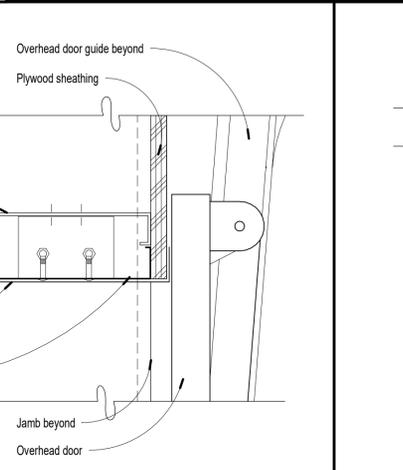


1 Tire and Welding Shop 120 - West
1/8" = 1'-0"

Door Notes

- Contractor and subcontractors shall provide all required electrical service and equipment for complete installation of any hardware requiring electrical service even though they may not be specifically noted on the electrical drawings.
- Hardware locations shall be in accordance with current edition of ANS/SDI A250.8 for steel doors. Hardware for wood doors shall be located per DHI-WDHS-3. Contractor shall coordinate all door handing including all hardware provisions.
- Hardware supplier shall coordinate keying with Owner prior to submittal.
- All frame sizes in Door Schedule indicate overall frame width. Throat widths shall be coordinated by Contractor.
- Contractor to coordinate door handing per floor plans. Frame detail references do not indicate handing or orientation. Actual installations may be opposite hand, mirrored, or both. Detail references indicated for one frame condition are considered the same for all other similar conditions on that frame elevation.
- See frame elevations for additional details.

Material and Type Legend:
 HM Steel Hollow Metal - painted
 GS Galvanized Steel



Professional Seal

1/28/2022 7:43:22 AM

Date Revision

Consultant

H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262
 P 775+332+6640
 F 775+332+6642
 hkarchitects.com

**Carson City Fleet Services
 Tire and Welding Shop**
 3505 Butti Way
 Carson City, NV 89701

Door Schedule and Details, Finish Schedule and Interior Elevations

January 28, 2022
 H+K Project No: 2116

A701

A B B R E V I A T I O N S

AB ANCHOR BOLT	FIN FINISH	OC ON CENTER
ACI AMERICAN CONCRETE INSTITUTE	FLR FLOOR	OD OUTSIDE DIAMETER
AFF ABOVE FINISH FLOOR	FOUND FOUNDATION	OH OPPOSITE HAND
AGG AGGREGATE	F.O. FACE OF	OPNG OPENING
AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION	FS FAR SIDE	OSB ORIENTED STRAND BOARD
ALT ALTERNATE	FT FEET	PERP PERPENDICULAR
ALUM ALUMINUM	FTG FOOTING	PL PLATE
APPROX APPROXIMATELY	GA GAUGE	PLF POUNDS PER LINEAR FOOT
ARCH ARCHITECTURAL	GALV GALVANIZED	PLYWD PLYWOOD
ASTM AMERICAN SOCIETY FOR TESTING OF MATERIALS	GLB GLULAM BEAM	PSI POUNDS PER SQUARE INCH
BFF BELOW FINISH FLOOR	HDR HEADER	PSF POUNDS PER SQUARE FOOT
BLDG BUILDING	HORIZ, (H) HORIZONTAL	PSL PARALLEL STRAND LUMBER (PARALLAM)
BLKG BLOCKING	HSB HIGH STRENGTH BOLT	PT PRESSURE TREATED, POST TENSIONED
BM BEAM	HSS HOLLOW STEEL SECTION	QA QUALITY ASSURANCE
B.O. BOTTOM OF	IBC INTERNATIONAL BUILDING CODE	QC QUALITY CONTROL
BOT BOTTOM	ID INSIDE DIMENSION	REINF REINFORCED
CIP CAST IN PLACE	IN INCHES	REQD REQUIRED
CJ CONSTRUCTION JOINT	INT INTERIOR	SA SCREW ANCHOR
CL CENTERLINE	JST JOIST	SCH, SCHED SCHEDULE
CLG CEILING	K KIP (1000 LBS)	SHTG SHEATHING
CLR CLEAR	KS KING STUD	SIM SIMILAR
CMU CONCRETE MASONRY UNIT	L ANGLE	SOG SLAB ON GRADE
CONT CONTINUOUS	LBS POUNDS	SS STAINLESS STEEL
COL COLUMN	LLH LONG LEG HORIZONTAL	ST, STL STEEL
CONC CONCRETE	LLV LONG LEG VERTICAL	STAG STAGGERED
CONN CONNECTION	LT WT LIGHT WEIGHT	STD STANDARD
CONST CONSTRUCTION	LVL LAMINATED VENEER LUMBER (MICROLAM)	STIFF STIFFENER
CS CRIPPLE STUD	LSL LAMINATED STRAND LUMBER (TIMBERSTRAND)	STRUC STRUCTURAL
CTR CENTER	MAINT MAINTENANCE	SYM SYMMETRICAL
CTSK COUNTERSUNK	MAS MASONRY	T&B TOP AND BOTTOM
CY CUBIC YARDS	MAX MAXIMUM	T&G TONGUE AND GROOVE
DBL DOUBLE	MB MACHINE BOLT	T.O. TOP OF
DF DOUGLAS FIR	MECH MECHANICAL	TN TOE NAIL
DIA DIAMETER	MFR MANUFACTURER	TYP TYPICAL
DJ DOWELED JOINT	MIN MINIMUM	UNO UNLESS NOTED OTHERWISE
DO DITTO	MISC MISCELLANEOUS	VERT, (V) VERTICAL
DWG DRAWING	MTL METAL	W/ WITH
EA EACH	(N) NEW	W/O WITHOUT
EF EACH FACE	NA NOT APPLICABLE	WF WIDE FLANGE
EL, ELEV ELEVATION	NS NEAR SIDE	WWF WELDED WIRE FABRIC
ELEC ELECTRICAL	NTS NOT TO SCALE	# NUMBER, POUNDS
EN EDGE NAILING		± PLUS OR MINUS
ES EACH SIDE		⊕ DIAMETER, ROUND
EXIST, (E) EXISTING		& AND
		@ AT

B A S I S O F D E S I G N

**CODE REFERENCE: 2018 INTERNATIONAL BUILDING CODE
RISK CATEGORY: II**

LIVE LOADS		SOILS	
Floors	Uniform: 100 psf Non-reducible	Soils Engineer	Terracon Consultants, Inc.
Roofs	20 psf Non-reducible	Report #	67145001
SNOW LOADS		Report Date	February 25, 2014
Ground Snow Load, Pg	30 psf	Maximum Allowable Soil Bearing	2500 psf w/ 1/3 increase for short term loads
Ce	1.00	Frost Depth	24"
Ct	1.00	SEISMIC LOADS	
Is	1.00	Site Class	D
Roof Snow Load, Pf	21 psf	I _s	1.00
WIND LOADS		S _s	2.01
Basic Wind Speed	Vult = 120 mph	S ₁	0.72
Exposure	C	S _{2s}	1.61
Enclosure Classification	Partially Enclosed	S _{2i}	0.82
PRE-FABRICATED METAL BUILDINGS		Seismic Design Category	D
Collateral Loads	10 psf	Analysis Procedure Used	Equivalent Lateral Force Procedure
Collateral load is in addition to structural dead loads. Collateral loads shall not be used to resist wind or seismic uplift.			
Lateral Drift			
The maximum lateral drift of the main building frames shall be 0.005 times the highest eave height for wind (0.6W) and 0.025 times the highest eave height for seismic (CdE).			

P R O J E C T T I T L E

Structural Drawings for Carson City Fleet Service Tire and Welding Shop



Will Engineering LLC
748 S. Meadows Parkway, Suite A-9
PMB #21
Reno, NV 89521
Phone: (775)560-6554

D R A W I N G N O T E S

THE FOLLOWING NOTES SHALL BE CONSIDERED A PART OF EACH RESPECTIVE DRAWING

1. IT SHALL BE THE CONTRACTOR'S DIRECT RESPONSIBILITY TO COMPLY WITH TYPICAL DETAILS AND GENERAL NOTES AS DELINEATED OR DEFINED ON THE TYPICAL DETAIL DRAWINGS OF THESE CONTRACT DOCUMENTS REGARDLESS OF SPECIFIC FLAGGING OR REFERENCE TO APPLICABLE NOTE OR DETAIL.
2. DO NOT SCALE DRAWINGS. DRAWINGS ARE DIAGRAMMATIC AND MAY NOT SCALE ACCURATELY. ANY DIMENSIONAL OMISSIONS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
3. CONTRACTOR TO VERIFY AND COORDINATE ALL LOCATIONS AND SIZES OF OPENINGS IN SLABS, SLAB DEPRESSIONS, AND CURBS FOR ALL RELATED CONSTRUCTION PRIOR TO LAYOUT OR CONSTRUCTION. CONTRACTOR SHALL THEN USE APPROPRIATE DETAIL(S) OR APPROPRIATE WALL SECTION FOR EACH APPLICABLE CONDITION.
4. DRAWINGS ARE DIAGRAMMATIC IN NATURE AND MAY NOT INDICATE EVERY MECHANICAL UNIT, OPENING OR PENETRATION. THE CONTRACTOR SHALL COORDINATE AND VERIFY LOCATION AND SIZE OF ALL SUCH UNITS, OPENINGS AND PENETRATIONS WITH RELATED SUB-CONTRACTORS PRIOR TO FRAMING LAYOUT OR CONSTRUCTION. CONTRACTOR SHALL THEN USE APPROPRIATE TYPICAL OR REFERENCED DETAIL(S) FOR EACH UNIT, OPENING OR PENETRATION.
5. CONTRACTOR TO VERIFY WITH APPROPRIATE SUB-CONTRACTORS THE EXACT LOCATION, WEIGHT, AND INTENDED METHOD OF ATTACHMENT OF ALL ITEMS TO BE SUSPENDED FROM OR IN ANY WAY ATTACHED TO ANY STRUCTURAL MEMBER UNLESS SUCH ITEM(S) ARE CLEARLY ADDRESSED BY THE STRUCTURAL CONSTRUCTION DOCUMENTS. THIS INFORMATION SHALL BE TRANSMITTED IN WRITING BY THE APPROPRIATE SUB-CONTRACTOR TO THE CONTRACTOR AND THE ARCHITECT FOR APPROVAL PRIOR TO FINAL DESIGN, FABRICATION AND INSTALLATION.
6. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES.
7. IT SHALL BE THE CONTRACTOR'S DIRECT RESPONSIBILITY TO COORDINATE WITH ALL TRADES REGARDING UTILITIES PASSING THROUGH OR UNDER FOUNDATIONS. WHERE ALLOWED, STRUCTURAL REQUIREMENTS FOR THESE CONDITIONS ARE DELINEATED IN TYPICAL DETAILS.

S H E E T I N D E X

S001	STRUCTURAL COVER SHEET
S002	GENERAL NOTES AND QUALITY ASSURANCE
S011	TYPICAL EARTHWORK AND CONCRETE DETAILS
S012	TYPICAL CONCRETE DETAILS
S101	PLANS
S201	DETAILS

Autosave: D:\2116 Carson City Fleet Services Tire and Welding\Carson City Fleet Service Tire and Welding Shop.rvt



Professional Seal
Date: 2/9/22
Revision: _____
© Copyright H + K Architects



Will Engineering LLC
748 S. Meadows Parkway, Suite A-9
PMB #21
Reno, NV 89521
Phone: (775)560-6554

21-031

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

Carson City Fleet Services Tire and Welding Shop

3505 Butti Way
Carson City, NV 89701

STRUCTURAL COVER SHEET

January 28, 2022

S001



GENERAL NOTES

I. GENERAL

- A. THE FOLLOWING GENERAL NOTES APPLY TO ALL STRUCTURAL DRAWINGS UNLESS NOTED OTHERWISE.
- B. ALL PHASES OF WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE 2018 INTERNATIONAL BUILDING CODE AND THE LATEST EDITION OF ASTM OR OTHER INDUSTRY STANDARDS REFERENCED.
- C. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE UNLESS OTHERWISE INDICATED. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN, AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, PREPARING AND FOLLOWING A WRITTEN SAFETY PROGRAM FOR THE CONSTRUCTION PROJECT, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, FORMS AND SCAFFOLDING. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REGULATIONS AND RETAIN HIS OWN ENGINEER WHERE REQUIRED.
- D. IN THE EVENT THAT CERTAIN FEATURES OF CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE NOTES OR SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE SHOWN OR CALLED FOR AND SHALL BE REVIEWED BY THE ARCHITECT.
- E. IN THE EVENT THAT CERTAIN EXISTING CONDITIONS ARE FOUND TO BE DIFFERENT FROM THOSE SHOWN ON THE PLANS AND DETAILS, THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED SO THAT THE PROPER REVISIONS CAN BE MADE IF NECESSARY.
- F. NO CHANGES OR DEVIATIONS FROM THE PLANS AND SPECIFICATIONS WILL BE ALLOWED WITHOUT WRITTEN AUTHORIZATION FROM THE ARCHITECT.
- G. WHERE SHOP DRAWINGS ARE REQUIRED, THEY SHALL BE COMPLETE AND COORDINATED BY THE CONTRACTOR. REPRODUCTIONS OF CONTRACT DRAWINGS WILL NOT BE ACCEPTABLE.

II. FOUNDATIONS

- A. LOCATIONS OF TEST HOLES AND LOGS THEREOF ARE SHOWN IN THE SOIL REPORT, A COPY OF WHICH IS ON FILE IN THE ARCHITECT'S OFFICE. THE SOILS REPORT IS PROVIDED FOR REFERENCE ONLY AND IS NOT A PART OF THE CONTRACT DOCUMENTS.
- B. THE SOILS ENGINEER SHALL REVIEW ALL SITEWORK AND FOOTING EXCAVATIONS BEFORE ANY CONCRETE IS CAST AND SUBMIT A LETTER OF COMPLIANCE TO THE ARCHITECT INDICATING THAT ALL WORK IS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- C. THE SOILS ENGINEER SHALL REVIEW ALL BACKFILL MATERIALS PRIOR TO PLACEMENT, OBSERVE BACKFILL OPERATIONS AND SUBMIT A LETTER OF COMPLIANCE TO THE ARCHITECT INDICATING THAT ALL WORK IS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- D. STRUCTURAL FILL (APPROVED ON-SITE SOILS OR IMPORTED MATERIAL) SHALL BE NON-DELETERIOUS TO CONCRETE (0.2% MAX. SULFATE, 2.0% MAX. SOLUBILITY), FREE OF ORGANICS, WITH 100% PASSING THE 6" SIEVE, 35% TO 100% PASSING THE #4 SIEVE AND 0% TO 35% PASSING THE #200 SIEVE. ATTERBERG LIMITS SHALL CONFORM TO THE FOLLOWING:

MAXIMUM EXPANSION POTENTIAL	MAXIMUM LIQUID LIMIT	MAXIMUM PLASTIC INDEX
2.0%	35	15
- E. STRIP SITE AS REQUIRED FOR IMPROVEMENTS. CLEAR ALL EXISTING EXCAVATIONS, DEBRIS, PAVING AND ORGANICS. THE CONTRACTOR SHALL TAKE CARE TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION AND AVOID OR RE-LOCATE UTILITIES AS REQUIRED.
- F. EXCAVATE AND OVEREXCAVATE AS NECESSARY AND AS DETAILED TO PROPERLY CONSTRUCT IMPROVEMENTS. THIS INCLUDES THE REMOVAL OF ALL EXISTING UNCONTROLLED FILL. DO NOT UNDERMINE EXISTING FOUNDATIONS.
- G. SCARIFY, MOISTURE CONDITION, AND RE-COMPACT THE TOP 8" OF NATIVE SUB-GRADES TO 95% RELATIVE COMPACTION. PLACE FILL AND BACKFILL IN UNIFORM HORIZONTAL LIFTS OF 8" MAXIMUM LOOSE THICKNESS. MOISTURE CONDITION AND COMPACT TO 95% RELATIVE COMPACTION BELOW IMPROVEMENTS AND TO 90% RELATIVE COMPACTION OUTSIDE OF IMPROVEMENTS.
- H. FOOTINGS SHALL BEAR NOT LESS THAN 24" BELOW FINISHED GRADE.
- I. FOOTINGS MAY BE POURED IN NEAT EXCAVATION WHERE POSSIBLE. PROVIDED AN EXTRA 1" WIDTH OF FOOTING IS PROVIDED ON EACH SIDE AND WRITTEN APPROVAL IS GIVEN BY THE ARCHITECT.
- J. ALL FOOTING EXCAVATIONS SHALL BE HAND CLEANED PRIOR TO PLACING CONCRETE.
- K. CONCRETE SLABS, STEPS AND FLATWORK SHALL BE PLACED OVER 6" COMPACT, TYPE II AGGREGATE BASE. COMPACT AGGREGATE BASE TO 95% RELATIVE COMPACTION.
- L. TRENCHING AND BACKFILL FOR UTILITIES SHALL COMPLY WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION AND WITH ALL BEST INDUSTRY PRACTICES.

III. CONCRETE

- A. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF THE ACI MANUAL OF CONCRETE PRACTICE.
- B. CONCRETE AT FOUNDATIONS OR WALLS IN CONTACT WITH SOILS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS, SHALL HAVE A MAXIMUM WATER TO CEMENT RATIO OF 0.45, AND SHALL HAVE AN ENTRAPPED AIR CONTENT OF 1% TO 3%.
- C. CONCRETE AT INTERIOR SLABS ON GRADE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS, SHALL HAVE A MAXIMUM WATER TO CEMENT RATIO OF 0.45, SHALL HAVE AN ENTRAPPED AIR CONTENT OF 1% TO 3%, AND SHALL CONTAIN 1.5 LB/CY OF FIBERMESH 150 POLYPROPYLENE FIBERS OR APPROVED EQUAL.
- D. EXTERIOR CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS, SHALL HAVE A MAXIMUM WATER TO CEMENT RATIO OF 0.45, SHALL HAVE AN ENTRAPPED AIR CONTENT OF 5% TO 7%, AND SHALL CONTAIN 1.5 LB/CY OF FIBERMESH 150 POLYPROPYLENE FIBERS OR APPROVED EQUAL.
- E. ALL CONCRETE MIXES SHALL UTILIZE TYPE V SULFATE RESISTING CEMENT CONFORMING TO ASTM C150. HARDROCK AGGREGATE SHALL CONFORM TO ASTM C33. LIGHT WEIGHT AGGREGATE SHALL CONFORM TO ASTM C330. COURSE AGGREGATE GRADATION SHALL MEET THE REQUIREMENTS OF SIZE NO. 67 UNLESS NOTED OTHERWISE.
- F. CONCRETE SLUMP SHALL NOT EXCEED 3" WHEN TESTED IN ACCORDANCE WITH ASTM C143 FOR FOOTINGS, SLABS, BEAMS AND GIRDERS OR 4" FOR CAST-IN-PLACE WALLS AND COLUMNS. SLUMP INDICATED IS WITH WATER ONLY. ADDITIONAL SLUMP IS ACCEPTABLE IF ADDED BY MEANS OF APPROVED ADDITIVES THAT DO NOT INCREASE SHRINKAGE OR ADVERSELY AFFECT THE CONCRETE. UP TO 8" MAX. SLUMP.
- G. NON-SHRINK GROUT OR DRY PACK SHALL BE A PREMIXED, NON-METALLIC FORMULA WITH A MINIMUM COMPRESSIVE STRENGTH OF 7000 PSI AT 28 DAYS AND HAVING THE FOLLOWING CHARACTERISTICS: NO SHRINKAGE AFTER PLACEMENT OR EXPANSION AFTER SET (ASTM C1090), ONE DAY COMPRESSIVE STRENGTH OF AT LEAST 3000 PSI (ASTM C109) AND INITIAL SET TIME OF NOT LESS THAN 45 MINUTES (ASTM C191). PROVIDE "HI-FLOW GROUT" OR "DRY PACK GROUT" BY EUCLID, OR AN APPROVED EQUAL.
- H. REINFORCING SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60. ALL REINFORCING TO BE WELDED OR FIELD BENT SHALL CONFORM TO ASTM A706. SUPPORTS AND ACCESSORIES SHALL BE FURNISHED AS SHOWN OR REQUIRED. CHAIRS PLACED AGAINST EXPOSED SURFACES SHALL BE GALVANIZED OR PROVIDED WITH PLASTIC FEET.
- I. WELDED WIRE FABRIC (WWF) WITH PLAIN REINFORCING WIRE SHALL CONFORM TO ASTM A185. STRUCTURAL WELDED WIRE REINFORCING (SWWR) WITH DEFORMED REINFORCING WIRE SHALL CONFORM TO ASTM A497. WWF AND SWWR SHALL HAVE WIRE SIZES AND SPACINGS AS INDICATED ON PLANS AND DETAILS. LAP SHEETS IN ACCORDANCE WITH ACI AND CRSI RECOMMENDATIONS.
- J. MINIMUM COVERAGE FOR REINFORCING SHALL BE THE CLEAR DISTANCE TO THE FACE OF BARS AS FOLLOWS: 3" FOR CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH; 2" FOR #6 AND LARGER BARS FROM FORMED SURFACES EXPOSED TO EARTH OR WEATHER (1-1/2" FOR #5 AND SMALLER).
- K. ALL REINFORCING STEEL SHALL BE ACCURATELY POSITIONED AND SECURED IN PLACE WITH CHAIRS, TIES, BOLSTERS OR DOBIES PRIOR TO PLACEMENT OF CONCRETE AS RECOMMENDED IN THE CRSI MANUAL OF STANDARD PRACTICE.
- L. SPLICES IN REINFORCEMENT SHALL NOT BE MADE AT OR NEAR POINTS OF MAXIMUM STRESS. #6 AND SMALLER BAR SIZES SHALL BE LAPPED NOT LESS THAN 57 DIAMETERS. #7 THROUGH #10 BARS SHALL BE LAPPED NOT LESS THAN 72 DIAMETERS. IN NO CASE SHALL A SPLICE BE LESS THAN 18".
- M. CONCRETE FORMWORK SHALL CONFORM TO ACI 347. CLEAN AND ROUGHEN CONSTRUCTION JOINTS AND LIGHTLY MOISTEN FORMS AND SUBGRADE PRIOR TO PLACEMENT OF CONCRETE. INSTALL W.R. MEADOWS, INC. "SEAL TIGHT DUOGARD" CHEMICAL RELEASE AGENT OR APPROVED EQUAL PRIOR TO PLACEMENT OF CONCRETE. PLACE CONCRETE USING METHODS WHICH AVOID SEGREGATION. MECHANICALLY VIBRATE ALL CONCRETE, INCLUDING FLOOR SLABS, TO CONSOLIDATE IT IN FORMS.
- N. FINISH CONCRETE AS FOLLOWS UNLESS NOTED OTHERWISE: INTERIOR FLATWORK SHALL RECEIVE A STEEL TROWELED FINISH, EXTERIOR FLATWORK SHALL RECEIVE A MEDIUM BROOM FINISH PERPENDICULAR TO TRAFFIC, SACK AND PATCH FORMED CONCRETE EXPOSED TO VIEW FOR A SMOOTH FINISH. PATCH LARGE HOLES OR DEFECTS AT FORMED CONCRETE NOT EXPOSED TO VIEW. FRESHLY PLACED CONCRETE SHALL BE CURED AND PROTECTED FROM THE WEATHER IN ACCORDANCE WITH ACI 305 IN HOT WEATHER AND ACI 306 IN COLD WEATHER.
- O. ALL EXPOSED CONCRETE EDGES, CORNERS AND INTERSECTIONS SHALL BE TOOLED OR CHAMFERED NO LESS THAN 3/4" WHETHER SHOWN ON THE DRAWINGS OR NOT.
- P. CONSTRUCTION JOINTS WILL NOT BE PERMITTED, EXCEPT AS SHOWN ON THE DRAWINGS, WITHOUT WRITTEN CONSENT OF THE ARCHITECT.
- Q. SEE ARCHITECTURAL DRAWINGS FOR SPECIAL JOINT LAYOUT AND REQUIREMENTS AT EXPOSED CONCRETE FINISH LOCATIONS. AT SLABS ON GRADE, CONTRACTOR SHALL SUBMIT JOINT LAYOUT SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO POURING SLABS.
- R. CONCRETE MIX DESIGNS IN ACCORDANCE WITH ASTM C94 SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO PLACEMENT OF ANY CONCRETE. SHOP DRAWINGS OF REINFORCING STEEL SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO ANY FABRICATION.
- S. FORMSAVER SPLICES SHALL DEVELOP 125% OF THE SPECIFIED YIELD STRENGTH OF THE BAR BEING SPLICED. FORMSAVER SPLICES SHALL BE DAYTON SUPERIOR D51A WITH D51 THREADED BAR OR APPROVED EQUAL.
- T. ALL INTERIOR CONCRETE SLABS ON GRADE, SHALL USE VC-5 CURING COMPOUND MANUFACTURED BY SINAK, OR AN APPROVED EQUAL.

IV. STRUCTURAL STEEL

- A. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE AISC MANUAL OF STEEL CONSTRUCTION.
- B. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36, UNLESS NOTED OTHERWISE. W SHAPES SHALL CONFORM TO ASTM A992. PIPE SHALL CONFORM TO ASTM A53, GRADE B. HOLLOW STRUCTURAL SECTIONS (HSS) SHALL CONFORM TO ASTM A500, GRADE C, F_y = 50 KSI.
- C. ANCHOR BOLTS (AB) SHALL CONFORM TO ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE. MACHINE BOLTS (MB) SHALL CONFORM TO ASTM A307. HIGH STRENGTH BOLTS (HSB) SHALL BE ASTM A325 OR A490 AS NOTED AND SHALL CONFORM TO THE REQUIREMENTS OF THE "AISC SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS." CONTACT FACES OF STEEL AT CONNECTIONS WHERE HIGH STRENGTH BOLTS ARE USED SHALL NOT BE PAINTED. UNLESS NOTED OTHERWISE, HIGH STRENGTH BOLTS SHALL BE TENSION CONTROL TO ENSURE PROPER INSTALLATION.
- D. HEADED STUDS SHALL BE NELSON STUD ANCHORS (NSA) BY TRW OR APPROVED EQUAL, AND SHALL BE INSTALLED PER MANUFACTURERS REQUIREMENTS.
- E. ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY'S SPECIFICATIONS FOR THE MATERIAL BEING WELDED. ALL WELDING SHALL BE PERFORMED ONLY BY AWS CERTIFIED WELDERS.
- F. ALL STRUCTURAL STEEL WORK SHALL BE SHOP PAINTED AND TOUCHED UP IN THE FIELD AFTER ERECTION EXCEPT WHERE STEEL IS TO BE EMBEDDED IN CONCRETE, FIREPROOFED, OR WHERE REQUIRED FOR SPECIAL CONNECTIONS. PROVIDE 3" MINIMUM CONCRETE COVER FOR ALL STEEL EXPOSED TO EARTH.
- G. SHOP DRAWINGS OF ALL STRUCTURAL STEEL SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO ANY FABRICATION.

V. PRE-ENGINEERED METAL BUILDING

- A. THE METAL BUILDING SHALL BE DESIGNED FOR LOADS AND DEFLECTION CRITERIA SHOWN IN THE BASIS OF DESIGN.
- B. REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL REQUIRED BUILDING DIMENSIONS AND ELEVATIONS NOT SPECIFICALLY GIVEN ON THE STRUCTURAL DRAWINGS. NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.
- C. PROPER COORDINATION OF THE EXACT COLUMN LOCATIONS WILL BE REQUIRED ONCE THEY ARE SET BY THE METAL BUILDING MANUFACTURER TO INSURE THAT NO CONFLICT OCCURS WITH THE ARCHITECTURAL AND STRUCTURAL DETAILS. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL METAL BUILDING REQUIREMENTS.
- D. THE METAL BUILDING SYSTEM SHALL BE COORDINATED WITH THE DETAILS AND SECTIONS SHOWN ON THE DRAWINGS AND CALLED FOR IN THE SPECIFICATIONS.
- E. COMPLETE SHOP DRAWINGS, INCLUDING FRAMING PLANS, SECTIONS, DETAILS, STRUCTURAL CALCULATIONS (INCLUDING DRIFT) COLUMN REACTIONS, COLUMN BASE DETAILS, AND OTHER REQUIRED DRAWINGS STAMPED BY A LICENSED NEVADA CIVIL OR STRUCTURAL ENGINEER SHALL BE SUBMITTED TO THE ARCHITECT TO INSURE PROPER COORDINATION OF THE BUILDING AS A WHOLE.
- F. SPECIAL ATTENTION OF THE METAL BUILDING SYSTEM SHALL BE GIVEN TO INSURE THAT PROPER COORDINATION IS MADE FOR ALL MECHANICAL AND ELECTRICAL SYSTEMS INCLUDING UNIT SIZES, WEIGHTS, LOCATIONS, DUCTS, ETC. ALSO, ALL METAL BUILDING ITEMS SHALL BE DETAILED AS REQUIRED TO INSURE THE PROPER COORDINATION WITH THE ARCHITECTURAL LAYOUT, DOORS, WALL OPENINGS, WALL SURFACES, ETC.
- G. FOOTING SIZES AND REINFORCING ARE FOR BIDDING PURPOSES ONLY. FINAL FOOTING SIZES, REINFORCEMENT, AND ANCHOR BOLT REQUIREMENTS WILL BE DETERMINED WHEN SUCCESSFUL BUILDING MANUFACTURER'S COLUMN REACTIONS ARE SUBMITTED. BIDS SHALL INCLUDE UNIT PRICES TO BE USED IF ANY ADJUSTMENTS ARE REQUIRED.

VI. HOLES IN STRUCTURES

- A. OPENINGS, POCKETS, HOLES, CANS, ETC. SHALL NOT BE PLACED IN ANY SLAB, BEAM, COLUMN, WALL, OR OTHER STRUCTURAL MEMBER UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS OR WRITTEN PERMISSION IS OBTAINED FROM THE ARCHITECT.
- B. DO NOT OVERCUT AT CORNERS WHEN CUTTING A NEW OPENING IN EXISTING CONCRETE OR MASONRY. COREDRILL, CHIP AND GRIND AS REQUIRED AT CORNERS. A LAYOUT OF ALL PROPOSED OPENINGS SHALL BE REVIEWED BY THE ARCHITECT PRIOR TO SAWCUTTING.
- C. UTILIZE CURRENT TECHNOLOGY DETECTION EQUIPMENT TO LOCATE OBSTACLES (REBAR, CONDUITS, ETC.) WITHIN CONCRETE (FLOORS, WALLS, ROOFS, ETC.) AT EVERY LOCATION WHERE CONCRETE IS TO BE PENETRATED (DRILLING, SAWING, CORING, ETC.). PROVIDE RESULTS TO THE ENGINEER AT LEAST 48 HOURS PRIOR TO THE PENETRATION ACTION SO APPROPRIATE DIRECTION MAY BE PROVIDED WHEN OBSTACLES ARE IDENTIFIED. ANY OBSTACLES DAMAGED WITHOUT PRIOR APPROVAL OF THE ENGINEER SHALL BE REPAIRED IN A MANNER ACCEPTABLE TO THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

VII. POST INSTALLED ANCHORS

- A. EXPANSION ANCHORS IN CONCRETE OR MASONRY SHALL BE SIMPSON "STRONG-BOLT 2" PER ICC-ES ESR-3037 (IN CONCRETE) OR IAPMO-ES ESR-240 (IN MASONRY), HILTI "KWIK BOLT 3" PER ICC-ES ESR-2302 (IN CONCRETE) OR ICC-ES ESR-1385 (IN MASONRY); DEWALT POWER-STUD+SD2 PER ICC-ES ESR-2502 (IN CONCRETE) OR ICC-ES ESR-2966 (IN MASONRY) OR APPROVED EQUAL. PERIODIC SPECIAL INSPECTION REQUIRED.
- B. EPOXY/ADHESIVE ANCHORS SHALL USE SIMPSON "SET-XP" EPOXY PER ICC-ES ESR-2508 (IN CONCRETE) OR PER UES ER-265 (IN MASONRY), HILTI "HIT-RE 500-SD" PER ICC-ES ESR-2322 (IN CONCRETE) OR HILTI "HIT-HY 150 MAX PER ICC-ES ESR-1967 (IN MASONRY); DEWALT PURE 110+EPOXY PER ICC-ES ESR-3298 (IN CONCRETE) OR DEWALT AC208+ACRYLIC PER ICC-ES ESR-4027 (COLD WEATHER IN CONCRETE) OR DEWALT AC100+GOLD PER ICC-ES ESR-3200 (IN MASONRY), OR APPROVED EQUAL. PERIODIC SPECIAL INSPECTION REQUIRED.
- C. ALL EPOXY ADHESIVE ANCHORS IN EXISTING MASONRY WALL SHALL HAVE SCREEN TUBES. SCREEN TUBES SHALL BE SIMPSON ETS STEEL SCREEN TUBES OR APPROVED EQUAL, WHERE ANCHORS ARE PLACED IN HOLLOW MASONRY. SIMPSON ETS-P PLASTIC SCREEN TUBES OR APPROVED EQUAL SHALL BE USED.
- D. HEAVY DUTY SCREW ANCHORS SHALL BE SIMPSON "TITEN HD" PER ICC-ES ESR-2713 (IN CONCRETE) OR ICC-ES ESR-1056 (IN MASONRY), HILTI "KWIK HUS-EZ" PER ICC-ES ESR-3027 (IN CONCRETE) OR ICC-ES ESR-3056 (IN MASONRY), DEWALT SCREWBOLT+ PER ICC-ES ESR-3889 (IN CONCRETE) OR ICC-ES ESR-4042 (IN MASONRY); OR APPROVED EQUAL. PERIODIC SPECIAL INSPECTION REQUIRED.
- E. POWDER ACTUATED FASTENERS IN CONCRETE AND STEEL SHALL BE HILTI X-U OR APPROVED EQUAL, WHERE ANCHORS ARE PLACED IN HOLLOW MASONRY. SIMPSON ETS-P PLASTIC SCREEN TUBES OR APPROVED EQUAL SHALL BE USED.
- F. CAST-IN-PLACE ANCHORS FOR SUSPENSION FROM SOMD SHALL BE "BLUE BANGER HANGERS" PER ICC-ES ESR 3707 OR APPROVED EQUAL.
- G. WHERE POST INSTALLED ANCHORS ARE TO BE USED, IT SHALL BE THE CONTRACTOR'S DIRECT RESPONSIBILITY TO COORDINATE THE LOCATIONS OF REINFORCING STEEL OR OTHER SIMILARLY EMBEDDED ITEMS TO WORK WITH POST INSTALLED ANCHORS AND TO AVOID CONFLICTS WHEN DRILLING HOLES.
- H. INSTALLATION OF ADHESIVE ANCHORS THAT ARE TO BE UNDER SUSTAINED TENSION LOADING IN HORIZONTAL OR VERTICAL OVERHEAD ORIENTATION SHALL BE DONE BY A CERTIFIED ADHESIVE ANCHOR INSTALLER (AAI) AS CERTIFIED THROUGH ACI AND IN ACCORDANCE WITH 318-2011 (SECTION 9.2.2). PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO COMMENCEMENT OF INSTALLATION.
- I. PER ACI 318-2011 (SECTION D.2.2), ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT TIME OF ANCHOR INSTALLATION.
- J. ANCHORS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE TYPE 302, 303, 304 OR 316 STAINLESS STEEL OR HOT DIP GALVANIZED PER ASTM A153, CLASS C.
- K. ANCHORS USED IN EXTERIOR OR WET CONDITIONS SHALL BE TYPE 316 STAINLESS STEEL OR HOT DIP GALVANIZED PER ASTM A153, CLASS C.

