

STAFF REPORT FOR THE PLANNING COMMISSION MEETING OF JANUARY 27, 2016

FILE NO: SUP-15-179

AGENDA ITEM: F-5

STAFF AUTHOR: Kathe Green, Assistant Planner

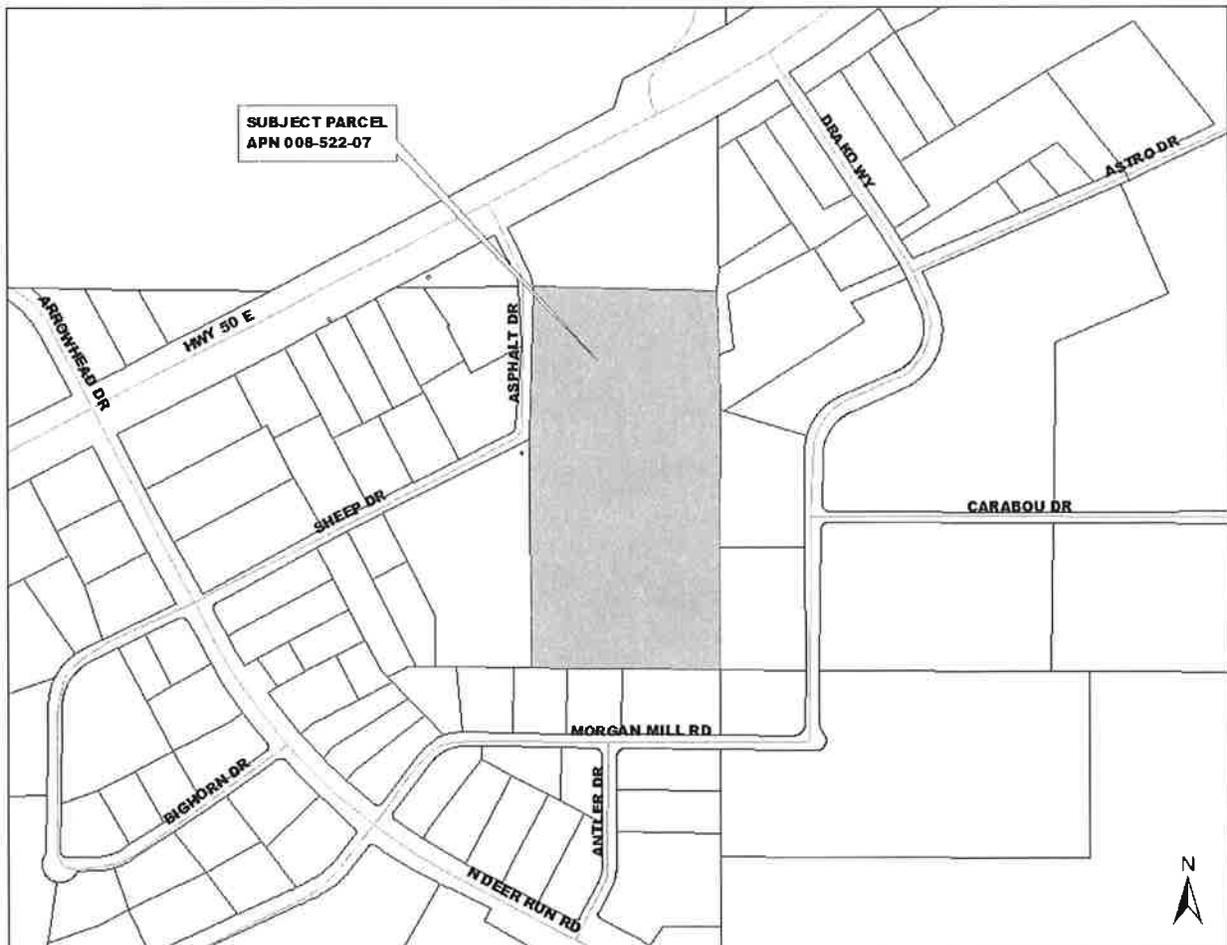
REQUEST: Special Use Permit to allow expansion of a utility substation in the General Industrial (GI) zoning district.

OWNER/APPLICANT: Sierra Pacific Power Company dba NV Energy

AGENT: Mark Sullivan

LOCATION/APN: 3175 Asphalt Drive/008-522-07

RECOMMENDED MOTION: “I move to approve SUP-15-179, a Special Use Permit request from Sierra Pacific Power Company dba NV Energy (owner: Sierra Pacific Power Company dba NV Energy) to allow expansion of a utility substation in the General Industrial zoning district, located at 3175 Asphalt Drive, APN 008-522-07, based on the findings and subject to the conditions of approval contained in the staff report.”



RECOMMENDED CONDITIONS OF APPROVAL:

The following shall be completed prior to commencement of the use:

1. The applicant must sign and return the Notice of Decision for conditions for approval within 10 days of receipt of notification. If the Notice of Decision is not signed and returned within 10 days, then the item may be rescheduled for the next Planning Commission meeting for further consideration.
2. All development shall be substantially in accordance with the development plans approved with this application, except as otherwise modified by these conditions of approval.
3. All on- and off-site improvements shall conform to City standards and requirements.
4. The applicant shall obtain a Building Permit from the Carson City Building Division prior to any proposed construction.
5. The applicant shall meet all the conditions of approval and commence the use for which this permit is granted within 12 months of the date of final approval. A single, one year extension of time may be granted if requested in writing to the Planning Division 30 days prior to the one year expiration date. Should this permit not be initiated within one year and no extension granted, the permit shall become null and void.

The following shall be submitted with any Building Permit application:

6. The applicant shall submit a copy of the Notice of Decision and conditions of approval, signed by the applicant and owner, with any Building Permit application.
7. Provide detail of fencing proposed to surround the utility substation. Fencing is limited in height and design to match the existing fencing on site, including barbed wire strands on top.
8. All projects and improvements must be performed in accordance with Nevada State Revised Statutes (NRS) 623 & 624 and Carson City Municipal Code (CCMC) 15.05.020.
9. Any repairs, replacements and alterations must comply with 2012 International Residential and Building Codes, 2012 Uniform Plumbing code, Uniform Mechanical Code or 2012 International Mechanical Code, 2012 Fuel Gas Code, 2011 Electrical Code, Adopted International Energy Conservation Code, and 2012 Northern Nevada Amendments. The 2009 International Energy Conservation Code (IECC) will no longer be accepted after June 2016. The 2012 IECC will be enforced as of July 2016. The Codes will be locked in on the application date.
10. All Contractors are required to carry State and local license.
11. The project is in the identified Wildland Urban Interface area of Carson City and must comply with the 2012 International Wildland Urban Interface Code.
12. Project must comply with 2012 International Fire Code and Northern Nevada Amendments.

The following applies to the site throughout the life of the project:

13. Any proposed exterior light fixtures must be reviewed and approved prior to installation. All lighting must comply with Development Standards Division 1.3 Light and Glare.
14. The facility shall be posted with a sign indicating the utility substation owner(s) and a 24-hour emergency telephone number.
15. The proposed expansion shall not exceed an overall height of 60 feet, as shown on submitted plans.

LEGAL REQUIREMENTS: CCMC 18.02.080 (Special Use Permits), CCMC 18.04.150 General Industrial (GI), CCMC 18.03 (Definitions)

MASTER PLAN DESIGNATION: Public/Quasi-Public

PRESENT ZONING: General Industrial (GI)

KEY ISSUES: Will the proposed construction of an expansion of an existing utility substation be in keeping with all of the standards of the Carson City Municipal Code? Is this location appropriate for the proposed expansion of an existing use?

SURROUNDING ZONING AND LAND USE INFORMATION:

NORTH: Public Community (PC)/vacant

WEST: General Industrial (GI)/Capital Loan

SOUTH: General Industrial (GI)/vacant

SOUTHWEST: General Industrial (GI)/Granite Construction, Carson City well site, vacant

EAST: General Industrial (GI)/vacant

ENVIRONMENTAL INFORMATION:

1. FLOOD ZONE: Zone X (areas of minimal flooding)
2. EARTHQUAKE FAULT: On-site
3. SLOPE/DRAINAGE: Site slopes from east to west 3% to 14% as shown on submitted plans
4. SOILS: 55-Reno gravelly clay loam, 0 to 4 percent slopes

SITE DEVELOPMENT INFORMATION:

1. LOT SIZE: 20 acres
2. STRUCTURE SIZE: Expansion from utility substation use from three acres to 11 acres
3. STRUCTURE HEIGHT: Maximum pole height of 60 feet
4. PARKING: None, other than service vehicles to the interior of the site
5. SETBACKS REQUIRED/PROPOSED in feet: Front (west) 30/approximately 100, Left Side (north) 0/no change, Right Side (south) 0/50 to interior fence, Rear (east) 0/no change
6. VARIANCES REQUESTED: None

PREVIOUS REVIEWS:

- None.

DISCUSSION:

A Special Use Permit is required for the following reason:

- According to CCMC Section 18.04.150 General Industrial Conditional Uses, a Utility

Substation requires a Special Use Permit.

The applicant is proposing an expansion of the existing Brunswick Utility substation. The site is 20 acres in size, with utility substation improvements to approximately three acres. This request is to expand the substation by eight acres, to approximately 11 acres of the site, just over half of the available area. The applicant states the substation was originally constructed in 1964, and the business has provided continuous service to Carson City from this location since the site was original constructed. An expansion of the site is required to maintain adequate electric service to the citizens of Carson City and the surrounding areas. Some outages have been noted when the substation has reached maximum capacity. The site has reached the maximum level of available service with the present equipment on site and must be expanded to continue to serve the customers of the business. Electrical substations serve many functions in controlling and transferring power on an electrical system. Several types of equipment may be present on the site, depending on the function of a particular substation. Electricity is required by all citizens of Carson City, as this a necessary public service. A lack of electricity, due to any cause, is considered an emergency that must be resolved quickly. While Sierra Pacific Power Company dba Nevada Energy is a private business, it does provide a public service to all citizens.

The planned expansion of the existing substation will increase reliability of service to customers served by the substation in eastern Carson City. The proposed location of the expansion within an existing substation will have minimal impacts to the adjacent surrounding properties. This expansion will utilize just over half of the site, allowing room for additional expansion in the future if the need arises. The proposed expansion appears to be a logical and reasonable request of a business to provide a consistently needed public service.

The site is isolated and is not easily visible from any major roadway. Access to the site is by way of a dirt road. The proposed expansion is to the south of the existing improvements. No new landscaping is proposed by the applicant or required by the Planning Division, due to the rural location, isolation of the site, lack of visibility from any roadway and nature of the use on the site.

With the recommended conditions of approval, the findings to grant approval have been met by the applicant. The Planning Division staff is in support of this Special Use Permit application. Therefore, it is recommended that the Planning Commission approve SUP-15-179 based on the required findings.

PUBLIC COMMENTS: Public notices were mailed to 35 adjacent property owners within 675 feet of the subject site on January 8, 2016. At the writing of this report on January 14, 2016 no comments in support or opposition have been received. Any comments that are received after this report is completed will be submitted to the Planning Commission prior to or at the meeting on January 27, 2016, depending on the date of submission of the comments to the Planning Division.

OTHER CITY DEPARTMENTS OR OUTSIDE AGENCY COMMENTS: The following comments were received by various city departments. Recommendations have been incorporated into the recommended conditions of approval, where applicable.

Building Division:

1. All projects and improvements must be performed in accordance with Nevada State Revised Statutes (NRS) 623 & 624 and Carson City Municipal Code (CCMC) 15.05.020.
2. The 2009 International Energy Conservation Code (IECC0 will no longer be accepted after June 2016. The 2012 IECC will be enforced as of July 2016. The Codes will be locked in on

the application date.

3. Any repairs, replacements and alterations must comply with 2012 International Residential and Building Codes, 2012 Uniform Plumbing code, Uniform Mechanical Code or 2012 International Mechanical Code, 2012 Fuel Gas Code, 2011 Electrical Code, Adopted International Energy Conservation Code, and 2012 Northern Nevada Amendments.
4. All Contractors are required to carry State and local license.

Engineering Division: No concerns

Fire Department:

1. The project is in the identified Wildland Urban Interface area of Carson City and must comply with the 2012 International Wildland Urban Interface Code.
2. Project must comply with 2012 International Fire Code and Northern Nevada Amendments.

Environment Control Authority: No concerns

Health Department: No concerns

FINDINGS: Staff's recommendation is based upon the findings as required by CCMC Section 18.02.062 (Special Use Permits) enumerated below and substantiated in the public record for the project.

1. Will be consistent with the master plan elements.

Chapter 3: A Balanced Land Use Pattern

Goal 1.5e Foster Cooperation on Master Plan Issue- Sierra Pacific Power and Southwest Gas- The City shall coordinate with Sierra Pacific Power and Southwest Gas on the location of new power lines and future facilities necessary to serve the community.

Goal 3.3 Minimize impacts of potential natural disaster events on the community.

Goal 3.3a Coordination: Continue to work with the FEMA and other Local and State agencies to promote disaster prevention through strategic planning and coordination.

Chapter 5: Economic Vitality

Goal 5.5e Public Facilities: Provide the public services and public facilities necessary to sustain a high quality of life and attract business investment.

Goal 5.7g Promote a collaborative approach to economic development

The applicant states the utility business is a backbone component of the necessary infrastructure that serves the Carson City population and supports the Master Plan themes. The expansion of the substation will provide for growth anticipated in the Carson City Master Plan that seeks to maintain a strong, diverse and vibrant economy. The expansion of the existing substation is an essential service which will benefit the residents of Carson City while continuing to provide a basic, needed service.

The expansion of the substation includes proposed installation of more modern equipment that has less possibility of failure while providing faster response times through electronic means, including detection of faults and resetting which will minimize the impact of any power outages during emergencies.

Expansion of the substation increases grid strength and the quality of service to Carson City and

the surrounding communities. The investment in utility infrastructure will provide confidence in the availability of electric service to the business community, thereby furthering business development.

2. Will not be detrimental to the use, peaceful enjoyment, economic value, or development of surrounding properties or the general neighborhood; and will cause no objectionable noise, vibrations, fumes, odors, dust, glare or physical activity.

The existing substation has been at this location since 1964. Property owners in the vicinity are familiar with the site, appearance and use of the property as a utility substation. The expanded areas will appear very similar to the existing development, including being surrounded by fencing similar to the existing fencing on the site. The equipment and materials on site have an industrial appearance, which will continue into the expansion area. The proposed expansion of the use on the site is not likely to cause any objectionable noise, vibrations, fumes, odors, dust, glare or physical activity. To the contrary, the expansion is likely to provide an improvement to a needed public service in this vicinity. Surrounding uses in the vicinity are similar industrial types, including warehousing, commercial uses and outside storage of materials and products.

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

No increase or detriment is anticipated with the expansion of the utility substation. Trucks may be dispatched or located at the site in response to needed repairs, maintenance and other services, but no storage of these vehicles is proposed at the site. Adequate on-site parking and access is available to accommodate this maintenance and service activity. No pedestrian traffic is anticipated as a result of this expansion.

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.

This project will not require an extension or expansion of public services and facilities in the vicinity to support this project. This review is a request to provide additional public services and facilities, in the form of an expansion of an existing utility substation, by providing electricity to the community. This is a vital service utilized by all public and private entities. Expansion of this substation supports public facilities and improvements and will contribute to the continuing service of providing electricity to all of Carson City.

