



LOCATION:

WASHOE COUNTY COMMISSION CHAMBERS
1001 E. 9th Street, Bldg. A, Reno
VIA ZOOM – Please note special date

DATE **Aug. 20, 2020**
TIME **9:00 a.m.**

REGIONAL TRANSPORTATION COMMISSION
OF WASHOE COUNTY
BOARD MEETING AGENDA

Meeting via teleconference/Zoom only pursuant to NRS 241.023 and Emergency Directive 006.

The meeting will be televised live and replayed on Washoe Channel at:

<https://www.washoecounty.us/mgrsoff/Communications/wctv-live.php>

and on YouTube at: bit.ly/RTCWashoeYouTube

PUBLIC NOTICE

I. Pursuant to Section 1 of Governor Steve Sisolak's Declaration of Emergency Directive 006 ("Directive 006"), the requirement contained in NRS 241.023(1)(b) that there be a physical location designated for meetings of public bodies where members of the public are permitted to attend and participate has been suspended. Pursuant to Section 3 of Directive 006, the requirements contained in NRS 241.020(4)(a) that public notice agendas be posted at physical locations within the State of Nevada has likewise been suspended. Pursuant to Section 5 of Directive 006, the requirement contained in NRS 241.020(3)(c) that physical locations be available for the public to receive supporting material for public meetings has been suspended.

II. The RTC has a standing item for accepting public input on topics relevant to the jurisdiction of the RTC. Because specific items may be taken out of order to accommodate the public and/or the Commission, public input on all items will be received under Item 2. Individuals providing public input will be limited to three minutes. Members of the public may provide public comment and also comment on Agenda Items without being physically present at the meeting by submitting their comments via online Public Comment Form (<https://www.rtcwashoe.com/about/contact/contact-form/>), or by emailing their comments to: rtcpubliccomments@rtcwashoe.com. Public commenters may also leave a voicemail at (775) 335-0018. **Comments received prior to 4:00 p.m. on August 19, 2020, will be entered into the record.**

III. The Commission may combine two or more agenda items for consideration and/or may remove an item from the agenda or delay discussion relating to an item on the agenda at any time.

IV. To access the supporting materials for the meeting, please click here: [Meeting Materials](#). In addition, a member of the public may request supporting materials electronically from Denise Thompson at the following email address: dthompson@rtcwashoe.com.

V. The RTC appreciates the public's patience and understanding during these difficult and challenging circumstances

****ROLL CALL****

PLEDGE OF ALLEGIANCE TO THE FLAG

1. APPROVAL OF AGENDA *(For Possible Action)*

2. PUBLIC INPUT

2.1 Public Input - Public input received prior to 4:00pm August 19th will be added to the record for this meeting. No live comment will be heard during the meeting. *See paragraph II above.*

2.2 Accept the monthly Summary Report for the Technical, Citizens Multimodal and Regional Road Impact Fee Advisory Committees *(For Possible Action)*

3. CONSENT ITEMS

Minutes

3.1 Approve the minutes of the July 17, 2020, meeting *(For Possible Action)*

Engineering

- 3.2 Acknowledge receipt of the monthly Engineering Activity Report *(For Possible Action)*
- 3.3 Acknowledge receipt of the Virginia Street Bus Rapid Transit (BRT) Extension monthly progress report *(For Possible Action)*

Public Transportation/Operations

- 3.4 Acknowledge receipt of the monthly Public Transportation/Operations Report *(For Possible Action)*

Planning

- 3.5 Acknowledge receipt of the monthly Planning Activity Report *(For Possible Action)*

Administration

- 3.6 Acknowledge receipt of the monthly Procurement Activity Report *(For Possible Action)*
- 3.7 Set Executive Director Goals for fiscal year 2021 (FY21) *(For Possible Action)*