VIII. PERFORMANCE SPECIFICATION (DEFERRED SUBMITTAL) ITEMS

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE DESIGN AND CONSTRUCTION OF THE FOLLOWING ITEMS:
 1. PRE-ENGINEERED METAL BUILDING: COMPLETE DESIGN DRAWINGS, DETAILS, AND STRUCTURAL CALCULATIONS SHALL BE PROVIDED FOR REVIEW AND APPROVAL, AND FOR COORDINATION. SEE BASIS OF DESIGN REQUIREMENTS.
 2. VERTICAL SUPPORT, BRACING AND ANCHORAGE OF MECHANICAL, ELECTRICAL, SPRINKLER, OR OTHER PIPING SYSTEMS AND EQUIPMENT FOR DEAD, WIND, AND SEISMIC LOADS IN ACCORDANCE WITH ASCE 7-16, CHAPTER 30 (WIND) AND CHAPTER 13 (SEISMIC).
- B. THE ITEMS LISTED ABOVE ARE NOT INTENDED TO BE ALL INCLUSIVE AND ONLY REPRESENT STRUCTURAL PORTIONS OF THE WORK. ADDITIONAL PERFORMANCE SPECIFICATION ITEMS MAY BE REQUIRED. REFER TO THE DESIGN DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL ITEMS AND REQUIREMENTS.
- C. WHERE CALLED OUT, SIZES OF SUCH ITEMS IN THESE DRAWINGS ARE MINIMUMS TO BE VERIFIED BY THE FINAL DESIGN PROVIDED BY THE CONTRACTOR, HIS SUBCONTRACTOR OR HIS CONSULTANT.
- D. WHERE SEPARATE PERFORMANCE SPECIFICATION ITEMS INTERACT, THE DESIGN OF EACH ITEM SHALL INCLUDE THE INTERACTION EFFECTS AND SHALL BE COORDINATED WITH ONE ANOTHER.
- E. PERFORMANCE SPECIFICATION SYSTEMS, COMPONENTS AND THEIR ATTACHMENTS SHALL BE DESIGNED TO ACCOMMODATE DRIFT OF THE MAIN STRUCTURAL FRAME IN ACCORDANCE WITH ASCE 7. MAIN STRUCTURAL FRAME DESIGN STORY DRIFT SHALL BE ASSUMED TO EQUAL 2.5% OF THE STORY HEIGHT PER ASCE 7, SECTION 12.12.
- F. PERFORMANCE SPECIFICATION SYSTEMS, COMPONENTS, AND THEIR ATTACHMENTS SHALL BE DESIGNED TO ACCOMMODATE VERTICAL DEFLECTION OF THE MAIN STRUCTURAL FRAME TO THE MAGNITUDES SET FORTH IN 2018 IBC TABLE 1604.3.
- G. PERFORMANCE SPECIFICATION ITEM DESIGNS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEVADA. DESIGNS ARE TO BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

QUALITY ASSURANCE

I. GENERAL

- A. QUALITY ASSURANCE WILL BE ACCOMPLISHED THROUGH THE USE OF SPECIAL INSPECTION, MATERIALS TESTING AND PERIODIC REVIEW BY THE STRUCTURAL ENGINEER OF RECORD IN ACCORDANCE WITH 2018 IBC CHAPTER 17.

II. CONTRACTOR RESPONSIBILITY

- A. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER IN ACCORDANCE WITH THE 2018 IBC SECTION 1704.4

III. STATEMENT OF INSPECTIONS

- A. SPECIAL INSPECTION AND ASSOCIATED MATERIALS TESTING SHALL BE PERFORMED FOR THE PROCESSES AND MATERIALS REQUIRED FOR CONSTRUCTION. THE TYPE AND FREQUENCY OF SPECIAL INSPECTIONS AND MATERIALS TESTING AS WELL AS THE FREQUENCY AND DISTRIBUTION OF RELATED REPORTS SHALL BE AS INDICATED IN THE CONSTRUCTION DOCUMENTS AND AS REQUIRED BY ALL APPLICABLE CODES.
- B. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE ARCHITECT, OWNER, ENGINEER AND BUILDING OFFICIAL. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN IF UNCORRECTED, TO THE ARCHITECT, OWNER AND BUILDING OFFICIAL. AT THE CONCLUSION OF WORK, THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT TO THE ARCHITECT, OWNER, ENGINEER, AND BUILDING OFFICIAL INDICATING THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED AND IS IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS AND THAT ALL DISCREPANCIES NOTED IN THE INSPECTION REPORTS HAVE BEEN CORRECTED.
- C. SPECIAL INSPECTIONS IN ACCORDANCE WITH 2018 IBC CHAPTER 17 SHALL BE REQUIRED FOR THE FOLLOWING STRUCTURAL ITEMS:
 1. STEEL CONSTRUCTION INSPECTION AND NON-DESTRUCTIVE TESTING IN ACCORDANCE WITH 2018 IBC SECTION 1705.2.
 - a. STRUCTURAL STEEL IN ACCORDANCE WITH 2018 IBC SECTION 1705.2.1 AND AISC 360.
 2. CONCRETE CONSTRUCTION IN ACCORDANCE WITH 2018 IBC SECTION 1705.3 2018 IBC SECTION 1705.3. EXCEPTIONS 1 AND 2 ARE NOT ALLOWED.
 3. SOILS IN ACCORDANCE WITH 2018 IBC SECTION 1705.6.
 4. POST INSTALLED ANCHORS IN ACCORDANCE WITH EVALUATION REPORTS AND MANUFACTURER RECOMMENDATIONS.
- D. IN ADDITION TO THE SPECIAL INSPECTIONS LISTED ABOVE, SPECIAL INSPECTION AND TESTING FOR SEISMIC RESISTANCE IN ACCORDANCE WITH 2018 IBC SECTIONS 1705.12 AND 1705.13 SHALL BE REQUIRED FOR THE FOLLOWING STRUCTURAL ITEMS:
 1. STEEL CONSTRUCTION INSPECTION AND NON-DESTRUCTIVE TESTING IN ACCORDANCE WITH 2018 IBC SECTIONS 1705.12.1, 1705.13.1 AND AISC 341.
- E. THE SPECIAL INSPECTIONS LISTED ABOVE ARE NOT INTENDED TO BE ALL INCLUSIVE AND ONLY REPRESENT SPECIAL INSPECTIONS FOR STRUCTURAL PORTIONS OF THE WORK. ADDITIONAL SPECIAL INSPECTIONS OF ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING OR OTHER SYSTEMS MAY BE REQUIRED. REFER TO THE APPROPRIATE DESIGN DISCIPLINES FOR ADDITIONAL INFORMATION.
- F. WHERE PERIODICAL INSPECTIONS ARE REQUIRED, THE FIRST INSPECTION SHALL OCCUR AT THE START OF THE CONSTRUCTION TASK BEING INSPECTED.

IV. STRUCTURAL ENGINEER OF RECORD REVIEW

- A. THE CONTRACTOR SHALL PROVIDE THE ARCHITECT WITH WRITTEN NOTICE 48 HOURS PRIOR TO THE FOLLOWING CONSTRUCTION ACTIVITIES SO THAT REVIEW BY THE STRUCTURAL ENGINEER OF RECORD MAY BE PERFORMED:
 1. CONCRETE PLACEMENT
 2. STEEL ERECTION



Professional Seal △ Date Revision



Will Engineering LLC
748 S. Meadows Parkway, Suite A-9
PMB #21
Reno, NV 89521
Phone: (775)560-6554

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

Carson City Fleet Services Tire and Welding Shop

3505 Butti Way
Carson City, NV 89701

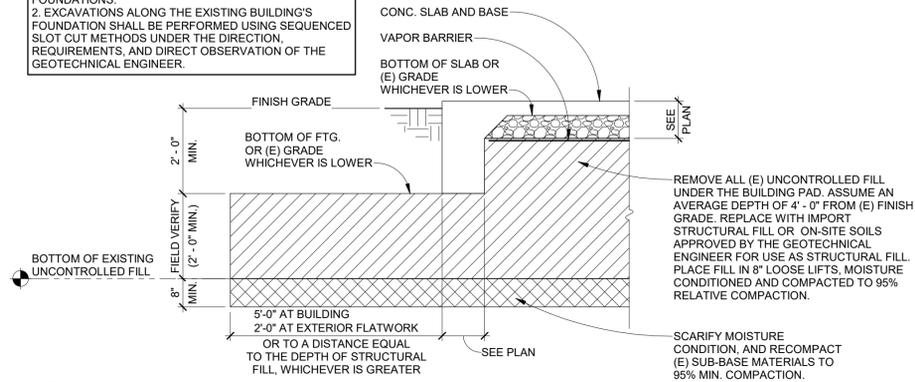
GENERAL NOTES AND
QUALITY ASSURANCE

January 28, 2022

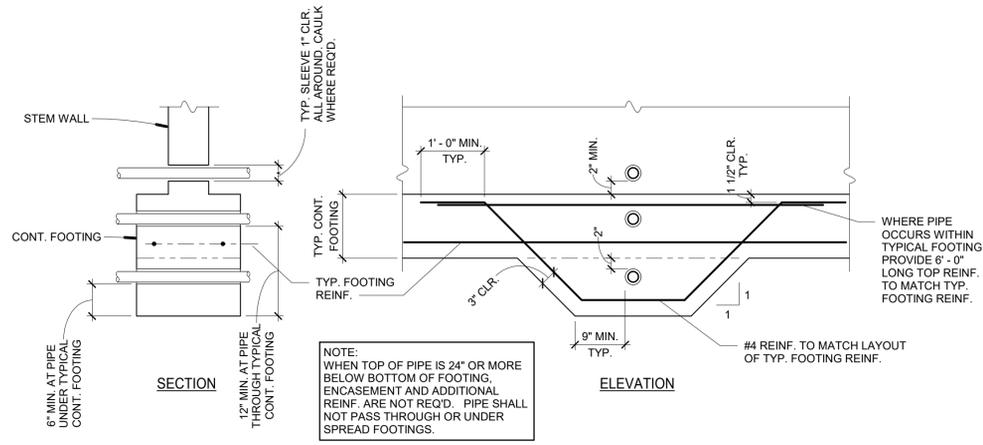
S002



NOTE:
 1. EXCAVATIONS SHALL NOT UNDERMINE EXISTING FOUNDATIONS.
 2. EXCAVATIONS ALONG THE EXISTING BUILDING'S FOUNDATION SHALL BE PERFORMED USING SEQUENCED SLOT CUT METHODS UNDER THE DIRECTION, REQUIREMENTS, AND DIRECT OBSERVATION OF THE GEOTECHNICAL ENGINEER.

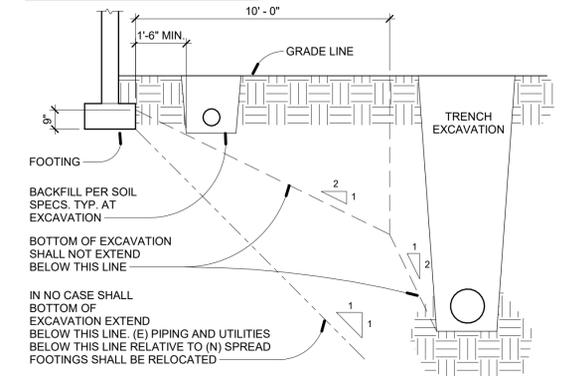


1 TYP. ENGINEERED FILL
 S011 NO SCALE

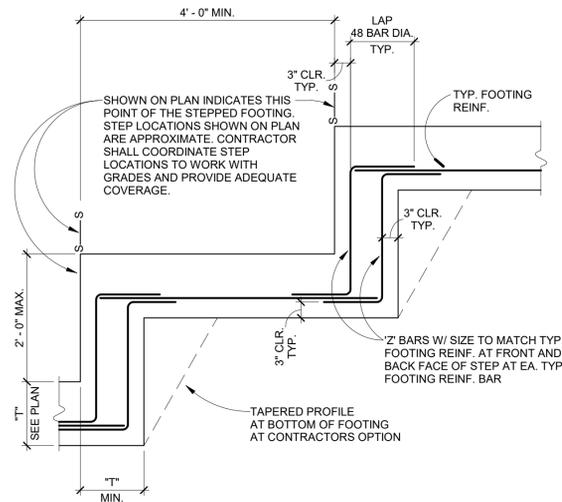


2 TYP. PIPE ENTRANCE
 S011 NO SCALE

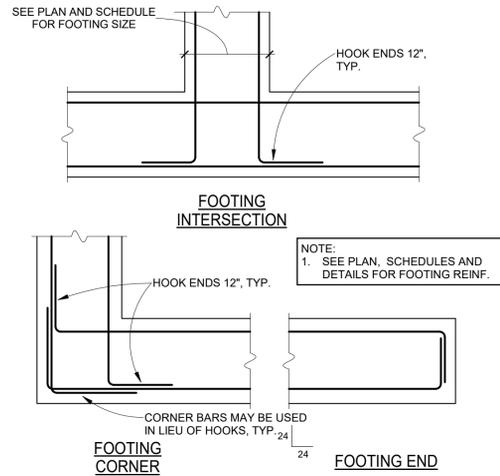
NOTE:
 THE CONTRACTOR SHALL COORDINATE ALL EXCAVATION OPERATIONS WITH BUILDING FOUNDATION REQUIREMENTS.



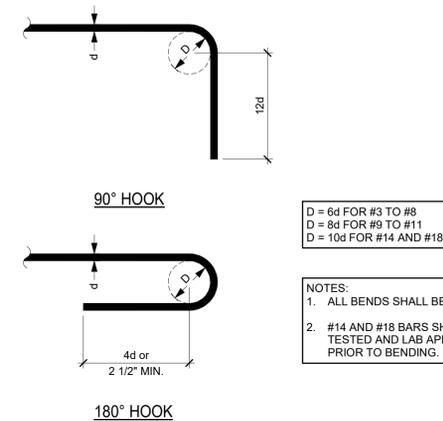
3 TYP. PIPING AND UTILITIES ADJACENT TO FOOTING
 S011 NO SCALE



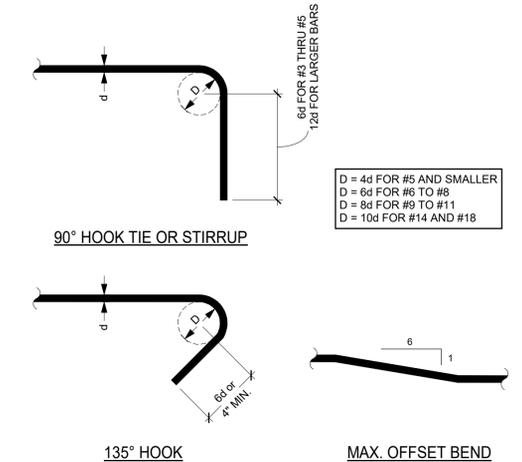
4 TYP. STEPPED FOOTING
 S011 NO SCALE



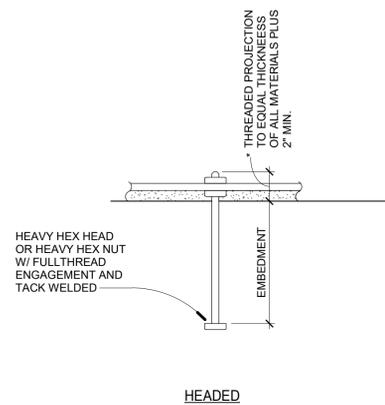
5 TYP. REINF. LAP IN FOOTING
 S011 NO SCALE



6 HOOKS AND BENDS FOR PRINCIPAL REINFORCING
 S011 NO SCALE



7 TIE AND STIRRUP HOOKS FOR PRINCIPAL REINFORCING
 S011 NO SCALE



8 ANCHOR BOLTS IN CONCRETE
 S011 NO SCALE

Autodesk_Docs\2116 Carson City Fleet Services Tire and Welding\Carson City Fleet Services Tire and Welding Shop.rvt



Professional Seal
 Date: 2/9/22
 Revision: 2/9/22
 © Copyright H + K Architects



Will Engineering LLC
 748 S. Meadows Parkway, Suite A-9
 PMB #21
 Reno, NV 89521
 Phone: (775)560-6554

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262

P 775+332+6640
 F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
 Tire and Welding Shop**

3505 Butti Way
 Carson City, NV 89701

TYPICAL EARTHWORK
 AND CONCRETE
 DETAILS

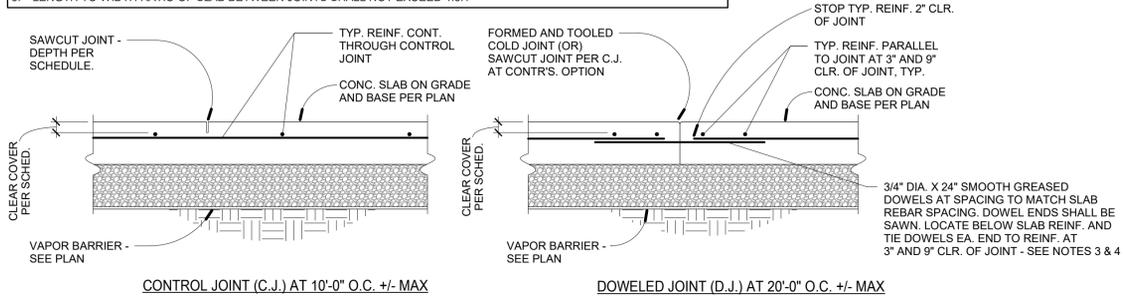
January 28, 2022

S011

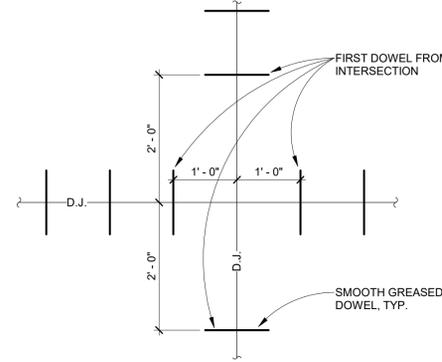


- NOTES:
- CHAIR HEIGHTS FOR REBAR SHALL BE TO UNDERSIDE OF LOWER REBARS AND SHALL EQUAL SLAB THICKNESS MINUS SPECIFIED CLEARANCE MINUS 2X TYPICAL REBAR DIAMETER. CHAIR HEIGHTS SHALL BE INCLUDED ON SHOP DRAWINGS FOR APPROVAL.
 - CONTRACTOR SHALL PROVIDE THE ARCHITECT A DRAWING FOR REVIEW AND APPROVAL SHOWING THE PROPOSED LAYOUT OF SLAB CONTROL JOINTS AND DOWELED JOINTS. THE SPACING OF JOINTS SHALL COMPLY WITH THE REQUIREMENTS OF THIS DETAIL.
 - CONTRACTOR SHALL USE DOWEL BASKETS TO SECURE ALL DOWELS IN PLACE UNLESS AN ALTERNATE MEANS OF SECURING THE DOWELS, AS REQUESTED BY THE CONTRACTOR, IS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
 - AT CONTRACTOR'S OPTION, SMOOTH ROUND DOWELS MAY BE REPLACED WITH "TAPERED DIAMOND PLATE DOWEL SYSTEM" AS MANUFACTURED BY PNA CONSTRUCTION TECHNOLOGIES OR APPROVED EQUAL.
 - LENGTH TO WIDTH RATIO OF SLAB BETWEEN JOINTS SHALL NOT EXCEED 1.5:1

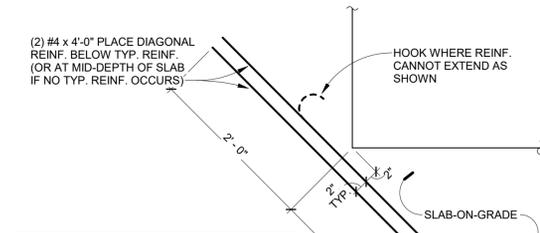
JOINT SCHEDULE		
SLAB THICKNESS	BAR CLEARANCE [FROM TOP]	JOINT DEPTH
6"	2"	1 1/2"



1 TYP. SLAB CONTROL JOINT (C.J.) AND DOWELED JOINT (D.J.)
S012 NO SCALE

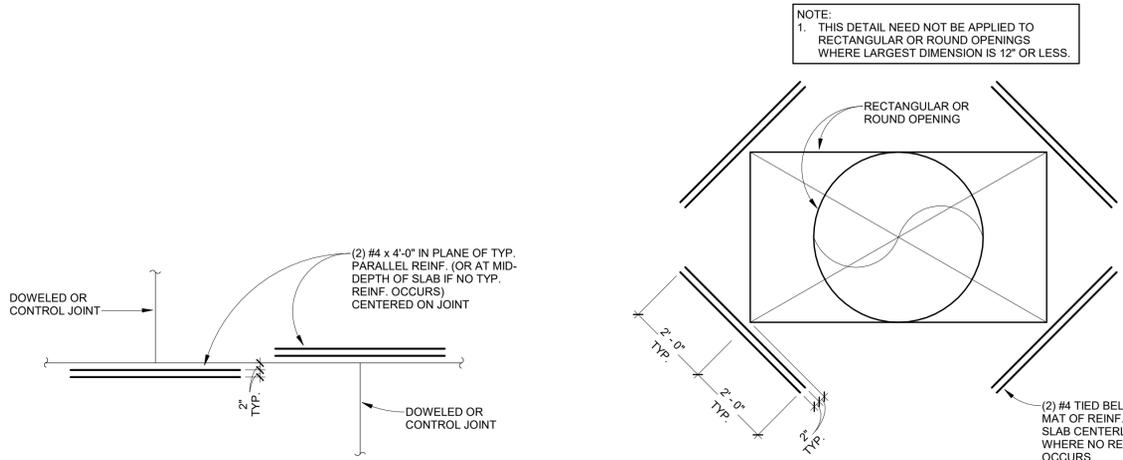


2 DOWELED JOINT (D.J.) INTERSECTION
S012 NO SCALE



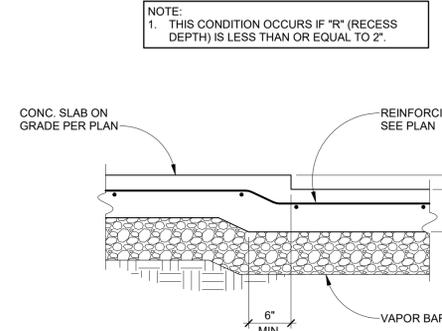
- NOTES:
- RE-ENTRANT 90° CORNER SUCH AS:
 - OPENING IN SLAB
 - AT WALL OR GRADE BEAM CORNERS
 - ISOLATED EQUIPMENT BASE
 - REINFORCING PER THIS DETAIL SHALL BE INSTALLED AT ALL RE-ENTRANT CORNERS IN SLABS ON GRADE UNLESS SPECIFICALLY NOTED OTHERWISE.
 - REINFORCING PER THIS DETAIL DOES NOT OCCUR AT LOCATIONS WHERE SLAB JOINTS DIE INTO THE RE-ENTRANT CORNER.

3 REINF. AT RE-ENTRANT CORNERS IN SLAB
S012 NO SCALE



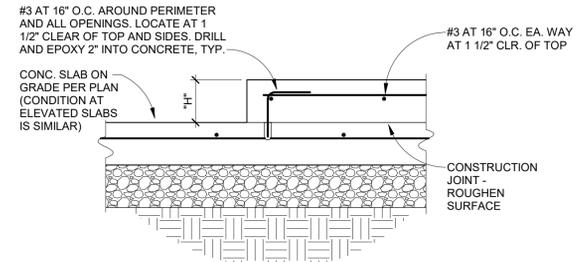
4 REINF. AT OFFSET SLAB JOINTS
S012 NO SCALE

5 OPENING IN SLAB-ON-GRADE
S012 NO SCALE

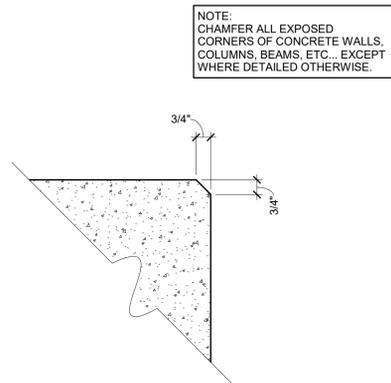


6 TYP. RECESSED SLAB-ON-GRADE
S012 NO SCALE

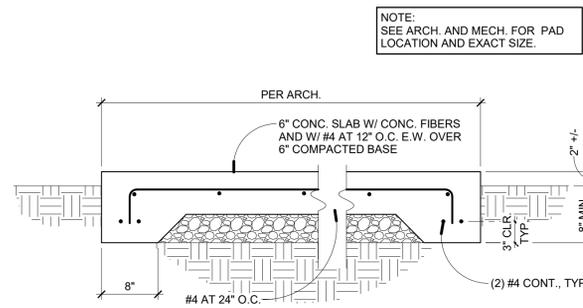
- NOTES:
- COORDINATE PAD SIZE "P" AND PAD HEIGHT "H" WITH MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS.
 - UNLESS SPECIFICALLY FLAGGED ON PLANS, THIS DETAIL IS FOR REFERENCE ONLY AND THE STRUCTURAL ENGINEER SHOULD BE CONSULTED PRIOR TO APPLICATION OF THIS DETAIL.



7 TYP. INTERIOR EQUIPMENT PAD
S012 1" = 1'-0"



8 TYP. CONCRETE CHAMFER
S012 NO SCALE



9 TYP. MECH. EQUIPMENT PAD
S012 NO SCALE

Autodesk_Docs\2116 Carson City Fleet Services Tire and Welding\Carson City Fleet Services Tire and Welding Shop.rvt 2/3/2022 3:04:28 PM



Professional Seal
Date
Revision
© Copyright H + K Architects



Will Engineering LLC
748 S. Meadows Parkway, Suite A-9
PMB #21
Reno, NV 89521
Phone: (775)560-6554

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

3505 Butti Way
Carson City, NV 89701

TYPICAL CONCRETE
DETAILS

January 28, 2022

S012



LEGEND - FOUNDATION PLAN

- C.J. ← CONTROL JOINT PER TYP. DETAILS
- D.J. ← DOWEL JOINT PER TYP. DETAILS
- F48.12 ← FOOTING PER SCHEDULE
- 6" S.O.G. TYP. U.N.O. ← SLAB ON GRADE PER SCHEDULE

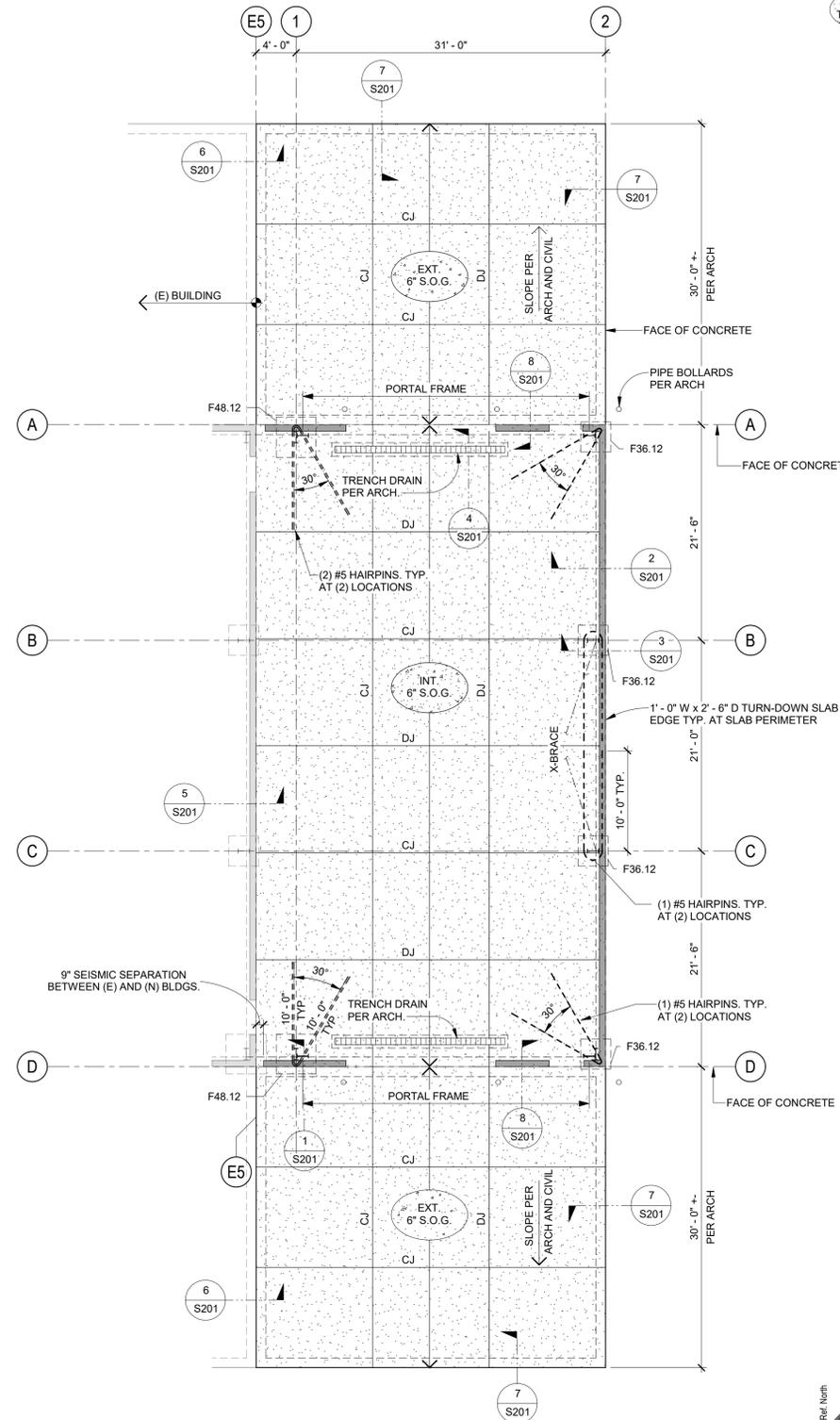
NOTES - FOUNDATION PLAN

1. DATUM ELEVATIONS:
TOP OF SLAB = 0'-0" TYP. U.N.O.
TOP OF FOOTING = -1'-6" TYP. U.N.O.
2. CONTRACTOR TO PROVIDE CONCRETE SLAB ON GRADE DOWEL AND CONTROL JOINTS PER TYPICAL DETAILS.
3. VERIFY AND COORDINATE ALL OPENING SIZES AND LOCATIONS W/ OWNER, MECH, ELEC, ETC.
4. CONTRACTOR TO VERIFY ALL DEPRESSED FLOOR, RAISED FLOOR, AND SLOPED FLOOR LOCATIONS, DIMENSION, DEPTH, ETC.
5. SEE MECH, PLUMBING, ELECTRICAL, AND CIVIL FOR UNDERGROUND DUCT AND PIPE LAYOUT AND COORDINATE FOOTING DEPTHS, ROUTING OF (N) BURIED ITEMS AND RELOCATION OF (E) BURIED ITEMS PER TYPICAL DETAILS.
6. HAIRPINS AND FOOTINGS SHOWN ARE FOR BIDDING PURPOSES ONLY. FINAL CONFIGURATION WILL BE DETERMINED WHEN BUILDING MANUFACTURER'S COLUMN REACTIONS ARE SUBMITTED.