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 General Industrial zoning district is established to preserve an industrial district for uses engaged in the basic processing and manufacturing of materials or products predominately from extracted or raw materials, or a use engaged in storage of or manufacturing processes using flammable or explosive materials, or storage or manufacturing processes that potentially involve hazardous or commonly recognized offensive conditions. Upon approval of the Special Use Permit, with the recommended conditions of approval, the expansion of the utility substation will be in conformance with the requirements of the Carson City Municipal Code.

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

The proposed substation expansion with associated equipment and materials will not be

detrimental to the public health, safety, convenience and welfare, and will cause no adverse impacts to surrounding properties. There is no additional lighting currently proposed for this project. If lighting is proposed in the future, fixtures will need to be reviewed for compliance with the current Carson City Municipal Code, including review for shielding and aiming as necessary.

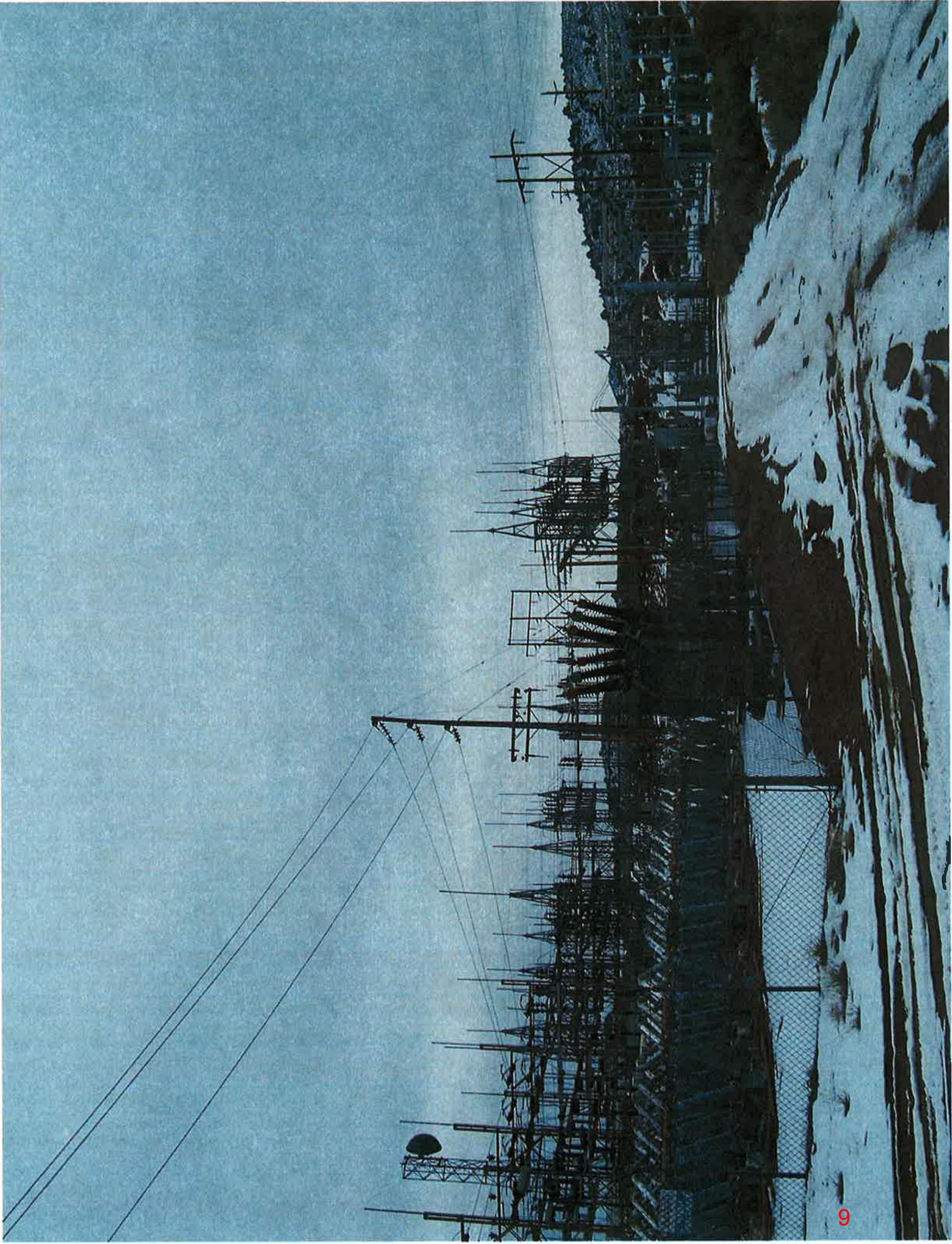
7. Will not result in material damage or prejudice to other property in the vicinity.

The impacts of the proposed substation expansion, with the recommended conditions of approval, will be minimal, and will not result in material damage or prejudice to other properties in the vicinity. The proposed expansion will provide continuing and consistent required electrical service to the Carson City area and surrounding communities.

Attachments:

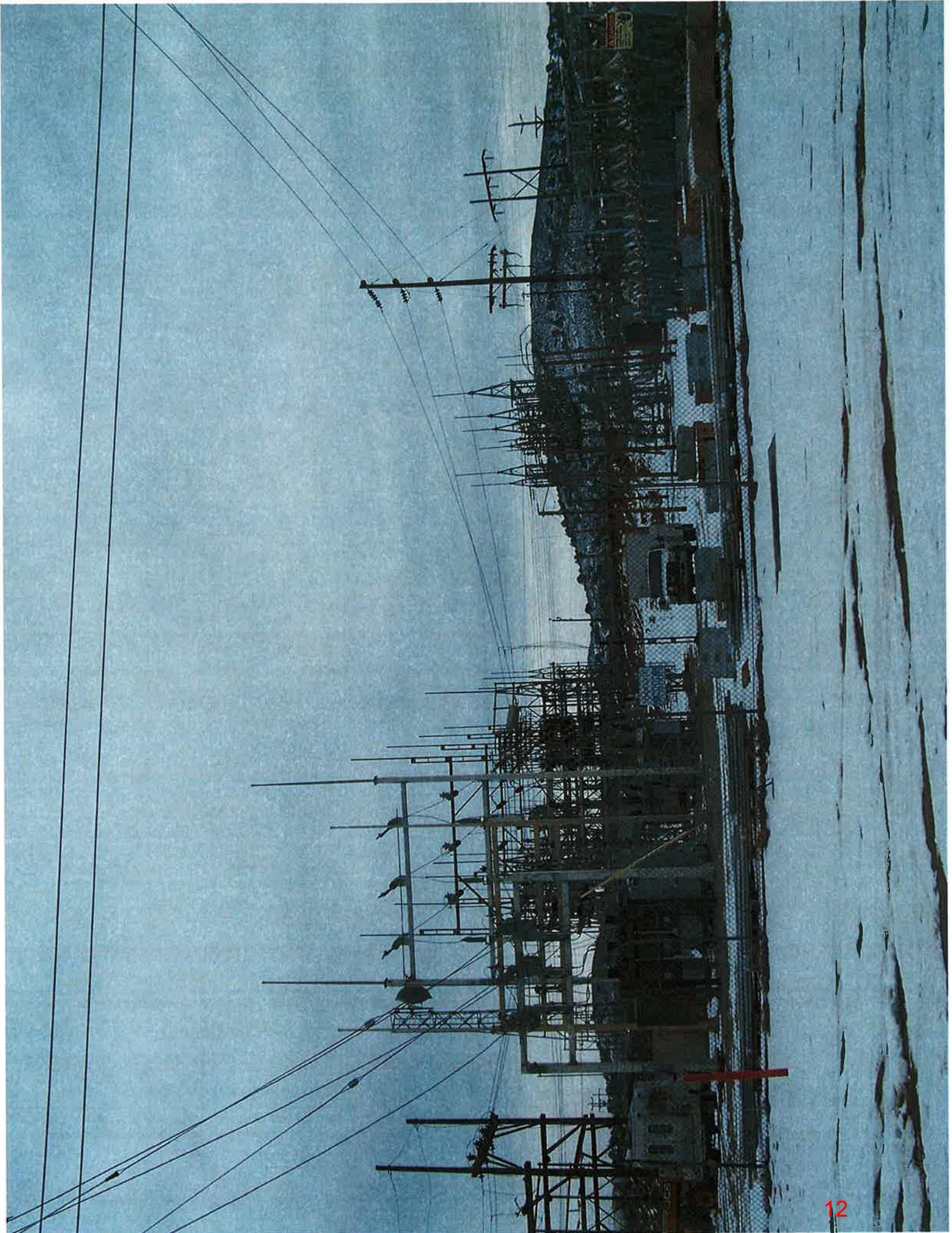
- Site Photos
- Building comments
- Engineering comments
- Fire comments
- Environmental Control comments
- Health Department comments
- Environmental Control comments
- Application (SUP-15-179)





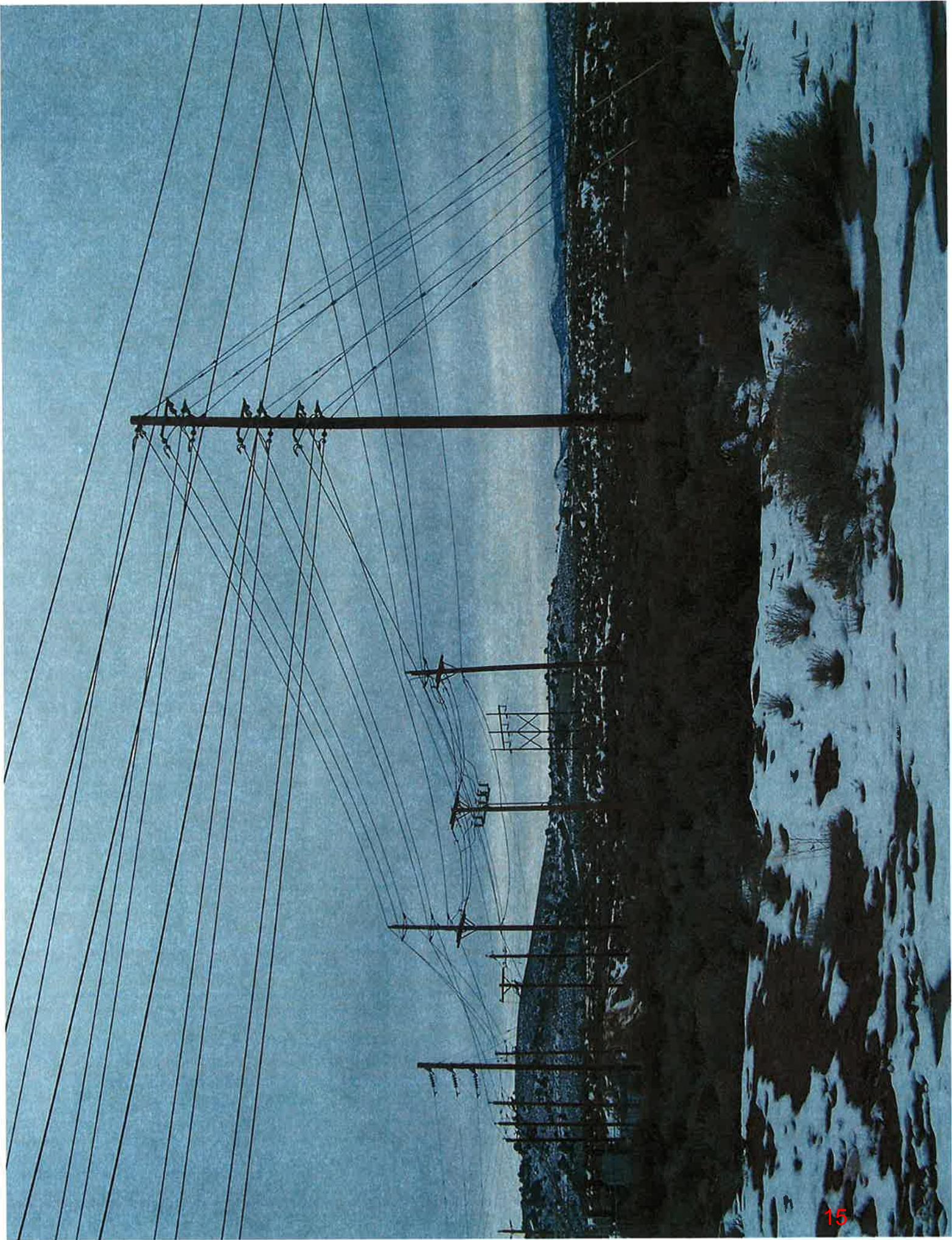








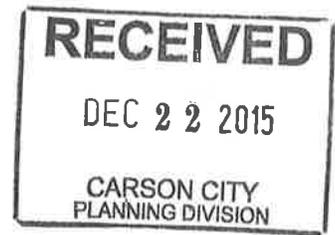












December 22, 2015

SUP-15-179:

1. All projects and improvements must be performed in accordance with Nevada State Revised Statute (NRS) 623 & 624 and Carson City Municipal Code (CCMC) 15.05.020.
2. The 2009 International Energy Conservation Code (IECC) will no longer be accepted after June 2016. The 2012 IECC will be enforced as of July 2016. The Codes will be locked in on the application date.
3. Any Repairs, Replacement, and Alterations must comply with 2012 International Residential and Building Codes, 2012 Uniform Plumbing Code, Uniform Mechanical Code or 2012 International Mechanical code, 2012 Fuel Gas Code, 2011 Electrical Code, Adopted International Energy Conservation Code, and 2012 Northern Nevada Amendments.
4. All Contractors are required to carry State and local license.

Shawn Keating CBO

Building Official

Carson City Community Development Department

Web page <http://www.carson.org/index.aspx?page=172>

skeating@carson.org

Office 775-887-2310 X 7052

Fax 775-887-2202

Cell 775-230-6623

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**Engineering Division Planning
Commission Report File
Number SUP 15-179**

TO: Planning Commission

FROM: Stephen Pott y, P.E.

DATE: January 4, 2016 **MEETING DATE:** January 27, 2016

SUBJECT TITLE:

Action to consider an application for a special use permit for substation expansion at 3175 Asphalt Dr, apn 008-522-07.

RECOMMENDATION:

The Engineering Division has no preference or objection to the special use request.

DISCUSSION:

The Engineering Division has reviewed the conditions of approval within our areas of purview relative to adopted standards and practices and to the provisions of CCMC 18.02.080, Conditional Uses.

CCMC 18.02.080 (2a) - Adequate Plans

The information submitted by the applicant is adequate for this analysis. Plans for building permit should indicate riprap on 2:1 slopes using notes, show rocked spillway extending to the toe of the slope with an energy dissipater, and should note the gravel and slope of the substation pad.

CCMC 18.02.080 (5a) - Master Plan

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

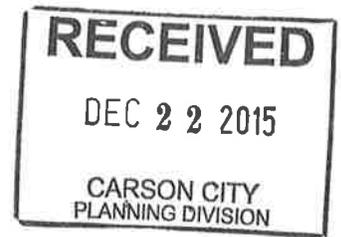
CCMC 18.02.080 (5c)- Traffic/Pedestrians

The request is not in conflict with pedestrian or traffic movements.

CCMC 18.02.080 (5d) - Public Services

No new City water, sewer or access services will be needed for this project.