Procurement and Contracts

- 3.8 Approve the purchase of Two Ford Escape Hybrid vehicles utilizing the State of Nevada vehicle procurement contract number 99SWC-S490/S609, in the amount of \$56,011.06; authorize the RTC Executive Director to execute his acceptance of the quote provided *(For Possible Action)*
- 3.9 Approve a contract with Fastech (Wayne Perry, Inc.) in an amount not to exceed \$188,515, for materials and installation of a new Angi CNG compressor; authorize the RTC Executive Director to award and execute the contract *(For Possible Action)*
- 3.10 Approve a Professional Services Agreement (PSA) with Jacobs Engineering (Jacobs) to provide Engineering and Environmental services through the remainder of the wetlands establishment and monitoring period on Phase 2 of the SouthEast Connector project, in an amount not to exceed \$572,340; authorize the RTC Executive Director to execute the agreement *(For Possible Action)*
- 3.11 Approve Amendment No. 1 to the existing Professional Services Agreement (PSA) between the RTC and Stantec for Engineering During Construction (EDC) services to be provided on the East Prater Way Rehabilitation Project in the amount of \$77,000 for a new not to exceed amount of \$834,823; authorize the RTC Executive Director to execute the amendment *(For Possible Action)*
- 3.12 Approve Change Order (CO) No. 17 to the construction agreement between the RTC and Sierra Nevada Construction in the amount of \$386,103 for additional work associated with changing the project scope to a hot mix asphalt overlay in lieu of a slurry seal in the North Virginia portion of the project on the Virginia Street Bus RAPID Transit (BRT) Extension Project; authorize the RTC Executive Director to execute CO No. 17 *(For Possible Action)*

Inter-Agency Agreements

- 3.13 Approve a cooperative agreement with the Nevada Department of Transportation (NDOT) to receive and use Congestion Mitigation and Air Quality (CMAQ) and Surface Transportation Block Grant (STBG) federal funds in the amount of \$1,150,000.00 for the RTC Trip Reduction Program; authorize the RTC Executive Director to execute the agreement *(For Possible Action)*

~END OF CONSENT AGENDA~

4. ENGINEERING

- 4.1 Receive a presentation on the Lemmon Drive project and provide direction accordingly *(For Possible Action)*

5. METROPOLITAN PLANNING ORGANIZATION (MPO)

- 5.1 Receive a report on the 2050 Regional Transportation Plan (RTP) Transportation call for projects and provide direction accordingly (*For Possible Action*)

6. DIRECTOR REPORTS

- 6.1 **RTC EXECUTIVE DIRECTOR REPORT** – *verbal report - no action required*
- 6.2 **FEDERAL REPORT** - *no action required*
- 6.3 **NDOT** Monthly updates/messages from NDOT Director Kristina Swallow – *no action required*

7. GENERAL ADMINISTRATION

Legal Issues - Report, discussion and possible action and/or direction to legal counsel and staff following receipt of information on legal issues. The RTC may, consistent with Chapter 241 of NRS, decide to interrupt the public meeting at any time to conduct a closed session to confer with legal counsel and possibly deliberate on legal issues. Any action on pending legal matters will be made when the public meeting is reconvened. (*For Possible Action*)

- 8. PUBLIC INPUT** - Public input received prior to 4:00pm August 19th will be added to the record for this meeting. No live comment will be heard during the meeting. *See paragraph II above*

9. MEMBER ITEMS

- 10. ADJOURNMENT**(*For Possible Action*)

Pursuant to Section 3 of Directive 006, the requirements contained in NRS 241.020(4)(a) that public notice agendas be posted at physical locations within the State of Nevada has likewise been suspended.

Current posting locations: RTC website: www.rtcwashoe.com, State website: <https://notice.nv.gov/>



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 2.1

TO: Regional Transportation Commission

FROM:

A handwritten signature in black ink, appearing to be "Bill Thomas", is written over a horizontal line.

Bill Thomas, AICP
Executive Director

SUBJECT: Public Input

This agenda item allows the public the opportunity to provide information on topics within the jurisdiction of the Regional Transportation Commission (RTC). Any person wishing to wait to provide public comment on a specific agenda item should indicate that item number on the “comment” card. The RTC Chair reserves the right to take all public comment during Public Input. Individuals addressing the Board during the Public Input portion of the meeting will be limited to three minutes total. However, an individual acting as a spokesperson for a group of individuals may request additional time. Individuals are expected to provide public input in a professional and constructive manner.



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 2.2

TO: Regional Transportation Commission

FROM: Amy Cummings, AICP/LEED AP
Director of Planning, Deputy Executive
Director

Bill Thomas, AICP
Executive Director

Mark Maloney
Director of Public Transportation

Brian Stewart, P.E.
Engineering Director

SUBJECT: August 2020 Advisory Committees Summary Report

RECOMMENDATION

Accept the monthly Summary Report for the Technical, Citizens Multimodal, and Regional Road Impact Fee Advisory Committees.