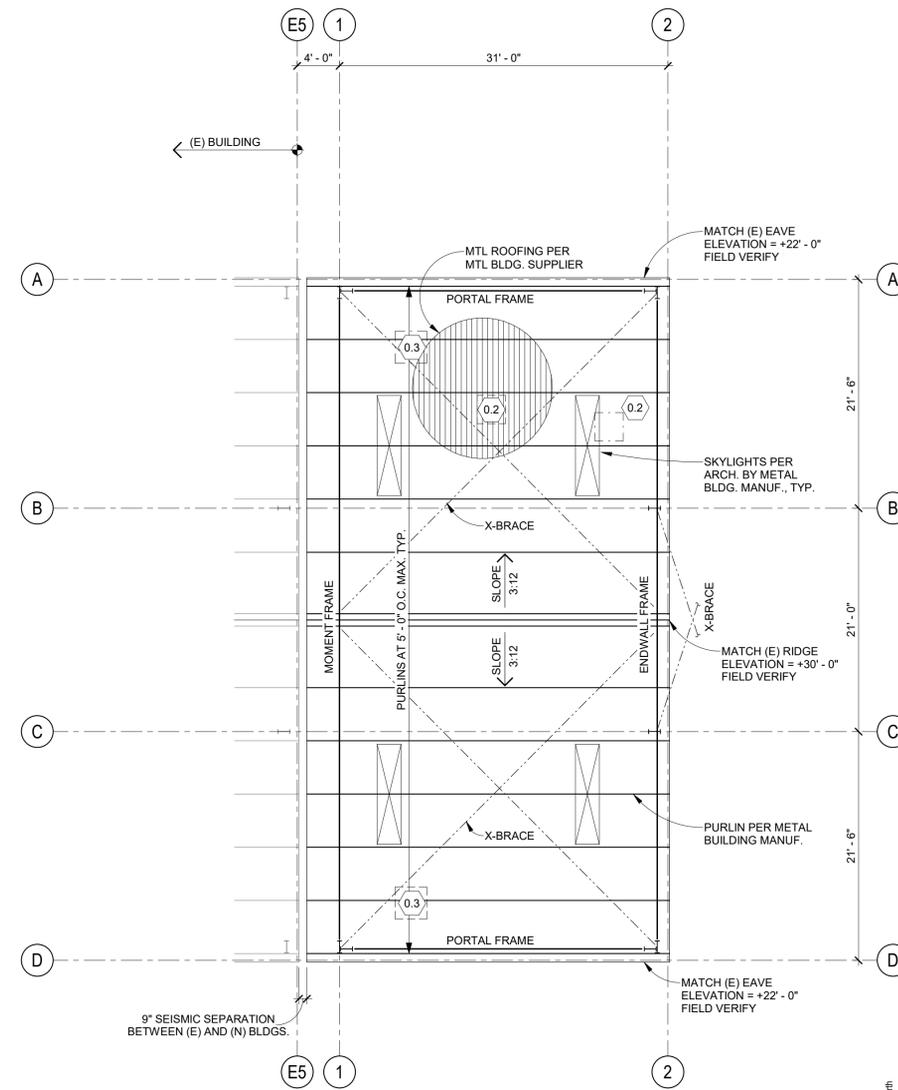
SPREAD FOOTING SCHEDULE			
MARK	SIZE	REINFORCING	NOTES
F36.12	3' - 0" SQ. x 12" DEEP	BOTTOM: (4) #4 EA. WAY	--
F48.12	4' - 0" SQ. x 12" DEEP	BOTTOM: (5) #4 EA. WAY	--

SLAB ON GRADE SCHEDULE			
MARK	SIZE	REINFORCING	NOTES
INT. 6" S.O.G.	6"	#4 AT 16" O.C. EA. WAY AT 2" CLR. OF TOP	--
EXT. 6" S.O.G.	6"	#4 AT 12" O.C. EA. WAY AT 2" CLR. OF TOP	--

NOTES:
1. ALL CONCRETE SLABS SHALL HAVE 1.5 LB/CY POLYPROPYLENE FIBERS.
2. ALL CONCRETE SLABS BE PLACED ON 6" COMPACT TYPE II AGGREGATE BASE OVER 15 MIL VAPOR BARRIER. VAPOR BARRIER MAY BE OMITTED AT EXTERIOR CONCRETE SLAB ON GRADE.



1 FOUNDATION/FLOOR PLAN
S101 1/8" = 1'-0"



2 ROOF FRAMING PLAN
S101 1/8" = 1'-0"

LEGEND - FRAMING PLAN

- MECHANICAL UNIT - COORD. EXACT SIZE AND LOCATION W/ ARCH. AND MECH. DWGS. METAL BUILDING DESIGN SHALL INCLUDE ALLOWANCE FOR ALL SUPPORTED ITEMS.
- UNIT WEIGHT (IN 1000 LBS.)

Autosave: Doss:2116 Carson City Fleet Services Tire and Welding at Carson City Fleet Services Tire and Welding Shop on 2/3/2022 3:04:27 PM



Professional Seal
Date: 2/3/22
Revision: 2/3/22
© Copyright H + K Architects



Will Engineering LLC
748 S. Meadows Parkway, Suite A-9
PMB #21
Reno, NV 89521
Phone: (775)560-6554

21-031

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

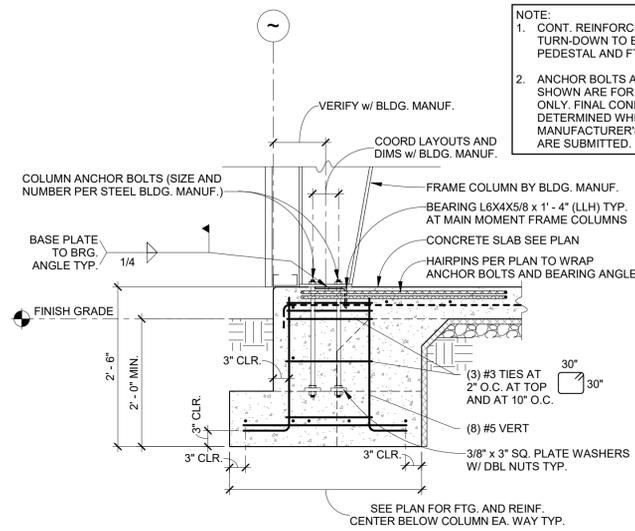
3505 Butti Way
Carson City, NV 89701

PLANS

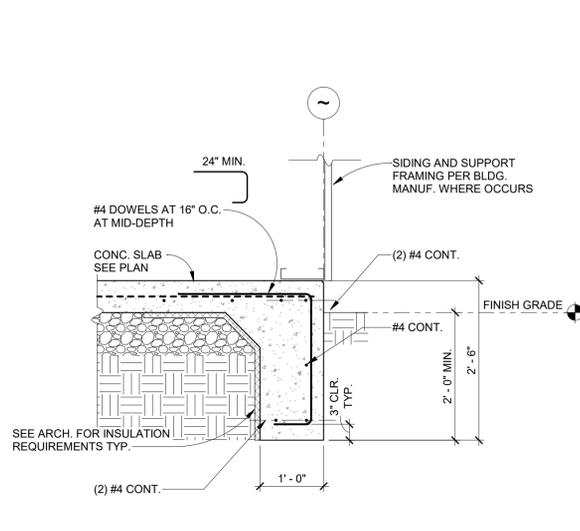
January 28, 2022

S101

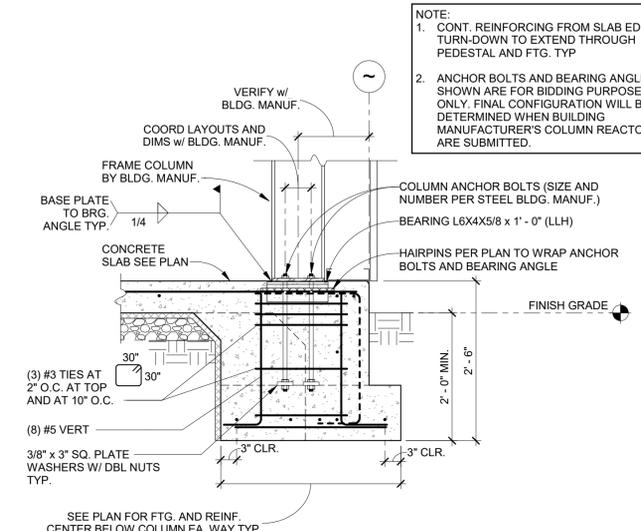




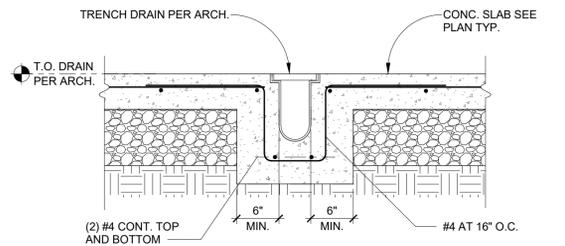
1 MOMENT FRAME COLUMN FOOTING
S201 3/4" = 1'-0"



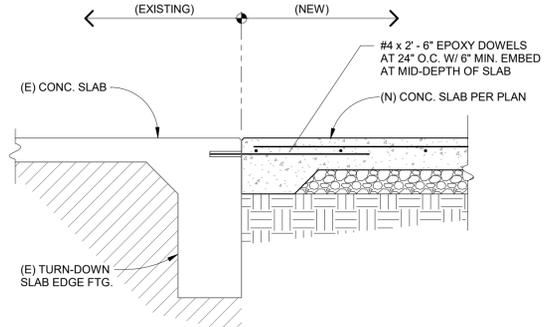
2 TURN-DOWN SLAB EDGE
S201 3/4" = 1'-0"



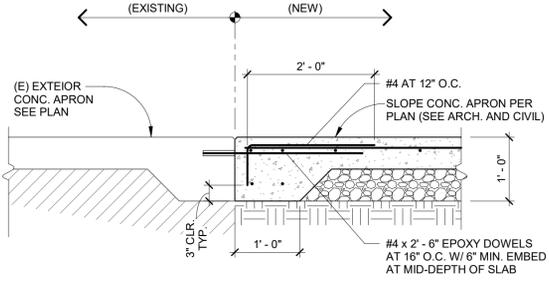
3 ENDWALL COLUMN AND FOOTING
S201 3/4" = 1'-0"



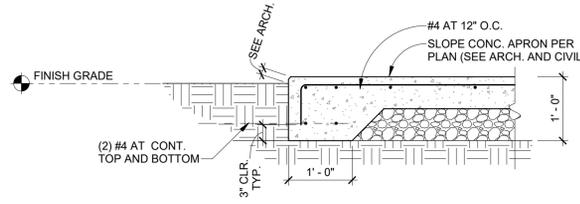
4 INTERIOR TRENCH DRAIN
S201 1" = 1'-0"



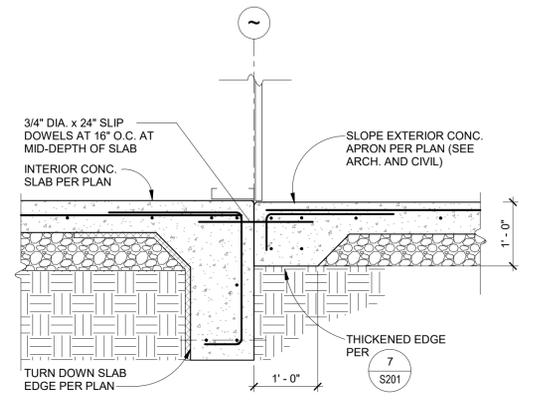
5 NEW TO EXISTING SLAB
S201 3/4" = 1'-0"



6 JOINT AT (N) TO (E) APRON SLABS
S201 3/4" = 1'-0"



7 THICKENED EDGE AT APRON SLAB
S201 3/4" = 1'-0"



8 APRON TO BUILDING SLAB
S201 3/4" = 1'-0"

Autodesk_Docs\2116 Carson City Fleet Services Tire and Welding\Carson City Fleet Services Tire and Welding Shop.dwg



Date	Revision

WE
Will Engineering LLC
748 S. Meadows Parkway, Suite A-9
PMB #21
Reno, NV 89521
Phone: (775)560-6554

Consultant
H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**
3505 Butti Way
Carson City, NV 89701

DETAILS
January 28, 2022
S201

PLUMBING ROUGH-IN SCHEDULE						
ABBR.	FIXTURE	ROUGH-IN SIZES (INCHES)				COMMENTS
		HW	CW	V	TRAP	
HB-1	HOSE BIBB	-	3/4	-	-	EXTERIOR FREEZE PROOF
HB-2	HOSE BIBB	-	3/4	-	-	INTERIOR
TD-1	TRENCH DRAIN	-	-	-	4	

PLUMBING FIXTURES	
TD-1	TRENCH DRAIN ZURN MODEL NO. Z-806-DG 6" WIDE PRE SLOPED TRENCH DRAIN WITH CLASS "E" DUCTILE IRON SLOTTEDGRATE AND OUTLET FITTING AND SURE SEAL SS2009V 2" SS300V 3" TRAP GUARD FOR CAST IRON PIPE. SEE PLANS FOR LENGTH.
HB-1	HOSE BIBB WOODFORD MODEL 17 FREEZELESS WITH INTEGRAL VACUUM BREAKER. CHROME PLATED WITH WHEEL HANDLE.
HB-2	HOSE BIBB WOODFORD MODEL 24CP WITH VACUUM BREAKER. CHROME PLATED WITH WHEEL HANDLE.

GENERAL NOTES	
1.	ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, AND INDUSTRY STANDARDS.
2.	COORDINATE EXACT LOCATION OF EQUIPMENT AND ALL PENETRATIONS THROUGH ROOF, FLOORS, AND WALLS WITH STRUCTURAL DRAWINGS PRIOR TO ANY ROUGH-IN.
3.	COORDINATE THE PLACEMENT OF MECHANICAL EQUIPMENT WITH PLUMBING AND ELECTRICAL SECTIONS PRIOR TO BEGINNING WORK.
4.	COORDINATE ALL PIPE ROUTING WITH OTHER BUILDING COMPONENTS.
5.	ALL THERMOSTATS MOUNTED ON EXTERIOR WALLS SHALL HAVE AN INSULATED BASE.
6.	PROVIDE MIN. CODE AND MANUFACTURERS RECOMMENDATIONS ON CLEARANCES FOR ALL EQUIPMENT.
7.	VERIFY EXACT LOCATION, INVERT ELEVATION, SIZES, AND POINT OF CONNECTION OF ALL EXISTING UTILITIES PRIOR TO ROUGH-IN OF ANY PIPING.
8.	SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF PLUMBING FIXTURES TO MEET ADA REQUIREMENTS.
9.	ALL WATER PIPING IN EXTERIOR WALLS SHALL BE INSULATED AND INSTALLED INSIDE THE BUILDING INSULATION.
10.	COORDINATE THE ROUTING OF PLUMBING WITH DUCTWORK AND ELECTRICAL SECTIONS PRIOR TO BEGINNING WORK.
11.	INSULATE P-TRAP, HOT, AND COLD WATER SUPPLIES ON HANDICAP LAVATORIES AND SINKS WITH TRU-BRO "SOFT GUARD PLUS" PROTECTION SHALL MEET ASTM E84 FLAME/SMOKE REQUIREMENTS.
12.	HANDI-CAP WATER CLOSETS SHALL HAVE TANK CONFIGURED TO PROVIDE FLUSH HANDLE FACING THE ACCESS SIDE OF WATER CLOSET.
13.	PROVIDE ALL PLUMBING FIXTURES AND EQUIPMENT WITH ACCESSIBLE STOPS.
14.	ALL PIPING WORK SHALL BE COORDINATED WITH ALL TRADES AND EXISTING CONDITIONS. OFFSETS IN PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AS REQUIRED.
15.	SLOPE ALL SEWER AND WASTE LINES A MINIMUM OF 1/4" PER FT.
16.	ALL PIPING SHALL NOT OBSTRUCT ACCESS OR REMOVAL OF MECHANICAL EQUIPMENT.
17.	ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS.
18.	DO NOT FABRICATE PIPING FROM THE DRAWINGS. SPACE ALLOCATION SHALL BE DETERMINED IN THE FIELD AND COORDINATED WITH OTHER TRADES PRIOR TO FABRICATION.
19.	PROVIDE WALL CLEANOUTS FOR ALL SINKS AND URINALS.
20.	ALL METAL PIPE (CAST IRON, STEEL, COPPER, ETC.) BURIED BELOW SLAB OR GRADE SHALL BE PROTECTED FROM CORROSION WITH CHRISTY'S POLYETHYLENE PIPE ENCASEMENT AND WRAP.
21.	KEEP ROOFTOP EXHAUST TERMINATIONS A MINIMUM 15 FEET FROM OUTSIDE AIR INTAKES.
22.	KEEP OUTSIDE FLUE VENT TERMINATIONS A MINIMUM 12" ABOVE AIR OPENINGS INTO BUILDING.
23.	COORDINATE EXACT LOCATION OF PENETRATIONS THROUGH CONCRETE SLAB, SHEAR WALLS AND BLOCK WALLS WITH STRUCTURAL DRAWINGS PRIOR TO ANY ROUGH-IN.
24.	FOR ALL WALL HUNG FIXTURES, PROVIDE A 1/8" x 6" BACKING PLATE BOLTED TO A MINIMUM OF 4 STUDS. PROVIDE CONCEALED ARMS FOR LAV'S BOLTING TO BACKING PLATE.

AIR DISTRIBUTION SCHEDULE							
SYMBOL	SERVICE	BORDER	CFM RANGE	NECK SIZE	DESCRIPTION	BASIS OF DESIGN	NOTES
A	SUPPLY	GYPBOARD			ALUMINUM	PRICE MODEL #HCD 15x24, ALUMINUM HIGH CAPACITY DRUM SINGLE BLADE LOUVER, BORDER TYPE FOR SQUARE DUCT MOUNTING.	FINISH IN STANDARD WHITE
			SEE PLANS FOR AIRFLOW				
B	EXHAUST	GYPBOARD			LOUVERED SUPPLY DIFFUSER, DOUBLE DEFLECTION, 3/4" BLADE SPACING	PRICE MODEL #530, BORDER TYPE FOR SURFACE MOUNT OR DUCT MOUNT WHERE REQUIRED	FINISH IN STANDARD WHITE
			SEE PLANS FOR AIRFLOW AND SIZE				

NOTES:

- PROVIDE INLET AND OUTLET SIZES ABOVE UNLESS SIZES ARE SPECIFICALLY NOTED ON PLANS.
- DIRECTIONAL AIR THROW PATTERNS SHALL BE FIELD ADJUSTED IN ACCORDANCE WITH REPRESENTATIONS BELOW AND AS NOTED ON DRAWINGS.



4-WAY



3-WAY



2-WAY



2-WAY



1-WAY

- INLETS NOTED WITH AN "R" ARE ON THE RETURN SYSTEM AND INLETS NOTED WITH AN "E" ARE ON THE EXHAUST SYSTEM.



RETURN

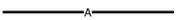
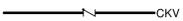
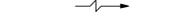
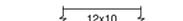
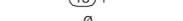
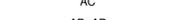
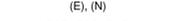
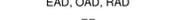
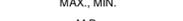
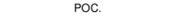
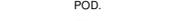
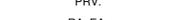
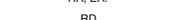
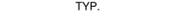
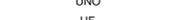
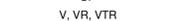


EXHAUST

- ALL AIR DISTRIBUTION SHALL BE FACTORY WHITE FINISH, UNLESS NOTED OTHERWISE.

EQUIPMENT SCHEDULE	
MUA 1	MAKE-UP AIR UNIT (OFCI) GREENHECK MODEL DGX-P130-H35-MF2 NATURAL GAS DIRECT FIRE MAKE-UP AIR UNIT. 14,335 CFM AT 1.25" ESP. 1,200 MBH HEATING INPUT, 1,104 MBH HEATING OUTPUT WITH 85.8° F. RISE. EVAPORATIVE COOLER SECTION 100/61 EDB/EWB AND 64.5/61 LDB/LWB, 10 HORSEPOWER, 44.8 MCA AND 70 MOP AT 208V/60HZ/3PH. OPERATING WEIGHT = 3,169 POUNDS.
ACCESSORIES:	
1. PREMIUM EFFICIENCY MOTOR	
2. INLET DAMPER	
3. UPBLAST DISCHARGE	
4. DUCT LINER INSULATION	
5. CONTROL	
6. HEAT INLET AIR SENSOR	
7. FLAT CURB FOR PAD MOUNT	
8. 25:1 TURNDOWN	
9. 2-10Vdc EXTERNAL CONTROL	
10. NON-FUSED DISCONNECT SWITCH	
11. MULTI-TAP MOTOR	
VEF 5	VEHICLE EXHAUST (OFCI) NATIONAL SYSTEM GARAGE VENTILATION MODEL #TSR-S36 SPRING OPERATED HOSE REEL WITH 25 FEET OF 8" DIA. HIGH TEMPERATURE MODEL HTC HOSE WITH VEHICLE EXHAUST CONNECTION/ADAPTORS. FURNISH WITH REEL MOUNTED BLOWER PACKAGE MODEL DX-12A0 1200 CFM DIRECT DRIVE EXHAUSTER (CLOCKWISE UPBLAST DISCHARGE) WITH REEL PLATFORM AND COVER, CTA-8 ADAPTOR & ROOF TERMINATION CAP. 3 HORSEPOWER AT 208V/230V/3 PHASE. OPERATING WEIGHT 225 LBS.
VEF 6	WELDING EXHAUST FAN (OFCI) GREENHECK MODEL USF-18, 2,100 CFM AT 1.5" S.P. 1.0 HORSEPOWER AT 208V/3PH/60HZ, 4.6 FLA. OPERATING WEIGHT = 255 POUNDS
ACCESSORIES:	
1. MOTOR WITH THERMAL OVERLOADS	
2. STANDARD DRIVES	
3. FINISH - COATED	
4. COATING - PERMATECTOR, CONCRETE GRAY-RAL 7023, FAN AND ATTACHED ACCESSORIES	
5. SWITCH - NEMA-3R, TOGGLE, FOR OUTDOOR USE, MOUNTED AND WIRED	
6. DIRECT MOUNT ISOLATORS, ISOLATOR-SPRING, FREE STANDING, 1 INCH, OUTDOOR USE	
7. ROTATION - CW	
8. DISCHARGE POSITION - UB	
9. UL-705 - POWER VENTILATORS	
10. ACCESS DOOR - BOLTED	
11. DAMPER, GRAVITY, WD-340-PARALLEL-GALV. BLADE, 14.5 X 19.4, MOUNTED, W/ MILL FINISH	
12. INLET CONNECTION, SLIP FIT	
13. OUTLET FLANGE, PUNCHED	
14. WEATHERHOOD - STEEL	
15. MOTOR COVER	
EF 1	EXHAUST FAN (OFCI) GREENHECK MODEL SQ-16-07-0700-VG, 3,210 CFM AT 0.5" S.P. AT 70° F. AIRSTREAM TEMP. 1 HORSEPOWER, 208V/60HZ/3PH OPERATING WEIGHT 138 POUNDS
ACCESSORIES:	
1. UL 705	
2. NEMA 1 DISCONNECT FIELD INSTALLED	
3. ISOLATORS, SPRING, HANGING, 1 INCH (QTY 4, (PN: 450133))	
4. DAMPER SHIPPED LOOSE, INLINE, WD-330-PB-24X24, GRAVITY OPERATED, NOT COATED	
5. WEATHERHOOD	
6. OUTLET GUARD	
7. VARI-GREEN EC MOTOR	
8. JUNCTION BOX MOUNTED AND WIRED	
WH 1	WEATHER HOOD GREENHECK "FABRA HOOD" MODEL FGR 32"x32" THROAT, 7 SQUARE FOOT FREE AREA TO RELIEVE 2,100 CFM. OPERATING WEIGHT = 100 POUNDS
ACCESSORIES:	
1. BIRD SCREEN	
2. 12" TALL BASE	
3. SLOPED ROOF CURB	
4. 1/2" INSULATION	
5. GREENHECK MODEL BR-10 ADJUSTABLE BACKDRAFT DAMPER SET AT 0.08" PRESSURE	
6. FACTORY APPLIED BAKED ENAMEL "PUEBLO TAN"	
WFE 1	WELDING FUME EXTRACTOR ARM DIVERSITECH RA-2 SERIES RETRACTABLE/TELESCOPIC EXTRACTION ARM, MODEL #RA-6H063, 6IN. ARM DIA., 5.2FT MAX ARM LENGTH
FRL 1	FILTER/REGULATOR/LUBRICATOR ARO 3 PIECE COMBINATION 1500 SERIES FILTER/REGULATOR/LUBRICATOR MODEL #C382D3-811

DRAWING SHEET INDEX	
MP001	LEGEND, SCHEDULES & GENERAL NOTES
MP100	MECHANICAL/PLUMBING SITE PLAN
MP101	MECHANICAL DEMOLITION PLAN
MP102	MECHANICAL FLOOR PLAN
MP103	PLUMBING DEMOLITION PLAN
MP104	PLUMBING FLOOR PLAN
MP501	CONTROL DIAGRAMS
MP601	DETAILS & SECTION VIEWS
MP602	DETAILS & SECTION VIEWS

MECHANICAL/PLUMBING LEGEND	
	RETURN OR EXHAUST AIR DUCT
	SUPPLY AIR DUCT
	EXISTING ITEM TO BE REMOVED
	SOIL OR WASTE LINE BELOW GRADE
	SOIL OR WASTE LINE ABOVE GRADE
	COLD WATER LINE
	HOT WATER LINE
	GAS LINE
	COMPRESSED AIR LINE
	VENT LINE
	GATE VALVE
	BALL VALVE
	LEVER HANDLE GAS COCK
	PETES PLUG
	THERMOMETER, PRESSURE GAUGE
	BALANCE VALVE
	CHECK VALVE
	PIPE POD/POC
	UNION
	RETURN/EXHAUST AIR SUPPLY/OUTSIDE AIR
	OUTSIDE AIR DUCT SECTION
	RETURN OR EXHAUST AIR DUCT SECTION
	SUPPLY AIR DUCT SECTION
	DUCT POD/ POC
	DUCT (FIRST FIGURE SIDE SHOWN SECOND FIGURE SIDE NOT SHOWN)
	TURNING VANES
	FLEXIBLE DUCTWORK
	MANUAL DAMPER
	ROOM THERMOSTAT
	TEMPERATURE SENSOR
	DIAMETER
	HUMIDIFIER
	HUMIDISTAT
	ROOM NAME AND NUMBER
	AIR CONDITIONING
	ACCESS DOOR, ACCESS PANEL
	ABOVE FINISHED FLOOR
	CUBIC FEET OF AIR PER MINUTE
	CLEANOUT TO FLOOR
	CLEANOUT TO GRADE
	CLEANOUT, WALL CLEANOUT
	EXISTING, NEW
	EXHAUST AIR, OUTSIDE AIR & RETURN AIR DAMPER
	EXHAUST FAN
	DEGREES FAHRENHEIT
	FLOOR DRAIN
	GAUGE
	INVERT ELEVATION
	MAXIMUM, MINIMUM
	MANUAL DAMPER
	MANUAL VOLUME DAMPER
	OWNER FURNISHED - CONTRACTOR INSTALLED
	POINT OF CONNECTION
	POINT OF DISCONNECT
	PRESSURE REDUCING VALVE
	RETURN AIR, EXHAUST AIR
	ROOF DRAIN
	SUPPLY AIR, OUTSIDE AIR
	TEMPERATURE CONTROL VALVE
	TEMPERATURE CONTROL PANEL
	TOTAL DEVELOPED LENGTH
	TYPICAL
	UNLESS NOTED OTHERWISE
	UNDER FLOOR
	VENT, VENT RISER, VENT THRU ROOF
	WASTE, WASTE DROP

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2021-038 Carson City Tire and Welding Fleet Maintenance.rvt

1/27/2022 4:33:24 PM



Professional Seal Date Revision

© Copyright H + K Architects



AINSWORTH ASSOCIATES
MECHANICAL ENGINEERS
1420 HOLCOMB AVE., SUITE 201 4557 GREENVIEW DR.
RENO, NV 89502 EL DORADO HILLS, CA 95762
TEL: 775-329-9100 TEL: 916-737-6014
www.aa-me.com

JOB: 2021-038

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775-332-6640
F 775-332-6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

3505 Butti Way
Carson City, NV 89701

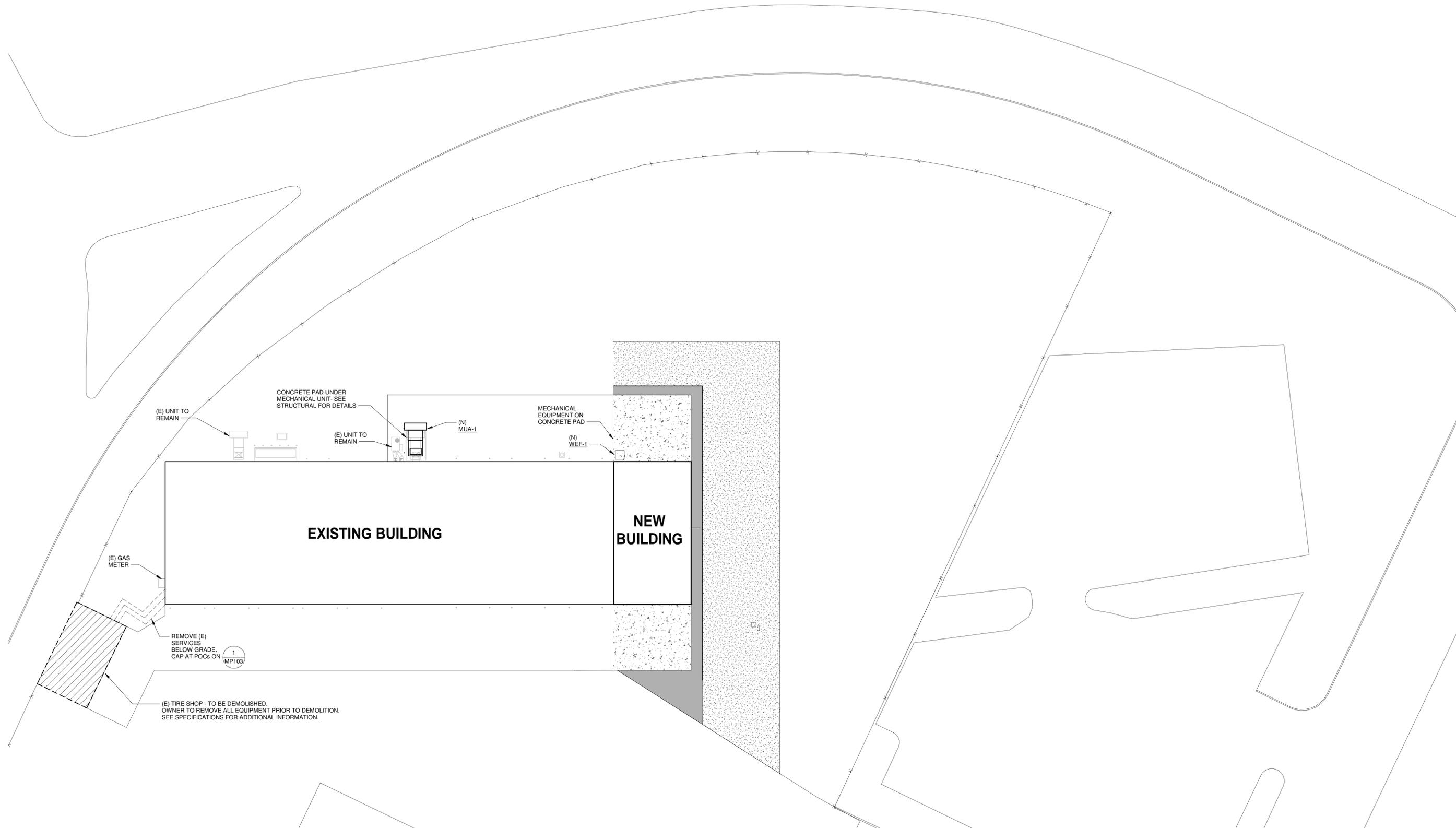
LEGEND, SCHEDULES &
GENERAL NOTES

January 28, 2022
H+K Project No: 2116

MP001



Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2021-038 Carson City Tire and Welding Fleet Maintenance.rvt



MECHANICAL/PLUMBING SITE PLAN 1
 SCALE: 1" = 20'-0" MP100 N

1/27/2022 4:33:25 PM



Professional Seal	Date	Revision

© Copyright H + K Architects



AINSWORTH ASSOCIATES
 MECHANICAL ENGINEERS
 1420 HOLCOMB AVE., SUITE 201 RENO, NV 89502
 TEL: 775-329-9100 www.aa-me.com

4557 GREENVIEW DR. EL DORADO HILLS, CA 95762
 TEL: 916-737-6014

Consultant

H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262
 P 775+332+6640
 F 775+332+6642
 hkarchitects.com