December 22, 2015



SUP 15-179:

1. The project is in the identified Wildland Urban Interface area of Carson City and must comply with the 2012 International Wildland Urban Interface Code.
2. Project must comply with the 2012 International Fire Code and Northern Nevada amendments.

Dave Ruben

Fire Marshal

Carson City Fire Department

777 S. Stewart Street

Carson City, NV 89701

Direct 775-283-7153

Main 775-887-2210

FAX 775-887-2209



January 11, 2016

SUP-15-179

Carson City Health and Human Services

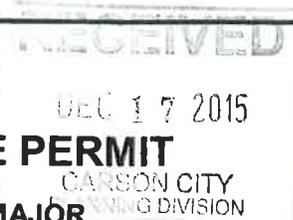
Carson City Health and Human Services has no concerns with this project.

Dustin Boothe, MPH, REHS
Carson City Health and Human Services
900 E. Long St.
Carson City, NV 89706
(775) 887-2190 ext. 7220



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

FILE # SUP - 15 - SUP - 15 - 179

SPECIAL USE PERMIT

FEE: \$2,450.00 MAJOR
\$2,200.00 MINOR (Residential zoning districts)

+ noticing fee

SUBMITTAL PACKET

- 8 Completed Application Packets (1 Original + 7 Copies) including:
- Application Form
- Written Project Description
- Site Plan
- Building Elevation Drawings and Floor Plans
- Proposal Questionnaire With Both Questions and Answers Given
- Applicant's Acknowledgment Statement
- Documentation of Taxes Paid-to-Date (1 copy)
- Project Impact Reports (Engineering) (4 copies)
- CD containing application digital data (to be submitted once the application is deemed complete by staff)

Application Reviewed and Received By:

Submittal Deadline: See attached PC application submittal schedule.

Note: Submittals must be of sufficient clarity and detail such that all departments are able to determine if they can support the request. Additional Information may be required.

APPLICANT **PHONE #**
 Sierra Pacific Power dba NV Energy 775.834.3467

MAILING ADDRESS, CITY, STATE, ZIP
 6100 Neil Road M/S s4b20 Reno, NV 89511

EMAIL ADDRESS
 marksullivan@nvenergy.com

PROPERTY OWNER **PHONE #**
 SPPC dba NV Energy 775.834.3467

MAILING ADDRESS, CITY, STATE, ZIP
 6100 Neil Road M/S s4b20 Reno, NV 89511

EMAIL ADDRESS
 marksullivan@nvenergy.com

APPLICANT AGENT/REPRESENTATIVE **PHONE #**
 Mark Sullivan 775.834.3467

MAILING ADDRESS, CITY STATE, ZIP
 6100 Neil Road M/S s4b20 Reno, NV 89511

EMAIL ADDRESS
 marksullivan@nvenergy.com

Project's Assessor Parcel Number(s):

008-522-07

Street Address ZIP Code

3175 Asphalt Dr 89701

Project's Master Plan Designation

700 P/QP

Project's Current Zoning

GI- General Industrial

Nearest Major Cross Street(s)

Hwy 50

Briefly describe your proposed project: (Use additional sheets or attachments if necessary). In addition to the brief description of your project and proposed use, provide additional page(s) to show a more detailed summary of your project and proposal. In accordance with Carson City Municipal Code (CCMC) Section: 18.04.150 (3), or Development Standards, Division _____, Section _____, a request to allow as a conditional use is as follows:

Utility Substation and ancillary facilities

PROPERTY OWNER'S AFFIDAVIT

I, Matt Gingerich, 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: 6100 Neil Road Reno, NV 89511 Date: 12/17/2015

Use additional page(s) if necessary for other names.

STATE OF NEVADA)
 COUNTY of Washoe)

On December 17, 2015, Matt Gingerich, 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 who acknowledged to me that he/she executed the foregoing document.

Notary Public: [Signature] (notary stamp on reverse)

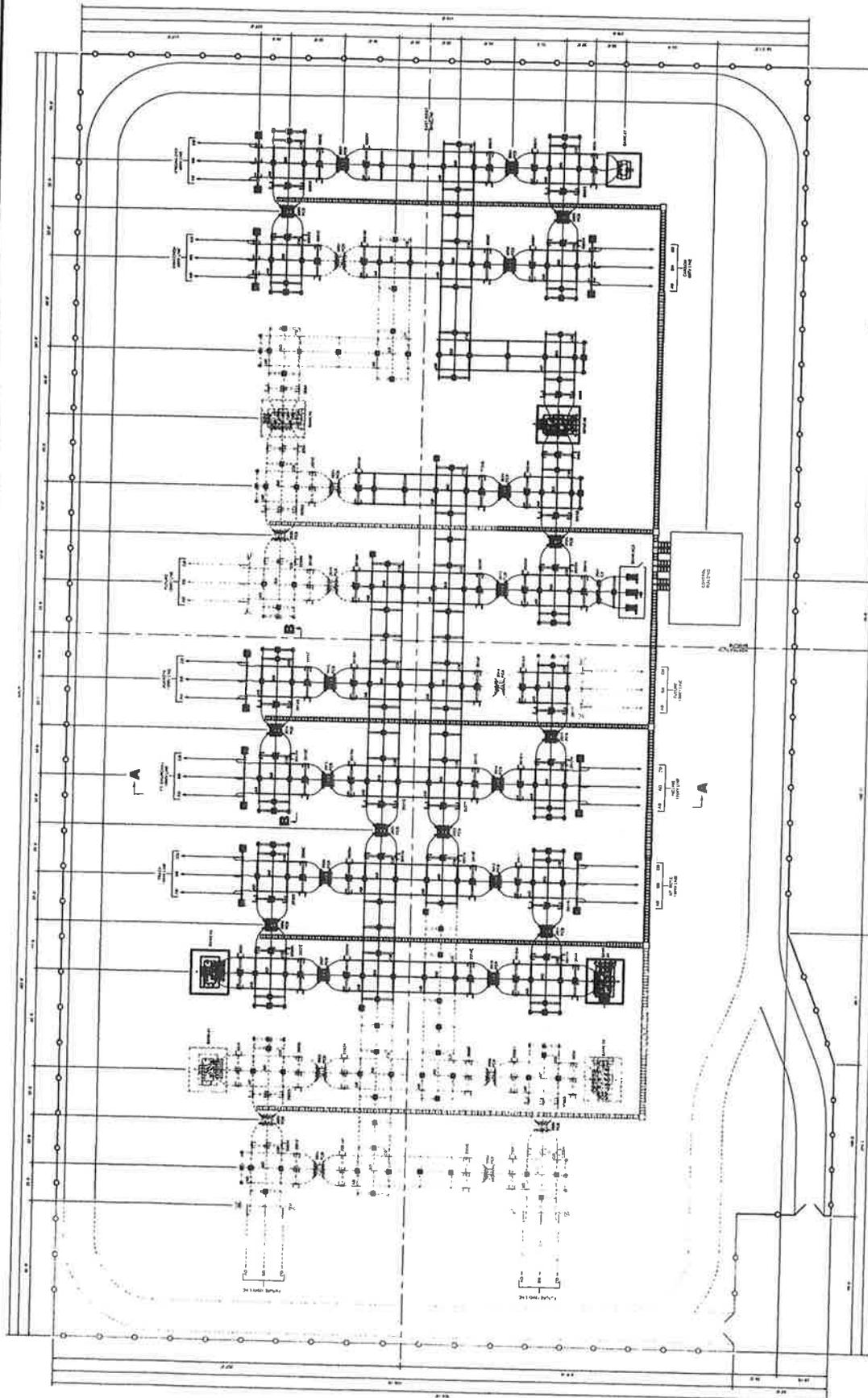
NOTE: If your project is located within the historic district, airport area, or downtown area, it may need to be scheduled before the Historic Resources Commission, the Airport Authority, and/or the Redevelopment Authority Citizens Committee prior to being scheduled for review by the Planning Commission. Planning personnel can help you make the above determination.

Project Description

The Brunswick Substation was constructed in 1964. It is located in northeast Carson City and serves approximately 40,000 customers including large manufacturing and construction companies in the Carson City area. The substation has approximately 150 MW of load primarily serving the North Carson City and Incline Village. The rebuild of Brunswick is number two on the list of substations requiring rebuild based on a prioritization of performance, outage data, customer impacts, etc.

The Brunswick substation over the past five years ranks second overall in customer outage hours and third overall in customers affected when compared to all other substations in northern Nevada. The primary transmission sources feeding Brunswick are generation at both Ft. Churchill and Tracy.

The Brunswick substation has experienced six sustained outages (greater than five minutes) since 2010. While some outages are caused by wildlife or heavy storm activity failing equipment has also been the culprit. The design is antiquated and needs to be updated to increase reliability and service to our customers.



Scale: 1/32" = 1'-0"

SHEET 1 OF 1 SUBSTATION ENGINEERING

ULTIMATE
PLAN VIEW

BRUNSWICK SUBSTATION

E14-002

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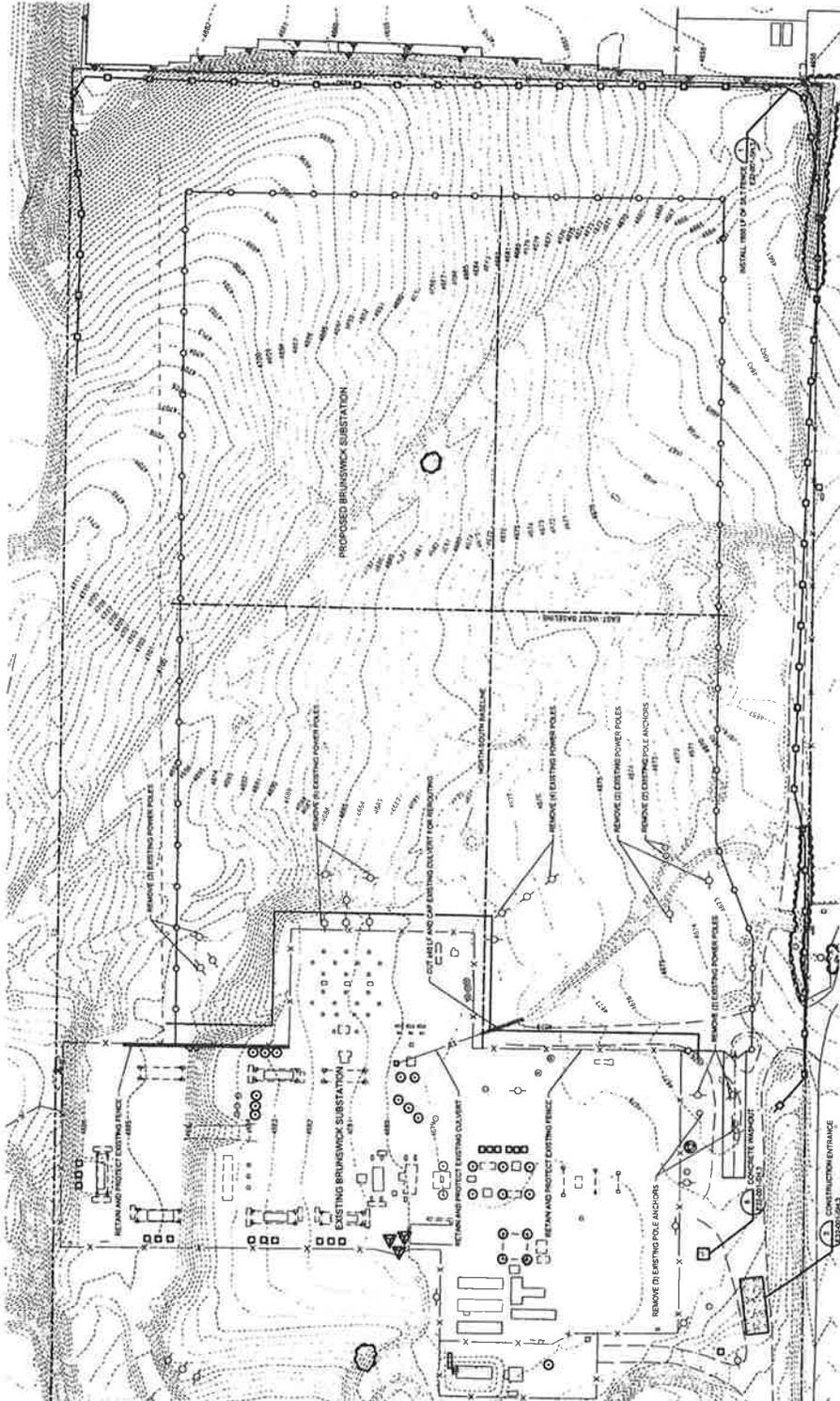


DATE	BY	CHKD	APP'D	DESCRIPTION



NOTES

1. PROPERTY SUPERVISOR: SPENCER S. GROSS, INC. APRIL 26, 2016.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CONTROL AGENCIES. THESE APPROVALS SHALL BE PROTECTED FROM DISRUPTION THROUGHOUT THE DURATION OF CONSTRUCTION & BE REPLACED AT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT HIS/HER OWN RISK AND COST.



LEGEND

- EXISTING PROPERTY LINE
- EXISTING PAVED ROADWAY
- EXISTING DIRT ROAD
- EXISTING DIRT TRAIL
- EXISTING MAJOR CONTOURS (5 FT)
- EXISTING MINOR CONTOURS (1 FT)
- EXISTING FENCE LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING POWER POLE
- EXISTING POLE ANCHOR
- EXISTING COLLECTOR
- PROPOSED SILT FENCE
- PROPOSED SUBSTATION PAD
- PROPOSED SUBSTATION FENCE

**PRELIMINARY
NOT FOR
CONSTRUCTION**



SHEET 2 OF 7 | SUBSTATION ENGINEERING

**EROSION CONTROL
& SITE PLAN**

**BRUNSWICK SUBSTATION
E22-001-SH.2 B**



NO.	DATE	BY	REVISION
1	04/26/16	SPENCER S. GROSS	ISSUED FOR PERMIT REVIEW
2			
3			
4			
5			
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7			
8			
9			
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December 17, 2015

Carson City Planning and Community Development Department

RE: Sierra Pacific Power Company dba NV Energy, Brunswick Substation Expansion SUP

Subject: Carson City Special Use Permit for expansion of the existing 3 +/- acre substation to approximately 11 acres of a 20 acre site. Located at 3175 Asphalt Drive the existing substation has been in operations for over 30 years. Approximately eight (8) acres. The substation will be located in a General Industrial Zone and is an allowed conditionally permitted use per CCMC 18.04.150 (3).

Project Description.

Special Use Permit Application Questionnaire

Question 1. How will the proposed development further and be in keeping with, and not contrary to, the goals of the Master Plan Elements?

Explanation: *While the proposed project isn't necessarily a leader in any of the Master Plan themes it is a backbone component of the necessary infrastructure that serves the Carson City population and supports the master Plan Themes. The substation will provide for the growth anticipated in the Carson City Master plan that seeks to maintain a strong, diverse and vibrant economy. The expansion of the existing substation is an essential underpinning in the effort to meet the provisions of the Growth Management Ordinance. The themes and goals in the Master Plan that the project supports are as follows.*

Goal 1.5 (e) —Sierra Pacific Power and Southwest Gas- The City shall coordinate with Sierra Pacific Power and Southwest Gas on the location of new power lines and future facilities necessary to serve the community.