SUMMARY

The RTC has three advisory committees that provide input on a wide range of policy and planning issues as well as key planning documents and the RTC Budget. The committees include:

- The Citizens Multimodal Advisory Committee (CMAC) and is comprised of three individuals who use RTC RIDE, two individuals who use RTC ACCESS, five individuals who represent bicyclists/pedestrians, and five individuals who represent general multimodal transportation. The RTC Board approves appointments to this advisory committee.
- The Technical Advisory Committee (TAC) that includes local public works directors, community development directors, and staff from other key agencies.
- The Regional Road Impact Fee Technical Advisory Committee (RRIF TAC) which was created to oversee and advise the local governments regarding land use classification assumptions and the Capital Improvements Plan (CIP) used in the impact fee program. The RRIF TAC consists of three representatives from each local entity, two RTC representatives and four private sector members who are appointed by the RTC Board.

The agenda and minutes of each advisory committee are provided to the RTC Board.

This staff report summarizes comments along with any action taken by the RTC advisory committees.

FISCAL IMPACT

There is no fiscal impact associated with this agenda item.

ADDITIONAL BACKGROUND

The following describes key actions and comments received from the RTC advisory committees.

Citizens Multimodal Advisory Committee (CMAC)

The CMAC met on August 5, 2020, and received a report from Nevada Department of Transportation (NDOT) staff regarding the status of the Spaghetti Bowl Xpress (SBX) project. The CMAC also received reports on the update to the RTC Coordinated Human Services Public Transportation Plan (CTP) and Vision Zero Truckee Meadows.

Technical Advisory Committee (TAC)

The TAC met on August 6, 2020, and received a report from Nevada Department of Transportation (NDOT) staff regarding the status of the Spaghetti Bowl Xpress (SBX) project. The TAC also received reports on the update to the RTC Coordinated Human Services Public Transportation Plan (CTP) and Vision Zero Truckee Meadows.

Regional Road Impact Fee Technical Advisory Committee (RRIF TAC)

The RRIF TAC met on Thursday, July 23, 2020. The Committee received an update on the 2050 Regional Transportation Plan (RTP) where RTC staff sought input on transportation improvement projects, programs, and services to be considered for inclusion in the plan. Next, the RTC RRIF Administrator introduced potential discussion items related to the forthcoming 7th Edition RRIF General Administrative Manual (GAM) for consideration. The RRIF TAC directed RTC staff to tackle the list of items and present recommendations at future RRIF TAC Meetings. Lastly, the Committee acknowledged a report from the City of Reno on the potential reduction of impact fees for Affordable Housing.

**REGIONAL TRANSPORTATION COMMISSION
WASHOE COUNTY, NEVADA**

FRIDAY

9:07 A.M.

July 17, 2020

PRESENT VIA ZOOM:

**Neoma Jardon, Reno City Council Member, Vice Chair
Vaughn Hartung, Washoe County Commissioner
Oscar Delgado, Reno City Council Member (9:09)
Ron Smith, Sparks City Council Member**

**Bill Thomas, RTC Executive Director
Dale Ferguson, Legal Counsel
Kristina Swallow, Director of NDOT**

NOT PRESENT:

Bob Lucey, Washoe County Commissioner, Chairman

The regular monthly meeting, held in the Chambers of the Washoe County Commission, 1001 E. 9th Street, Reno, Nevada and via Zoom meeting, was called to order by Vice Chair Jardon. Due to audio technicalities in the Chambers, Vice Chair Jardon took the roll call and led the Pledge of Allegiance to the Flag of our country, the Board then conducted the following business:

Item 1 APPROVAL OF AGENDA

On motion of Mayor Smith, seconded by Commissioner Hartung, which motion unanimously carried, Vice Chair Jardon ordered that the agenda for this meeting be approved.

Item 2.1 PUBLIC INPUT

Vice Chair Jardon opened the meeting to public input and due to Section 5 of the Governor's Directive 006, public comment was accepted until 4:00 pm the previous evening for topics relevant to the Regional Transportation Commission (RTC) that are not included in the current agenda.

Email received at 3:08pm on July 16th:

Hello RTC,

I'd like to submit the public comment below for the RTC Board meeting tomorrow, July 17. Thank you!