**Carson City Fleet Services
 Tire and Welding Shop**

3505 Butti Way
 Carson City, NV 89701

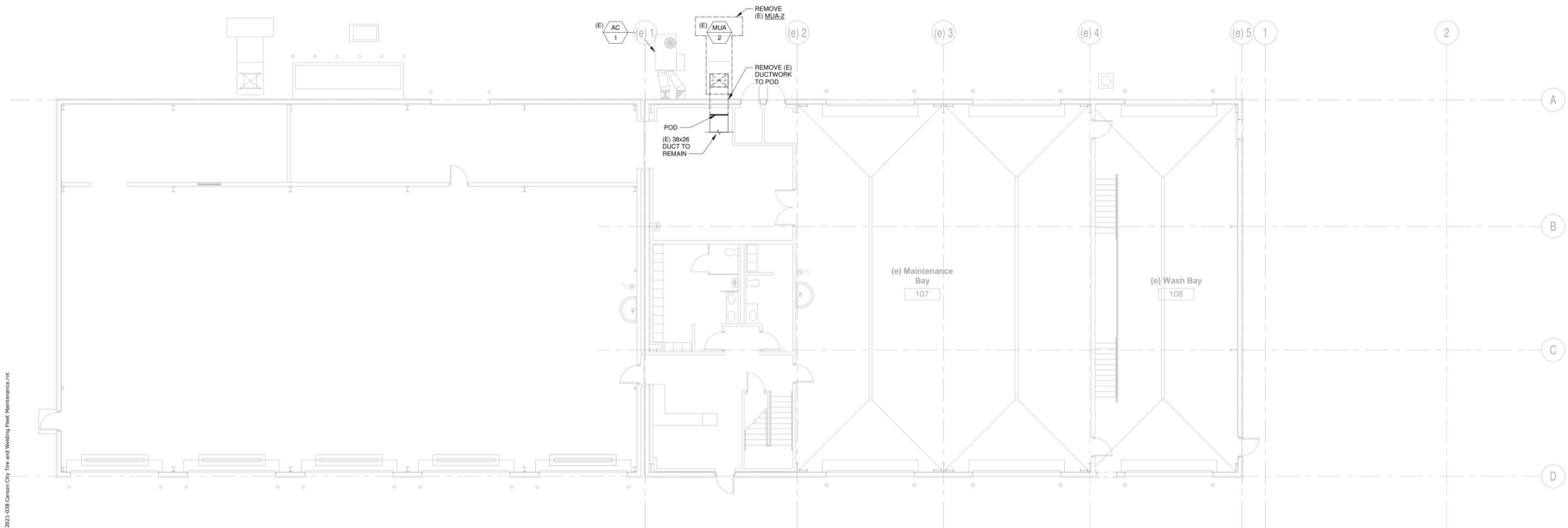
MECHANICAL/PLUMBING
 SITE PLAN

January 28, 2022
 H+K Project No: 2116

MP100



Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2021-038 Carson City Tire and Welding Fleet Maintenance.rvt



MECHANICAL DEMOLITION FLOOR PLAN
SCALE: 1/8" = 1'-0"
1
MP101
N

1/27/2022 4:33:26 PM



Professional Seal △ Date Revision

© Copyright H + K Architects



AINSWORTH ASSOCIATES
MECHANICAL ENGINEERS
1420 HOLCOMB AVE., SUITE 201 4557 GREENVIEW DR.
RENO, NV 89502 EL DORADO HILLS, CA 95762
TEL: 775-329-9100 TEL: 916-737-6014
www.aa-me.com

JOB: 2021-038

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

3505 Butti Way
Carson City, NV 89701

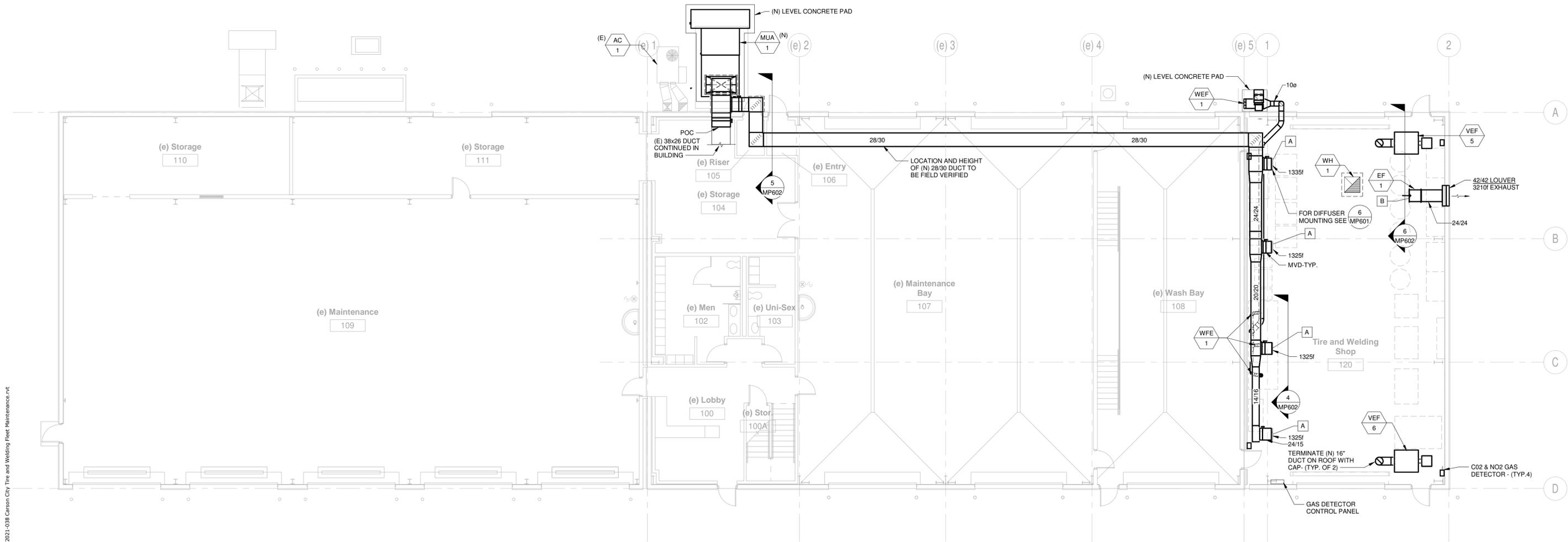
MECHANICAL
DEMOLITION PLAN

January 28, 2022
H+K Project No: 2116

MP101



Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2021-038 Carson City Tire and Welding Fleet Maintenance.rvt



MECHANICAL ALTERATIONS FLOOR PLAN
 SCALE: 1/8" = 1'-0" 1 N
MP102

1/27/2022 4:33:28 PM



Professional Seal △ Date Revision

© Copyright H + K Architects



AINSWORTH ASSOCIATES
 MECHANICAL ENGINEERS
 1420 HOLCOMB AVE., SUITE 201 4557 GREENVIEW DR.
 RENO, NV 89502 EL DORADO HILLS, CA 95762
 TEL: 775-329-9100 TEL: 916-737-6014
 www.aa-me.com

JOB: 2021-038

Consultant

H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262

P 775+332+6640
 F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
 Tire and Welding Shop**

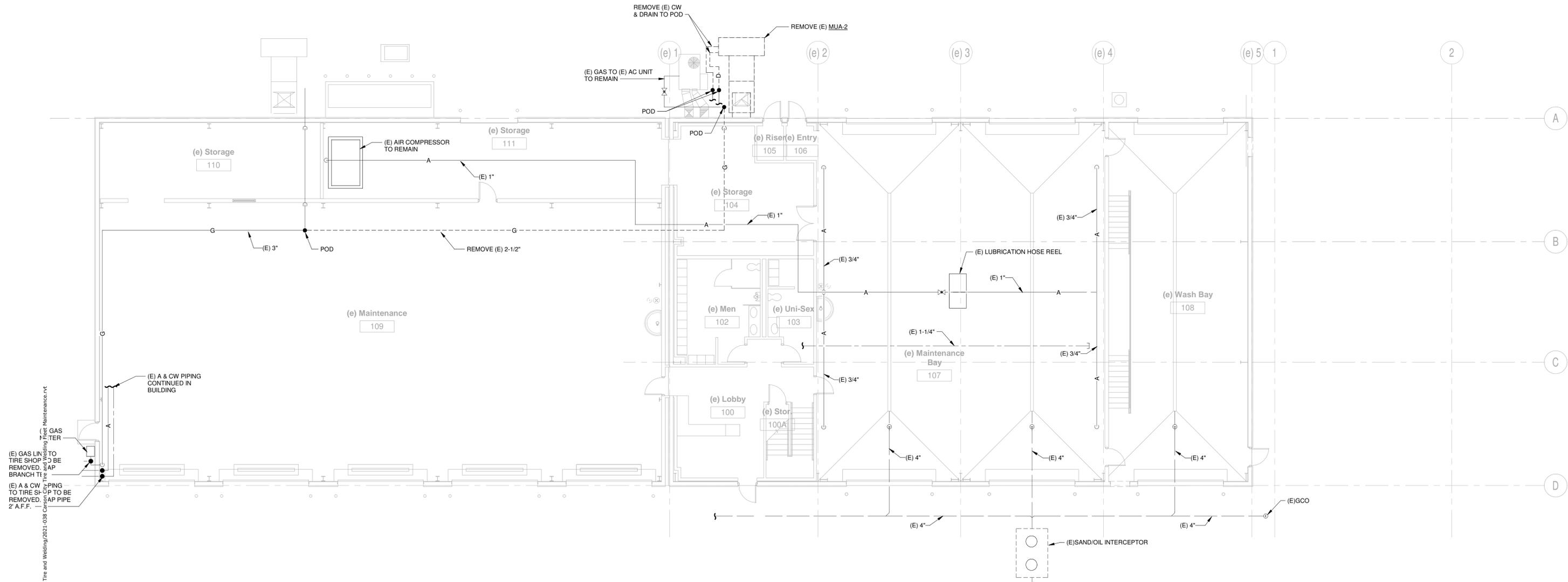
3505 Butti Way
 Carson City, NV 89701

MECHANICAL FLOOR PLAN

January 28, 2022
 H+K Project No: 2116

MP102





PLUMBING DEMOLITION FLOOR PLAN 1
 SCALE: 1/8" = 1'-0" MP103 N

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2021-038 Carson City Fleet Maintenance.rvt

1/27/2022 4:33:29 PM



Professional Seal	Date	Revision

AINSWORTH ASSOCIATES
 MECHANICAL ENGINEERS
 1420 HOLCOMB AVE., SUITE 201 RENO, NV 89502
 TEL: 775-329-9100 www.aa-me.com

4557 GREENVIEW DR. EL DORADO HILLS, CA 95762
 TEL: 916-737-6014

Consultant

JOB: 2021-038

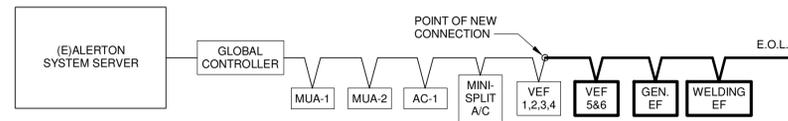
H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262
 P 775+332+6640
 F 775+332+6642
 hkarchitects.com

**Carson City Fleet Services
 Tire and Welding Shop**
 3505 Butti Way
 Carson City, NV 89701

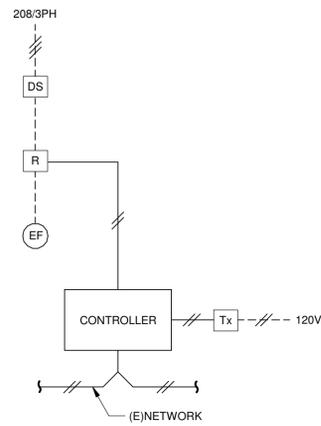
PLUMBING DEMOLITION PLAN

January 28, 2022
 H+K Project No: 2116

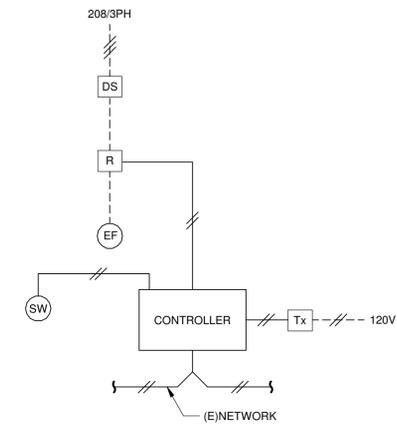
MP103



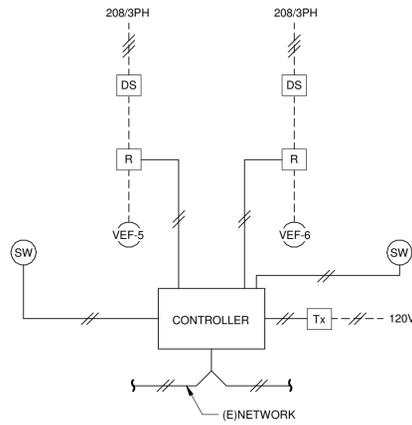
CONTROL SYSTEM ARCHITECTURE 1
SCALE: NONE MP501



GENERAL EXHAUST FAN CONTROLS 2
SCALE: NONE MP501



WELDING EXHAUST FAN CONTROLS 3
SCALE: NONE MP501



VEHICLE EXHAUST FAN CONTROLS 4
SCALE: NONE MP501

Autodesk Docset://2116 Carson City Fleet Services Tire and Welding/2021-038 Carson City Tire and Welding Fleet Maintenance.rvt

1/27/2022 4:33:31 PM



Professional Seal △ Date Revision

© Copyright H + K Architects



AINSWORTH ASSOCIATES
MECHANICAL ENGINEERS
1420 HOLCOMB AVE., SUITE 201 4557 GREENVIEW DR.
RENO, NV 89502 EL DORADO HILLS, CA 95762
TEL: 775-329-9100 TEL: 916-737-6014
www.aa-me.com

JOB: 2021-038

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

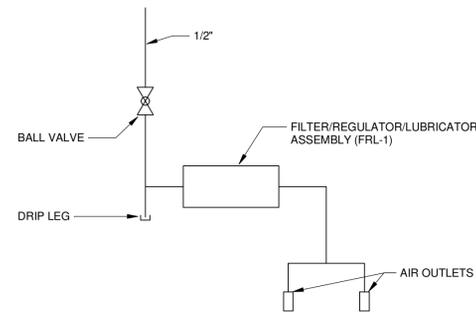
3505 Butti Way
Carson City, NV 89701

CONTROL DIAGRAMS

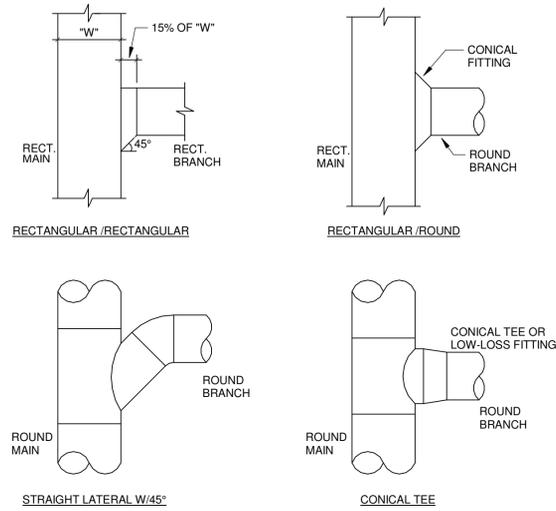
January 28, 2022
H+K Project No: 2116

MP501

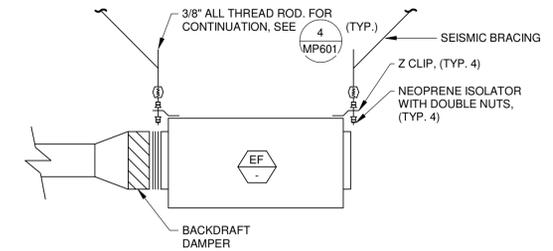




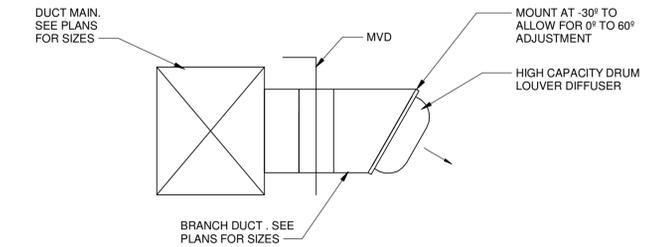
FILTER/REGULATOR/LUBRICATOR DETAIL 1
SCALE: NONE MP601



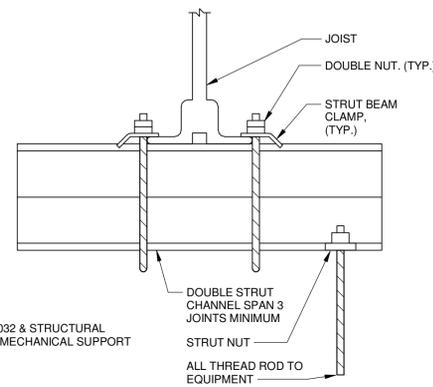
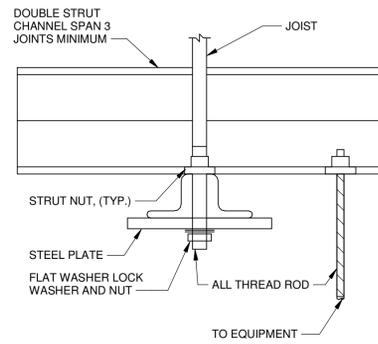
TYPICAL BRANCH DUCTS 2
SCALE: NONE MP601



INLINE EXHAUST FAN 3
SCALE: NONE MP601

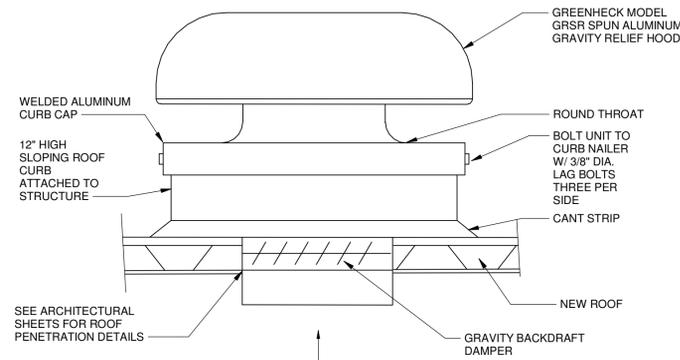


HIGH CAPACITY DIFFUSER 6
SCALE: NONE MP601

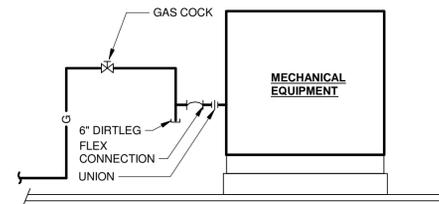


NOTE:
REFERENCE SHEET S032 & STRUCTURAL
SPECIFICATIONS FOR MECHANICAL SUPPORT
REQUIREMENTS.

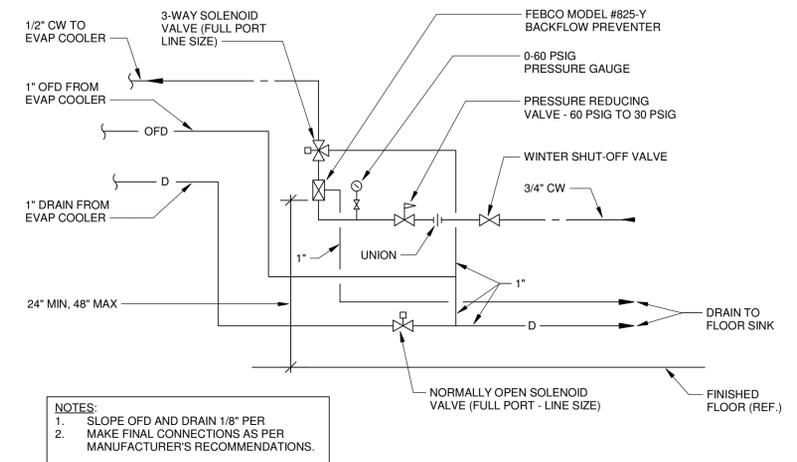
EXHAUST FAN SUPPORTS 4
SCALE: NONE MP601



RELIEF WEATHERHOOD 5
SCALE: NONE MP601



GAS PIPING CONNECTION 7
SCALE: NONE MP601



NOTES:
1. SLOPE OFD AND DRAIN 1/8" PER
2. MAKE FINAL CONNECTIONS AS PER
MANUFACTURER'S RECOMMENDATIONS.

MUA - EVAP COOLER PIPING 8
SCALE: NONE MP601

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2021-038 Carson City Tire and Welding Fleet Maintenance.rvt



Professional Seal Date Revision

© Copyright H + K Architects



AINSWORTH ASSOCIATES
MECHANICAL ENGINEERS
1420 HOLCOMB AVE., SUITE 201 4557 GREENVIEW DR.
RENO, NV 89502 EL DORADO HILLS, CA 95762
TEL: 775-329-9100 TEL: 916-737-6014
www.aa-me.com

JOB: 2021-038

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

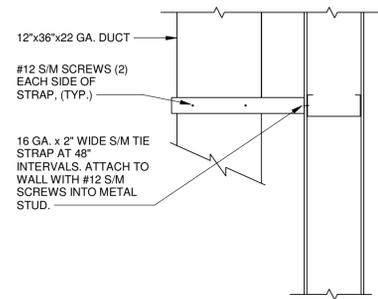
3505 Butti Way
Carson City, NV 89701

DETAILS & SECTION
VIEWS

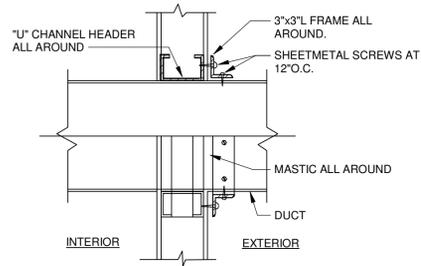
January 28, 2022
H+K Project No: 2116

MP601

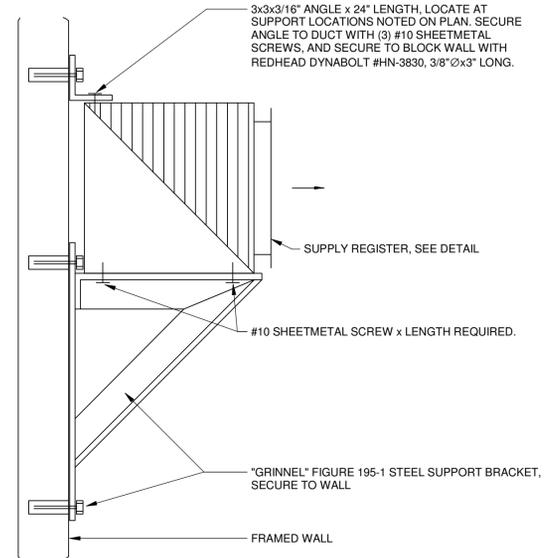




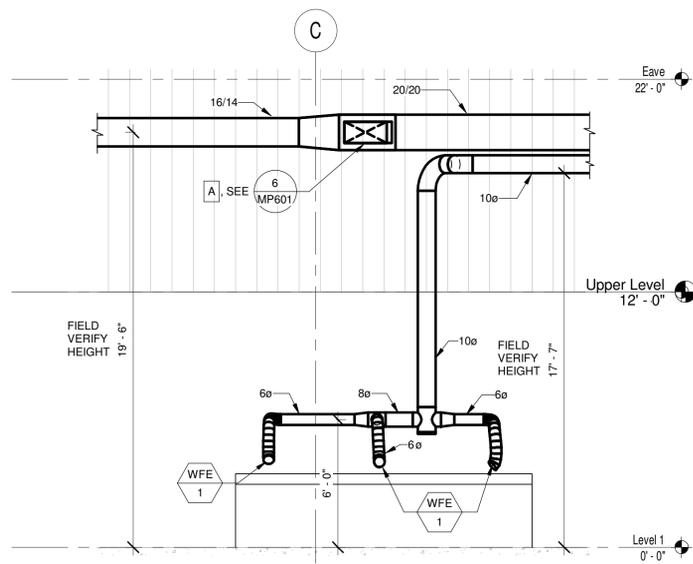
DUCT MOUNTED TO WALL 1
SCALE: NONE MP602



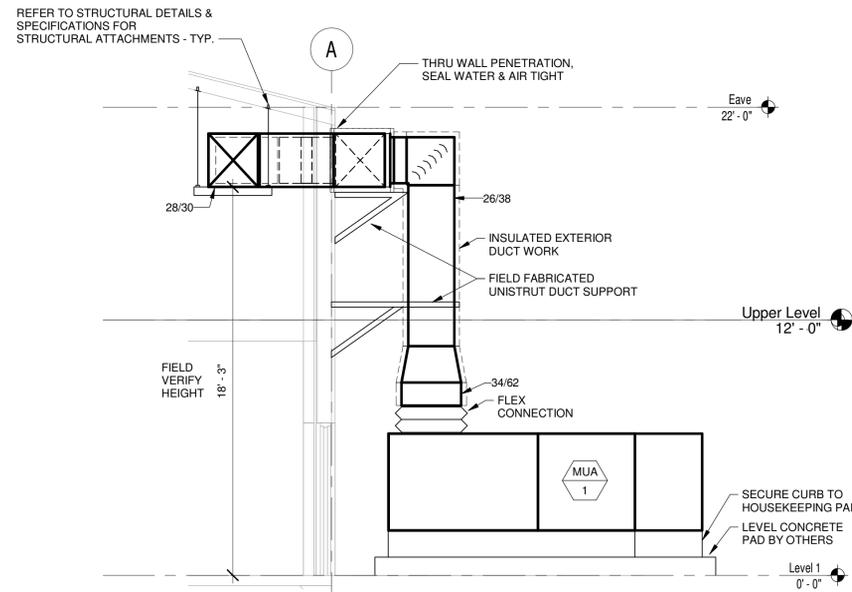
DUCT THRU EXTERIOR METAL STUD WALL 2
SCALE: NONE MP602



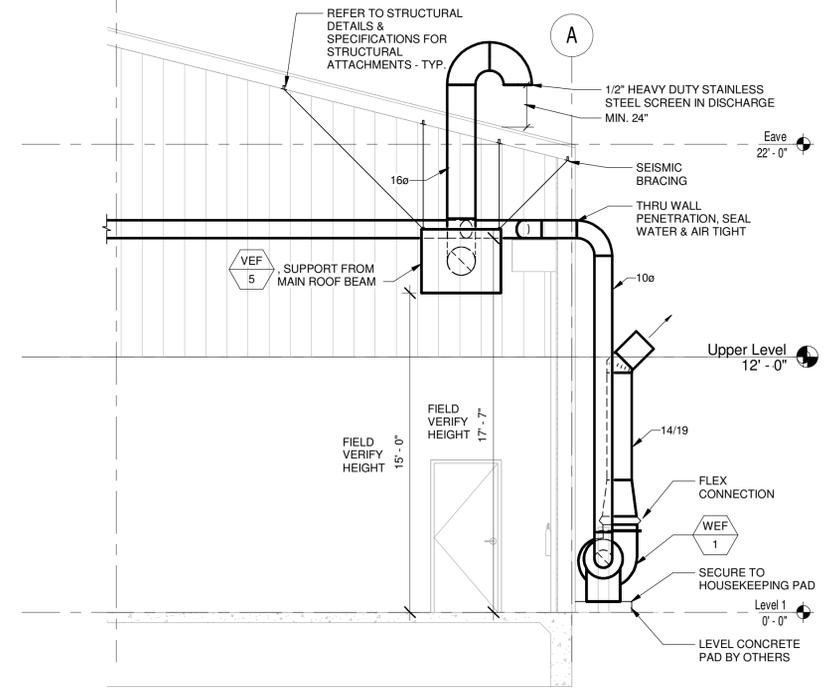
DUCT SUPPORT 3
SCALE: NONE MP602



WELDING AREA DUCT SECTION VIEW 4
SCALE: 1/4" = 1'-0" MP602



MUA-1 SECTION VIEW 5
SCALE: 1/4" = 1'-0" MP602



WEF-1 & VEF-5 SECTION VIEW 6
SCALE: 1/4" = 1'-0" MP602

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/2021-038 Carson City Tire and Welding Fleet Maintenance.rvt



Professional Seal Date Revision

© Copyright H + K Architects



AINSWORTH ASSOCIATES
MECHANICAL ENGINEERS
1420 HOLCOMB AVE., SUITE 201 4557 GREENVIEW DR.
RENO, NV 89502 EL DORADO HILLS, CA 95762
TEL: 775-329-9100 TEL: 916-737-6014
www.aa-me.com

JOB: 2021-038

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

**Carson City Fleet Services
Tire and Welding Shop**

3505 Butti Way
Carson City, NV 89701

DETAILS & SECTION
VIEWS

January 28, 2022
H+K Project No: 2116

MP602



FIRE ALARM MASTER LEGEND & GENERAL NOTES			
	FIRE ALARM CONTROL PANEL (FACP) OR REMOTE ANNUNCIATOR PANEL (FAAP); FLUSH MOUNTED, 60" TO CL OF LCD DISPLAY		HORN: WALL MOUNT 90" AFF TO TOP OF DEVICE AND NOT LESS THAN 6" BELOW CEILING
	FIRE ALARM CONTROL PANEL (FACP) / REMOTE ANNUNCIATOR PANEL (FAAP) / VOICE EVAC PANEL (FAVP); SURFACE MOUNTED, 60" TO CL OF LCD DISPLAY.		HORN: CEILING MOUNT
	BOOSTER POWER SUPPLY (BPS); SURFACE MOUNTED		HORN/STROBE: WALL MOUNT 80" AFF TO BOTTOM OF LENS NOTE CANDELA
	MANUAL PULL STATION: MOUNT AT 48" TO CENTER LINE UNO		HORN/STROBE: CEILING MOUNT NOTE CANDELA
	SMOKE DETECTOR: (P) PHOTOELECTRIC, (I) IONIZATION, (M) MULTI TECHNOLOGY, (H) HORN (LO) LOCAL-ONLY 120V W/INTEGRAL BATTERY; CEILING MOUNT / WALL MOUNT		SPEAKER: WALL MOUNT 90" AFF TO TOP OF DEVICE AND NOT LESS THAN 6" BELOW CEILING
	LOCAL-ONLY SMOKE DETECTOR: 120V, INTEGRAL BATTERY, WITH HORN & STROBE, CEILING MOUNT OR WALL MOUNT AT 12" BELOW CEILING.		SPEAKER: CEILING MOUNT
	BEAM DETECTOR: (BT) TRANSMITTER, (BR) RECEIVER WALL MOUNT PER MANUFACTURERS SPECIFICATIONS		SPEAKER/STROBE: WALL MOUNT 80" AFF TO BOTTOM OF LENS NOTE CANDELA
	HEAT DETECTOR: (ROR) RATE OF RISE, (F) FIXED, TEMP 135° OR 190° CEILING MOUNT / WALL MOUNT		STROBE: WALL MOUNT 80" AFF TO BOTTOM OF LENS NOTE CANDELA
	MONITOR MODULE: AT OR NEAR DEVICE		STROBE: CEILING MOUNT NOTE CANDELA
	CONTROL RELAY MODULE: AT OR NEAR DEVICE		FIRE BELL: MOUNTED PER LOCAL CODE
	ISOLATOR MODULE: AT OR NEAR DEVICE		FIRE ALARM JUNCTION BOX, WIRED COVER & FA CKT LABEL
	MULTI-VOLTAGE RELAY: AT OR NEAR DEVICE		HOOD FIRE SUPPRESSION SYSTEM CONNECTION
	SINGLE INPUT MODULE: AT OR NEAR DEVICE		REMOTE ALARM LAMP
	DUAL INPUT MODULE: AT OR NEAR DEVICE		FIRE SPRINKLER FLOW SWITCH
	MAGNETIC DOOR HOLDER: SYSTEM POWERED AND CONTROLLED UNO, MOUNTING PER PLANS		FIRE SPRINKLER TAMPER SWITCH
	FIREMAN'S PHONE: MOUNTED AT +48" TO TOP UNO, JACK OR HANDSET		FIRE/SMOKE DAMPER: COORDINATE INSTALLATION AND MOTOR DE-ENERGIZE PROCEDURES WITH MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE RACEWAY, POWER, AND CONTROL WIRE AS NECESSARY.
	END OF LINE RESISTOR		DUCT SMOKE DETECTOR: 1 EA AT SUPPLY (2000 CFM) 1 EA RETURN & SUPPLY (15,000 CFM)
NOTES:			
1. THE CONTRACTOR SHALL SERVE AS THE CITY/STATE LICENSED DESIGNER AND INSTALLER FOR THE FIRE ALARM SYSTEM. A COMPLETE TURN-KEY SYSTEM SHALL BE DESIGNED, FURNISHED, AND INSTALLED BY THE CONTRACTOR INCLUDING, BUT NOT LIMITED TO THE CONTROL PANEL, DEVICES, MODULES, EQUIPMENT ETC. REQUIRED FOR A COMPLETE SYSTEM. INSTALL AN APPROVED MANUAL, AUTOMATIC, OR MANUAL AND AUTOMATIC FIRE ALARM SYSTEM IN ACCORDANCE WITH THE PROVISIONS OF THE IFC, IBC, NFPA-70, NFPA-72, NFPA-101, NEC 760, ADA AND LOCAL AHJ REQUIREMENTS.			
2. THE CONTRACTOR'S DESIGN AND BID SHALL BE BASED ON ALL PROJECT DRAWINGS AND SPECIFICATIONS FOR ALL DISCIPLINES, INCLUDING BUT NOT LIMITED TO MECHANICAL, FIRE SPRINKLER, KITCHEN, ARCHITECTURAL, SECURITY, BUILDING AUTOMATION, AND STRUCTURAL SYSTEMS. FIRE ALARM DEVICES AS SHOWN ON PLANS ARE SHOWN DIAGRAMMATICALLY FOR BIDDING PURPOSES ONLY AND IS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS AS MINIMUM CRITERIA. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL AHJ AND COMPLY WITH APPLICABLE CODES FOR ANY ADDITIONAL DEVICES OR EQUIPMENT THAT MAY BE REQUIRED.			
3. INSTALLATION OF THE FIRE ALARM SYSTEM SHALL NOT BE STARTED UNTIL DETAILED PLANS AND SPECIFICATIONS HAVE BEEN APPROVED BY THE LOCAL AHJ AND THE ENGINEER OF RECORD.			
4. FIRE ALARM SYSTEM SHALL BE CLASS 1 CIRCUITING AS REQUIRED BY LOCAL AHJ AND NFPA-70.			
5. ALL FIRE ALARM WIRING TO BE RUN IN 3/4" CONDUIT. ALL FIRE ALARM CONDUIT SHALL BE MANUFACTURED RED CONDUIT. (CONDUIT SHALL NOT BE SPRAY PAINTED).			
6. BATTERY BACKUP SYSTEM SHALL BE CALCULATED TO PROVIDE A MINIMUM OF 24 HOURS OF STANDBY AND A MINIMUM OF 5 MINUTES OF ALARM OR PER AHJ REQUIREMENTS.			
7. CONNECT TO THE TELEPHONE SYSTEM WITH DIAL OUT BY POINT (CITY OF RENO JURISDICTION ONLY); IF A SYSTEM IS SELECTED THAT DOES NOT HAVE DIAL OUT BY POINT, THEN THE SUB-CONTRACTOR SHALL PROVIDE A REMOTE ANNUNCIATOR AT ENTRANCE DESIGNATED BY LOCAL AHJ.			
8. FIRE ALARM NOTIFICATION APPLIANCE CANDELA VALUE SHALL MEET THE REQUIREMENTS OF NFPA 72, BASED ON ROOM SIZE. IT IS THE CONTRACTORS RESPONSIBILITY TO ADD ADDITIONAL NOTIFICATION APPLIANCES AS REQUIRED TO COMPLY WITH THE REQUIREMENTS OF NFPA 72.			
9. MANUAL PULL STATIONS SHALL BE MOUNTED 48" TO CENTER OF DEVICE.			
10. DETECTORS ARE NOT TO BE LOCATED IN A DIRECT AIRFLOW OR CLOSER THAN 3" FROM AN AIR SUPPLY DIFFUSER OR RETURN AIR OPENING IN ACCORDANCE WITH NFPA-72 A.17.7.4.1, (2010).			
11. DETECTOR LOCATION FOR DOOR HOLD ACTIVATION SHALL BE PER NFPA-72, 17.7.5.6.1, (1-3), (2010), WHEN REQUIRED.			
12. AREA SMOKE DETECTION AND DUCT DETECTORS SHALL SHUT DOWN ALL MECHANICAL UNITS.			
13. UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A FINAL INSPECTION AND TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE LOCAL AHJ. A COPY OF THE RECORD OF COMPLETION AND CERTIFICATE OF OCCUPANCY SHALL BE SUBMITTED TO THE ENGINEER OF RECORD.			