GOAL 3.3a—Coordination Continue to work with FEMA and other Local and State agencies to promote disaster prevention through strategic planning and coordination.

New, reliable equipment will be install that has less possibility of failure and provides faster response times through electronic means of detection of faults and resetting will minimize impact of outages during emergencies.

GOAL 5.5e—Public Facilities- Provide the public services and public facilities necessary to sustain a high quality of life and attract business investment. Consider obtaining additional information directly from business operators to better define these services.

Expansion of the substation increases grid strength and the quality of electric service to Carson City and surrounding communities. This investment in utility infrastructure will provide confidence in the availability of electric service to the business community furthering business investment.

GOAL 5.7g—Adequate Infrastructure- Recognize the importance of adequate infrastructure in economic development and long-run economic stability.

This project proposes to assist in providing state of the art electric delivery with our distribution system/electric infrastructure that supports economic development and long term economic stability.

GOAL 5.8b—Fiscal Impact-Recognize the unique nature of Nevada’s tax system and promote economic development alternatives that result in a net positive fiscal impact for the City.

The total project cost is \$23 million, generating annual property taxes for which Carson City would directly benefit. For counties with populations not exceeding 100,000, Nevada Revised Statutes provide for the property tax assessment associated with a facility to be segregated, taxed at the county’s rates, and for the tax to remain in the county in which the facility is built.

GOAL 6.1a—Durable Materials- Require the use of durable, long-lasting building materials for all new development.

Materials used on our projects are of the highest quality with long duration of service in mind, many of our projects that were built nearly 100 years ago are still in service today.

Question 2. Will the effect of the proposed development be detrimental to the immediate vicinity? To the general neighborhood?

Explanation: No adverse impacts are anticipated to the adjacent neighbors or the neighborhood, the existing use will remain the same only on a larger scale. The existing facility was built in 1964 so neighbors that are adjacent or in the neighborhood likely chose their location knowing the substation was there. Other than during construction the impact will remain consistent with the current operation. The adjacent neighbors and the neighborhood include similar industrial type uses, warehousing and commercial uses front highway 50.

Question 3. Has sufficient consideration been exercised by the applicant in adapting the project to existing improvements in the vicinity?

Explanation: The existing and proposed facility is not open to the public and as such we don’t anticipate it will drive any social or public demand on services. No water will be used at the site unless Carson City requires it, no school district or Sheriff’s Office impacts are anticipated. The area described in the application the substation will cover will be pervious surface of gravel, but we are working with Public Works on the design of additional drainage facilities, please see plans. No water or sewage disposal are needed. Ingress and egress will be over the same roads that exist today, we are working with Public Works to ensure compliance. A licensed Professional Engineer prepared the plans to support our conclusions and statements made in the packet. No outdoor lighting is to be a part of the project, if it’s determined that lighting is needed it will be of a boxed nature shielding spillage to adjoining property. No landscaping is proposed so as not to use water on the site. The site is topographically hidden so the benefit of landscape screening would be minimal if any. There will be no onsite parking as no public uses the site. Drainage is being addressed

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.

Mah Sella

12/17/2015

Applicant

Date

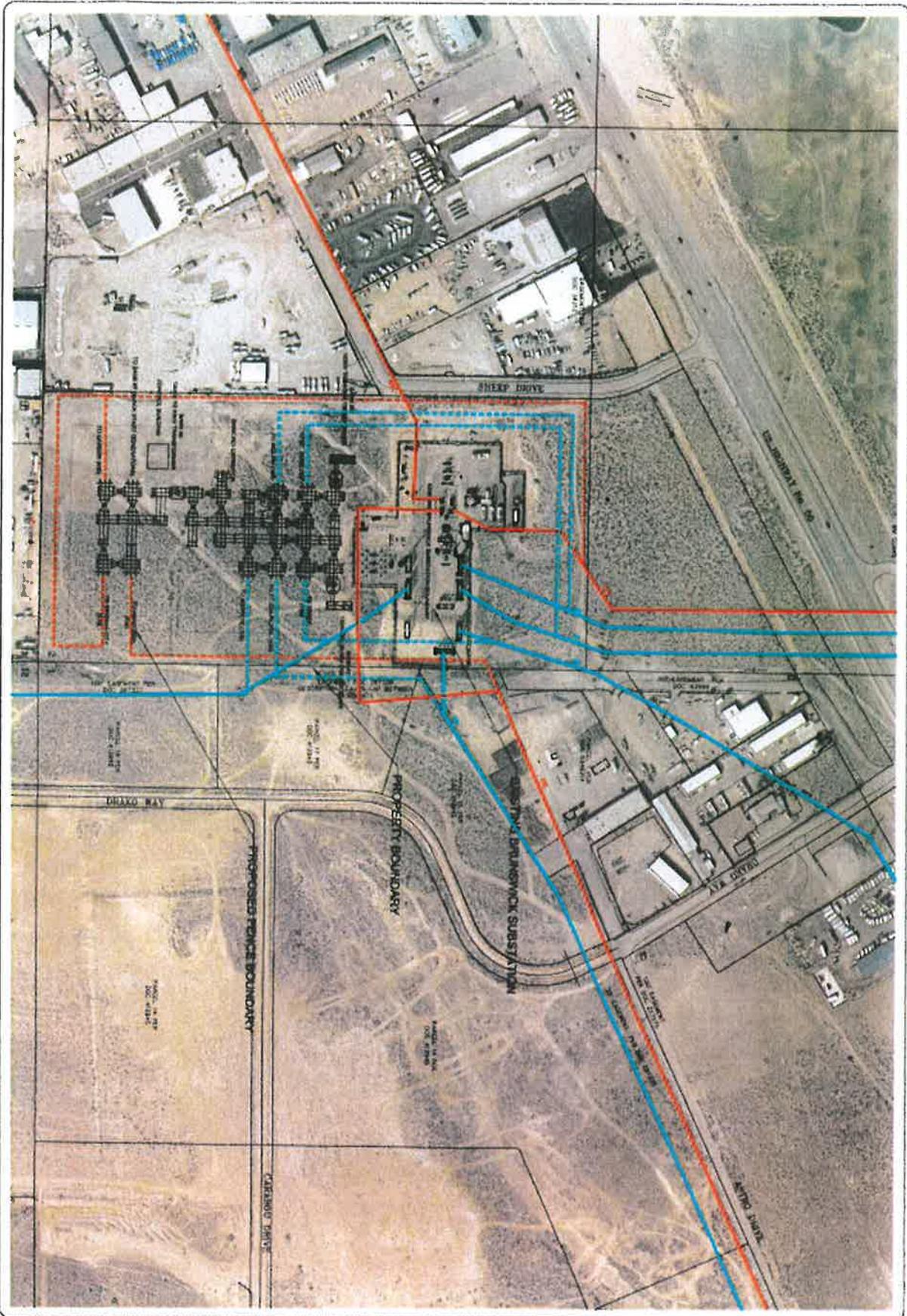
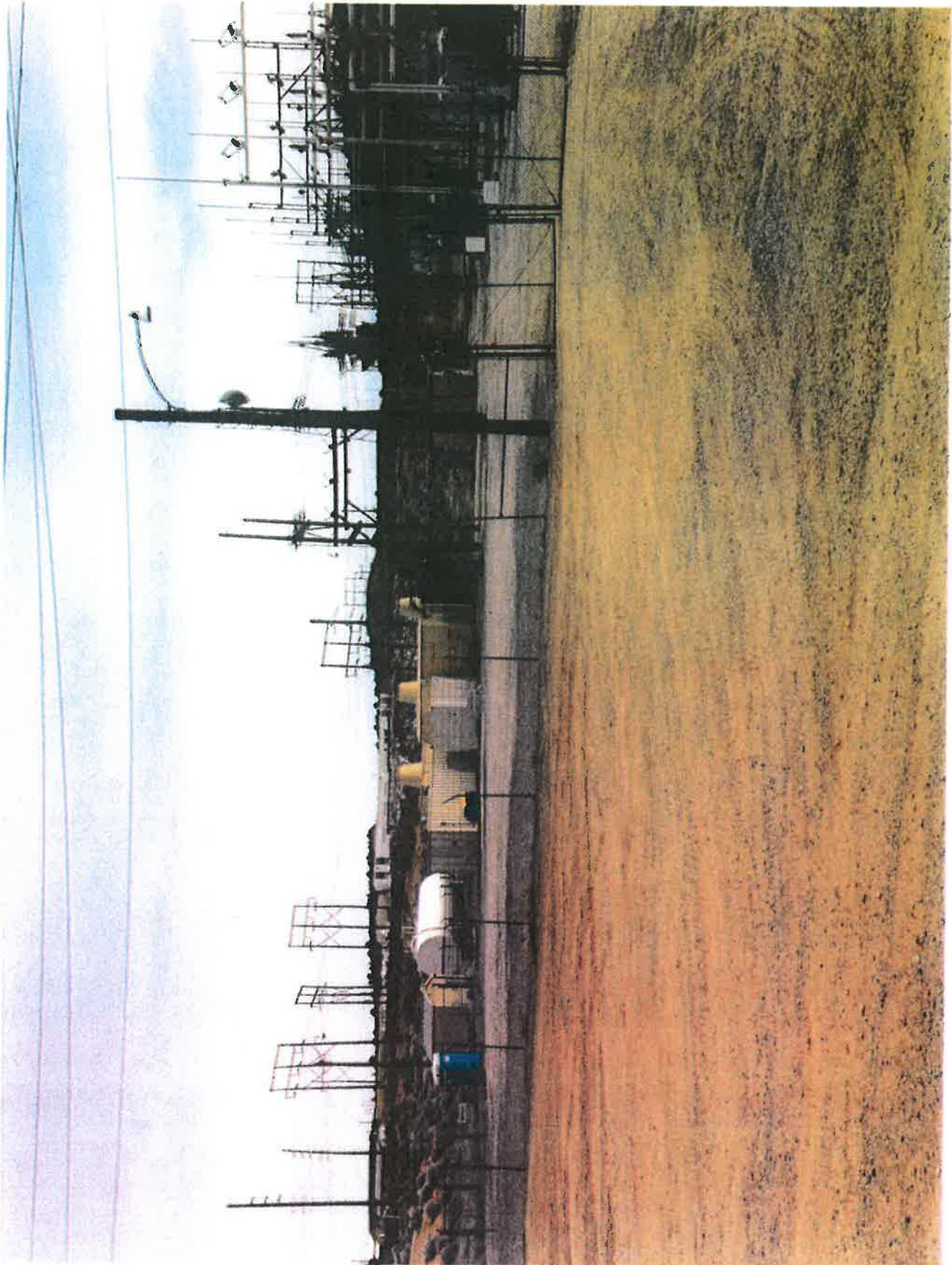


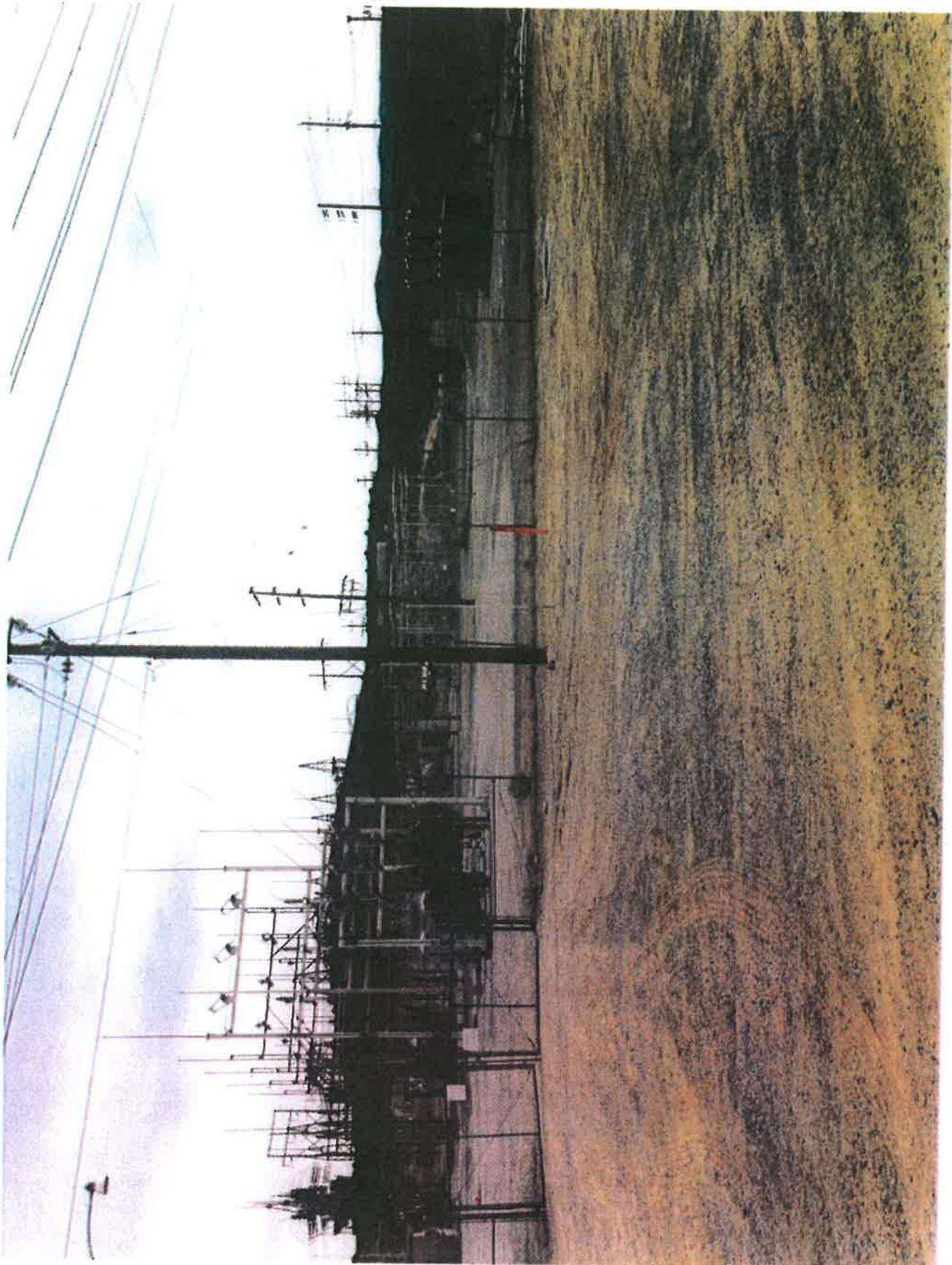
EXHIBIT MAP
 BRUCKSWICK SUBSTATION
 ROLL OVER



SCALE	1:1
PLAC NUMBER	15-04-150
PROJECT NUMBER	15-04-150
ROLL OVER	1500

CARDON CITY BEVELA







BRUNSWICK SUBSTATION

CARSON CITY,

APN: 008-522-07
SEC 2, T15N, R20E

BASIS OF BEARING

NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE
NORTH AMERICAN DATUM OF 1983.1994, US SURVEY FEET