My name is Joanna Triegeer, and I'm a board member of the Truckee Meadows Bicycle Alliance, or TMBA. I'm commenting today both on my own behalf as someone who uses a bicycle as their

primary means of transportation, and on behalf of TMBA. My comment is regarding Agenda Item 4.1: direction on the 2050 RTP. The bottom line is that the 2050 RTP needs to explicitly prioritize the creation of a thoughtful, connected, equitable network of protected bicycle infrastructure in the Truckee Meadows.

The guiding principles adopted during the last RTC Board meeting include 1) safe and healthy communities, 2) economic vitality and innovation, 3) sustainability, and 4) travel choices. Allowing and encouraging as many citizens as possible to travel by bike would address each of these principles. But our current approach to bike infrastructure isn't enough. Our current approach is piecemeal, so it doesn't connect people from where they live to where they work, run errands, and recreate. Almost all of our current infrastructure is unprotected, so people don't feel safe using it. And it largely exists in just a few--mostly white and wealthy--neighborhoods, so it isn't equitable. Our current approach won't help RTC achieve its stated goals, so we need something different.

We need a thoughtful bike network based around a backbone of cycle tracks--2-3 running north/south and 2-3 running east/west--to serve as arterials. Protected bike lanes on quieter roads should act as feeders to get riders to these cycle tracks, and designated bike routes along residential streets should connect to the feeders. Implementing a network like this is relatively inexpensive and is among the only transportation projects that ultimately pays for itself when considering the reduced wear-and-tear and improved air quality that comes from significant numbers of people switching from cars to bikes. Oddie/Wells and Center Street are great first steps toward this goal, but they need to be just that--first steps. I ask you to make creating a protected, connected, equitable bike network an explicit priority in the 2050 RTP. TMBA is ready and willing to work with you to make this happen. Thank you!

--
Joanna Trieger

The following letter was received via email at 3:21pm July 16th from the Law Offices of Kristina L. Hillman:

LAW OFFICES OF KRISTINA L. HILLMAN

July 16, 2020

VIA EMAIL AND U.S. MAIL

Adam Spear, Esq.
Regional Transportation Commission of Washoe County
1105 Terminal Way, Suite 300
Reno, NV 89502
Email: aspear@rtcwashoe.com

Dale Ferguson, Esq. Woodburn & Wedge
6100 Neil Road, Suite 500
Reno, NV 89511
Email: dferguson@woodburnandwedge.com

Re: Keolis Allowing Passengers to Refuse to Wear COVID Masks in Violation of Governor Sisolak's Executive Directive No. 024

Dear Mr. Spear and Mr. Ferguson:

Our office represents Teamsters Local 533. Teamsters Local 533 represents the bus drivers at Keolis, a contracted transit operator with the Regional Transportation Commission of Washoe County (RTC). We write to inform you that Keolis is refusing to follow current law requiring that all people wear a face covering in public places. We write because we know it is in our shared interest that Keolis cease and desist from placing the health and safety of workers and the public at heightened risk of contracting COVID 19.

Many communities are currently facing a surge in COVID 19 cases, including Washoe County. As of today, Washoe County has nearly 4,000 cases.¹ On June 24, 2020, Governor Sisolak issued Executive Directive No. 024 (hereinafter " Directive"), requiring that individuals "cover their nose and mouth with a mask or face covering when in a public space, whether publicly owned or privately owned where the public has access by right or invitation ... "² There is no question that Keolis transit vehicles and the spaces used to access them are subject to this

¹ <https://www.washoecounty.us/health/programs-and-services/communicable-diseases-and-epidemiology/educational-materials/COVID-19.php>

² <https://nvhealthresponse.nv.gov/wp-content/uploads/2020/06/Directive-024-Face-Coverings.pdf>

*Affiliated with
Weinberg, Roger & Rosenfeld, A Professional
Corporation*

Directive. The failure to wear a face-covering on Keolis transit vehicles violates the Directive and CDC recommendations,³ and bus drivers are at far greater risk of contracting COVID 19 as a result of these violations of law. Teamsters Local 533 has repeatedly brought it to the attention of Keolis that passengers are not wearing masks.

Keolis has instructed its drivers to allow riders to use public transit even when they are not wearing a face covering. Keolis is not publishing its policy publicly but is instead communicating it to workers in a way calculated to avoid public responsibility. Keolis instructed its drivers via text messaging not to deny riders without masks but instead to simply "educate and encourage them" to do so. Keolis has threatened disciplinary action and penalties against drivers if they seek to enforce the Directive to protect their safety and health. Attached hereto are samples of these threatening text messages Keolis sent to its drivers.