ELECTRICAL LEGEND			
	PANELBOARD: SURFACE MOUNTED		SINGLE RECEPTACLE: 20A, 125V, NEMA 5-20, +18" AFF (UNO)
	PANELBOARD: FLUSH MOUNTED		DUPLEX RECEPTACLE: 20A, 125V, NEMA 5-20, +18" AFF (UNO)
	SWITCHBOARD OR DISTRIBUTION PANEL		DUPLEX RECEPTACLE: HALF SWITCHED
	TRANSFORMER		DUPLEX RECEPTACLE: FLOOR MOUNTED
	PULLBOX / VAULT		QUAD RECEPTACLE: 20A, 125V, NEMA 5-20, +18" AFF (UNO)
	MOTOR STARTER		QUAD RECEPTACLE: FLOOR MOUNTED
	COMBINATION MOTOR STARTER		ISOLATED GROUND TYPE RECEPTACLE (ORANGE TRIANGLE) - 20A, 125V, NEMA 5-20G, +18" AFF (UNO)
	DISCONNECT SWITCH - FUSIBLE (FUSED PER EQUIP. NAMEPLATE)		DUPLEX RECEPTACLE GFI TYPE - 20A, 125V, NEMA 5-20 GFI +18" AFF (UNO)
	DISCONNECT SWITCH - NON-FUSIBLE		DUPLEX RECEPTACLE: ABOVE COUNTER (VERIFY HEIGHT)
	DISCONNECT SWITCH PROVIDED BY OTHERS		SPECIAL PURPOSE RECEPT.: SEE DWGS FOR NEMA CONFIG.
	VARIABLE FREQUENCY DRIVE		DUPLEX RECEPTACLE: CEILING MOUNTED
	VARIABLE FREQUENCY DRIVE PROVIDED BY OTHERS		MULTI-OUTLET ASSEMBLY: SPACING PER DWGS
	ENCLOSED CIRCUIT BREAKER		BLANK GFCI PROTECTIVE DEVICE IN READILY ACCESSIBLE LOCATION (LABEL PROTECTED DEVICES)
	GROUND ROD		DATA / VOICE OUTLET: 18" AFF (UNO) - 1 VOICE, 1 DATA JACK, 2 BLANKS
	SHUNT TRIP STATION OR EMERGENCY PUSHBUTTON		DATA / VOICE OUTLET: FLOOR MOUNTED
	REMOTE METER		DATA / VOICE OUTLET: ABOVE COUNTER (VERIFY HEIGHT)
	SINGLE POLE SWITCH 48" AFF (UNO)		MULTI-OUTLET ASSEMBLY: SPACING PER DWGS
	THREE WAY SWITCH 48" AFF (UNO)		TELEPHONE OUTLET: 18" AFF (UNO)
	FOUR WAY SWITCH 48" AFF (UNO)		DATA OUTLET: 18" AFF (UNO)
	KEY OPERATED SWITCH 48" AFF (UNO)		SPEAKER
	SWITCH WITH LIGHTED HANDLE		TELEVISION OUTLET: 18" AFF (UNO)
	MANUAL MOTOR STARTER		TELEPHONE TERMINAL BOARD (TTB)
	SWITCH WITH PILOT LIGHT 48" AFF (UNO)		VOLUME CONTROL
	TIME WALL SWITCH 48" AFF (UNO)		GROUNDING BAR
	DIMMER OPERATED SWITCH 48" AFF (UNO)		LIGHTING FIXTURE - LOWERCASE LETTER DENOTES SWITCHING (a = CENTER LAMP, b = OUTER LAMPS)
	OCCUPANCY SENSOR - WALL MOUNTED 48" AFF (UNO)		WALL MOUNTED FIXTURE
	0-10V DIMMING OCCUPANCY SENSOR - WALL MOUNTED 48" AFF (UNO) EQUAL TO SENSOR SWITCH WSK-D		RECESSED DOWNLIGHT
	360° } OCCUPANCY SENSOR - CEILING MOUNTED. ARROWS INDICATE COVERAGE, DIRECTION & PATTERN. PROVIDE WITH POWER PACK PER MFG REQUIREMENTS.		SURFACE LUMINAIRE
	180° }		POLE MOUNTED LIGHT (# OF HEADS INDICATED ON DRAWING)
	90° }		FLUORESCENT STRIP FIXTURE
	CONTROL STATION		BOLLARD
	CONTRACTOR OR RELAY		RECESSED DOWNLIGHT (WALL WASH)
	PHOTOELECTRIC CELL (ON ROOF FACING NORTH UNO)		TRACK LIGHTING
	TIMECLOCK		EMERGENCY LIGHTING UNIT
	CONDUIT/RACEWAY IN WALL OR ABOVE CEILING		EXIT SIGN FIXTURE - SHADED AREA DENOTES LIGHTED FACE - ARROWS DENOTE DIRECTION
	CONDUIT/RACEWAY BELOW GRADE OR BELOW FLOOR		EMERGENCY FIXTURE
	CONDUIT/RACEWAY UP		THERMOSTAT (PROVIDED BY MECH. CONTRACTOR UNO)
	CONDUIT/RACEWAY DOWN		JUNCTION BOX (SIZE AS REQUIRED UNO)
	BREAK OR RUN CONTINUES		SHEET NOTE DESIGNATION
	OVERHEAD SERVICE		FIXTURE DESIGNATION: F1=TYPE (SEE FIXTURE SCH.)
	PRIMARY		REVISION DELTA: NUMBER REPRESENTS REVISION
	SECONDARY		FEEDER DESIGNATION
	COMMUNICATIONS OR SIGNAL		EQUIPMENT CONNECTION
	TELEPHONE		20 SINGLE POLE CIRCUIT BREAKER
	TELEVISION		20/2 TWO POLE CIRCUIT BREAKER
	LOW VOLTAGE AND/OR CONTROL WIRING		20/3 THREE POLE CIRCUIT BREAKER
	EMERGENCY CIRCUIT		20A ARC FAULT CIRCUIT BREAKER
	CONDUIT/RACEWAY STUB OUT: MARK AND CAP (SITE)		20C CONTROLLABLE CIRCUIT BREAKER
	CONDUIT/RACEWAY SLEEVE		20G GFI CIRCUIT BREAKER
			L = LIGHTING
			R = RECEPTACLES
			E = EQUIPMENT
			M = MOTOR
			MT = LARGEST MOTOR
			K = KITCHEN EQUIP
			H = ELECTRIC HEAT
	GROUND FAULT INTERRUPTER DEVICE		METERING DEVICE
	REMOTE METER		SHUNT TRIP DEVICE
	TRANSFORMER		CURRENT TRANSFORMER
	GENERATOR		MOTOR - # INDICATES HP
	INTERRUPTER SWITCH		GROUND FAULT RELAY W/ CT OR SENSOR
	FUSE		CIRCUIT BREAKER
	DRAWOUT CIRCUIT BREAKER		TRANSFER SWITCH (A-AUTOMATIC, M-MANUAL) # FOR POLES 2, 3 OR 4
	SURGE PROTECTION DEVICE		NORMALLY OPEN (NO) CONTACT
	NORMALLY CLOSED (NC) CONTACT		COIL - VOLTAGE PER CONTROL DIAGRAMS
	PILOT LIGHT (LED) PUSH-TO-TEST. LETTER INDICATES COLOR (R=RED, G=GREEN, A=AMBER, Y=YELLOW)		PILOT LIGHT (LED) NON PUSH-TO-TEST
	THERMAL OVERLOAD		MAGNETIC OVERLOAD
	PUSH BUTTON NORMALLY OPEN (NO)		PUSH BUTTON NORMALLY CLOSED (NC)
	HAND-OFF-AUTO (HOA) SELECTOR SWITCH		LIMIT SWITCH NORMALLY OPEN (NO)
	LIMIT SWITCH NORMALLY CLOSED (NC)		LIMIT SWITCH NORMALLY OPEN (NO)
	PHASE		PHASE
	PHOTOVOLTAIC PANEL		PHASE
	PV USA TEST CONDITIONS		PHASE
	POWER		PHASE
	RELOCATED		PHASE
	RIGID ALUMINUM CONDUIT		PHASE
	RIGID FIBERGLASS CONDUIT		PHASE
	RIGID STEEL CONDUIT		PHASE
	SERVICE ENTRANCE		PHASE
	SURGE PROTECTION DEVICE		PHASE
	SINGLE-POLE, DOUBLE-THROW		PHASE
	SINGLE-POLE, SINGLE-THROW		PHASE
	STANDARD TEST CONDITIONS		PHASE
	SWITCH		PHASE
	TELECOM		PHASE
	TELEPHONE TERMINATION BOARD		PHASE
	TYPICAL		PHASE
	UNDERWRITER'S LABORATORY		PHASE
	UNLESS NOTED OTHERWISE		PHASE
	UNSWITCHED		PHASE
	UNINTERRUPTED POWER SUPPLY		PHASE
	VOLTS		PHASE
	VOLT AMPS		PHASE
	VARIABLE FREQUENCY DRIVE		PHASE
	WATTS		PHASE
	WEATHER PROOF		PHASE
	EXISTING TO BE REMOVED		PHASE
	TRANSFORMER		PHASE

NOTE: THIS IS A MASTER SYMBOL LIST. IT MAY BE THAT NOT ALL SYMBOLS SHOWN ARE USED WITHIN THIS SET OF PLANS. HEIGHTS GIVEN ARE TO CENTER LINE OF DEVICE.

DRAWING SCHEDULE	
SHEET	DESCRIPTION
E001	Electrical Legend & Drawing Schedule
E002	Electrical Specifications
E003	Online Diagram and Panel Schedules
E004	Light Fixture Schedule and IECC Calculations
E005	Details
E006	Details
E007	Telecom Onlines
E101	Electrical Demolition
E110	Electrical Site Plan
E201	Lighting Plan
E301	Power Plan
E401	Low Voltage and Fire Alarm Plan
TOTAL SHEETS IN ISSUE:	
	12

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/21106 - Carson City Fleet Services_ElecV22.rvt



Date	Revision

PK Electrical, Inc.
Engineering Design Consulting
 681 Sierra Rosa Drive, Suite B | Reno, NV 89511 | 775.826.9010
 4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
 pkelectrical.com 21106

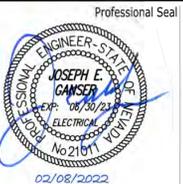
H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262
 P 775-332-6640
 F 775-332-6642
 hkarchitects.com

Carson City Tire and Welding Shop Expansion
 3505 Butti Way
 Carson City, NV 89701