VERTICAL CONTROL

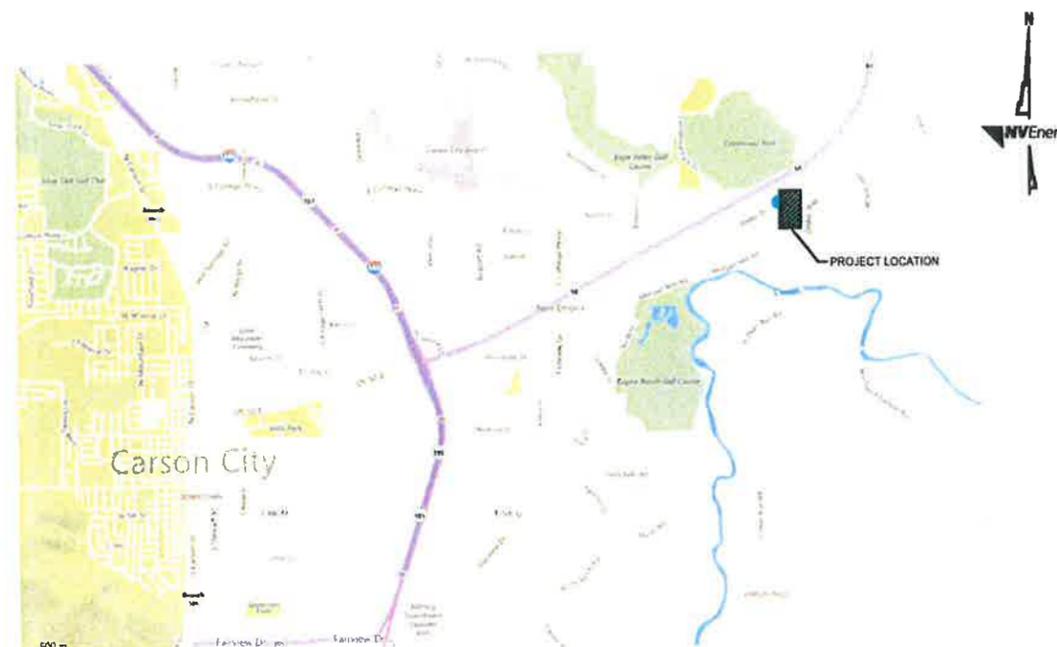
NORTH AMERICAN VERTICAL DATUM OF 1988
SURVEY COMPLETED BY SPENCER B. GROSS INC., APRIL 30, 2015, PHONE: 775-826-4240

GEOTECHNICAL INFORMATION

SITE GEOTECHNICAL INVESTIGATION COMPLETED BY CONSTRUCTION MATERIAL ENGINEERS, INC (CME)
DATED AUGUST 2015, CME FILE # 1771.

ABBREVIATIONS

AC	ASPHALTIC CONCRETE	MAX.	MAXIMUM
BC	BEGINNING OF CURB OR BACK OF CURB	MIN.	MINIMUM
BDRY.	BOUNDARY	M.O.	MASONRY OPENING
BEG.	BEGIN	NO.	NUMBER
B.M.	BENCHMARK	O.C.	ON CENTER
BSW	BACK OF SIDEWALK	O.D.	OUTSIDE DIAMETER
B.V.C.	BEGINNING OF VERTICAL CURVE	P	POWER LINE
C&G	CURB AND GUTTER	PC	POINT OF CURVATURE
C.F.	CURB FACE	POI	POINT OF INTERSECTION
CL	CENTERLINE	PL	PROPERTY LINE
CLR.	CLEAR	P.P.	POWER POLE
CONC.	CONCRETE	P.O.C.	POINT OF CONNECTION
CONSTR.	CONSTRUCT, CONSTRUCTION	PKWY	PARKWAY
D.C.	DEPRESSED CURB	PROP.	PROPOSED
D.I.	DROP INLET	P.T.	POINT OF TANGENCY
DIA.	DIAMETER	PVMT.	PAVEMENT
DRWY	DRIVEWAY	RAD.	RADIUS
E.C.	END OF CURVE	R.P.M.	RAISED PAVEMENT MARKERS
E.C.R.	END OF CURB RETURN	RT	RIGHT
EL.	ELEVATION	RW	RIGHT OF WAY
EOP	EDGE OF PAVING	S	SOUTH
E.V.C.	END OF VERTICAL CURVE	S.S.	SANITARY SEWER
E.W.	EACH WAY	S.D.	STORM DRAIN
EXIST.	EXISTING	SHT.	SHEET
FIN. FLR.	FINISHED FLOOR	STA.	STATION
FG	FINISH GRADE	STD.	STANDARD
F.H.	FIRE HYDRANT	STL.	STEEL
FL	FLOWLINE	SDWK	SIDEWALK
	GAS	TEL	TELEPHONE
GB	GRADE BREAK	TC	TOP OF CURB
G.V.	GATE VALVE	T.O.C.	TOP OF CONCRETE
HGT	HEIGHT	TOF	TOP OF FOOTING
HORIZ.	HORIZONTAL	T.O.W.	TOP OF WALL
HP	HIGH POINT	TRANS.	TRANSITION
I.D.	INSIDE DIAMETER	T.S.W.	TOP OF SIDEWALK
INV.	INVERT	UG	UNDERGROUND
L.S.	LANDSCAPE	V.C.	VERTICAL CURVE
LAT.	LATERAL	VERT.	VERTICAL
LF	LINEAL FEET	VG	VALLEY GUTTER
LT	LEFT	W	WEST
L.P.	LOW POINT	WTR	WATER



VICINITY MAP
NOT TO SCALE

OWNER / DEVELOPER

NV Energy
6100 NEBL ROAD
RENO, NV 89511
CONTACT: CHAD PARKER
EMAIL: CHADPARKER@NENERGY.COM
PHONE: (775) 834-3367

ENGINEER

POWER ENGINEERS
2041 SOUTH COBALT POINT WAY
BOISE, ID 83642
CONTACT: DAVID BERRY, PE
EMAIL: DAVID.BERRY@POWERENG.COM
PHONE: (208) 288-6183

DRAWING INDEX

E22-001-SH.1	COVER SHEET
E22-001-SH.2	EROSION CONTROL & SITE PLAN
E22-001-SH.3	EROSION CONTROL DETAILS
E22-001-SH.4	GRADING PLAN & POINT TABLE
E22-002-SH.1	GRADING PROFILE SHEET
E22-002-SH.2	GRADING PROFILE SHEET
E22-002-SH.3	GRADING PROFILE SHEET
E14-002-SH.1	ULTIMATE PLAN VIEW
E13-003-SH.1	ELEVATION A-A & B-B



**PRELIMINARY
NOT FOR
CONSTRUCTION**

SHEET 1 OF 7 SUBSTATION ENGINEERING

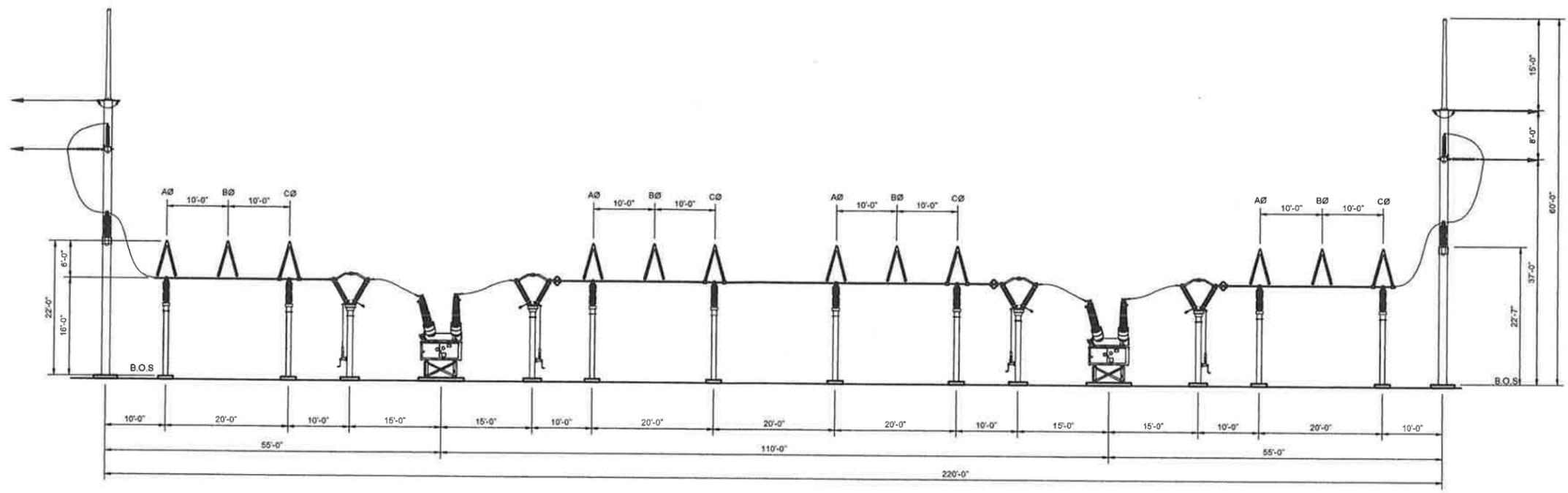
COVER SHEET

**BRUNSWICK SUBSTATION
E22-001-SH.1 B**

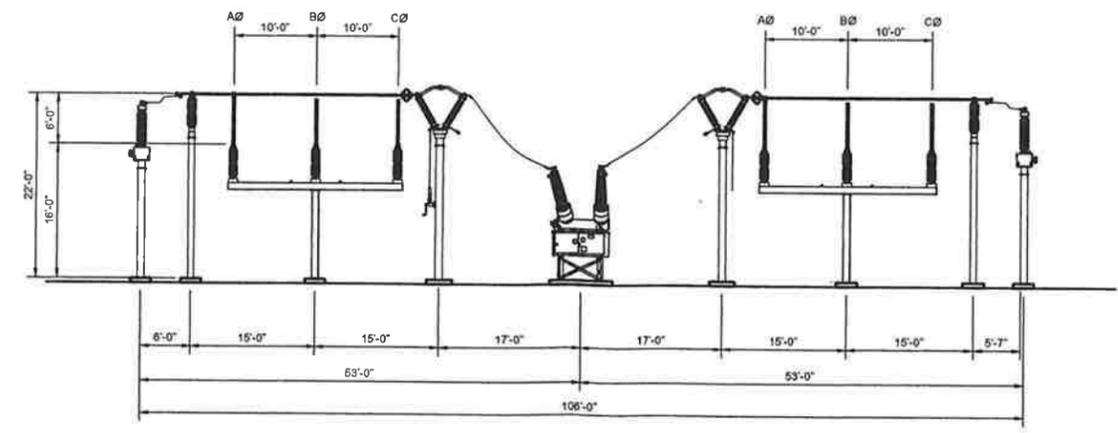
A	ISSUED FOR PERMIT REVIEW	11/08/15					
B	ISSUED FOR PERMIT REVIEW	11/20/15					
REV.	REVISION	DATE	DWN	ENGR	CHKD	APPRV	W.O. NUMBER



VOLTAGE	BIL	LINE TO GROUND MINIMUM		LINE TO LINE MINIMUM	
		IEEE	NVEnergy	IEEE	NVEnergy
115 KV	550	42"	47"	53"	72"



A-A
ELEVATION



B-B
ELEVATION

LEGEND

- F- FIXED SUPPORT
- E- EXPANSION SUPPORT
- S- SLIP SUPPORT
- (X) MATERIAL CALLOUT
E13-002 SH. 1, 2, 3.

Scale: 3/32" = 1'-0"

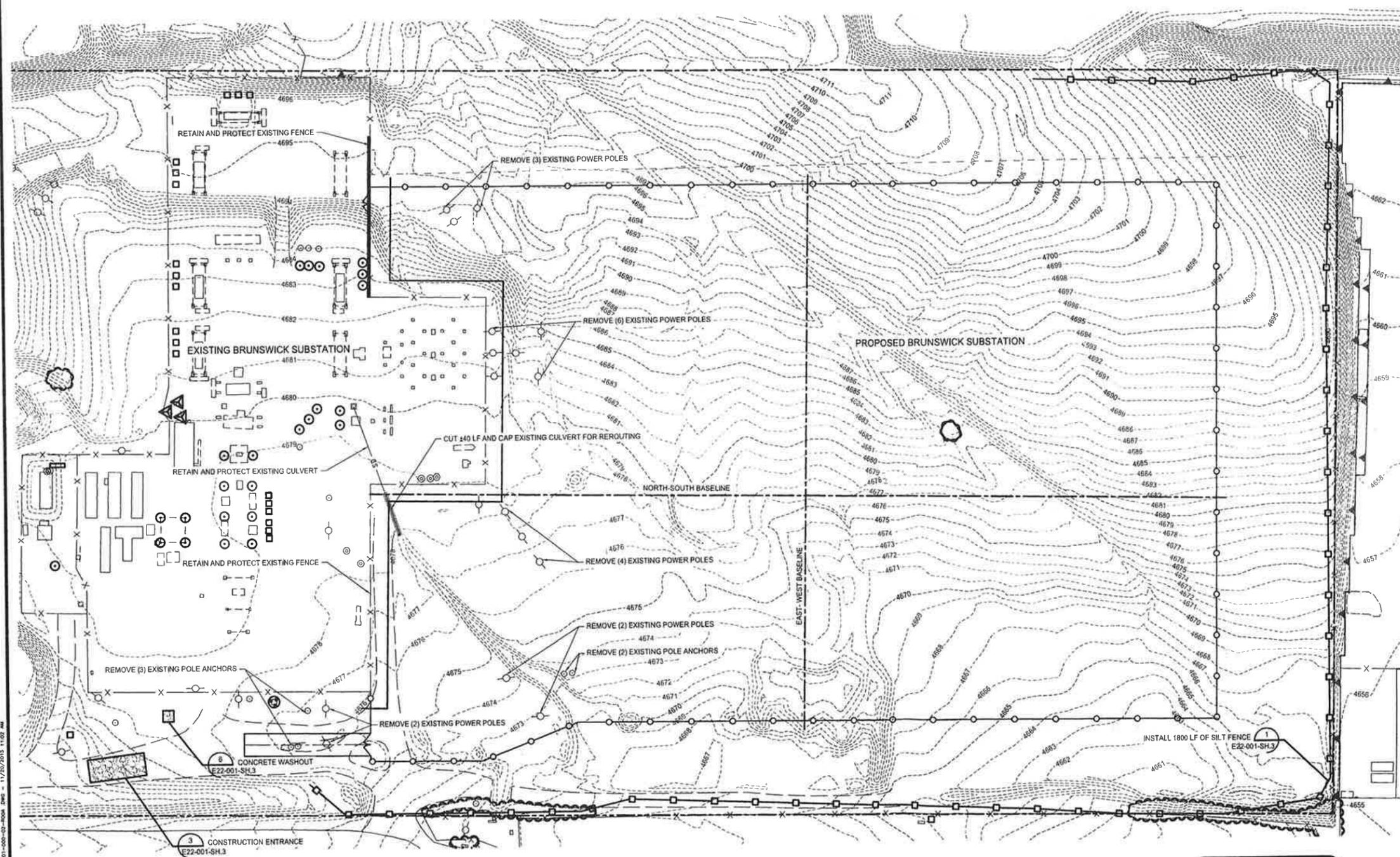
SHEET 1 OF 1	SUBSTATION ENGINEERING
STATION ELEVATION	
'A-A'	
'B-B'	
BRUNSWICK SUBSTATION	
E13-003	A

REV.	REVISION	DATE	DWN	ENGR	CHKD	APPRV	W.O. NUMBER
A	ISSUED FOR 30% REVIEW	12/15	CMH	CMH	JVH	JKS	TSG374PSUB



\\NFPS1\substation\projects\137796\100\brunswick\115KV\115KV-013-003-000-01-604.dwg - 11/20/2013 2:08 PM

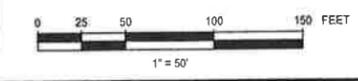
- NOTES**
- PROPERTY SURVEYED BY: SPENCER B. GROSS, INC. APRIL 30, 2015.
 - THE CONTRACTOR SHALL ESTABLISH HIS OWN CONTROL & BENCH MARKS BASED ON THE CONTROL GIVEN. THOSE MONUMENTS SHALL BE PROTECTED FROM DISTURBANCE THROUGHOUT THE DURATION OF CONSTRUCTION & IF DISPLACED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE THEM AT HIS COST.