Electrical Legend & Drawing Schedule
 January 28, 2022
E001

SECTION 260000 ELECTRICAL SPECIFICATIONS

ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION	
1.1	<p>PART 1 - GENERAL SUMMARY</p> <ul style="list-style-type: none"> THE WORK UNDER THIS DIVISION SHALL CONSIST OF ALL LABOR, MATERIALS, EQUIPMENT, SERVICES AND RELATED ACCESSORIES, ETC. NECESSARY AND REQUIRED TO COMPLETE ALL WORK AS SHOWN OR INFERRED ON THE DRAWINGS AND IN THE SPECIFICATIONS (CONTRACT DOCUMENTS). WORK IS TO BE COMPLETED BY THE CONTRACTOR, EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE. PROVIDE EQUIPMENT AND/OR WIRING NORMALLY FURNISHED OR REQUIRED FOR COMPLETE ELECTRICAL SYSTEMS BUT NOT SPECIFICALLY SPECIFIED ON THE DRAWINGS AND/OR SPECIFICATIONS, AS THOUGH SPECIFIED BY BOTH. ALL EQUIPMENT AND WIRING SHALL BE NEW, EXCEPT WHERE SPECIFICALLY SHOWN OR SPECIFIED OTHERWISE. 	1.8	<p>SUBMITTALS</p> <p>BEFORE ORDERING ANY EQUIPMENT, CONTRACTOR SHALL SUBMIT SIX COPIES OF FACTORY SHOP DRAWINGS FOR ALL LIGHTING FIXTURES, LIGHTING CONTROLS, SWITCHGEAR, PANELS, CIRCUIT BREAKERS, MOTOR CONTROLLERS, DISCONNECTS WIRING DEVICES, PLATES, RACEWAYS AND FITTINGS, ETC. PROPOSED FOR THIS PROJECT.</p> <p>1.9</p>	<p>PROPOSED SUBSTITUTIONS</p> <p>PROPOSED SUBSTITUTIONS SHALL BE EQUAL OR SUPERIOR TO SPECIFIED ITEMS IN ALL RESPECTS. DETERMINATION OF EQUALITY RESTS SOLELY WITH ENGINEER. SUBSTITUTIONS MUST BE SUBMITTED A MINIMUM OF 10 WORKING DAYS PRIOR TO BID FOR CONSIDERATION. PROPOSED SUBSTITUTIONS PROVIDED LATER WILL NOT BE REVIEWED OR ALLOWED. BID SUBSTITUTED MATERIAL WILL ONLY BE ALLOWED IF ACCEPTED IN WRITING BY ENGINEER.</p>	2.9	<p>FIRE ALARM</p> <p>EXISTING FIRE ALARM SYSTEM TO REMAIN. MAINTAIN IN CONSTANT OPERATION DURING THIS PROJECT. NEW COMPONENTS AND CIRCUITING SHALL BE FACTORY-CERTIFIED AS BEING PROJECT-SPECIFIC COMPATIBLE WITH EXISTING SYSTEM. ALL CONNECTIONS TO EXISTING SYSTEM SHALL BE PERFORMED BY FACTORY-CERTIFIED TECHNICIAN AND SHALL BE ACCEPTED BY OWNER'S SYSTEM-MONITORING AGENCY. PLANS DO NOT INDICATE ALL DEVICES, CONNECTIONS OR CIRCUITING REQUIRED FOR A COMPLETE SYSTEM. SUBMIT PROPOSED DESIGN TO THE FIRE MARSHAL AND RECEIVE APPROVAL PRIOR TO ROUGH-IN.</p>	3.11	<p>ANCHORS</p> <ul style="list-style-type: none"> PROVIDE ANCHORS FOR ALL EQUIPMENT, RACEWAYS, HANGERS, ETC. TO SAFELY SUPPORT WEIGHT OF ITEM INVOLVED PLUS 100% FOR DEAD LOADS. LIVE LOADS SHALL BE CONSIDERED IN ADDITION TO DEAD LOADS. ANCHORS TO CONSIST OF EXPANSION TYPE DEVICES SIMILAR TO "REDHEAD" OR LEAD EXPANSION ANCHORS. PLASTIC ANCHORS ARE NOT ALLOWED. USE PRESET ANCHOR STEEL INSERTS IN CONCRETE SLABS. PROVIDE PRESET ANCHOR SIZE AND TYPE FOR ANTICIPATED OR SPECIFIED ROD/BOLT SIZE AND LIVE/DEAD LOAD.
1.2	<p>RELATED WORK SPECIFIED ELSEWHERE</p> <p>COORDINATION: THE CIVIL, ARCHITECTURAL, MECHANICAL, KITCHEN AND INTERIOR DRAWINGS CONTAIN DETAIL DESCRIPTIONS, CIRCUITING AND CONNECTION REQUIREMENTS WHICH ARE PART OF DIVISION 16 RESPONSIBILITIES. ELECTRICAL CONTRACTOR SHOULD NOT SUBMIT BIDS ON THIS PROJECT BEFORE REVIEWING ALL PROJECT DRAWINGS, SPECIFICATIONS AND ADDENDA.</p>	1.10	<p>EXAMINATION OF SITE AND EXISTING CONDITIONS</p> <p>BEFORE SUBMITTING A PROPOSAL, CONTRACTOR SHALL EXAMINE THE SITE AND FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS AND LIMITATIONS. NO EXTRAS WILL BE ALLOWED BECAUSE OF THE CONTRACTOR'S MISUNDERSTANDING OF THE AMOUNT OF WORK INVOLVED OR HIS LACK OF KNOWLEDGE OF ANY SITE CONDITIONS WHICH MAY AFFECT HIS WORK. ANY APPARENT VARIANCE OF THE DRAWINGS OR SPECIFICATIONS FROM THE EXISTING CONDITIONS AT THE SITE SHALL BE CALLED TO ATTENTION OF THE ENGINEER BEFORE SUBMITTING A PROPOSAL.</p>	3.12	<p>HOUSEKEEPING PADS</p> <p>FURNISH 2500 # CONCRETE PADS, 4" HIGH (INTERIOR LOCATIONS) OR 6" HIGH (EXTERIOR LOCATIONS) UNLESS OTHERWISE NOTED. FOR ALL FREESTANDING EQUIPMENT, I.E. SWITCHBOARDS, PANELS, CONTROL PANELS, MOTOR CONTROL CENTERS, TRANSFORMERS, ETC. PADS SHALL HAVE 1" X 45' CHAMFERED EDGES, AND SHALL EXTEND 2" TO 4" BEYOND EQUIPMENT MOUNTINGS.</p>	3.13	<p>CLEANING AND PAINTING</p> <ul style="list-style-type: none"> CLEAN EQUIPMENT FURNISHED IN THIS DIVISION AFTER COMPLETION OF WORK. CLEAN WIPE THE INTERIOR OF ALL CONDUIT, PULL BOXES, JUNCTION BOXES, OUTLET BOXES, AND PANELBOARD BACKBOXES SOILED WITH DIRT AND DEBRIS PRIOR TO INSTALLATION OF WIRING. TOUCH-UP OR RE-PAINT DAMAGED PAINTED FINISHES AS DETERMINED BY THE ENGINEER. 	
1.3	<p>ADDITIONAL CODES</p> <ul style="list-style-type: none"> INTERNATIONAL BUILDING CODE (IBC) PUBLISHED BY THE INTERNATIONAL CODE COUNCIL (ICC). NATIONAL ELECTRICAL CODE (NEC) PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). INTERNATIONAL FIRE CODE (IFC) PUBLISHED BY THE INTERNATIONAL CODE COUNCIL. NATIONAL FIRE CODE (NFC) STANDARDS PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AS REFERENCED IN THE 2018 INTERNATIONAL FIRE CODE. INTERNATIONAL ENERGY CONSERVATION CODE (IECC) PUBLISHED BY THE INTERNATIONAL CODE COUNCIL. ASHRAE /IESNA STANDARD 90.1-2016 IS INCORPORATED BY REFERENCE. ALL APPLICABLE PROVISIONS OF THE NEVADA REVISED STATUTES (NRS) AND THE NEVADA ADMINISTRATIVE CODE (NAC), INCLUDING THOSE LISTED BELOW. THE MOST CURRENT EDITIONS OF THE STATE FIRE MARSHAL, NEVADA DEPARTMENT OF PUBLIC SAFETY, CARSON CITY, NEVADA (NAC CHAPTER 477, STATE FIRE MARSHAL). THE MOST CURRENT EDITION OF THE AMERICANS WITH DISABILITIES ACT (ADA) PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE INCLUDING THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAG). 	1.11	<p>EXISTING OUTLETS</p> <p>EXISTING OUTLETS AND CIRCUITING NOT IN CONFLICT WITH NEW CONDITIONS SHALL REMAIN. EXTEND OUTLETS TO NEW SURFACES, CAULK AND PROVIDE JUMBO PLATES AS REQUIRED TO PRESENT A SERVICEABLE AND FINISHED APPEARANCE.</p>	3.14	<p>RECORD DRAWINGS</p> <ul style="list-style-type: none"> CONTRACTOR SHALL PROVIDE, PRIOR TO FINAL ACCEPTANCE AND OBSERVATION, ONE-SET OF REVISED RECORD ELECTRICAL CONSTRUCTION DOCUMENTS ON REPRODUCEABLE MEDIUM. ALSO INCLUDE THE FOLLOWING INFORMATION: EXACT ROUTING OF ALL CONDUITS LARGER THAN ONE INCH. EXACT LOCATION OF ALL SERVICE GROUNDING/BONDING CONNECTIONS. CONTRACTORS NAME, ADDRESS, AND TELEPHONE NUMBER. RECORD NOTATIONS SHALL BE CLEARLY DRAWN AT A DRAFTING APPEARANCE EQUAL TO THE ORIGINAL DRAWINGS. CONTRACTOR SHALL ALSO PROVIDE ALL OPERATING AND MAINTENANCE MANUALS PRIOR TO FINAL PAYMENT. 			
1.4	<p>DEFINITIONS</p> <p>PROVIDE: FURNISH, INSTALL, CONNECT AND TEST UNTIL COMPLETE</p> <p>WIRE: FURNISH ALL NECESSARY WIRING, CONNECT AND TEST UNTIL COMPLETE</p> <p>INSTALL: FURNISH, SET IN PLACE, WIRE AND TEST UNTIL COMPLETE</p> <p>WORK: MATERIALS COMPLETELY INSTALLED, CONNECTED, AND TEST UNTIL COMPLETE</p> <p>THE FOLLOWING INFORMATION AS DETERMINED BY THE ENGINEER</p>	1.12	<p>EXISTING SWITCHGEAR</p> <p>REMOVE EXISTING SWITCHGEAR AND PANELS IN PLACE WHERE SO INDICATED. MODIFY AS REQUIRED TO ACCOMMODATE NEW WORK. PROVIDE NEW CIRCUIT BREAKERS AND/OR FUSES AS REQUIRED. MATCH AIC RATINGS, REARRANGE EXISTING CIRCUITS WITHIN PANELS TO AGREE WITH NEW PANEL SCHEDULES. TRACE AND REMOVE ALL EXISTING CIRCUITS ON NEW RECORD PANEL SCHEDULES.</p>	3.15	<p>TESTING</p> <p>PRIOR TO PLACING IN SERVICES, ALL ELECTRICAL SYSTEMS SHALL BE TESTED FOR OPENS, GROUNDS, AND PHASE ROTATION. THE MAIN SERVICE GROUND AND ALL LOCAL TRANSFORMER MADE GROUNDS SHALL BE MEGGER-TESTED. PROVIDE GFT TESTING FOR SERVICE SWITCHBOARD.</p>			
1.5	<p>REQUIREMENTS OF REGULATORY AGENCIES</p> <ul style="list-style-type: none"> OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED FOR THE WORK. COMPLY WITH ALL ORDINANCES PERTAINING TO WORK DESCRIBED HEREIN. PAY ALL EXPENSES ARISING FROM THE PROCUREMENT OF THESE CERTIFICATES AND INCLUDE IN THE BASE CONTRACT PRICE. INSTALL WORK AS SHOWN OR SPECIFIED ON THE DRAWINGS. LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE, (NFPA-70) INCLUDING LOCAL AMENDMENTS AND INTERPRETATIONS, LOCAL ADOPTED BUILDING CODES, AND ANY SPECIAL CODES HAVING JURISDICTION OVER SPECIFIC PORTIONS OF WORK WITHIN COMPLETE INSTALLATION. IN EVENT OF CONFLICT, INSTALL WORK PER MOST STRINGENT CODE REQUIREMENTS DETERMINED BY ENGINEER. THIS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING WORK AS SHOWN OR SPECIFIED WHICH MAY EXCEED THE REQUIREMENTS OF SUCH ORDINANCES, LAWS, REGULATIONS AND CODES. ALL MATERIALS, PRODUCTS, DEVICES, FIXTURES, FORMS OR TYPES OF CONSTRUCTION INCLUDED IN THIS PROJECT SHALL MEET OR EXCEED THE PUBLISHED REQUIREMENTS OF NATIONAL ELECTRICAL CODE (NEC), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) AND NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATIONS (NEMA). ALL EQUIPMENT SHALL BEAR THE UNDERWRITER'S LABORATORIES (UL) LABEL OR EQUIVALENT FROM APPROVED INDEPENDENT TESTING LABORATORY. ARRANGE, PAY FEES FOR AND COMPLETE WORK TO PASS REQUIRED TESTS BY AGENCIES HAVING AUTHORITY OVER WORK. DELIVER TO ENGINEER COPIES OF THE CERTIFICATES OF INSPECTION AND APPROVAL ISSUED BY AUTHORITIES AND PROVIDE ORIGINAL COPY OF EACH CERTIFICATE TO OWNER. WHEN REQUIRED BY LAW OR REGULATIONS, THE GOVERNMENTAL AGENCY HAVING JURISDICTION FOR INSPECTIONS SHALL BE GIVEN REASONABLE NOTICE AND OPPORTUNITY TO INSPECT THE WORK. ANY WORK THAT IS ENCLOSED OR COVERED UP BEFORE SUCH INSPECTION AND TEST SHALL BE UNCOVERED AT THE CONTRACTOR'S EXPENSE. AFTER IT HAS BEEN INSPECTED, THE CONTRACTOR SHALL RESTORE THE WORK TO ITS ORIGINAL CONDITION AT HIS OWN EXPENSE. 	1.13	<p>EXISTING PANELBOARDS</p> <ul style="list-style-type: none"> RING OUT CIRCUITS IN EXISTING PANELS, WHERE ADDITIONAL CIRCUITS ARE NEEDED REUSE CIRCUITS AVAILABLE FOR REUSE. INSTALL NEW BREAKERS AS INDICATED ON DRAWINGS. MATCH AIC RATINGS. TAG UNUSED CIRCUITS AS SPARE. WHERE EXISTING CIRCUITS ARE INDICATED TO BE REUSED, USE SENSING MEASURING DEVICES TO VERIFY THAT CIRCUITS SERVING PROJECT AREA ARE NOT IN USE OR OVERLOADED. REMOVE EXISTING WIRE NO LONGER IN USE FROM PANEL TO EQUIPMENT. PROVIDE NEW UPDATED WIRE TYPE DIRECTORIES. 	3.16	<p>IDENTIFICATION</p> <ul style="list-style-type: none"> PROVIDE ENGRAVED NAMEPLATES FOR ALL SWITCHBOARDS, PANELS, TRANSFORMERS, DISCONNECTS, MOTOR STARTERS, CONTACTORS, TIME SWITCHES AND CABINETS. NAMEPLATES SHALL BE WHITE LETTERS ON BLACK FOR NORMAL EQUIPMENT AND WHITE LETTERS ON RED FOR EMERGENCY EQUIPMENT. NAMEPLATES SHALL INCLUDE THE FOLLOWING INFORMATION AS APPLICABLE: DESIGNATION (I.E. PANEL A); FUNCTION (I.E. AIR HANDLER AH-1); VOLTAGE, PHASE, WIRE (I.E. 480 VOLT, 3 PHASE, 4W); FEEDER SIZE (I.E. 4#40 THWN CU IN 2" C); SOURCE (I.E. SWITCHBOARDS MSB). JUNCTION, PULL AND CONNECTION BOXES: IDENTIFICATION OF SYSTEMS AND CIRCUITS SHALL INDICATE SYSTEM VOLTAGE AND CONTAINED CIRCUITS ON OUTSIDE OF BOX COVER. USE SELF-ADHESIVE MARKING TAPE LABELS AT EXPOSED LOCATIONS AND INK-BLUE BLACK MARKER AT CONCEALED BOXES. ALL FIRE ALARM BOXES SHALL HAVE COVERS PAINTED RED. ALL TEMPERATURE CONTROL BOXES SHALL HAVE COVERS PAINTED BLUE. BRANCH CIRCUIT CONDUCTORS SHALL BE IDENTIFIED IN EACH JUNCTION BOX AND PULL BOX WITH WIRE MARKERS AS MANUFACTURED BY T&B, PANDUIT, 3M, OR IDEAL TO INDICATE PANEL/CIRCUIT NUMBER. JUNCTION BOX COVERS IN BRANCH CIRCUIT WIRING SHALL BE LABELED WITH PANEL AND CIRCUIT NUMBERS. JUNCTION BOX COVERS FOR SPECIAL SYSTEMS SHALL BE LABELED WITH SYSTEM NAME AND OTHER IDENTIFICATION AS DIRECTED; FOR EXAMPLE, "FIRE ALARM-ZONE 1", WHERE BOXES ARE INSTALLED FLUSH MOUNTED IN FINISHED AREAS OR SURFACE MOUNTED IN FINISHED AREAS. LABELING SHALL BE WITH ENGRAVED PLASTIC NAMEPLATE AS SPECIFIED HEREIN, WHERE BOXES ARE INSTALLED ABOVE ACCESSIBLE CEILING. LABELING MAY BE HAND WRITTEN LETTERING WITH INDELIBLE MARKER. DEVICE PLATES - SWITCHES AND RECEPTACLES: IDENTIFY THE PANELBOARD AND BRANCH CIRCUIT NUMBER FROM WHICH SERVED ON THE FRONT OF THE DEVICE PLATE WITH PERMANENT POLYESTER TAPE. LOCATED ALL LABELS AT THE BOTTOM OF THE PLATE IN THE SAME LOCATION THROUGHOUT. 			
1.6	<p>DRAWINGS AND SPECIFICATIONS</p> <ul style="list-style-type: none"> DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. WORK CALLED FOR BY ONE IS BINDING AS IF CALLED FOR BY BOTH. ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION DURING THE BIDDING PERIOD. NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE TO THE CONTRACTOR BY REASON OF HIS FAILURE TO HAVE BROUGHT SAID DISCREPANCIES TO THE ATTENTION OF THE CONSULTANT DURING THE BIDDING PERIOD OR BY REASON OF ANY ERROR ON THE CONTRACTOR'S PART. DRAWINGS ARE SCHEMATIC AND DIAGRAMMATIC IN NATURE. DRAWINGS SHOW GENERAL RUN OF CIRCUITS AND APPROXIMATE LOCATION OF EQUIPMENT. THE CONTRACTOR SHALL REVIEW DRAWINGS OF ALL TRADES TO ASSURE COORDINATION PRIOR TO PLACEMENT OF WORK. RIGHT IS RESERVED TO CHANGE LOCATION OF EQUIPMENT AND DEVICES, AND ROUTING OF CONDUIT WITHIN 10 FEET, WITHOUT EXTRA COST TO OWNER (PRIOR TO ROUGH-IN). USE DIMENSIONS IN FIGURES, SHOP DRAWINGS, ETC. AND ACTUAL SITE MEASUREMENTS IN PREFERENCE TO SCALED DIMENSIONS. DO NOT SCALE DRAWINGS FOR EXACT SIZES OR LOCATIONS - USE DIMENSIONED DETAILS OR ACTUAL FIELD CONDITIONS. VERIFY ITEM MOUNTING HEIGHTS AS REQUIRED BY PROJECT CONDITIONS PRIOR TO ROUGH-IN. THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER ALL OTHER DRAWINGS IN MATTERS OF DIMENSIONS. DISCREPANCIES BETWEEN DIFFERENT DRAWINGS OR BETWEEN DRAWINGS AND SPECIFICATIONS, OR REGULATIONS AND CODES GOVERNING THE INSTALLATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING FOR DETERMINATION. LAYOUT EQUIPMENT AS SHOWN ON DRAWINGS AS CLOSE AS POSSIBLE. VERIFY ACCESS REQUIREMENTS FOR EQUIPMENT ACTUALLY FURNISHED AND ADJUST LAYOUT TO COMPLY WITH NEC 110. RIGHT IS RESERVED TO CHANGE LAYOUT WITHIN 10 FEET WITHOUT ADDITIONAL COST (PRIOR TO ROUGH-IN). ALL DEVICES, LIGHT FIXTURES, ETC. LOCATED IN CEILING TILES SHALL BE LOCATED IN THE CENTER OF THE CEILING TILE UNLESS SPECIFICALLY NOTED OR APPROVED TO DO OTHERWISE. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD MEASURE AND CONFIRM THE MOUNTING HEIGHTS AND LOCATION OF ELECTRICAL EQUIPMENT WITH RESPECT TO COUNTERS, DOORWAYS, AND OTHER ARCHITECTURAL, MECHANICAL OR STRUCTURAL WORK. DO NOT SCALE DISTANCES OFF THE ELECTRICAL DRAWINGS. USE ACTUAL BUILDING DIMENSIONS. EXECUTION OF CONTRACT IS EVIDENCE THAT CONTRACTOR HAS EXAMINED ALL EXISTING CONDITIONS, DRAWINGS AND SPECIFICATIONS RELATED TO WORK, AND IS INFORMED AS TO EXTENT AND CHARACTER OF WORK. LATER CLAIMS FOR LABOR AND MATERIALS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD EXAMINATION BEEN MADE, WILL NOT BE RECOGNIZED. ALL WORK CALLED FOR IN THIS SECTION OF THE PLANS AND SPECIFICATIONS SHALL BE PERFORMED UNDER THIS SECTION, REGARDLESS OF WHETHER SUCH WORK MAY ALSO HAVE BEEN CALLED FOR IN OTHER SECTIONS. DISCREPANCIES IN OR CONFLICTS AMONG THE VARIOUS PARTS OF THE CONTRACT DRAWINGS SHALL NOT RELIEVE CONTRACTOR OF HIS OBLIGATION TO PERFORM. NO ATTEMPT HAS BEEN MADE TO ESTABLISH THE REQUIRED SECTIONS OR SPLITS OF EQUIPMENT RELATIVE TO THE SIZE OF ACCESS INTO THE SPACE, BUILDING, ETC. CONTRACTOR SHALL ESTABLISH ALL SAID SPLITS, SECTIONS, ETC. NECESSARY TO INSTALL EQUIPMENT COMPLETE WITHOUT UNDUE DISASSEMBLY OF EQUIPMENT OR DEMOLITION OF BUILDING PARTS AT SITE OF WORK. CHARGES FOR EXTRA WORK ARE NOT ALLOWED UNLESS WORK IS AUTHORIZED BY WRITTEN ORDER FROM THE OWNER'S REPRESENTATIVE APPROVING WORK. CHECK ALL DOOR SWINGS SO LIGHTING CONTROL DEVICES ARE NOT LOCATED BEHIND DOORS. RELOCATE DEVICES AS REQUIRED WITH THE CONSULTANT'S REVIEW. 	2.1	<p>PART 2 - PRODUCTS MATERIALS</p> <ul style="list-style-type: none"> ALL MATERIAL SHALL BE NEW, AND HAVE A UL LABEL WHERE AVAILABLE. IF UL LABEL IS NOT AVAILABLE, MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE NEMA, IEEE AND FEDERAL STANDARDS. USE UL LABELED COMPONENTS IN ASSEMBLIES THAT DO NOT HAVE OVERALL UL LABEL. ALL EQUIPMENT SHALL COMPLY WITH THE TERMS LISTED AND LABELED AS DEFINED IN THE NEC 70, ARTICLE 100. SUBMIT LETTER STATING COMPLIANCE WITH THESE REQUIREMENTS. UTILIZE ONE OF THE MANUFACTURER'S LISTED TO FURNISH ALL OF THE MAJOR EQUIPMENT (I.E. PANELS, TRANSFORMERS, BUS DUCT, SWITCHGEAR, CIRCUIT BREAKERS, ETC.) REQUIRED FOR THIS PROJECT. ALL MATERIAL AND EQUIPMENT SHALL BE NEW AND OF THE HIGHEST QUALITY AVAILABLE ("SPECIFICATION GRADE"). SERVICE EQUIPMENT SHALL BE FACTORY-ASSEMBLED COMMERCIAL-GRADE, CONFIGURED PER SERVING UTILITY STANDARDS. WIRING DEVICES SHALL BE SPECIFICATION GRADE WITH NYLON PLATES, WHITE UNLESS OTHERWISE NOTED, RAISED STEEL BOX COVERS MAY BE USED IN UTILITY AREAS. ALL EQUIPMENT AND CIRCUITING ACCESSIBLE BY THE PUBLIC SHALL BE TAMPER-PROOF AND VANDAL RESISTANT. OPENABLE DEVICES AND EQUIPMENT SHALL BE PADLOCKABLE. 	3.17	<p>SUSPENDED CEILING SYSTEMS</p> <p>CONDUIT WORK TO BE INDEPENDENTLY SUPPORTED BY TWO #12 SLACK WIRES ATTACHED TO TWO OPPOSITE CORNERS OF THE FIXTURE PER IBC & NEC REQUIREMENTS. THESE WIRES SHALL BE SECURED TO THE STRUCTURAL FRAMING SUCH THAT FAILURE OF THE SUSPENDED CEILING SHALL NOT ALLOW THE FIXTURE TO DROP.</p>			
1.7	<p>COPYRIGHT</p> <p>THESE PLANS, SPECIFICATIONS, AND ALL RELATED ADDENDA AND DOCUMENTS CONSTITUTE COPYRIGHT MATERIALS OF PK ELECTRICAL. ALL RIGHTS CONFERRED BY THE COPYRIGHT AND SIMILAR LAWS ARE RESERVED TO PK ELECTRICAL. THESE MATERIALS SHALL REMAIN THE SOLE PROPERTY OF PK ELECTRICAL AND MAY NOT BE REPRODUCED, DISTRIBUTED TO OTHERS OR USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE PRIOR WRITTEN CONSENT OF PK ELECTRICAL.</p>	2.2	<p>DISTRIBUTION EQUIPMENT</p> <p>DISTRIBUTION EQUIPMENT SHALL BE DEAD-FRONT, PANELBOARD OR SWITCHBOARD TYPE AS INDICATED, UL-LABELED ENCLOSED IN A NEMA HOUSING APPROPRIATE TO ITS LOCATION AND APPLICATION WITH HINGED WIREWAY COVERS. BUSSING, DEVICE FINGERS AND LUGS SHALL BE COPPER UNLESS INDICATED ON DRAWINGS. AIC RATINGS SHOWN ON PLANS ARE MINIMUM RATINGS; CIRCUIT BREAKERS SHALL BE IN EXCESS OF THE AVAILABLE FAULT CURRENT. SERIES-RATING OF UPSTREAM AND DOWNSTREAM CIRCUIT BREAKERS TO ACHIEVE REQUIRED FAULT CURRENT RATINGS IS PROHIBITED UNLESS APPROVED BY ENGINEER IN WRITING.</p>	3.18	<p>ONGOING OPERATION</p> <p>CONDUCT WORK TO MINIMIZE DISRUPTION OF OWNER'S ONGOING OPERATIONS. PROVIDE BARRICADES, NOISE ABATEMENT AND DUST CONTAINMENT MEASURES TO ENSURE THE SAFETY AND COMFORT OF PATRONS, STAFF, AND WORKERS. INTERRUPTIONS OF EXISTING POWER, COMMUNICATIONS OR FIRE ALARM SYSTEMS SHALL BE PERFORMED ONLY AT SUCH TIMES AS DIRECTED BY GENERAL CONTRACTOR / OWNER. OUTAGES SHALL BE MOMENTARY IN NATURE. EACH SUCH OUTAGE OR OPERATION WHICH MAY POSE RISK OF AN ACCIDENTAL OUTAGE SHALL BE SCHEDULED 48 HOURS IN ADVANCE.</p>			
		2.3	<p>PANELBOARDS</p> <p>PANELS SHALL HAVE FLUSH MONO-FLAT TRIM, LOCKING DOOR-IN-DOOR HINGED COVERS AND BOLT-IN CIRCUIT BREAKERS. BUSSING SHALL BE COPPER UNLESS INDICATED ON DRAWINGS. FLUSH-MOUNTED PANELS SHALL HAVE EMPTY CONDUIT STUBBED TO ACCESSIBLE ATTIC SPACE. ONE 1" CONDUIT FOR EACH FOUR SPARESPACE CIRCUITS. PROVIDE ONE TYPED TO ONE SPARE PANEL SCHEDULE FOR OWNERS USE. SCHEDULES SHALL BE TWO COLUMN TYPE WITH ODD CIRCUIT NUMBERS ON THE LEFT AND EVEN NUMBERS ON THE RIGHT.</p>	3.19	<p>FLEXIBLE CONNECTIONS</p> <ul style="list-style-type: none"> PROVIDE FLEXIBLE ELECTRICAL CONDUIT AND CONDUCTORS HAVING A SLACK, 90-DEGREE BEND OR LOOP IN ANY PLANE BETWEEN CONNECTIONS AT ALL VIBRATION ISOLATED EQUIPMENT AND THE FIRST ATTACHMENT TO BUILDING STRUCTURE OR CABINETS, PANELS OR BOXES MOUNTED THEREON. DISPOSAL: PROCEDURE: (FLUORESCENT BULBS, BALLASTS AND LIGHT FIXTURES) THESE MATERIALS DO NOT REQUIRE SPECIAL TRAINING TO REMOVE OR PACKAGE. THE CONTRACTOR SHALL CONTRACT WITH WASTE MANAGEMENT (LAMPTRACKER OR SIMILAR RECYCLING COMPANY TO RECYCLE THE LAMPS (FLUORESCENT BULBS) AND BALLASTS REMOVED DURING THE PROJECT. THE COSTS TO RECYCLE THESE MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE DISPOSAL AND COSTS OF NON-REGULATED MATERIALS (LIGHT FIXTURES) IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS REQUIRED TO RECYCLE AS MUCH MATERIAL AS POSSIBLE. 			
		2.4	<p>TRANSFORMERS</p> <p>TRANSFORMERS SHALL BE SELF VENTILATED DRY-TYPE WITH COPPER BUSSING UNLESS INDICATED OTHERWISE AND SHALL BE UL LISTED AS SUITABLE FOR INSTALLATION IN INTERIOR LOCATIONS. INSULATION SHALL BE MINIMUM 220 DEGREE CELSIUS OPERATION. PROVIDE SIX 2 1/2" VOLTAGE ADJUSTING TAPS - TWO ABOVE AND FOUR BELOW RATED PRIMARY VOLTAGE. IMPEDANCE FOR UNITS ABOVE 15KVA SHALL BE MINIMUM 5%. TRANSFORMERS SHALL BE CONNECTED WITH SEALTIGHT FLEXIBLE CONDUIT WITH SEPARATE INTERNAL GROUND WIRE.</p>	3.20	<p>CONSTRUCTION SCHEDULE</p> <ul style="list-style-type: none"> WORK TO BE INSTALLED AS PROGRESS OF PROJECT WILL ALLOW. SCHEDULE OF WORK DETERMINED BY GENERAL CONTRACTOR, OWNER, AND/OR ARCHITECT/ENGINEER. COORDINATION OF UTILITY SERVICES DRAWINGS INDICATE PROPOSED SERVICE LAYOUTS. THE CONTRACTOR SHALL PROVIDE ALL CONCRETE STRUCTURES, PULL BOXES, VAULTS, TRENCHING, RACEWAYS, PROTECTIVE BOLLARDS, ETC., AS REQUIRED PER NV ENERGY STANDARDS (ELECTRICAL UTILITY), AT&T (TELEPHONE COMPANY) AND CHARTER (CATV UTILITY) STANDARDS. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING PROJECT DRAWINGS, APPLICATION, AND EQUIPMENT SHOP DRAWINGS TO THE UTILITY. UTILITY FEES TO BE PAID BY PROJECT OWNER. 			
		2.5	<p>CIRCUITING</p> <p>ALL WIRING SHALL BE CONDUIT, CONCEALED EXCEPT WHERE NOTED. EMT WITH SETL SET SCREW INSULATED-THROAT FITTINGS SHALL BE USED IN DRY, PROTECTED INTERIOR LOCATIONS. PVC SCHEDULE 40 SHALL BE USED BELOW GRADE AT MINIMUM-24". WRAPPED RIGID ELBOWS AND RISERS SHALL BE USED FOR ALL THROUGH-GRADE AND CONCRETE SLAB TRANSITIONS AND STUB-UPS. RGS OR IMC CONDUIT WITH THREADED FITTINGS SHALL BE USED IN ALL LOCATIONS WHERE EXPOSED TO THE ELEMENTS OR SUBJECT TO PHYSICAL DAMAGE. FMC MAY BE USED FOR FINAL CONNECTION TO LIGHTING FIXTURE FROM A-BOX. FIXTURE WHIPS MAY NOT EXCEED 6' IN LENGTH. METAL CLAD CABLE (TYPE MC) FLEXIBLE WHIPS FROM JUNCTION BOXES TO LIGHTING FIXTURES AND WITHIN CASEWORK. TYPE MC CABLE MAY NOT BE USED FOR HOMERUNS. ENT IS NOT ALLOWED. CONNECT RECESSED AND SUSPENDED LIGHTING FIXTURES, MOTORIZED AND VIBRATING EQUIPMENT WITH STEEL FLEX. ALL CONDUIT SHALL HAVE A PULL CORD IF OTHERWISE EMPTY. CONNECT PUMP MOTORS WITH LIQUID TIGHT FLEXIBLE METAL CONDUIT.</p>	3.21	<p>SALVAGE</p> <p>ALL EXISTING EQUIPMENT REMOVED DURING THE COURSE OF THIS PROJECT SHALL BE OFFERED TO OWNER FOR SALVAGE. ANY EQUIPMENT SELECTED BY OWNER SHALL BE DELIVERED TO OWNER ON SITE. ALL REMAINING EQUIPMENT BECOMES THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.</p>			
		2.6	<p>WIRING</p> <ul style="list-style-type: none"> WIRE SHALL BE COPPER UNLESS OTHERWISE INDICATED. INSULUM WIRE CUAL SHALL BE #12 AWG, WHERE ALUMINUM IS ALLOWED. WIRE SHALL BE TERMINATED IN AN INSULATED SIZE RATED COMPRESSOR TERMINAL FITTING (MAG-ADAPT OR EQUAL). INSULATION SHALL BE AS FOLLOWS: UNLESS OTHERWISE REQUIRED BY LOCAL ORDINANCES, GROUND WIRE SHALL BE GREEN. NEUTRAL WIRE SHALL BE WHITE (120V) OR GREY (277V) AND PHASE WIRES SHALL BE BLACK (PHASE A), RED (PHASE B), AND BLUE (PHASE C) FOR A 120/208 VOLT SYSTEM AND BROWN (PHASE A), ORANGE (PHASE B), AND YELLOW (PHASE C) FOR A 277/480 VOLT SYSTEM. 	3.22	<p>SEISMIC PROTECTION</p> <ul style="list-style-type: none"> THIS PROJECT IS SUBJECT TO THE SEISMIC BRACING REQUIREMENT OF THE INTERNATIONAL BUILDING CODE, 2012 EDITION. THE FOLLOWING CRITERIA ARE APPLICABLE TO THIS PROJECT: SEISMIC USE GROUP: II; SEISMIC CLASS CATEGORY: D; SEISMIC DESIGN CATEGORY: D. IT IS RECOMMENDED THAT THE CONTRACTOR CONSULT WITH THE DESIGNER OF A QUALIFIED SEISMIC BRACING VENDOR/SUPPLIER, PROVIDE BRACING FOR IDENTIFIED EQUIPMENT AND SYSTEM. ELECTRICAL EQUIPMENT: ELECTRICAL EQUIPMENT SHALL INCLUDE THE FOLLOWING ITEMS TO THE EXTENT REQUIRED ON THE DRAWINGS OR IN OTHER SECTIONS OF THESE SPECIFICATIONS TO BE SEISMICALLY PROTECTED: LIGHT FIXTURES, TRANSFORMERS, SWITCHBOARDS, PANELBOARDS. ELECTRICAL SYSTEMS: THE FOLLOWING ELECTRICAL SYSTEMS SHALL BE SEISMICALLY PROTECTED IN ACCORDANCE WITH THIS SPECIFICATION: LIGHTING, POWER, SECURITY, COMMUNICATIONS AND FIRE ALARM. CONDUITS REQUIRING NO SPECIAL SEISMIC RESTRAINTS: SEISMIC RESTRAINTS MAY BE OMITTED FROM ELECTRICAL CONDUIT LESS THAN 2-1/2 INCHES TRADE SIZE. ALL OTHER INTERIOR CONDUIT SHALL BE SEISMICALLY PROTECTED AS SPECIFIED. 			
		2.7	<p>FUSES</p> <p>FUSES SHALL BE SIZED PER ACTUAL NAMEPLATE OF EQUIPMENT SERVED. FUSES SHALL BE DUAL-ELEMENT, CURRENT-LIMITING, AND SHALL BE INTERCHANGEABLE BETWEEN FRAME SIZES WITH STANDARD FACTORY FUSE REDUCERS. FUSES SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED:</p> <ul style="list-style-type: none"> CIRCUITS 601 TO 6000 AMPERES SHALL BE PROTECTED BY CURRENT LIMITING BUSSMANN LOW-PEAK TIME-DELAY FUSES RPT-C - UL CLASS L. CIRCUITS 0 TO 600 AMPERES SHALL BE PROTECTED BY CURRENT LIMITING BUSSMANN LOW-PEAK DUAL-ELEMENT FUSES LPN-RK (600 VOLTS) - UL CLASS RKL. ALL DUAL-ELEMENT FUSES SHALL HAVE A SEPARATE OVERLOAD AND SHORT-CIRCUIT ELEMENTS. PROVIDE SPARE FUSE CABINET AFTER THE COMPLETION OF THE PROJECT WITH ONE SET OF SPARE FUSES FOR EVERY SIZE USED. 	3.23	<p>DELIVERY, STORAGE AND HANDLING</p> <ul style="list-style-type: none"> DELIVER EQUIPMENT AND MATERIALS TO JOB SITE IN ORIGINAL, UNOPENED, LABELED CONTAINER. PRODUCTS SHALL BE PROPERLY IDENTIFIED WITH NAMES, MODEL NUMBERS, TYPES, GRADES. COMPLIANCE LABELS AND OTHER INFORMATION NEEDED FOR IDENTIFICATION, STORE TO PREVENT DAMAGE AND INJURY. STORE MATERIALS TO PREVENT CORROSION. STORE FINISHED MATERIALS AND EQUIPMENT TO PREVENT STAINING AND DISCOLORING. STORE MATERIALS AFFECTED BY CONDENSATION IN WARM DRY AREAS. PROVIDE HEATERS. CONTRACTOR SHALL VERIFY THE AVAILABILITY OF ON SITE STORAGE SPACE. IF NO ON SITE STORAGE SPACE IS AVAILABLE THEN THE CONTRACTOR SHALL COVER THE COST FOR OFF SITE STORAGE. MATERIALS STORED AT THE PROJECT SITE THAT BECOMES SOILED WITH CONSTRUCTION DIRT, CONCRETE, OR MOISTURE SHALL BE REMOVED FROM THE SITE AND REPLACE WITH NEW. DO NOT INSTALL SOILED MATERIAL. 			
		2.8	<p>WIRING DEVICES</p> <p>WIRING DEVICES SHALL BE AS FOLLOWS:</p> <ul style="list-style-type: none"> RECEPTACLES - 120V, 20A, NEMA 5-20R, SPECIFICATION GRADE, SIDE AND BACK WIRED WITH CLAMP TYPE TERMINALS, NYLON, WHITE, 2 POLE, 3 WIRE GROUNDING, UNLESS NOTED OTHERWISE ON THE DRAWINGS. SWITCHES - 120V/277V, 20A, WHITE, HEAVY DUTY, SILENT TYPE SPECIFICATIONS GRADE. RECEPTACLES IN WET LOCATIONS SHALL BE INSTALLED WITH A GASKETED METAL PLATE WITH HINGED AND GASKETED DEVICE COVER. SYSTEM SHALL BE WEATHERPROOF WHILE IN USE. 	3.24	<p>GUARANTEE</p> <ul style="list-style-type: none"> FURNISH THE OWNER A WRITTEN GUARANTEE, STATING THAT IF THE WORKMANSHIP AND/OR MATERIAL EXECUTED UNDER THIS DIVISION IS PROVEN DEFECTIVE WITHIN (1) YEAR AFTER THE FINAL ACCEPTANCE BY THE OWNER, SUCH DEFECTS AND OTHER WORK DAMAGED WILL BE REPAIRED AND/OR REPLACED. SUBMIT WITH OPERATION AND MAINTENANCE MANUALS. OBTAIN FROM THE VARIOUS MANUFACTURER'S OR VENDORS GUARANTEES OR WARRANTIES FOR THEIR PARTICULAR EQUIPMENT OR COMPONENTS, AND DELIVER THEM TO THE OWNER. ALL GUARANTEES AND WARRANTIES PROVIDED SHALL BE REFERENCED TO THIS PROJECT. IN EVENT THAT SYSTEMS ARE PLACED IN OPERATION IN SEVERAL PHASES AT THE OWNER'S REQUEST, GUARANTEE WILL BEGIN ON DATE EACH SYSTEM OR ITEM OF EQUIPMENT IS ACCEPTED FOR SERVICE BY THE OWNER. PROVIDE O&M MANUALS FOR ALL EQUIPMENT WHEN EQUIPMENT IS ACCEPTED FOR SERVICE BY THE OWNER. ALL GUARANTEES AND WARRANTIES SHALL INCLUDE LABOR AND MATERIAL AT THE SITE OF INSTALLATION FOR THE DURATION OF THE GUARANTEE PERIOD. 			
		2.9	<p>CONDUIT</p> <p>CONDUIT SHALL BE USED TO PROTECT WIRING FROM MECHANICAL DAMAGE AND TO MAINTAIN CLEARANCE FROM OTHER EQUIPMENT. CONDUIT SHALL BE USED TO PROTECT WIRING FROM MECHANICAL DAMAGE AND TO MAINTAIN CLEARANCE FROM OTHER EQUIPMENT. CONDUIT SHALL BE USED TO PROTECT WIRING FROM MECHANICAL DAMAGE AND TO MAINTAIN CLEARANCE FROM OTHER EQUIPMENT. CONDUIT SHALL BE USED TO PROTECT WIRING FROM MECHANICAL DAMAGE AND TO MAINTAIN CLEARANCE FROM OTHER EQUIPMENT.</p>	3.25	<p>OBSERVATIONS OF WORK AND DEMONSTRATION OF OPERATION (ACCEPTANCE)</p> <ul style="list-style-type: none"> AT ALL OBSERVATIONS OF WORK, OPEN PANEL COVERS, JUNCTION BOX COVERS, PULL BOX COVERS, DEVICE COVERS AND OTHER EQUIPMENT WITH REMOVABLE PLATES FOR OBSERVATION AS REQUESTED BY A&J OR ENGINEER. PROVIDE SUFFICIENT PERSONNEL TO EXPEDITE COVER REMOVAL AND REPLACEMENT. CONTRACTOR TO DEMONSTRATE OPERATION OF NEW EQUIPMENT AND/OR SYSTEMS TO SATISFACTION OF OWNER/ENGINEER. CONTRACTOR TO HAVE MANUFACTURER AVAILABLE FOR DEMONSTRATION OF EQUIPMENT AND/OR SYSTEMS WHERE REQUESTED BY OWNER/ENGINEER. FURNISH AFFIDAVIT SIGNED BY OWNER'S REPRESENTATIVE INDICATING THAT DEMONSTRATION OF OPERATION HAS BEEN PERFORMED. 			
		3.0	<p>COOPERATION</p> <ul style="list-style-type: none"> CAREFULLY COORDINATE WORK WITH OTHER CONTRACTORS AND SUBCONTRACTORS. REFER CONFLICTS BETWEEN TRADES TO ENGINEER. PROVIDE NECESSARY INFORMATION TO OTHER TRADES FOR SUCH COORDINATION. SUCH INFORMATION SHALL INCLUDE SHOP DRAWINGS, PRODUCT DATA AND ALL OTHER REQUIRED DATA. PROVIDE A SYSTEM COORDINATION DRAWING SHOWING ELECTRICAL, HVAC, PLUMBING AND ARCHITECTURAL FOR INSTALLATION IN CONGESTED AREAS, WHEN REQUESTED. WHENEVER SUCH INFORMATION IS NOT PROVIDED IN A TIMELY MANNER OR WHENEVER SUCH INFORMATION IS INCORRECT, THIS CONTRACTOR SHALL BEAR ALL COSTS FOR PROVIDING OR CORRECTING AFFECTED WORK OR RELATED TRADES WITH NO CHANGE TO THE CONTRACT PRICE OR CONSTRUCTION SCHEDULE. 	3.26	<p>END OF SECTION 260000</p>			



Professional Seal Date Revision

02/08/2022

© Copyright H + K Architects



PK Electrical, Inc.
 Engineering Design Consulting
 681 Sierra Rosa Drive, Suite 8 | Reno, NV 89511 | 775.626.9010
 4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
 pkelectrical.com 21106

Consultant

H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262
 P 775-332-6640
 F 775-332-6642
 hkarchitects.com

Carson City Tire and Welding Shop Expansion
 3505 Butti Way
 Carson City, NV 89701

Electrical Specifications

January 28, 2022

E002

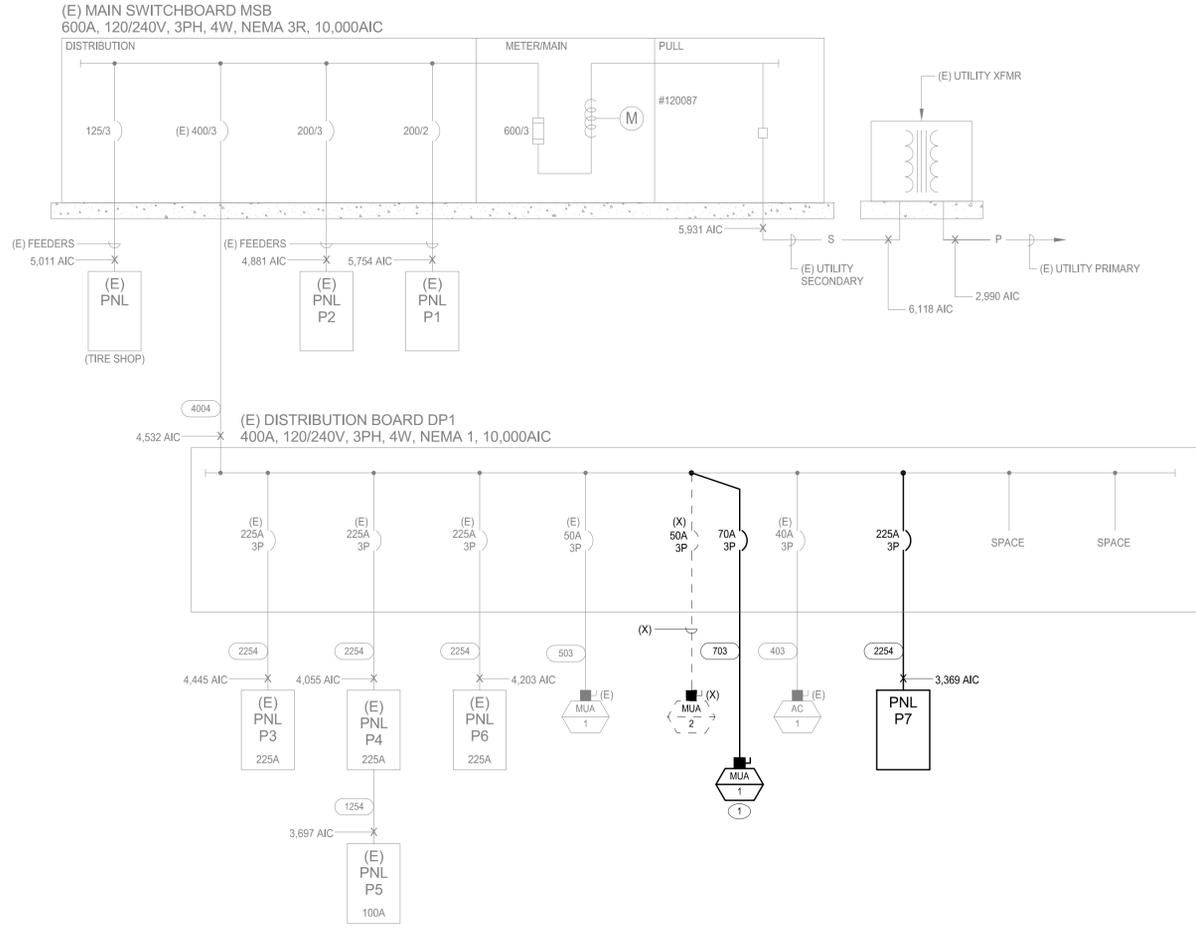


FEEDER SCHEDULE (600V, 3PH, 3W)

FEEDER	AMPERE	WIRE (CU)	BOND (CU)	CONDUIT
153	15	(3) 12	12	3/4"
203	20	(3) 12	12	3/4"
303	30	(3) 10	10	3/4"
403	40	(3) 8	10	3/4"
503	50	(3) 6	10	1"
603	60	(3) 4	10	1"
703	70	(3) 4	8	1 1/4"
803	80	(3) 3	8	1 1/4"
1003	100	(3) 2	8	1 1/4"
1253	125	(3) 1/0	6	1 1/2"
1503	150	(3) 1/0	6	1 1/2"
1753	175	(3) 2/0	6	2"
2003	200	(3) 3/0	6	2"
2253	225	(3) 4/0	4	2 1/2"
2503	250	(3) 250K	4	2 1/2"
3003	300	(3) 350K	3	3"
3503	350	(3) 400K	3	3"
4003	400	(3) 500K	3	4"
5003	500	(6) 250K	(2) 2	(2) 2 1/2"
6003	600	(6) 350K	(2) 1	(2) 3"
8003	800	(6) 500K	(2) 1/0	(2) 4"
10003	1000	(9) 400K	(3) 2/0	(3) 3"
12003	1200	(9) 600K	(3) 3/0	(3) 4"
16003	1600	(12) 600K	(4) 4/0	(4) 4"
20003	2000	(15) 600K	(5) 250K	(5) 4"

FEEDER SCHEDULE (600V, 3PH, 4W)

FEEDER	AMPERE	WIRE (CU)	BOND (CU)	CONDUIT
154	15	(4) 12	12	3/4"
204	20	(4) 12	12	3/4"
304	30	(4) 10	10	3/4"
404	40	(4) 8	10	1"
504	50	(4) 6	10	1"
604	60	(4) 4	10	1 1/4"
704	70	(4) 4	8	1 1/4"
804	80	(4) 3	8	1 1/4"
1004	100	(4) 2	8	1 1/2"
1254	125	(4) 1/0	6	2"
1504	150	(4) 1/0	6	2"
1754	175	(4) 2/0	6	2"
2004	200	(4) 3/0	6	2"
2254	225	(4) 4/0	4	2 1/2"
2504	250	(4) 250K	4	3"
3004	300	(4) 350K	3	3"
3504	350	(4) 400K	3	3"
4004	400	(4) 500K	3	4"
5004	500	(8) 250K	(2) 2	(2) 2 1/2"
6004	600	(8) 350K	(2) 1	(2) 3"
8004	800	(8) 500K	(2) 1/0	(2) 4"
10004	1000	(12) 400K	(3) 2/0	(3) 3 1/2"
12004	1200	(12) 600K	(3) 3/0	(3) 4"
16004	1600	(16) 600K	(4) 4/0	(4) 4"
20004	2000	(20) 600K	(5) 250K	(5) 4"



ONELINE DIAGRAM
SCALE: NONE

Load Calculation:		(E) MSB					Remarks
Description	Lighting	Receptacle	Equipment	Motor	Kitchen	Heating	PER NV ENERGY
EXISTING PEAK DEMAND			55300				
+25% PEAK			13825				
(E) DP1	2197	18360	200	44784			
Total Connected Loads:		2197 VA	18360 VA	69325 VA	44784 VA		134666 VA
Load Classification	NEC Reference	Connected Load	Demand Factor	Est. Demand	Load Totals		
L	NEC 220.42	2197 VA	100.00%	2197 VA	Total Connected Load: 134666 VA		
R	NEC 220.44	18360 VA	77.23%	14180 VA	Total Demand Load: 133591 VA		
E	NEC 430.24	69325 VA	100.00%	69325 VA	120/240V Delta 3-PH System Current		
M	NEC 430.24	44784 VA	106.93%	47889 VA	Connected Amps: 324 A		
K	NEC 220.56	0 VA	0.00%	0 VA	Demand Amps: 321 A		
H	NEC 220.51	0 VA	0.00%	0 VA			

Load Calculation:		(E) DP1					Remarks
Description	Lighting	Receptacle	Equipment	Motor	Kitchen	Heating	
(E) P3	322						
P7	1875	18360	200	40920			
MUA-2				3964			SHEET NOTE 1
Total Connected Loads:		2197 VA	18360 VA	200 VA	44784 VA		65541 VA
Load Classification	NEC Reference	Connected Load	Demand Factor	Est. Demand	Load Totals		
L	NEC 220.42	2197 VA	100.00%	2197 VA	Total Connected Load: 65541 VA		
R	NEC 220.44	18360 VA	77.23%	14180 VA	Total Demand Load: 64466 VA		
E	NEC 430.24	200 VA	100.00%	200 VA	120/240V Delta 3-PH System Current		
M	NEC 430.24	44784 VA	106.93%	47889 VA	Connected Amps: 158 A		
K	NEC 220.56	0 VA	0.00%	0 VA	Demand Amps: 155 A		
H	NEC 220.51	0 VA	0.00%	0 VA			

Panel: P7												Location: Tire and Welding Shop 120	
Type	Description	Trip	Poles	#	A	B	C	#	Poles	Trip	Description	Type	
M	EF-1	15	3	1	567	2333			1	3	20	LATHE	R
M	WEF-1	15	3	3	567	3833			3	3	40	WIRE FEED WELDER	M
R	GAS WELDER	20	1	13	800	960			13	1	20	GRINDER	R
--	HIGH LEG	--	1	15					15	1	--	HIGH LEG	--
R	IRON WORKER/SHEAR	20	3	19	1267	6210			19	2	70	ARCWAVE WELDER	M
--	HIGH LEG	--	1	21					21	1	--	HIGH LEG	--
M	ROLL-UP DOORS	20	2	23	800	770			23	2	20	BAND SAW	R
--	HIGH LEG	--	1	27					27	1	--	HIGH LEG	--
R	TOOL BENCH	20	1	29					29	1	20	TOOL BENCH	R
R	TOOL BENCH	20	1	31	180	2000			31	3	20	VEF-5	M
--	HIGH LEG	--	1	33					33	1	--	HIGH LEG	--
R	TOOL BENCH	20	1	35					35	1	20	TOOL BENCH	R
R	TIRE SHOP	20	1	37	180	2000			37	3	20	VEF-6	M
--	HIGH LEG	--	1	39					39	1	--	HIGH LEG	--
R	TIRE SHOP	20	1	41					41	1	20	RECEPTACLES - SOUTH DOOR	R
R	TIRE SHOP	20	1	43	180	540			43	1	20	RECEPTACLES - NORTH DOOR	R
--	HIGH LEG	--	1	45					45	1	--	HIGH LEG	--
R	TIRE SHOP	20	1	47					47	1	20	LIFT CHARGER	R
E	FAN CONTROLLERS	20	1	49	200	180			49	1	20	LIFT CHARGER	R
--	HIGH LEG	--	1	51					51	1	--	HIGH LEG	--
L	TIRE/WELDING SHOP LIGHTS	20	1	53					53	1	20	LIFT CHARGER	R
R	TIRE BALANCER	20	1	55	1200	180			55	1	20	LIFT CHARGER	R
--	HIGH LEG	--	1	57					57	1	--	HIGH LEG	--
--	SPARE	20	1	59					59	1	--	SPARE	--
--	SPARE	20	1	61	0	--			61	1	--	SPARE	--
--	HIGH LEG	--	1	63					63	1	--	HIGH LEG	--
--	SPARE	20	1	65					65	1	--	SPARE	--
--	SPARE	20	1	67	0	--			67	1	--	SPARE	--
--	HIGH LEG	--	1	69					69	1	--	HIGH LEG	--
--	SPARE	20	1	71					71	1	--	SPARE	--
Total Load:					24947 VA	12567 VA	23842 VA						
Total Amps:					208 A	105 A	199 A						
Load Classification	NEC Reference	Connected Load	Demand Factor	Est. Demand	Load Totals								
L	NEC 220.42	1875 VA	100.00%	1875 VA	Total Connected Load: 61355 VA								
R	NEC 220.44	18360 VA	77.23%	14180 VA	Total Demand Load: 60280 VA								
E	NEC 430.24	200 VA	100.00%	200 VA	120/240V Delta 3-PH System Current								
M	NEC 430.24	40920 VA	107.59%	44025 VA	Connected Amps: 148 A								
K	NEC 220.56	0 VA	0.00%	0 VA	Demand Amps: 145 A								
H	NEC 220.51	0 VA	0.00%	0 VA									
Copper Bus Size	250	Ground	Standard	Notes:									
Voltage	120/240V Delta...	Mounting	Surface	HIGH LEG PANELS SHALL BE IDENTIFIED IN ACCORANCE WITH NEC 110.15.									
Phase	3	Enclosure	NEMA 1										
Wire	4	# of 1-Pole Circuits	72										
Lugs	MLO	Neutral	100.00%										
Breaker AIC Rating	10K	Feeder OCPD Size	225A										

GENERAL NOTES

- (E) AND/OR DASHED LINES INDICATE EXISTING EQUIPMENT, (N) AND/OR SOLID LINES INDICATE NEW EQUIPMENT UNLESS NOTED OTHERWISE.
- PANELBOARD AND BREAKER INTERRUPTING CAPACITIES (AIC) SHALL BE FULLY RATED AS AN ASSEMBLY. SERIES RATING OF BREAKER DEVICES AND EQUIPMENT IS NOT PERMITTED.
- ALL CONDUCTOR SIZES ARE BASED ON COPPER. ALUMINUM IS NOT PERMITTED.
- ALL SWITCHBOARDS AND DISTRIBUTION BOARDS SHALL BE FULLY BUSSED.
- ALL CONTRACTOR PROVIDED EQUIPMENT SHALL COMPLY WITH NV ENERGY SPECIFICATIONS AND REQUIREMENTS.
- DO NOT SPLICE FEEDER CONDUCTORS UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE ENGINEER.
- ALL OVERCURRENT PROTECTION DEVICES AND ELECTRICAL DISTRIBUTION EQUIPMENT SHALL BE FULLY (100%) RATED FOR AVAILABLE FAULT CURRENT INDICATED. SERIES RATED DEVICES AND EQUIPMENT ARE NOT ACCEPTABLE.

SHEET NOTES

- LOAD IN CALCULATION IS 16.128 KVA MINUS DEMOLISHED EXISTING UNIT LOAD OF 12.264 KVA.

Autodesk Docs://21116 Carson City Fleet Services Tire and Welding/21106 - Carson City Fleet Services_Elec/22.rvt

2022-02-08 9:09:28 AM



Professional Seal Date Revision

PK Electrical, Inc.
Engineering Design Consulting
681 Sierra Ross Drive, Suite B | Reno, NV 89511 | 775.826.9010
4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
pkelctrical.com 21106

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775-332-6640
F 775-332-6642
hkarchitects.com

Carson City Tire and Welding Shop Expansion
3505 Butti Way
Carson City, NV 89701

Online Diagram and Panel Schedules
January 28, 2022
E003



COMcheck Software Version 4.1.5.3
Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Carson City Fleet Services Tire and Welding Shop
Project Type: Addition

Construction Site: 3505 Butti Way, Carson City, NV 89701
Owner/Agent: Carson City Public Works, 3505 Butti Way, Carson City, NV 89701
Designer/Contractor: PK Electrical, 681 Sierra Rose Dr Suite B, Reno, NV 89511, 775-826-9010

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Tire and Welding Shop (Workshop)	2257	0.90	2031
Total Allowed Watts =			2031

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Tire and Welding Shop (Workshop) LED 1: L1: Cable mounted highbay; LED Other Fixture Unit 125W:	1	15	125	1875
Total Proposed Watts =				1875

Interior Lighting PASSES: Design 8% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title _____ Signature _____ Date _____

Project Title: Carson City Fleet Services Tire and Welding Shop Report date: 09/16/21
Data filename: K:\2021\21106 - Carson City Fleet Services Tires and Welding Shop\02_Design\B_Lighting\02_Lighting Calcs\B_Energy Compliance Calcs (IECC)\welding shop addition.cck Page 1 of 7



COMcheck Software Version 4.1.5.3
Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Carson City Fleet Services Tire and Welding Shop
Project Type: Addition
Exterior Lighting Zone: 4 (High activity metropolitan commercial district (LZ4))

Construction Site: 3505 Butti Way, Carson City, NV 89701
Owner/Agent: Carson City Public Works, 3505 Butti Way, Carson City, NV 89701
Designer/Contractor: PK Electrical, 681 Sierra Rose Dr Suite B, Reno, NV 89511, 775-826-9010

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Walkway < 10 feet wide	134 ft of	0.7	Yes	94
Total Tradable Watts (a) =				94
Total Allowed Watts =				94
Total Allowed Supplemental Watts (b) =				900

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 900 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Walkway < 10 feet wide (134 ft of walkway length): Tradable Wattage LED 1: L2: LED wall pack; LED Other Fixture Unit 46W:	1	4	46	184
Total Tradable Proposed Watts =				184

Exterior Lighting PASSES: Design 81% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title _____ Signature _____ Date _____

Project Title: Carson City Fleet Services Tire and Welding Shop Report date: 09/16/21
Data filename: K:\2021\21106 - Carson City Fleet Services Tires and Welding Shop\02_Design\B_Lighting\02_Lighting Calcs\B_Energy Compliance Calcs (IECC)\welding shop addition.cck Page 2 of 7

LIGHTING FIXTURE SCHEDULE

PK ELECTRICAL, INC. @ 2018

LIGHTING FIXTURE CATALOG NUMBERS ARE SERIES TYPE ONLY. PROVIDE TRIMS, BALLASTS, MOUNTING EQUIPMENT, FITTINGS AND LAMPS AS REQUIRED BY THE SPECIFICATIONS AND PROJECT CONDITIONS FOR A COMPLETE INSTALLATION. THIS IS NOT A STANDALONE SCHEDULE AND FIXTURES MUST INCORPORATE ALL WORK INDICATED OR IMPLIED THROUGHOUT THE DRAWINGS AND SPECIFICATIONS.

LIGHTING SYSTEM FOOTCANDLE LEVELS ARE BASED ON THE UTILIZATION OF STANDARD REFLECTANCES OF 80-50-20 (CEILING-WALL-FLOOR) PER I.E.S. (ILLUMINATED ENGINEERING SOCIETY). THE ROOM SURFACES ARE USED AS AN INTEGRAL COMPONENT OF THE LIGHTING SYSTEMS. THE REFLECTANCE OF THE SURFACE PAINT COLOR, MATERIAL, AND OTHER ROOM SURFACES DIRECTLY AFFECTS THE DELIVERY OF LIGHT TO THE WORK PLANE. A SIGNIFICANT DROP IN OVERALL LIGHTING LEVELS WILL OCCUR IF REFLECTANCES ARE LOWERED. THE ARCHITECT/OWNER SHALL NOTIFY THE ENGINEER IMMEDIATELY IF FINISHES DO NOT FALL IN LINE WITH THE REFLECTANCES MENTIONED ABOVE.

SUBSTITUTION: DEFINITIONS

OR EQUAL = EQUAL OR SUPERIOR TO SPECIFIED IN ALL RESPECTS WILL BE ALLOWED. ENGINEER'S PRE-BID APPROVAL IS NOT REQUIRED. PROPOSED EQUAL FIXTURES ARE SUBJECT TO REVIEW DURING THE STANDARD SUBMITTAL PROCESS.

NO EQUAL = PROVIDE SPECIFIED FIXTURE. SUBSTITUTIONS ARE NOT ALLOWED.

SUBJECT TO REVIEW = EQUAL OR SUPERIOR TO SPECIFIED IN ALL RESPECTS MAY BE ALLOWED ONLY WITH ENGINEER'S APPROVAL. ALL SUBSTITUTIONS MUST BE SUBMITTED AS REQUIRED BY SPECIFICATIONS AND ACCOMPANIED WITH POINT BY POINT LIGHTING CALCULATIONS. DETERMINATION OF EQUAL IS ENGINEER'S SOLE DISCRETION.

L1		CABLE SUSPENDED HIGH-BAY FIXTURE WITH HOOK MONOPOINT MOUNT POINT, WIDE DISTRIBUTION. SOURCE: LED, 4000K VOLTAGE: 120 V MANUFACTURER: LITHONIA #HL-15L-WD-120-LP840-IBHMP SUBSTITUTIONS: <input type="radio"/> OR EQUAL <input type="radio"/> SUBJECT TO REVIEW <input checked="" type="radio"/> NO EQUAL
125 VA		
L2		TYPE II MEDIUM EXTERIOR SURFACE MOUNT WALL PACK, CAST ALUMINUM HOUSING, 180 DEGREE MOTION/AMBIENT LIGHT SENSOR WITH INTERGRAL PHOTOCELL AND DARK BRONZE FINISH. SOURCE: LED, 5000K VOLTAGE: 120 V MANUFACTURER: LITHONIA #DSXW1 LED-20C-700-50K-T2M-120-PIRH-DDBTXD SUBSTITUTIONS: <input type="radio"/> OR EQUAL <input type="radio"/> SUBJECT TO REVIEW <input checked="" type="radio"/> NO EQUAL
46 VA		
X1		COMBINATION EXIT SIGN WITH ADJUSTIBLE LED EMERGENCY LIGHTING HEADS, SINGLE FACE THERMOPLASTIC HOUSING, GREEN LETTERS, SELF-DIAGNOSTICS, MOUNT AT 8'-0" AFF TO CENTER OF FIXTURE. SOURCE: LED (INTERGRAL) VOLTAGE: 120 V MANUFACTURER: LITHONIA #LHQM-LED-G-HO-SD SUBSTITUTIONS: <input type="radio"/> OR EQUAL <input type="radio"/> SUBJECT TO REVIEW <input checked="" type="radio"/> NO EQUAL
0 VA		
X2		EXTERIOR WALL MOUNTED NORMALLY OFF EMERGENCY EGRESS LUMINAIRE, WIDE DISTRIBUTION, BRONZE FINISH, COLD-WEATHER BATTERY PACK. SOURCE: LED (INTERGRAL) VOLTAGE: 120 V MANUFACTURER: LITHONIA #AFF-OEL-DBRDX-JVOLT-LTP-SDRT-WT-CW SUBSTITUTIONS: <input type="radio"/> OR EQUAL <input type="radio"/> SUBJECT TO REVIEW <input checked="" type="radio"/> NO EQUAL
0 VA		



Professional Seal Date _____ Revision _____

© Copyright H + K Architects



PK Electrical, Inc.
Engineering Design Consulting
681 Sierra Rose Drive, Suite B | Reno, NV 89511 | 775-826-9010
4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
pkelctrical.com 21106

Consultant

H+K ARCHITECTS

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775-332-6640
F 775-332-6642

hkarchitects.com

Carson City Tire and Welding Shop Expansion

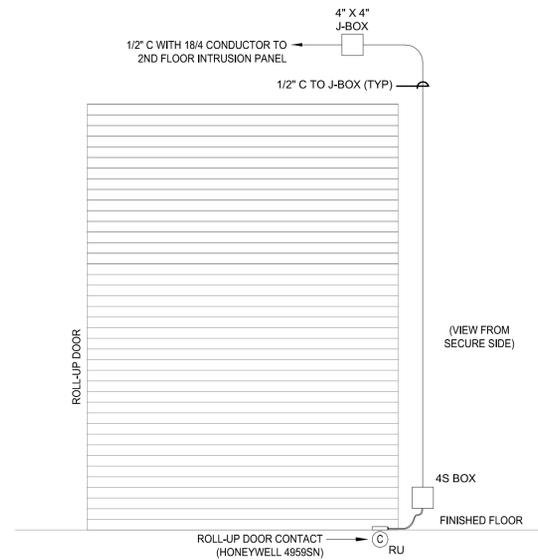
3505 Butti Way
Carson City, NV 89701

Light Fixture Schedule and IECC Calculations

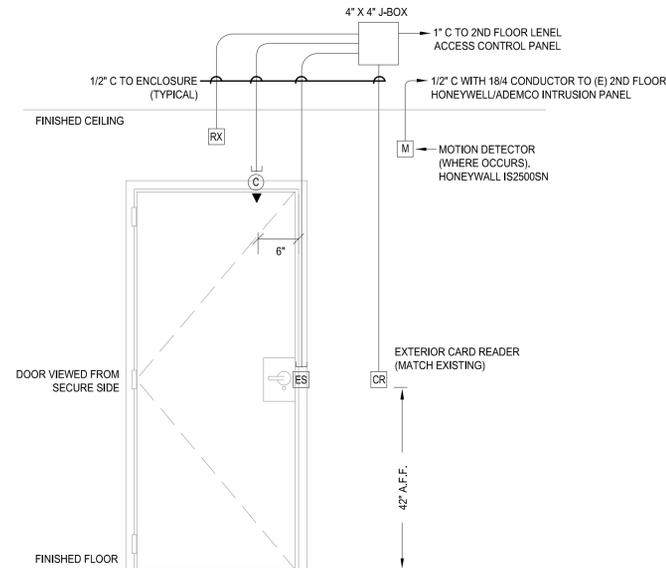
January 28, 2022

E004

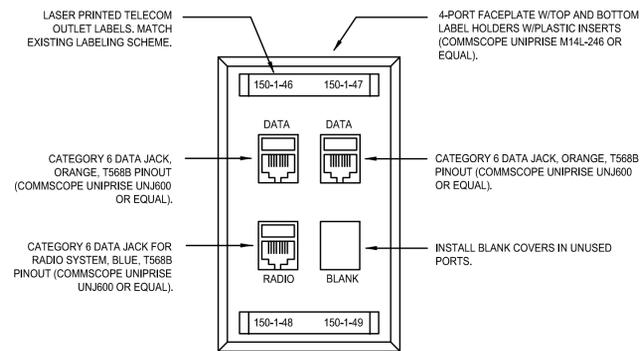




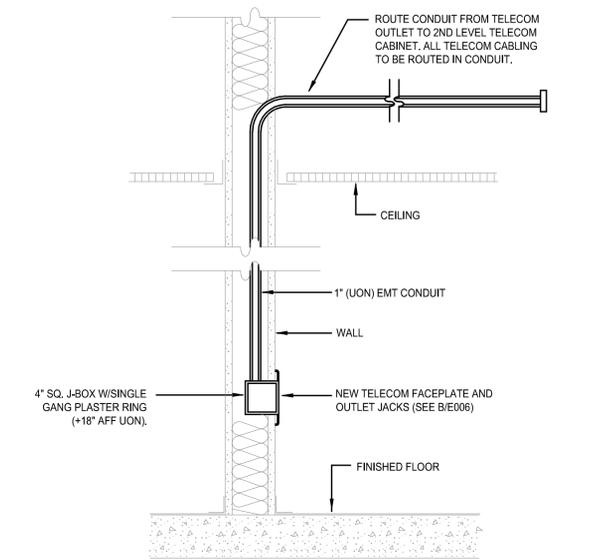
D
E006 ROLL-UP DOOR CONTACTS
SCALE: N.T.S.



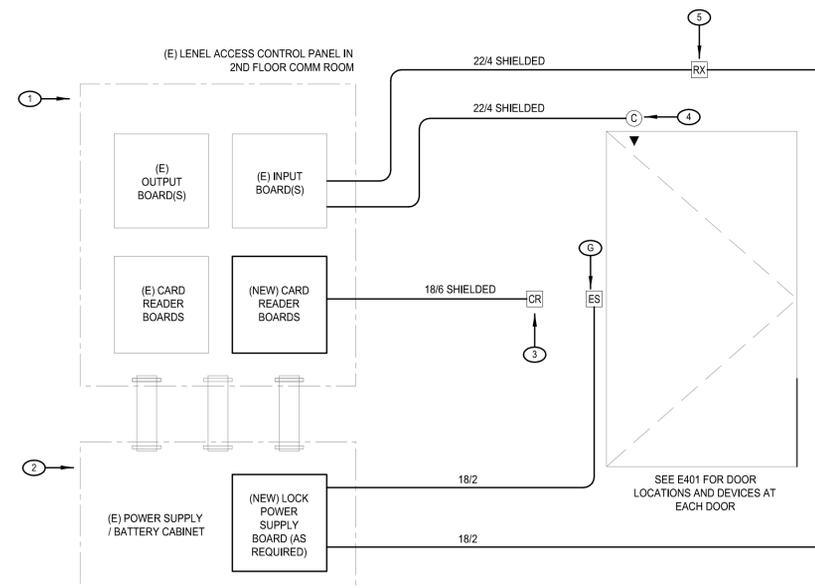
C
E006 SINGLE DOOR CARD READER IN WITH ELECTRIC STRIKE ROUGHIN
SCALE: N.T.S.



B
E006 TELECOM / RADIO OUTLET
SCALE: NONE



A
E006 TELECOM OUTLET BOX ROUGHIN
SCALE: NONE



E
E006 ACCESS CONTROL SYSTEM ONE-LINE DIAGRAM
SCALE: NONE

ACCESS CONTROL SYSTEM GENERAL NOTES

1. CONTRACTOR INSTALLING ACCESS CONTROL DEVICES AND CABLING SHALL BE LEVEL CERTIFIED.
2. NOT ALL DEVICES AND CABLING ARE SHOWN IN THE ONELINE DIAGRAM. SUBMIT SHOP DRAWINGS FOR APPROVAL INCLUDING POINT-TO-POINT WIRING AND PANEL BLOCK DIAGRAMS SHOWING ALL DEVICES AND REQUIRED CABLING.
3. SUBMIT LAYOUT DRAWING FOR APPROVAL OF EQUIPMENT MOUNTED IN THE SECURITY PANELS INCLUDING CONTROLLERS, READER BOARDS, I/O MODULES, POWER SUPPLIES, BATTERY CHARGERS, FUSES, RELAYS, BATTERIES, NETWORK OUTLETS, ELECTRICAL OUTLETS, CABLE MANAGEMENT WIREWAYS, ETC.
4. SUBMIT CUT SHEETS FOR APPROVAL OF ALL SECURITY EQUIPMENT INCLUDING BUT NOT LIMITED TO SECURITY CONTROLLERS, CARD READER BOARDS, I/O MODULES, RELAYS, POWER SUPPLIES, BATTERIES, CABLING, CARD READERS, ETC.
5. SUBMIT BATTERY CALCULATIONS FOR APPROVAL. BATTERIES SHALL BACKUP THE CARD ACCESS CONTROL SYSTEM FOR A MINIMUM OF 2 HOURS.
6. ALL SECURITY CABLE IS TO BE ROUTED IN CONDUIT FROM THE FIELD DEVICES TO THE CONTROL PANEL LOCATED IN THE 2ND FLOOR COMMUNICATIONS ROOM. NO EXPOSED CABLING IS PERMITTED.

ACCESS CONTROL SYSTEM SHEET NOTES

1. EXISTING LEVEL ACCESS CONTROL PANEL. INSTALL ADDITIONAL LEVEL READER BOARDS AS REQUIRED TO ACCOMMODATE NEW CARD READER DOORS.
2. EXISTING POWER SUPPLY AND BATTERY CABINET. PROVIDE NEW LOCK POWER SUPPLIES AS REQUIRED TO ACCOMMODATE NEW ELECTRIC STRIKES.
3. NEW CARD READERS. CARD READERS TO MATCH EXISTING IN BUILDING.
4. NEW RECESSED DOUBLE POLE/DOUBLE THROW MAGNETIC DOOR POSITION CONTACTS. DOOR CONTACTS TO BE CONNECTED TO BOTH THE ACCESS CONTROL SYSTEM AND THE INTRUSION DETECTION SYSTEM. PROVIDE SEPARATE CABLES AS REQUIRED FOR BOTH SYSTEMS.
5. NEW REQUEST TO EXIT MOTION DETECTOR (MATCH EXISTING).
6. NEW ELECTRIC STRIKE (SEE ARCHITECTURAL DOOR HARDWARE SCHEDULE).

ACCESS CONTROL SYSTEM LEGEND	
SYMBOL	DESCRIPTION
CR	CARD READER
C	DOUBLE POLE DOUBLE THROW MAGNETIC DOOR POSITION CONTACT
RX	REQUEST TO EXIT MOTION DETECTOR
ES	ELECTRIC STRIKE

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/21106 - Carson City Fleet Services_Elec/22.nt

2022-02-08 9:09:30 AM



Date	Revision

© Copyright H + K Architects



PK Electrical, Inc.
Engineering Design Consulting
681 Sierra Rosa Drive, Suite 8 | Reno, NV 89511 | 775.826.9010
4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
pkelctrical.com 21106

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775-332-6640
F 775-332-6642
hkarchitects.com

Carson City Tire and Welding Shop Expansion

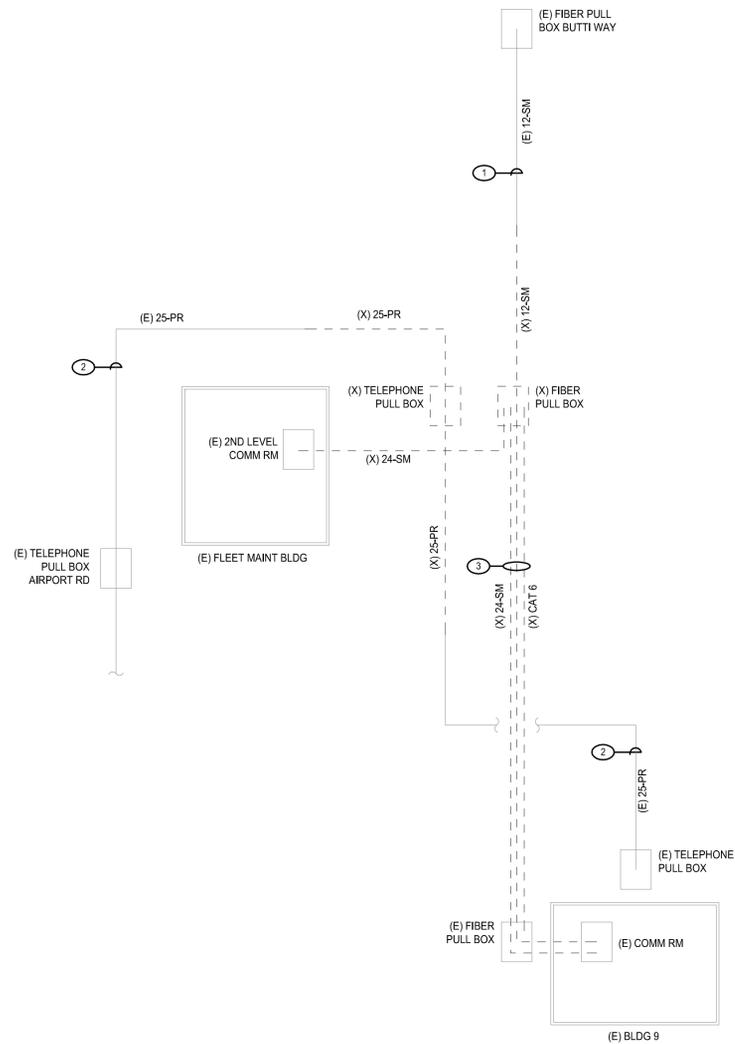
3505 Butti Way
Carson City, NV 89701

Details

January 28, 2022

E006





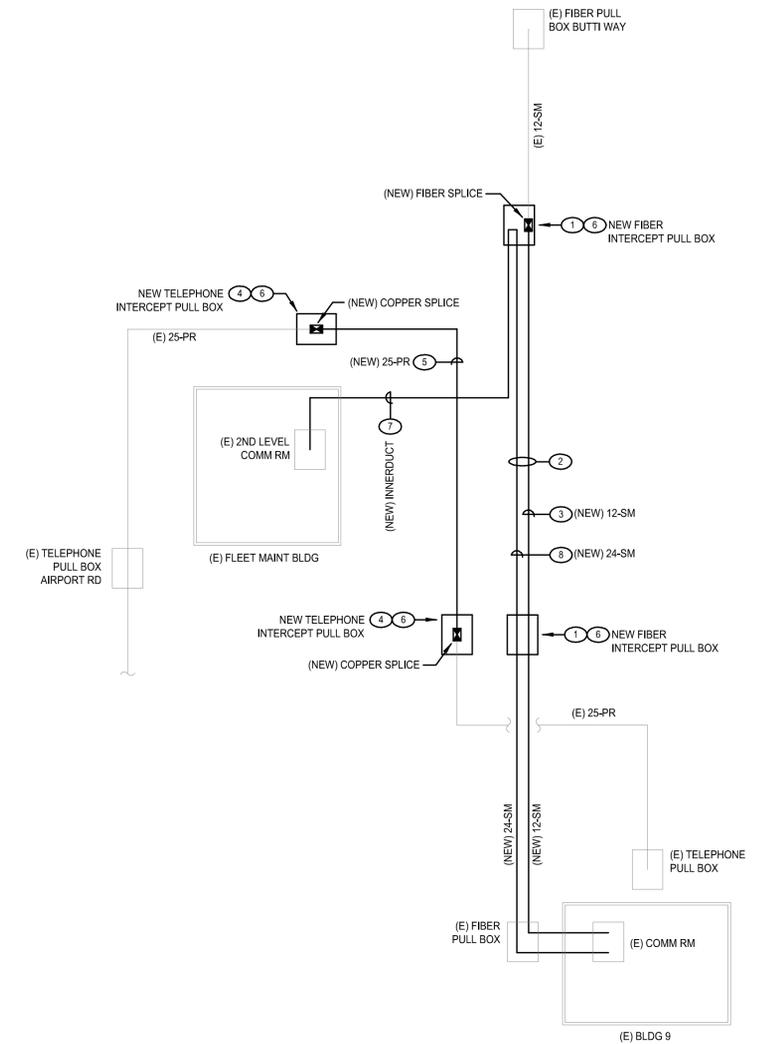
B TELECOM BACKBONE ONELINE (DEMOLITION)
E007 SCALE: NONE

TELECOM BACKBONE ONELINE GENERAL NOTES (DEMOLITION)

- EXISTING TELEPHONE AND FIBER SERVICE MUST REMAIN IN OPERATION UNTIL WORK SHOWN ON SITE PLAN E110 AND TELECOM BACKBONE ONELINE DIAGRAM A/E007 IS COMPLETE. SCHEDULE ALL CUTOVERS WITH CARSON CITY PUBLIC WORKS. TELEPHONE AND FIBER CUTOVERS MUST BE COMPLETE PRIOR TO DEMOLITION OF EXISTING PULL BOXES AND ASSOCIATED CONDUIT/CABLES.

TELECOM BACKBONE ONELINE SHEET NOTES (DEMOLITION)

- EXISTING QTY (3) 1" HDPE INNERDUCTS (INNERDUCT COLORS RED, WHITE AND BLUE). BLUE INNERDUCT CONTAINS 12-STRAND SINGLEMODE FIBER ROUTED FROM EXISTING PULL BOX ALONG BUTTI WAY TO BUILDING 9 COMM ROOM. RED AND WHITE INNERDUCTS ARE EMPTY.
- EXISTING (1) 1 1/2" CONDUIT WITH 25-PAIR PHONE CABLE ROUTED FROM AT&T PULL BOX ALONG AIRPORT WAY TO PULL BOX ON NORTH SIDE OF BUILDING #9.
- EXISTING QTY (3) 1" HDPE INNERDUCTS (INNERDUCT COLORS RED, WHITE AND BLUE). BLUE INNERDUCT CONTAINS (E) 12-STRAND SINGLEMODE FIBER ROUTED FROM EXISTING PULL BOX ALONG BUTTI WAY TO BUILDING 9 COMM ROOM CABINET (FIBER TO BE REMOVED AFTER CUTOVER). WHITE INNERDUCT CONTAINS 24-STRAND SINGLEMODE FIBER ROUTED FROM FLEET BUILDING TELECOM CABINET TO BUILDING 9 COMM ROOM CABINET (FIBER TO BE REMOVED AFTER CUTOVER). WHITE INNERDUCT ALSO CONTAINS ABANDONNED OSP CAT 6 CABLE TO BE REMOVED. RED INNERDUCT IS EMPTY.



A TELECOM BACKBONE ONELINE (NEW WORK)
E007 SCALE: NONE

TELECOM BACKBONE ONELINE SHEET NOTES (NEW WORK)

- POT HOLE, LOCATE AND INTERCEPT EXISTING QTY (3) HDPE INNERDUCTS. INSTALL NEW PULL BOX OVER INNERDUCTS.
- INSTALL NEW (1) 4" SCHEDULE 40 PVC CONDUIT BETWEEN PULL BOXES WITH QTY (3) 1" HDPE INNERDUCTS (COLORS RED, WHITE AND BLUE) ROUTED IN CONDUIT.
- INSTALL 12-STRAND LOOSETUBE SINGLEMODE FIBER FROM PULL BOX TO BUILDING #9 COMM ROOM (ROUTE FIBER IN RED INNERDUCT). TERMINATE FIBER IN BUILDING #9 COMM ROOM IN NEW RACK MOUNTED 1RU FIBER TERMINATION CABINET WITH NEW 12-STRAND FUSION SPLICING CASSETTE WITH DUPLEX LC CONNECTORS. INSTALL OSP RATED FUSION SPLICING CLOSURE ON 12-STRAND FIBER IN PULL BOX READY FOR CUTOVER. SCHEDULE FIBER CUTOVER WITH CARSON CITY PUBLIC WORKS.
- POT HOLE, LOCATE AND INTERCEPT EXISTING 25-PAIR COPPER PHONE CABLE AND ASSOCIATED CONDUIT. INSTALL NEW PULL BOX OVER PHONE CABLE/CONDUIT.
- INSTALL NEW (1) 2" SCHEDULE 40 PVC CONDUIT BETWEEN INTERCEPT PULL BOXES AND INSTALL 25-PAIR OSP COPPER PHONE CABLE BETWEEN PULL BOXES. TERMINATE PHONE CABLE IN PULL BOXES IN OSP RATED COPPER SPLICING CLOSURES READY FOR CUTOVER. SCHEDULE COPPER CUTOVER WITH CARSON CITY PUBLIC WORKS. CUT EXISTING COPPER CABLE AND SPLICE TO NEW COPPER CABLE IN SPLICING CLOSURES.
- NEW 17" WIDE X 30" LONG TRAFFIC RATED COMMUNICATION INTERCEPT PULL BOX WITH QTY (2) 12" CONCRETE EXTENSIONS (JENSEN PRECAST HT1730 BOX WITH (2) HT1730-E EXTENSIONS). SEE A/E005.
- INSTALL NEW (1) 4" SCHEDULE 40 PVC CONDUIT FROM INTERCEPT PULL BOX TO FLEET BUILDING WITH QTY (3) 1" HDPE INNERDUCTS (COLORS RED, WHITE AND BLUE).
- INSTALL 24-STRAND INDOOR/OUTDOOR RATED SINGLE MODE FIBER OPTIC CABLE FROM FLEET BUILDING COMMUNICATIONS CABINET TO BUILDING #9 COMM ROOM. ROUTE FIBER IN BLUE HDPE INNERDUCT. TERMINATE CABLE AT BOTH ENDS IN 24-STRAND FUSION SPLICING CASSETTES WITH DUPLEX LC CONNECTORS. MOUNT FUSION SPLICING CASSETTE AT FLEET BUILDING IN EXISTING FIBER TERMINATION CABINET. MOUNT FUSION SPLICING CASSETTE AT BUILDING 9 IN 1RU FIBER TERMINATION CABINET (SEE NOTE 3 ABOVE).