LEGEND

	EXISTING PROPERTY LINE
	EXISTING PAVED ROADWAY
	EXISTING DIRT ROAD
	EXISTING DIRT TRAIL
	EXISTING MAJOR CONTOURS (5 FT)
	EXISTING MINOR CONTOURS (1 FT)
	EXISTING FENCE LINE
	EXISTING OVERHEAD POWER LINE
	EXISTING POWER POLE
	EXISTING POLE ANCHOR
	EXISTING CULVERT
	PROPOSED SILT FENCE
	PROPOSED SUBSTATION PAD
	PROPOSED SUBSTATION FENCE

**PRELIMINARY
NOT FOR
CONSTRUCTION**



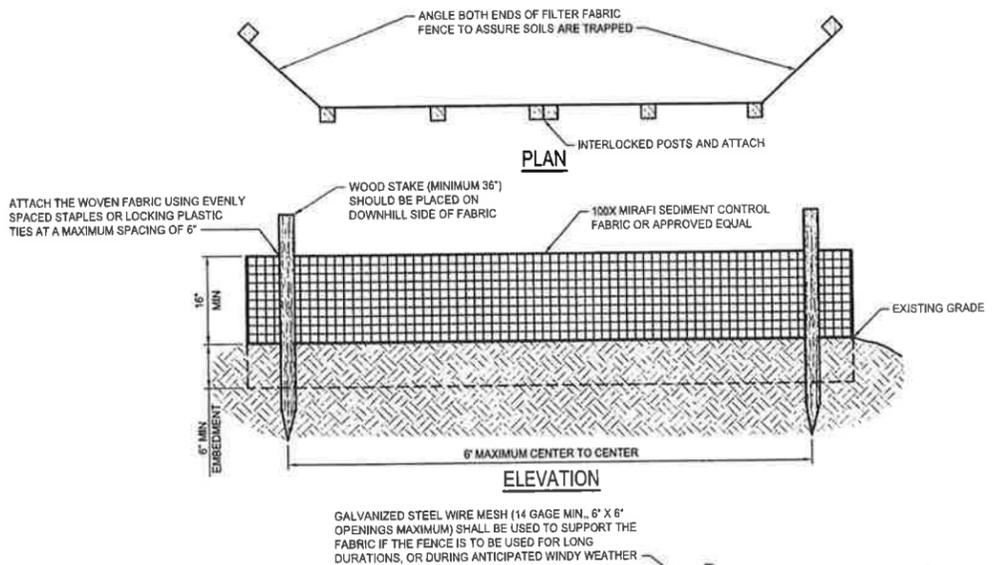
A	ISSUED FOR PERMIT REVIEW	11/06/15				
B	ISSUED FOR PERMIT REVIEW	11/20/15				
REV.	REVISION	DATE	DWN	ENGR	CHK'D	APPRV



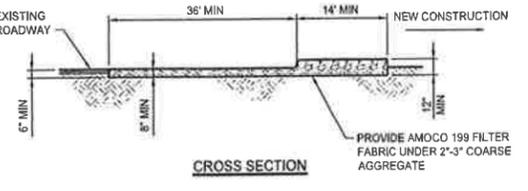
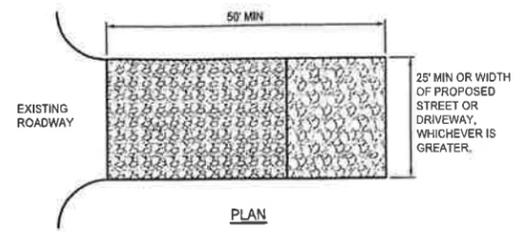
SHEET 2 OF 7 **SUBSTATION ENGINEERING**

**EROSION CONTROL
& SITE PLAN**

BRUNSWICK SUBSTATION
E22-001-SH.2 **B**



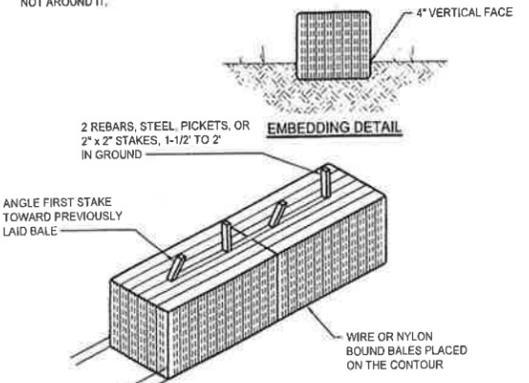
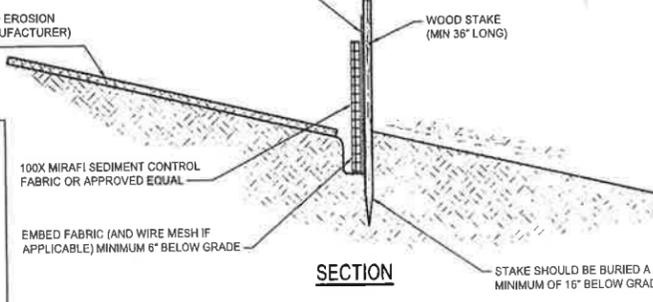
- ### STRAW BALE BARRIERS
- BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE ON THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.
 - ALL BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED. STRAW BALES SHALL BE INSTALLED SO THAT BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES IN ORDER TO PREVENT DETERIORATION OF THE BINDINGS.
 - THE BARRIER SHALL BE ENTRENCHED AND BACK FILLED. A TRENCH SHALL BE EXCAVATED THROUGH THE BALE AND THE LENGTH OF THE PROPOSED BARRIER TO A MINIMUM DEPTH OF 4 INCHES. THE TRENCH MUST BE DEEP ENOUGH TO REMOVE ALL GRASS AND OTHER MATERIAL WHICH MIGHT ALLOW UNDERFLOW. AFTER THE BALES ARE STAKED AND CHINKED (FILLED BY WEDGING), THE EXCAVATED SOIL SHALL BE BACK FILLED AGAINST THE BARRIER. BACK FILL SOIL SHALL CONFORM TO THE GROUND LEVEL ON THE DOWNHILL SIDE AND SHALL BE BUILT UP TO 4 INCHES AGAINST THE UPHILL SIDE OF THE BARRIER.
 - EACH BALE SHALL BE SECURELY ANCHORED BY AT LEAST 2 STAKES OR REBARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER. STAKES OR REBARS SHALL BE DRIVEN DEEP ENOUGH INTO THE GROUND TO SECURELY ANCHOR THE BALES. STAKES SHOULD NOT EXTEND ABOVE THE BALES BUT INSTEAD SHOULD BE DRIVEN IN FLUSH WITH THE TOP OF THE BALE FOR SAFETY REASONS.
 - THE GAPS BETWEEN THE BALES SHALL BE CHINKED (FILLED BY WEDGING) WITH STRAW TO PREVENT WATER FROM ESCAPING BETWEEN THE BALES. LOOSE STRAW SCATTERED OVER THE AREA IMMEDIATELY UPHILL FROM A STRAW BALE BARRIER TENDS TO INCREASE BARRIER EFFICIENCY. WEDGING MUST BE DONE CAREFULLY IN ORDER NOT TO SEPARATE THE BALES.
 - INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 - STRAW BALE BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS, BUT NOT BEFORE THE UP-SLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED. BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE, ORIENTED PERPENDICULAR TO THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.
 - THE REMAINING STEPS FOR INSTALLING A STRAW BALE BARRIER FOR SHEET FLOW APPLICATIONS APPLY.
 - THE BARRIER SHALL BE EXTENDED TO SUCH A LENGTH THAT THE BOTTOMS OF THE END BALES ARE HIGHER IN ELEVATION THAN THE TOP OF THE LOWEST MIDDLE BALE TO ASSURE THAT SEDIMENT-LADEN RUNOFF WILL FLOW EITHER THROUGH OR OVER THE BARRIER BUT NOT AROUND IT.



- ### NOTES
- ENTRANCE(S) SHALL BE LOCATED TO PROVIDE MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES.
 - TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS IS TO BE PROVIDED.
 - MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOP DRESSING WITH STONE WILL BE NECESSARY. CONTRACTOR SHALL MAINTAIN AS NECESSARY.
 - ANY MATERIAL WHICH STILL MAKES IT ONTO THE ROAD MUST BE CLEANED UP IMMEDIATELY.
 - FREQUENT CHECKS OF THE ENTRANCE(S) AND TIMELY MAINTENANCE SHALL BE PROVIDED.
 - NOTES ARE APPLICABLE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED.

- ### EROSION CONTROL NOTES
- CONTROLLING SEDIMENT TRANSPORT AND PREVENTING AND/OR CORRECTING PROBLEMS ASSOCIATED WITH THE EROSION AND RUNOFF PROCESSES WHICH COULD OCCUR BOTH DURING AND AFTER PROJECT CONSTRUCTION WILL BE CLOSELY MONITORED. PERIODIC MAINTENANCE AND INSPECTION OF SEDIMENT CONTROL DEVICES WILL BE SCHEDULED.
 - THE CONTRACTOR SHALL COMPLY WITH CARSON CITY, ORMSBY COUNTY, STATE OF NEVADA AND OTHER GOVERNING AGENCIES FOR TEMPORARY EROSION CONTROL MEASURES.
 - SHOULD SILT LEAVE THE SITE OR EROSION OCCUR, THE CONTRACTOR SHALL BE RESPONSIBLE AND SHOULD TAKE CORRECTIVE ACTION AND REPAIR ANY DAMAGE CAUSED BY THE SILT OR EROSION IMMEDIATELY. ALL COSTS ASSOCIATED WITH THE PREPARATION, MODIFICATION AND APPROVAL OF THE PLAN WILL BE THE RESPONSIBILITY OF THE CONTRACTOR BEFORE CONSTRUCTION BEGINS. THE LIMITS OF DISTURBANCE BOUNDARY SHALL BE FLAGGED ON SITE AND APPROVED BY THE JURISDICTIONAL AUTHORITY. UNDER NO CIRCUMSTANCES SHALL SITE DISTURBANCE OCCUR OUTSIDE THE DESIGNATED AREAS AT ANY TIME DURING CONSTRUCTION.
 - EXCAVATION AND EMBANKMENT OPERATIONS SHALL PROCEED IN SUCH A MANNER SO THAT FINISHING OF SLOPES, INCLUDING REVEGETATION, SHALL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER ROUGH GRADING. ALL SLOPES 2:1 OR FLATTER SHALL BE SCARIFIED WITH HEAVY EQUIPMENT. LEAVING TRACKS PERPENDICULAR TO THE SLOPE. THE TOPS OF ALL CUT SLOPES IN SOIL SHALL BE ROUNDED FOR A HORIZONTAL DISTANCE OF THREE FEET BEYOND THE CATCH POINT. SLOPE ROUNDED SHALL OCCUR AS THE SLOPE IS BEING BROUGHT DOWN. THE OVERALL SHAPE, HEIGHT AND GRADE OF ANY CUT AND/OR FILL SLOPE SHALL BE DEVELOPED IN CONCERT WITH THE EXISTING NATURAL CONTOURS. SCALE AND VEGETATION OF NATURAL TERRAIN.
 - STABILIZATION PRACTICES MAY INCLUDE, BUT NOT BE LIMITED TO TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, GEOTEXTILES, SOD STABILIZATION, VEGETATIVE BUFFER STRIPS, PRESERVATION OF NATURAL VEGETATION, AND OTHER APPROPRIATE MEASURES. USE OF IMPERVIOUS SURFACES FOR STABILIZATION SHALL BE AVOIDED. EXCEPT AS PROVIDED BELOW, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE IN DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 15 DAYS AFTER ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED.
 - WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 15TH DAY AFTER CONSTRUCTION ACTIVITY PERMANENTLY CEASES IS PRECLUDED BY DEEP SNOW OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
 - WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING WILL RESUME WITHIN 15 WORKING DAYS, TEMPORARY STABILIZATION MEASURES NEED NOT BE INITIATED ON THAT PORTION OF THE SITE.
 - SPECIFICALLY OUTLINED DISTURBED AREAS, BOTH ON AND OFF-SITE SHALL BE REVEGETATED. THESE AREAS SHALL INCLUDE, BUT NOT BE LIMITED TO ALL UNSURFACED AREAS WITHIN THE FLAGGED LIMITS OF DISTURBANCE, STAGING AND STORAGE AREAS, MATERIAL WASTE AREAS, UNDERGROUND UTILITY CONSTRUCTION AREAS, BENCHED AREAS, AND TEMPORARY OR EXISTING ACCESS ROADS USED FOR CONSTRUCTION ACTIVITIES; CUT AND FILL SLOPES OVER 3:1 REQUIRE THE PLACEMENT OF EROSION CONTROL/REVEGETATION MATTING. SLOPES LESS THAN 3:1 MAY BE SPRAYED WITH TACKIFIER.
 - CONTROLLED OUTLETS SHALL DIRECT COLLECTED RUNOFF THROUGH SILT FENCES OR STRAW BALES.
 - TYPICAL FUGITIVE DUST SHALL BE CONTROLLED BY WATERING AND/OR CHEMICAL STABILIZATION, PROVIDING VEGETATIVE OR SYNTHETIC COVER AND WIND BREAKS CONSISTENT WITH CARSON CITY, ORMSBY COUNTY, STATE OF NEVADA AND THE STATE OF NEVADA REQUIREMENTS.
 - SEE CONSTRUCTION SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

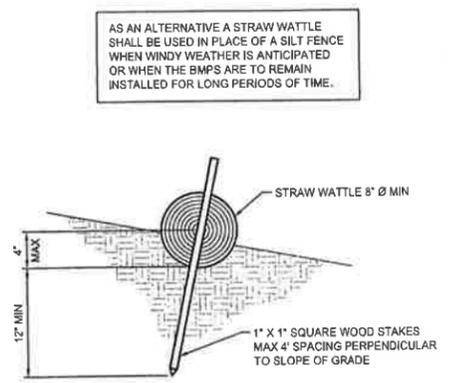
"SEDIMENT CONTROL FABRIC"
FABRIC SHALL BE USED FOR INSTALLATIONS OF SHORT DURATION. THE FABRIC IS CUT ON SITE TO THE DESIRED WIDTH, UNROLLED ALONG THE LENGTH OF THE BARRIER AND DRAPED OVER THE BARRIER. THE FABRIC TOE IS SECURED WITH ROCKS OR DIRT AND THE FABRIC COVERING THE BARRIER IS SECURED TO THE BARRIER WITH TWINE, STAPLES, OR SIMILAR DEVICES. AFTER THE CONSTRUCTION AREA IS STABILIZED AND EROSION ACTIVITY CURTAILED, THE SEDIMENT BARRIERS ARE REMOVED AND THE CONTAINED SEDIMENT IS LEVELED, SEEDED, AND MULCHED. SPECIAL PROTECTION OF THE SEED BED MAY BE NECESSARY IF THE LAYERS ARE OVER A FOOT THICK.