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/21106 - Carson City Fleet Services_Elec/22.nt

2022-02-08 9:09:30 AM



Professional Seal △ Date Revision

© Copyright H + K Architects



PK Electrical, Inc.
Engineering Design Consulting
 681 Sierra Rosa Drive, Suite B | Reno, NV 89511 | 775.826.9010
 4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
 pkelectrical.com 21106

Consultant

H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262

P 775-332-6640
 F 775-332-6642

hkarchitects.com

Carson City Tire and Welding Shop Expansion

3505 Butti Way
 Carson City, NV 89701

Telecom Onelines

January 28, 2022

E007

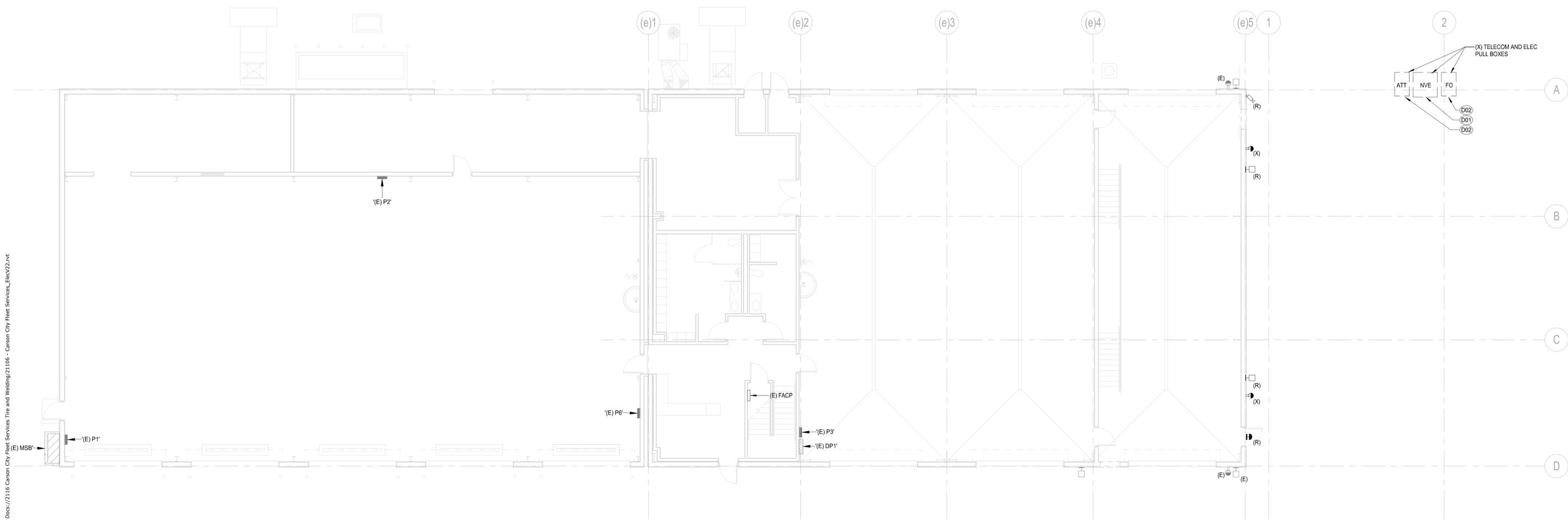


SHEET NOTES

- D01 EXISTING ELECTRICAL SERVICE MUST REMAIN IN OPERATION UNTIL WORK SHOWN ON SITE PLAN E110 IS COMPLETE. SCHEDULE ELECTRICAL CUTOVER WITH NVE AND CARSON CITY PUBLIC WORKS. ELECTRICAL CUTOVER MUST BE COMPLETE PRIOR TO DEMOLITION OF EXISTING ELECTRICAL PULL BOX AND ASSOCIATED CONDUIT.
- D02 EXISTING TELEPHONE AND FIBER SERVICE MUST REMAIN IN OPERATION UNTIL WORK SHOWN ON SITE PLAN E110 IS COMPLETE. SCHEDULE CUTOVERS WITH CARSON CITY PUBLIC WORKS. TELEPHONE AND FIBER CUTOVERS MUST BE COMPLETE PRIOR TO DEMOLITION OF EXISTING PULL BOXES AND ASSOCIATED CONDUIT/CABLES.

GENERAL NOTES

1. (X) AND/OR DASHED LINES INDICATE EXISTING EQUIPMENT TO BE REMOVED, (R) AND/OR DASHED LINES INDICATE EXISTING EQUIPMENT TO BE RELOCATED, (E) AND/OR SOLID HALFTONE LINES INDICATE EXISTING EQUIPMENT TO REMAIN UNLESS NOTED OTHERWISE. FO SHD
2. SALVAGEABLE ITEMS REMOVED DURING DEMOLITION SHALL BE OFFERED TO OWNER PRIOR TO DISPOSAL OR REMOVAL FROM SITE.
3. EXISTING CIRCUITS AS INDICATED ARE BASED ON CASUAL FIELD OBSERVATION AND INFORMATION PER RECORD DRAWINGS AND SHALL BE FIELD VERIFIED BY ELECTRICAL CONTRACTOR PRIOR TO START OF DEMOLITION WORK.
4. THE CONTRACTOR MAY SALVAGE AND REUSE EXISTING BOXES AND CONDUIT WHERE POSSIBLE. DAMAGED CONDUIT, FITTINGS BOXES, ETC. MAY NOT BE RE-USED. NEW CIRCUITING AS INDICATED ON THE DRAWINGS IS SHOWN FOR INTENT ONLY AND MAY VARY BASED ON ACTUAL FIELD CONDITIONS (NEW CIRCUITING SHALL MATCH EXISTING WHERE POSSIBLE TO UTILIZE EXISTING HOME-RUN CONDUITS, ETC.). KEEP AS-BUILT DRAWINGS CURRENT WITH ANY DEVIATION IN CIRCUITING FROM WHAT IS INDICATED WITHIN THESE PLANS.
5. THE CONTRACTOR SHALL REMOVE FROM THE JOB SITE ALL DISCARDED AND ABANDONED MATERIALS LEFT OVER FROM DEMOLITION AND INSTALLATION. THIS INCLUDES, BUT IS NOT LIMITED TO, CONDUIT, FASTENERS AND BOXES. MATERIALS EMBEDDED IN GRADE AND / OR CONCRETE MAY BE ABANDONED IN PLACE. ALL ABANDONED CONDUIT SHALL BE CAPPED.



1 Electrical Demo Plan
E101 Scale: 1/8" = 1'-0"

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/21106 - Carson City Fleet Services_Elec/22.nt



Professional Seal	Date	Revision

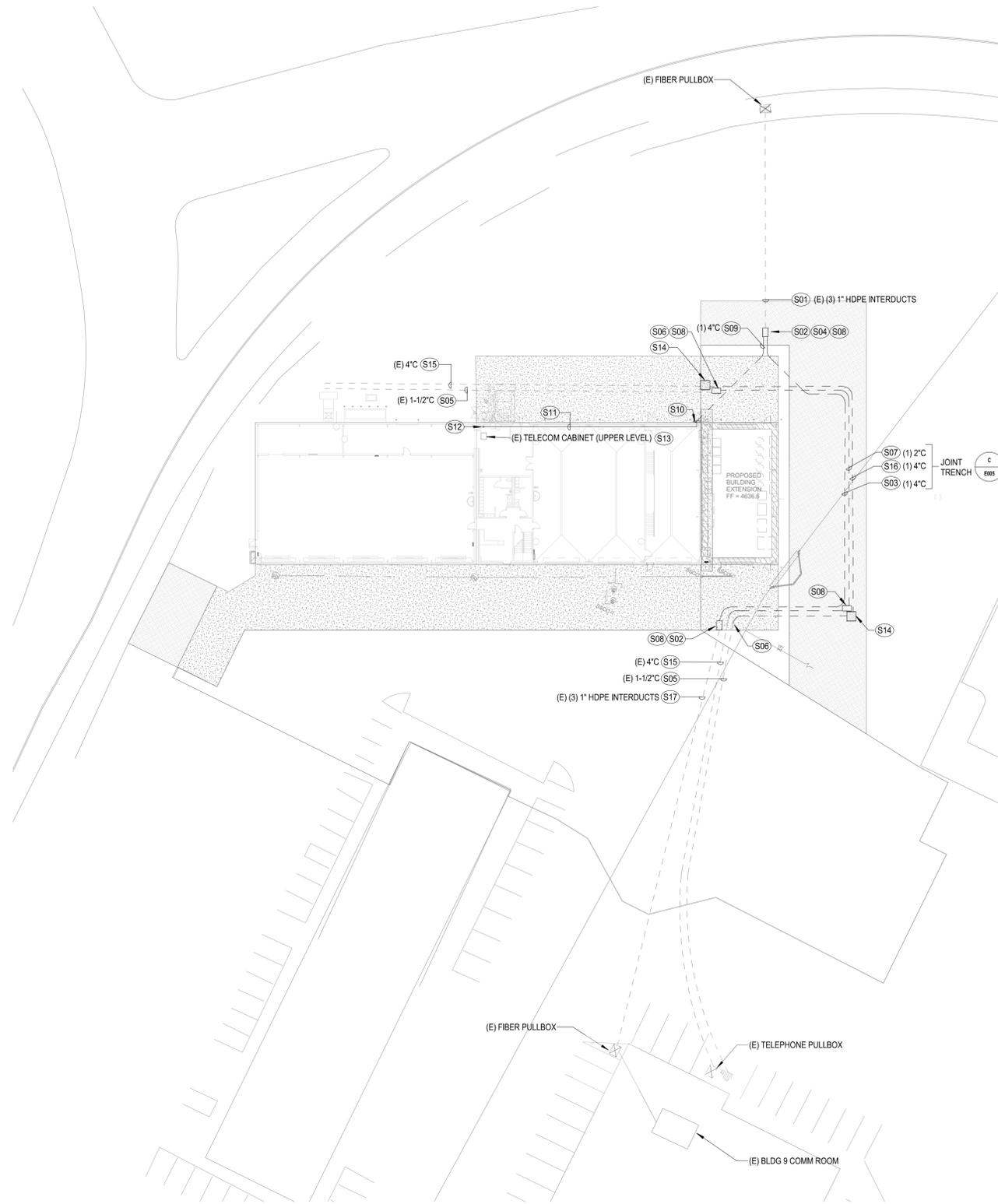
Consultant

PK Electrical, Inc.
Engineering Design Consulting
681 Sierra Rosa Drive, Suite B | Reno, NV 89511 | 775.826.9010
4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
pkelctrical.com 21106

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775-332-6640
F 775-332-6642
hkarchitects.com

Carson City Tire and Welding Shop Expansion
3505 Butti Way
Carson City, NV 89701

Electrical Demolition
January 28, 2022
E101



1 Electrical Site Plan
 E110 Scale: 1" = 30'-0"

- GENERAL NOTES**
- (E) AND/OR SOLID HALFTONE LINES INDICATE EXISTING EQUIPMENT, (R) AND/OR DASHED LINES INDICATE RELOCATED EQUIPMENT, (N) AND/OR SOLID LINES INDICATE NEW EQUIPMENT UNLESS NOTED OTHERWISE.
 - COORDINATE LOCATION OF BELOW-GRADE CONDUITS, DUCT BANKS, ETC. WITH CIVIL ENGINEER AND OTHER TRADES PRIOR TO ROUGH-IN.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH APPLICABLE UTILITY COMPANY'S DRAWINGS AND REPRESENTATIVES FOR DETERMINING THE EXACT RESPONSIBILITY OF EACH PARTY.
 - EACH CONDUIT AND INNERDUCT SHALL BE PROVIDED WITH A 1250 LBS. PULL ROPE.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL 1-800-227-2600 FOR LOCATES PRIOR TO DIGGING, IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL NON-UTILITY UNDERGROUND ITEMS.
 - THE MAXIMUM NUMBER OF CONDUIT BENDS SHOULD NOT BE GREATER THAN 270 DEGREES BETWEEN PULLING STRUCTURES. THIS INCLUDES THE AGGREGATE OF ALL HORIZONTAL AND VERTICAL CHANGES.
 - ALL CONDUIT, INNERDUCT, PULLBOXES AND VAULTS SHALL BE LABELED PER THE SPECIFICATIONS.
 - PROVIDE #10 CU CONDUCTORS IN 3/4" CONDUIT MINIMUM, UNLESS NOTED OTHERWISE, FOR ALL SITE LIGHTING AND SITE RECEPTACLE CIRCUITS.
 - ALL RECEPTACLES WITH WEATHER PROOF DESIGNATION SHALL BE PROVIDED WITH 'WHILE IN USE' COVERS.
 - ALL CONDUIT, INNERDUCT, PULLBOXES AND VAULTS SHALL BE LABELED PER THE SPECIFICATIONS.
 - ELECTRICAL AND COMMUNICATIONS SITE WORK SHOWN MUST BE COMPLETED PRIOR TO DEMOLITION OF EXISTING PULL BOXES, CONDUIT AND CABLING. ALL SERVICE CUTVERS/OUTAGES MUST BE COORDINATED AND SCHEDULED WITH CARSON CITY PUBLIC WORKS. COORDINATE WITH EXISTING UTILITY PROVIDERS (NVE AND ATT) FOR INSPECTIONS AND TO PULL NEW CABLING IN THE NEW CONDUIT SYSTEMS.

- SHEET NOTES**
- EXISTING QTY (3) 1" HDPE INNERDUCTS (INNERDUCT COLORS RED, WHITE AND BLUE). BLUE INNERDUCT CONTAINS 12-STRAND SINGLEMODE FIBER ROUTED FROM EXISTING PULL BOX ALONG BUTTI WAY TO BUILDING 9 COMM ROOM. RED AND WHITE INNERDUCTS ARE EMPTY.
 - POT HOLE, LOCATE AND INTERCEPT EXISTING QTY (3) HDPE INNERDUCTS. INSTALL NEW PULL BOX OVER INNERDUCTS.
 - INSTALL NEW (1) 4" SCHEDULE 40 PVC CONDUIT BETWEEN PULL BOXES WITH QTY (3) 1" HDPE INNERDUCTS (COLORS RED, WHITE AND BLUE) ROUTED IN CONDUIT.
 - INSTALL 12-STRAND LOOSE-TUBE SINGLEMODE FIBER FROM PULL BOX TO BUILDING #9 COMM ROOM (ROUTE FIBER IN RED INNERDUCT). TERMINATE FIBER IN BUILDING #9 COMM ROOM IN NEW RACK MOUNTED 1RU FIBER TERMINATION CABINET WITH NEW 12-STRAND FUSION SPLICE CASSETTE W/DUPLEX LC CONNECTORS. INSTALL OSP RATED FUSION SPLICE CLOSURE ON 12-STRAND FIBER IN PULL BOX READY FOR CUTOVER. SCHEDULE FIBER CUTOVER WITH CARSON CITY PUBLIC WORKS. CUT EXISTING FIBER CABLE AND FUSION SPLICE TO NEW FIBER CABLE IN SPLICE CLOSURE.
 - EXISTING (1) 1 1/2" CONDUIT WITH 25-PAIR PHONE CABLE ROUTED FROM AT&T PULL BOX ALONG AIRPORT WAY TO PULL BOX ON NORTH SIDE OF BUILDING #9.
 - POT HOLE, LOCATE AND INTERCEPT EXISTING 25-PAIR COPPER PHONE CABLE AND ASSOCIATED CONDUIT. INSTALL NEW PULL BOX OVER PHONE CABLE/CONDUIT.
 - INSTALL NEW (1) 2" SCHEDULE 40 PVC CONDUIT BETWEEN INTERCEPT PULL BOXES AND INSTALL 25-PAIR OSP COPPER PHONE CABLE BETWEEN PULL BOXES. TERMINATE PHONE CABLE IN PULL BOXES IN OSP RATED COPPER SPLICE CLOSURES READY FOR CUTOVER. SCHEDULE COPPER CUTOVER WITH CARSON CITY PUBLIC WORKS. CUT EXISTING COPPER CABLE AND SPLICE TO NEW COPPER CABLE IN SPLICE CLOSURES.
 - NEW 17" WIDE X 30" LONG TRAFFIC RATED COMMUNICATION INTERCEPT PULL BOX WITH QTY (2) 12" CONCRETE EXTENSIONS (JENSEN PRECAST HT1730 BOX WITH (2) HT1730-E EXTENSIONS); SEE A/E005.
 - INSTALL NEW (1) 4" SCHEDULE 40 PVC CONDUIT FROM INTERCEPT PULL BOX TO FLEET BUILDING WITH QTY (3) 1" HDPE INNERDUCTS (COLORS RED, WHITE AND BLUE). PROVIDE VINYL COATED RIGID CONDUIT STUB UP THROUGH CONCRETE. PROVIDE 4" RIGID CONDUIT ON EXTERIOR OF BUILDING TO NEMA 3R PULL BOX ON SIDE OF BUILDING. SAWCUT CONCRETE APRON AND POUR BACK AS REQUIRED.
 - NEMA 3R PULL BOX MOUNTED ON SIDE OF BUILDING. COORDINATE PULL BOX MOUNTING ON SIDE OF BUILDING WITH EXISTING STRUCTURE AND UTILITIES.
 - INSTALL 4" EMT CONDUIT FROM EXTERIOR PULL BOX TO 2ND FLOOR COMM ROOM WITH QTY (3) 1" HDPE INNERDUCTS (COLORS RED, WHITE AND BLUE).
 - CORE DRILL CONCRETE FLOOR DECK AS REQUIRED FOR CONDUIT ROUTING.
 - EXISTING COMMUNICATIONS CABINET ON 2ND FLOOR ABOVE. INSTALL 24-STRAND INDOOR/OUTDOOR RATED SINGLE MODE FIBER OPTIC CABLE FROM FLEET BUILDING COMMUNICATIONS CABINET TO BUILDING #9 COMM ROOM. ROUTE FIBER IN BLUE HDPE INNERDUCT. TERMINATE CABLE AT BOTH ENDS IN 24-STRAND FUSION SPLICE CASSETTES WITH DUPLEX LC CONNECTORS. MOUNT FUSION SPLICE CASSETTE AT FLEET BUILDING IN EXISTING FIBER TERMINATION CABINET. MOUNT FUSION SPLICE CASSETTE AT BUILDING 9 IN 1RU FIBER TERMINATION CABINET (SEE NOTE S4 ABOVE).
 - NVE 504 SINGLE PHASE PRIMARY VAULT WITH H20 TRAFFIC RATED LID. SEE B/E005.
 - EXISTING 4" NVE PRIMARY CONDUIT. COORDINATE WITH NVE TO PULL BACK EXISTING CONDUITORS TO INTERCEPT AND ROUTE TO NEW VAULT.
 - INSTALL NEW (1) 4" SCHEDULE 40 PVC CONDUIT FOR NVE PRIMARY. COORDINATE WITH NVE FOR EXACT REQUIREMENTS AND INSPECTIONS.
 - EXISTING QTY (3) 1" HDPE INNERDUCTS (INNERDUCT COLORS RED, WHITE AND BLUE). BLUE INNERDUCT CONTAINS (E) 12-STRAND SINGLEMODE FIBER ROUTED FROM EXISTING PULL BOX ALONG BUTTI WAY TO BUILDING 9 COMM ROOM CABINET (TO BE REMOVED AFTER CUTOVER). WHITE INNERDUCT CONTAINS 24-STRAND SINGLEMODE FIBER ROUTED FROM FLEET BUILDING TELECOM CABINET TO BUILDING 9 COMM ROOM CABINET (TO BE REMOVED AFTER CUTOVER). WHITE INNERDUCT ALSO CONTAINS ABANDONNED OSP CAT 6 CABLE TO BE REMOVED. RED INNERDUCT IS EMPTY.

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/21106 - Carson City Fleet Services_Elec/222.nt

2022-02-08 9:09:32 AM



Professional Seal	Date	Revision

PK Electrical, Inc.
 Engineering Design Consulting
 681 Sierra Rosa Drive, Suite 8 | Reno, NV 89511 | 775.826.9010
 4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
 pkelectrical.com 21106

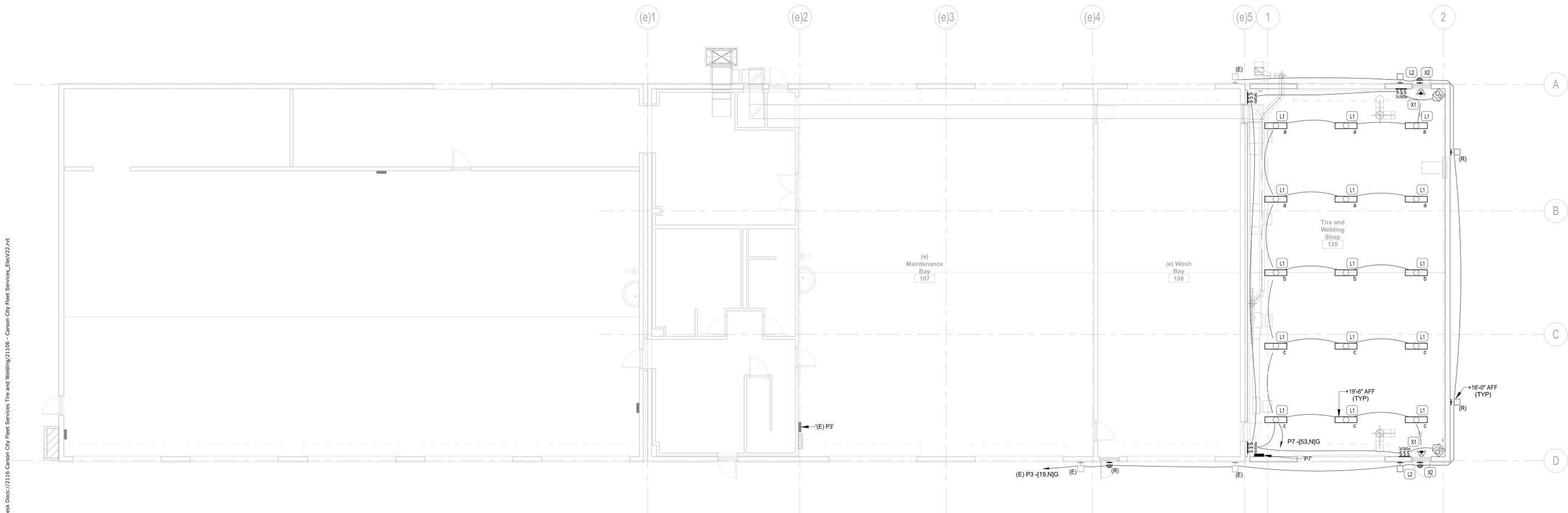
H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262
 P 775-332-6640
 F 775-332-6642
 hkarchitects.com

Carson City Tire and Welding Shop Expansion
 3505 Butti Way
 Carson City, NV 89701

Electrical Site Plan
 January 28, 2022
E110

GENERAL NOTES

- (E) AND/OR SOLID HALFTONE LINES INDICATE EXISTING EQUIPMENT, (R) AND/OR DASHED LINES INDICATE RELOCATED EQUIPMENT, (N) AND/OR SOLID LINES INDICATE NEW EQUIPMENT UNLESS NOTED OTHERWISE.
- LIGHTING FIXTURES DESIGNATED AS 'EMERGENCY' SHALL BE WIRED TO OPERATE WITH LOCAL SWITCHING UNDER NORMAL POWER CONDITIONS AND SHALL OPERATE VIA EMERGENCY BATTERY PACK OR INVERTER UPON LOSS OF BUILDING UTILITY POWER ONLY, UNLESS NOTED OTHERWISE.
- EXIT SIGNS SHALL BE WIRED AHEAD OF LOCAL SWITCHING AND LIGHTING CONTROL PANEL FOR CONTINUOUS OPERATION. EXIT SIGNS SHALL BE WALL-MOUNTED ABOVE DOORS WHERE PRACTICAL. PROVIDE ADDITIONAL EXIT SIGNS AS NECESSARY FOR APPROVAL BY THE AUTHORITY HAVING JURISDICTION, PER ARCHITECT'S FINAL PATH OF EGRESS / EXITING PLAN.
- ELECTRICAL CONDUITS SHALL BE RUN CONCEALED WHERE BUILDING CONSTRUCTION ALLOWS. ANY EXPOSED CONDUIT SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION. ANY EXPOSED CONDUIT, FITTING, SUPPORTS, ETC SHALL BE PAINTED TO MATCH THE SURFACE ON WHICH THEY ARE INSTALLED.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS, SECTIONS, ELEVATIONS, ETC. FOR EXACT LOCATION OF LIGHTING FIXTURES.
- EXACT LOCATION AND MOUNTING HEIGHT OF EXTERIOR BUILDING-MOUNTED FIXTURES SHALL BE COORDINATED WITH ARCHITECT PRIOR TO ROUGH-IN.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING FINAL FIXTURE LOCATIONS, ABOVE-CEILING HOUSING CLEARANCES, ETC. WITH MECHANICAL, PLUMBING, SPRINKLER CONTRACTOR AND OTHER TRADES PRIOR TO ROUGH-IN.
- PROVIDE MULTIPLE-GANG FACEPLATES AS NECESSARY WHERE TWO OR MORE LIGHT SWITCHES ARE INDICATED IN A COMMON LOCATION. SINGLE-GANG FACEPLATES FOR A GROUP OF LIGHT SWITCHES ARE NOT PERMITTED.
- PROVIDE STAINLESS STEEL DEVICE PLATES IN KITCHEN AND ROUGH-SERVICE AREAS.
- CONDUIT FOR BUILDING-MOUNTED LIGHT FIXTURES SHALL BE ROUTED THROUGH INTERIOR OF BUILDING. LIGHT FIXTURE BACKBOXES SHALL BE RECESSED.



1 Lighting Plan
E201 Scale: 1/8" = 1'-0"

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/21106 - Carson City Fleet Services_Elec/22.nt

2022-02-08 9:09:34 AM



Professional Seal	Date	Revision

PK Electrical, Inc.
Engineering Design Consulting
 681 Sierra Rosa Drive, Suite B | Reno, NV 89511 | 775.826.9010
 4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
 pkelectrical.com 21106

H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262
 P 775-332-6640
 F 775-332-6642
 hkarchitects.com

Carson City Tire and Welding Shop Expansion
 3505 Butti Way
 Carson City, NV 89701

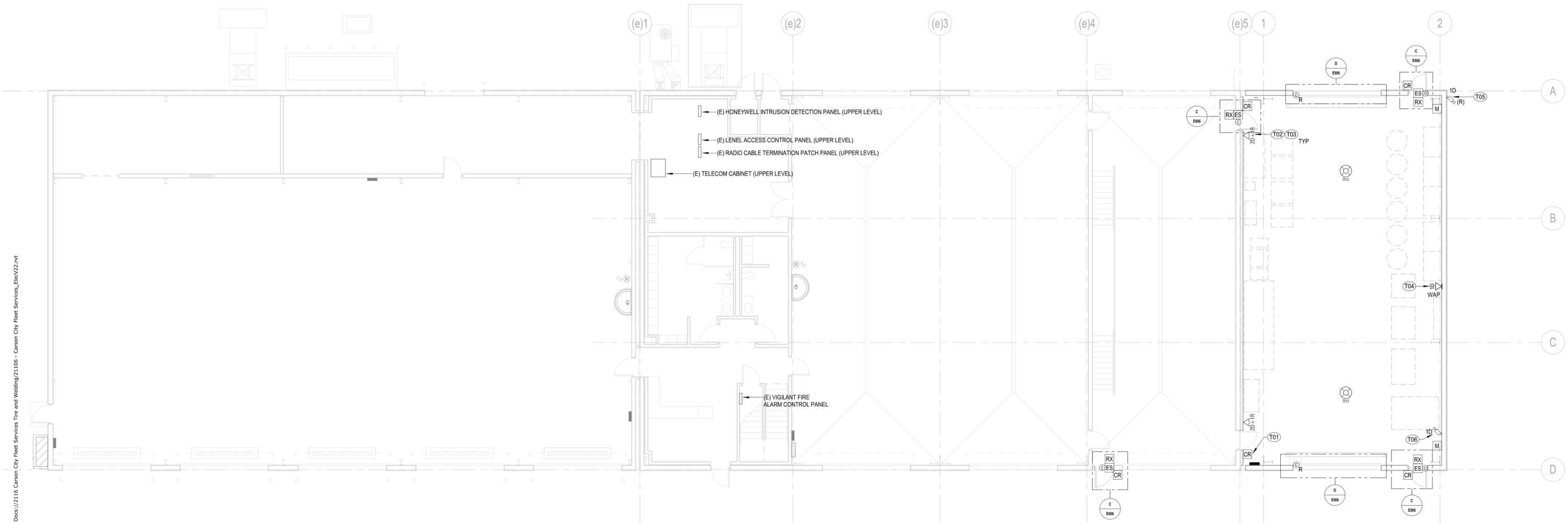
Lighting Plan
 January 28, 2022
E201

GENERAL NOTES

- (E) AND/OR SOLID HALFTONE LINES INDICATE EXISTING EQUIPMENT, (R) AND/OR DASHED LINES INDICATE RELOCATED EQUIPMENT, (N) AND/OR SOLID LINES INDICATE NEW EQUIPMENT UNLESS NOTED OTHERWISE.
- COORDINATE DEVICE PLACEMENT IN CEILING WITH OTHER TRADES, SUCH AS LIGHTING, TELECOM, MECHANICAL, ETC. ALL FIRE ALARM DEVICES LOCATED IN CEILING TILES SHALL BE LOCATED IN THE CENTER OF THE CEILING TILE UNLESS SPECIFICALLY NOTED OR APPROVED TO DO OTHERWISE.
- INFORMATION ON ARCHITECTURAL AND MECHANICAL DRAWINGS SUPERSEDE INFORMATION SHOWN ON ELECTRICAL DRAWINGS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS PRIOR TO ROUGH-IN.
- ROUTE ALL DATA CABLING IN CONDUIT FROM TELECOM OUTLETS TO EXISTING 2ND LEVEL TELECOM CABINET.
- ROUTE ALL SECURITY CABLING IN CONDUIT FROM FIELD DEVICES TO EXISTING 2ND LEVEL SECURITY PANELS. ALL FIELD DEVICES TO MATCH EXISTING IN BUILDING. SEE E/E006 FOR ACCESS CONTROL REQUIREMENTS.

SHEET NOTES

- T01 RELOCATE EXISTING CARD READER TO FACE OF NEW WALL FURRING.
- T02 INSTALL 1" CONDUIT FROM EACH TELECOM OUTLET TO UPPER LEVEL TELECOM RACK. SEE DETAILS A,B/E006 FOR TYPICAL TELECOM OUTLET ROUGH-IN DETAILS.
- T03 INSTALL QTY OF CAT 6 DATA AND RADIO SYSTEM DROPS TO EACH TELECOM OUTLET AS SHOWN ON THE DRAWINGS. FOR EXAMPLE "2D-1R" = 2 CAT 6 DATA DROPS AND 1 CAT 6 RADIO DROP. DATA CABLES SHALL BE PLENUM RATED WITH AN ORANGE JACKET (COMMSCOPE CS34P ORG C6 OR EQUAL). TERMINATE ALL DATA CABLES ON ORANGE CAT 6 DATA JACKS AT THE WORK AREA OUTLETS AND ON 48-PORT CAT 6 PATCH PANELS IN THE EXISTING 2ND LEVEL TELECOM CABINET. RADIO CABLES SHALL BE PLENUM RATED WITH A BLUE JACKET (COMMSCOPE CS34P BLU C6 OR EQUAL). TERMINATE ALL RADIO CABLES ON BLUE CAT 6 DATA JACKS AT THE WORK AREA OUTLETS AND ON EXISTING 24-PORT WALL MOUNTED PATCH PANEL IN THE 2ND LEVEL COMM ROOM.
- T04 WALL MOUNTED WIRELESS ACCESS POINT (ACCESS POINT PROVIDED AND INSTALLED BY OWNER). INSTALL DATA OUTLET (+11'-0" AFF) WITH PLENUM CAT 6 DATA CABLE FROM WIRELESS ACCESS POINT TO 2ND FLOOR TELECOM CABINET.
- T05 RELOCATE EXISTING IP CCTV CAMERA TO CORNER OF BUILDING. INSTALL NEW PLENUM CAT 6 DATA CABLE FROM RELOCATED CAMERA TO 2ND FLOOR TELECOM CABINET. CONFIRM CAMERA VIEW AND MOUNTING WITH OWNER.
- T06 IP CCTV CAMERA. PROVIDE CCTV CAMERA TO MATCH EXISTING CAMERAS IN VEHICLE MAINTENANCE BAYS. PROVIDE DATA OUTLET WITH PLENUM CAT 6 DATA CABLE FROM CAMERA TO 2ND FLOOR TELECOM CABINET. COORDINATE EXACT MOUNTING LOCATION AND HEIGHT WITH OWNER.



1 Low Voltage and Fire Alarm Plan
 E401 Scale: 1/8" = 1'-0"

Autodesk Docs://2116 Carson City Fleet Services Tire and Welding/21106 - Carson City Fleet Services_Elec/22.nt

2022-02-08 9:09:36 AM



Professional Seal	Date	Revision

PK Electrical, Inc.
 Engineering Design Consulting
 681 Sierra Rosa Drive, Suite B | Reno, NV 89511 | 775.826.9010
 4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
 pkelectrical.com 21106

H+K ARCHITECTS
 5485 Reno Corporate Drive, Suite 100
 Reno, Nevada 89511-2262
 P 775-332-6640
 F 775-332-6642
 hkarchitects.com

Carson City Tire and Welding Shop Expansion
 3505 Butti Way
 Carson City, NV 89701

Low Voltage and Fire Alarm Plan
 January 28, 2022
E401