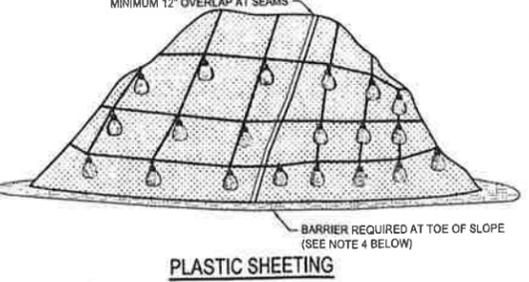
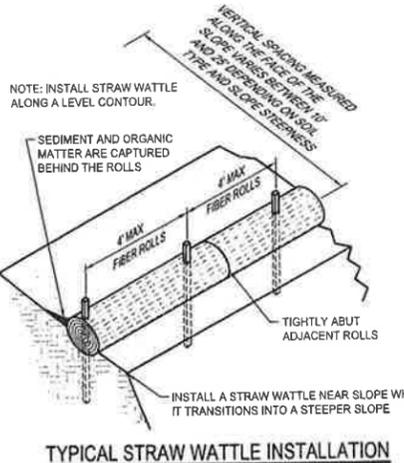
1 SILT FENCE DETAIL
E22-001-SH.2 NTS

2 STRAW BALE SILT FENCE DETAIL
NTS

3 CONSTRUCTION ENTRANCE
E22-001-SH.2 NTS

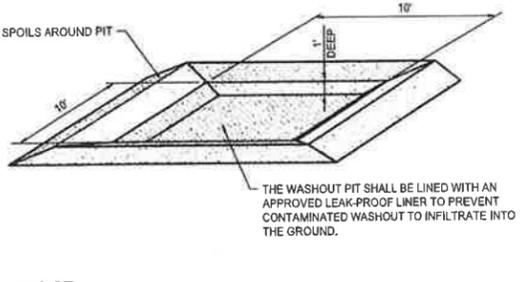


4 OPTIONAL STRAW WATTLE DETAIL
NTS



- ### NOTES
- MINIMUM 12" OVERLAP OF ALL SEAMS REQUIRED.
 - BARRIER REQUIRED AT TOE OF STOCK PILE.
 - COVERING MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 18' GRID SPACING IN ALL DIRECTIONS.
 - BARRIERS SHALL BE CONSTRUCTED WITH SEDIMENT FENCES, MULCH BERMS, CLIPPINGS, STRAW WATTLES, OR OTHER APPROVED MATERIALS.

5 STOCKPILE OR SURCHARGE SHEETING DETAIL
NTS



- ### NOTE
- WASHING OUT OF CONCRETE TRUCKS AND RINSING OF THE CONCRETE TRUCK CHUTES SHALL BE STRICTLY MONITORED TO AVOID THE CONTAMINATION OF DOWNSTREAM WATERWAYS. A WASHOUT PIT SHALL BE CONSTRUCTED FOR CONCRETE TRUCK WASHING. THE LOCATION SHALL BE COORDINATED WITH THE OWNER PRIOR TO CONSTRUCTION AND SHALL COMPLY TO THE REQUIREMENTS OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY AND X AND SHALL BE REMOVED AFTER COMPLETION OF THE PROJECT. ALL EXCESS WASHOUT AND CONCRETE SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL LOCATION.

6 CONCRETE TRUCK WASHOUT PIT
E22-001-SH.2 NTS

- ### REVEGETATION NOTES
- RECOMMENDED SEEDING MIXTURES MUST BE DONE ON A SITE SPECIFIC BASIS WHICH ACCOUNTS FOR THE FOLLOWING: SOIL PROPERTIES, CLIMATIC FACTORS, TOPOGRAPHIC POSITION AND FEASIBILITY.
 - VEGETATIVE PLANTING SHALL BE DONE WHERE DEEMED NECESSARY TO HASTEN THE RETURN OF PRE-EXISTING SITE CHARACTERISTICS AND ON ANY FINISHED SLOPE WHICH WILL REMAIN UNDISTURBED FOR AT LEAST 10 YEARS.
 - ALL DISTURBED OPEN SPACE AREAS, AND CUT AND FILL AREAS, SHALL RECEIVE AN ACCEPTABLE SEED MIX.
 - SEED MIX SHALL BE APPLIED AT A RATE SO THAT GERMINATION AND SUBSEQUENT COVERAGE REACHES 80 PERCENT IN A REPRESENTATIVE 10' X 10' AREA. IF COVERAGE DOES NOT REACH 80 PERCENT, RESEEDING MUST OCCUR.
 - APPROPRIATE FERTILIZER SHALL BE APPLIED TO ALL SLOPES RECEIVING SEED. APPLICATION RATES OF THE FERTILIZER SHALL BE STRICTLY ADHERED TO.

**PRELIMINARY
NOT FOR
CONSTRUCTION**

SHEET 3 OF 7		STATION ENGINEERING	
EROSION CONTROL DETAILS			
BRUNSWICK SUBSTATION			
E22-001-SH.3			B

REV	REVISION	DATE	DWN	ENGR	CHK'D	APPRV	W.O. NUMBER
A	ISSUED FOR PERMIT REVIEW	11/06/15					
B	ISSUED FOR PERMIT REVIEW	11/20/15					



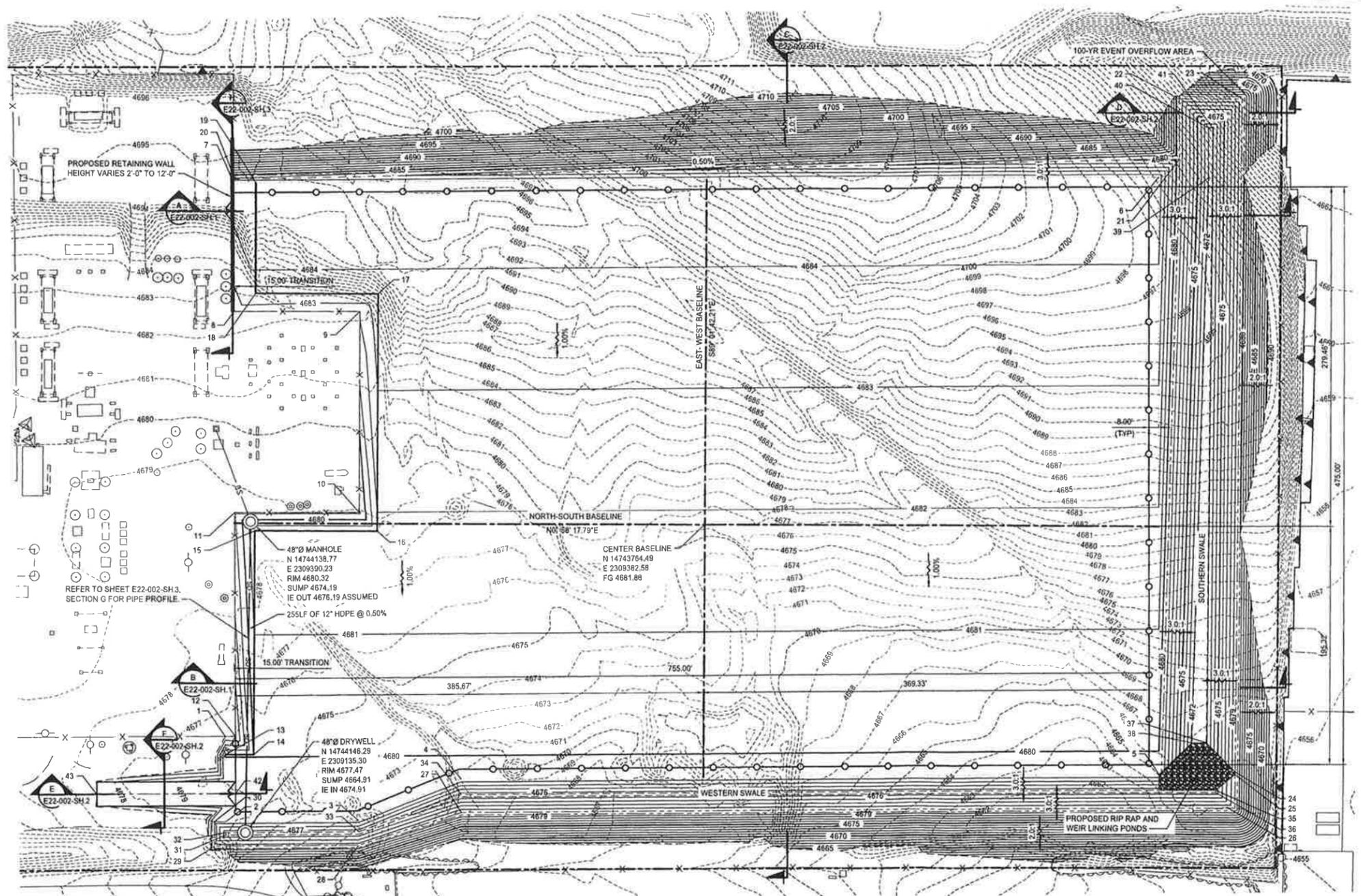
NOTES

- PROPERTY SURVEYED BY: SPENCER B. GROSS, INC. APRIL 30, 2015.
- THE CONTRACTOR SHALL ESTABLISH HIS OWN CONTROL & BENCH MARKS BASED ON THE CONTROL GIVEN. THOSE MONUMENTS SHALL BE PROTECTED FROM DISTURBANCE THROUGHOUT THE DURATION OF CONSTRUCTION & IF DISPLACED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE THEM AT HIS COST.
- ELEVATION SHOWN FOR THE SUBSTATION SITE ARE TOP OF FINISHED GRADE.
- CUT & FILL SLOPES EXCEEDING 3 HORIZONTAL TO 1 VERTICAL SHALL BE ARMORED WITH RIPRAP.
- DITCHES SHALL HAVE A MINIMUM 0.5% SLOPE IN THE DRAINAGE DIRECTION IF NOT INDICATED ON THE PLAN.

ESTIMATED QUANTITIES:

EARTHWORK QUANTITIES SHOWN ARE ESTIMATES ONLY AND ARE IN BANK CUBIC YARDS WITH NO ALLOWANCE FOR SHRINK OR SWELL. THE CONTRACTORS SHALL CALCULATE THEIR OWN ITEMIZED EARTHWORK AND MATERIAL QUANTITIES FOR THIS PROJECT.

DISTURBED AREA	12.00 AC	
CUT MATERIAL	81,498 C.Y.	
FILL MATERIAL	69,605 C.Y.	
TOTAL NET MATERIAL	11,881 C.Y. (CUT EXPORT)	
SWALE VOLUME	@ TOP OF POND	@ 6" OF FREEBOARD
SOUTHERN POND	4,987 CY	4,438 CY
WESTERN POND	1,838 CY	1,269 CY
TOTAL CAPACITY	6,635 CY	5,708 CY



POINT #	DESCRIPTION	ELEVATION	NORTHING	EASTING
1	EDGE OF PAD	4676.23	14744161.32	2309214.44
2	EDGE OF PAD	4679.47	14744161.82	2309144.44
3	EDGE OF PAD	4679.47	14744052.29	2309143.66
4	EDGE OF PAD	4679.81	14743967.05	2309176.85
5	EDGE OF PAD	4679.81	14743390.60	2309172.76
6	EDGE OF PAD	4684.72	14743387.11	2309663.74
7	EXISTING FECNE CORNER	4684.72	14744148.94	2309669.16
8	EXISTING FECNE CORNER	4682.56	14744150.04	2309563.29
9	EXISTING FECNE CORNER	4682.30	14744048.04	2309561.94
10	EXISTING FECNE CORNER	4678.81	14744048.71	2309396.82
11	EXISTING FECNE CORNER	4678.90	14744151.49	2309397.97
12	EXISTING FECNE CORNER	4675.99	14744153.32	2309214.38
13	PAD TRANSITION	4680.02	14744161.43	2309199.52
14	PAD TRANSITION	4680.02	14744138.58	2309199.13
15	PAD TRANSITION	4681.85	14744135.46	2309382.70

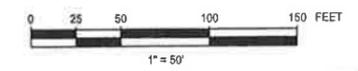
POINT #	DESCRIPTION	ELEVATION	NORTHING	EASTING
16	PAD TRANSITION	4681.84	14744033.97	2309380.98
17	PAD TRANSITION	4683.80	14744030.66	2309576.27
18	PAD TRANSITION	4683.81	14744132.15	2309577.99
19	PAD TRANSITION	4684.72	14744130.61	2309669.03
20	DITCH FLOWLINE	4684.72	14744148.95	2309675.16
21	DITCH FLOWLINE	4679.83	14743370.21	2309678.07
22	TOP OF POND	4679.83	14743369.88	2309728.09
23	TOP OF POND	4679.83	14743318.54	2309727.52
24	TOP OF POND	4679.83	14743328.41	2309174.31
25	TOP OF POND	4679.83	14743328.45	2309172.31
26	TOP OF POND	4679.81	14743333.96	2309144.62
27	TOP OF POND	4679.81	14743967.25	2309149.29
28	TOP OF POND	4679.47	14744052.43	2309123.63
29	TOP OF POND	4679.47	14744170.96	2309124.47
30	TOP OF POND	4679.47	14744170.80	2309144.50

POINT #	DESCRIPTION	ELEVATION	NORTHING	EASTING
31	BOTTOM OF POND	4676.47	14744161.90	2309133.41
32	BOTTOM OF POND	4676.47	14744161.88	2309135.41
33	BOTTOM OF POND	4676.47	14744052.35	2309134.63
34	BOTTOM OF POND	4675.56	14743967.14	2309164.07
35	BOTTOM OF POND	4675.56	14743344.55	2309159.48
36	BOTTOM OF POND	4675.56	14743344.57	2309157.48
37	BOTTOM OF POND	4671.83	14743351.99	2309198.48
38	BOTTOM OF POND	4671.83	14743363.82	2309198.58
39	BOTTOM OF POND	4671.83	14743346.32	2309663.06
40	BOTTOM OF POND	4671.83	14743346.04	2309703.82
41	BOTTOM OF POND	4671.83	14743342.97	2309703.79
42	CENTERLINE OF ROADWAY	9352.83	14744153.65	2309167.38
43	CENTERLINE OF ROADWAY	9352.83	14744285.84	2309168.18

LEGEND

- EXISTING PROPERTY LINE
- EXISTING PAVED ROADWAY
- EXISTING DIRT ROAD
- EXISTING DIRT TRAIL
- EXISTING MAJOR CONTOURS (5 FT)
- EXISTING MINOR CONTOURS (1 FT)
- EXISTING FENCE LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING POWER POLE
- EXISTING POLE ANCHOR
- EXISTING CULVERT
- PROPOSED MAJOR CONTOURS (5 FT)
- PROPOSED MINOR CONTOURS (1 FT)
- PROPOSED GRADING LIMITS
- PROPOSED ROAD CENTERLINE
- PROPOSED EDGE OF ROAD
- PROPOSED SUBSTATION FENCE
- PROPOSED SUBSTATION PAD
- PROPOSED DITCH FLOW LINE
- PROPOSED TOP OF POND
- PROPOSED BOTTOM OF POND
- PROPOSED STORM DRAIN PIPE
- PROPOSED STORM DRAIN STRUCTURE

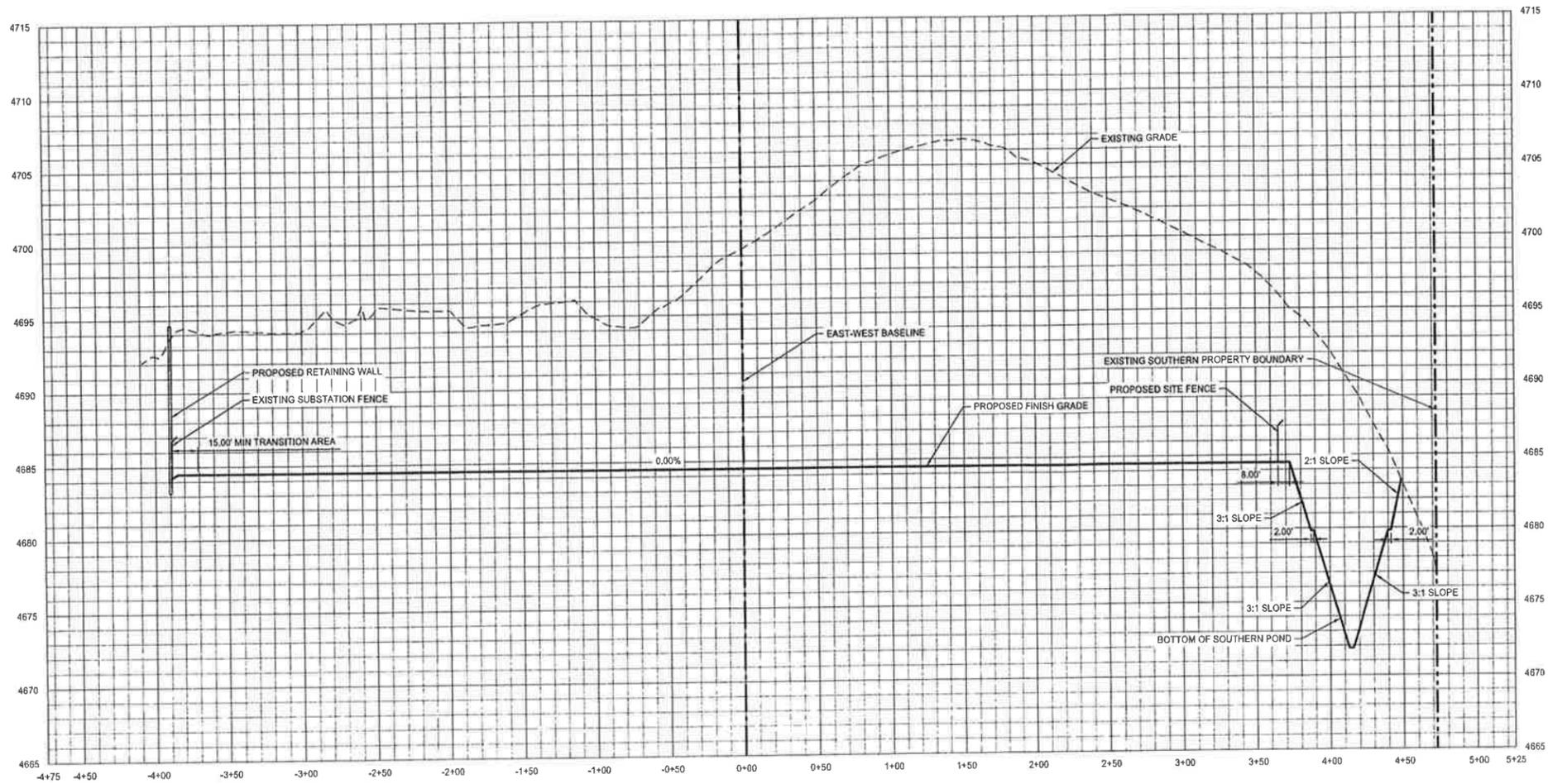
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NOT FOR
CONSTRUCTION**



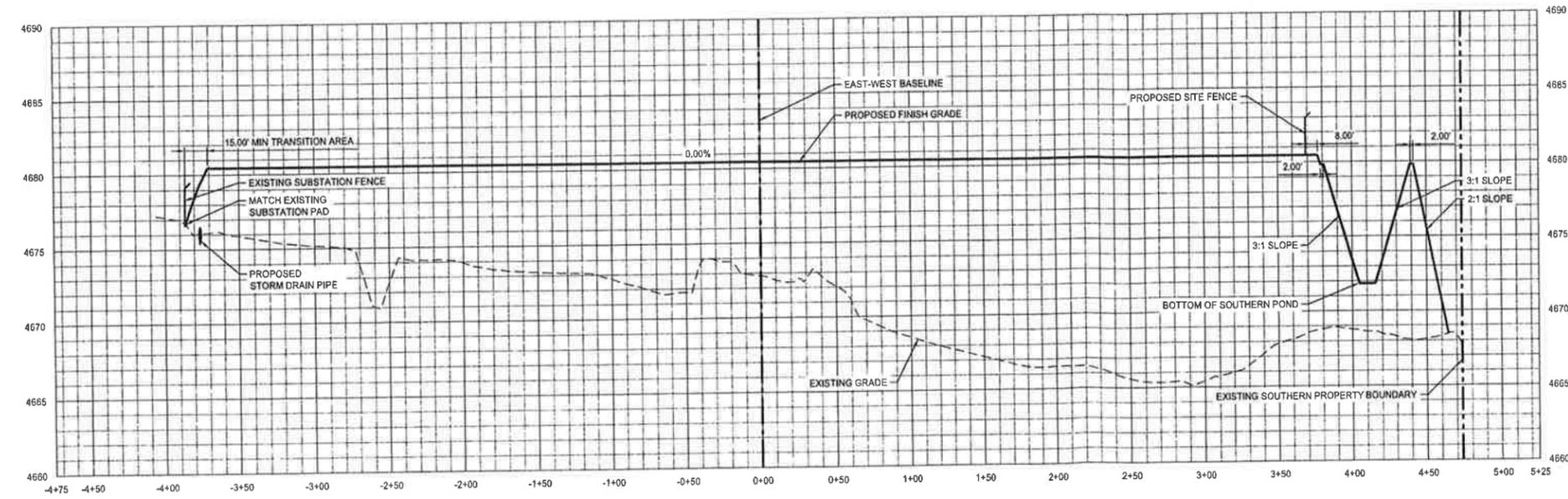
A	ISSUED FOR PERMIT REVIEW	11/08/15				
B	ISSUED FOR PERMIT REVIEW	11/20/15				
REV.	REVISION	DATE	D/WN	ENG'R	CHK'D	APPR'V
						W.O. NUMBER

SHEET 4 OF 7 **SUBSTATION ENGINEERING**

GRADING PLAN & POINT TABLE
BRUNSWICK SUBSTATION
E22-001-SH.4 B

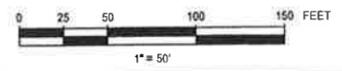


A SUBSTATION PAD SECTION
 E22-001-SH.4
 VERT SCALE 1" = 5'-0"
 HORZ SCALE 1" = 50'-0"



B SUBSTATION PAD SECTION
 E22-001-SH.4
 VERT SCALE 1" = 5'-0"
 HORZ SCALE 1" = 50'-0"

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**



A	ISSUED FOR PERMIT REVIEW	11/06/15					
B	ISSUED FOR PERMIT REVIEW	11/20/15					
REV.	REVISION	DATE	DWN	ENGR	CHK'D	APPRV	W.O. NUMBER

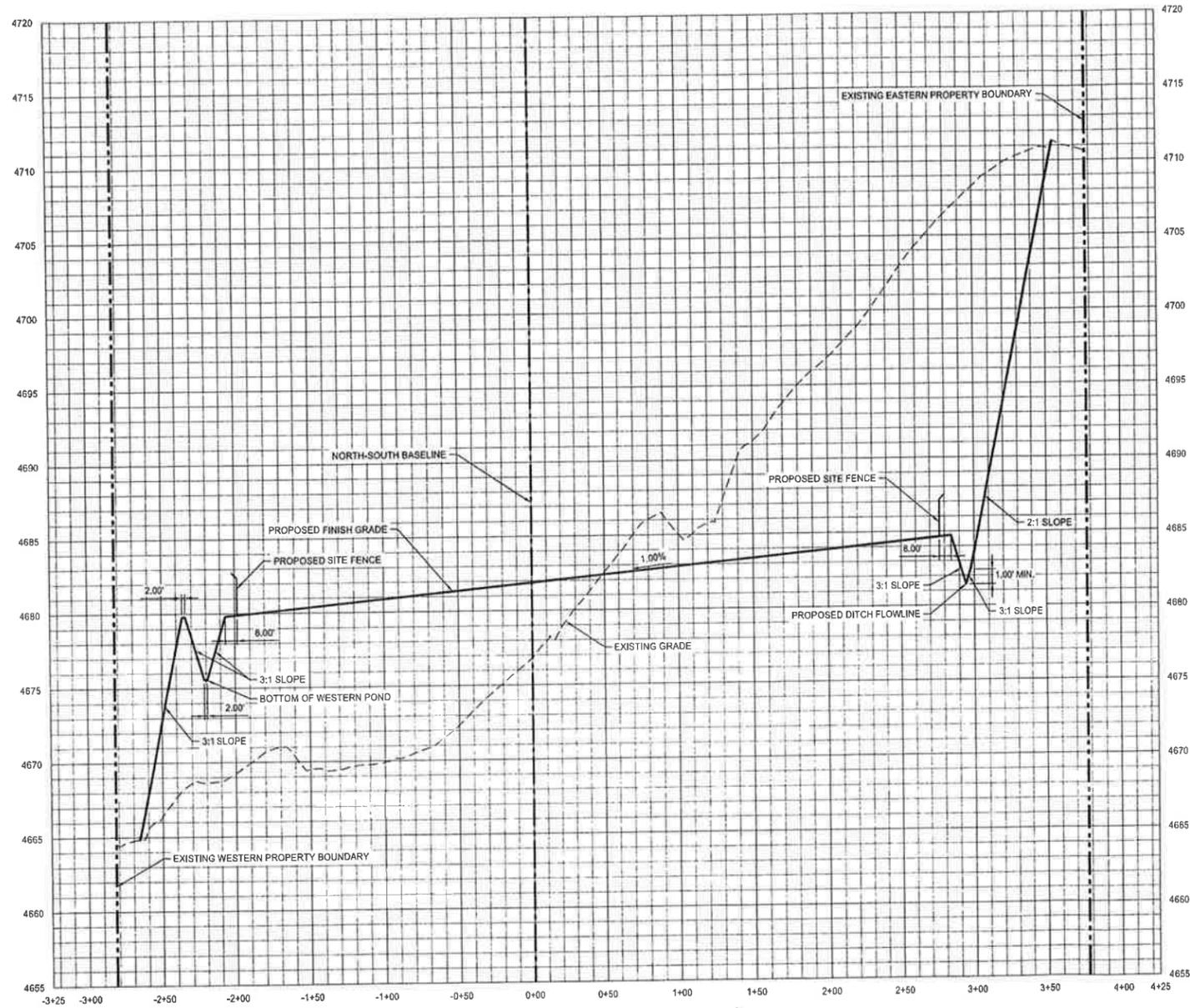


SHEET 5 OF 7 **SUBSTATION ENGINEERING**

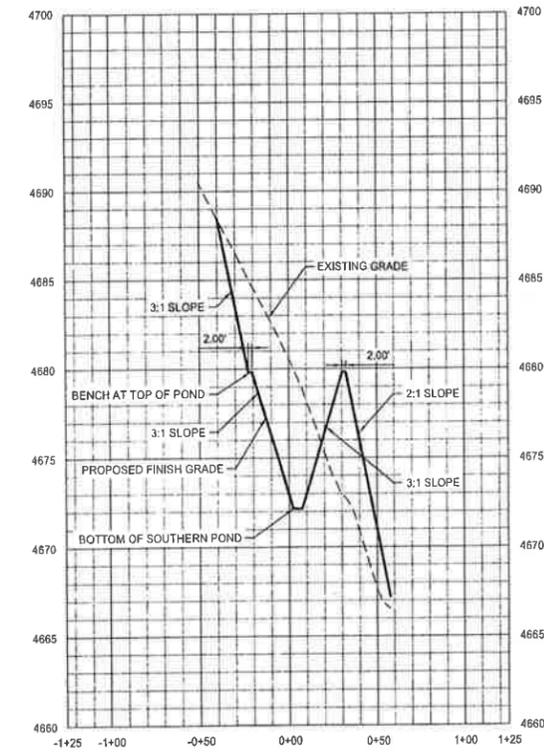
PROFILE SHEET

BRUNSWICK SUBSTATION
 E22-002-SH.1 **B**

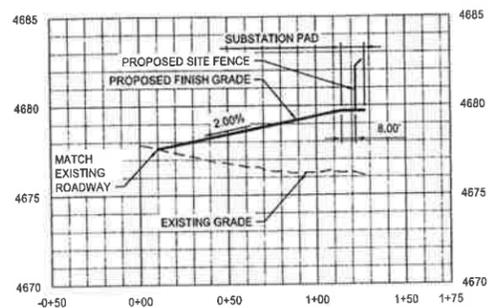
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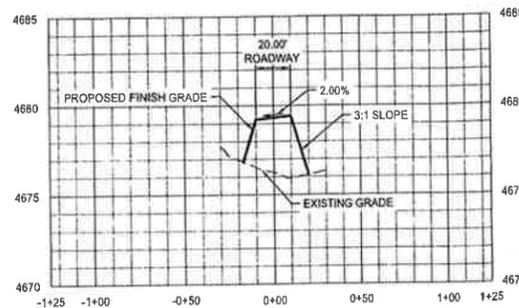
C SUBSTATION PAD SECTION
 E22-001-SH.4
 VERT SCALE 1" = 5'-0"
 HORZ SCALE 1" = 50'-0"



D POND SECTION
 E22-001-SH.4
 VERT SCALE 1" = 5'-0"
 HORZ SCALE 1" = 50'-0"

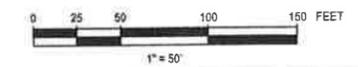


E ROAD CENTERLINE SECTION
 E22-001-SH.4
 VERT SCALE 1" = 5'-0"
 HORZ SCALE 1" = 50'-0"



F ROAD CROSS SECTION
 E22-001-SH.4
 VERT SCALE 1" = 5'-0"
 HORZ SCALE 1" = 50'-0"

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**



REV.	REVISION	DATE	DWN	ENGR	CHK'D	APPRV	W.O. NUMBER
A	ISSUED FOR PERMIT REVIEW	11/06/15					
B	ISSUED FOR PERMIT REVIEW	11/20/15					



SHEET 6 OF 7 **SUBSTATION ENGINEERING**

PROFILE SHEET

BRUNSWICK SUBSTATION

E22-002-SH.2 B

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