The Union has requested, on multiple occasions, that Keolis enforce the Directive. Keolis refuses to comply with the law. Keolis claims it need not require riders to wear face coverings , using the Americans with Disabilities Act as an excuse. The Union has not, and would not, request that Keolis violate the ADA. The fact is, the Americans with Disabilities Act does not give Keolis license to act in discordance with the Directive. Further, the Directive addresses ADA requirements as it exempts individuals "who cannot wear a face-covering due to a medical condition or disability, or who are unable to remove a mask without assistance" from the face-covering requirement. Instead, the Directive provides riders who have such conditions or disabilities with accommodation by allowing them to wear a "non-restrictive alternative, such as a face shield." Keolis' instructions to bus drivers to let anyone on the bus without a face covering, or in the alternative, a non-restrictive face shield (if the person asserts a disability or conditions prohibits them from wearing a face covering) is a blatant refusal to follow the law and will certainly cause the virus to spread among RTC's bus drivers and riders.

The RTC can and should impose penalties and dispatch any enforcement agencies necessary to enforce compliance with the Directive. Directive , Sections 9, 10. RTC has the authority to enforce the Directive under state law because the Governor has delegated this authority in his Directive. See Directive, Section 9; see also NRS 414.060(3)(f). Keolis has made clear that nobody is to be turned away for failure to comply with the Directive.

3

The CDC recommends "all people 2 years of age and older wear a cloth face covering in public settings and when around people who don ' t live in your household, especially when other social distancing measures are difficult to maintain."

https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-covering-guidance.html?deliveryName=USCDC_2067-DM31977.

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Our client has asked us to call this very important public and worker safety issue to your attention. Our client is willing to work with RTC to assure that drivers and members of the public can safely work and use public transit. Please contact us if you have any questions or would like to discuss this matter.

Sincerely,

Kristina L. Hillman
Tiffany L. Crain

There being no other public comment submitted, the Vice Chair closed public input.

Item 2.2 ADVISORY COMMITTEES SUMMARY REPORT

On motion of Mayor Smith, seconded by Commissioner Hartung, which motion unanimously carried, Vice Chair Jardon ordered that receipt of the monthly Summary Report for the Technical, Citizens Multimodal and Regional Road Impact Fee Advisory Committees be acknowledged..

Item 3.1 thru 3.19 CONSENT ITEMS

Minutes

- 3.1 Approve the minutes of the June 19, 2020, meeting (*For Possible Action*)**

Engineering

- 3.2 Acknowledge receipt of the monthly Engineering Activity Report (*For Possible Action*)**
- 3.3 Acknowledge receipt of the Virginia Street Bus Rapid Transit (BRT) Extension monthly progress report (*For Possible Action*)**
- 3.4 Acknowledge receipt of the Lemmon Drive monthly progress report (*For Possible Action*)**

Public Transportation/Operations

- 3.5 Acknowledge receipt of the monthly Public Transportation/Operations Report (*For Possible Action*)**
- 3.6 Accept and approve the RTC 2020 Title VI Report Update (*For Possible Action*)**

Planning

- 3.7 Acknowledge receipt of the monthly Planning Activity Report (*For Possible Action*)**
- 3.8 Approve the proposed revisions to both the RTC Technical Advisory Committee (TAC) Statement of Purpose, Objectives, and Procedures; and Policies Governing the Citizens Multimodal Advisory Committee (CMAC) (*For Possible Action*)**

Administration

- 3.9 Acknowledge receipt of the monthly Procurement Activity Report (*For Possible Action*)**
- 3.10 Acknowledge receipt of the Asset Donation Log for the first and second quarters of calendar year 2020 (*For Possible Action*)**
- 3.11 Approve the Fiscal Year 2021 RTC Agency Goals (*For Possible Action*)**
- 3.12 Approve modification to RTC Personnel Rule (11.9) Maximum Vacation Accumulation (*For Possible Action*)**
- 3.13 Approve new Regional Transportation Commission (RTC) Management Policy, Business Expense (*For Possible Action*)**
- 3.14 Approve modifications to Regional Transportation Commission (RTC) Management Policy P-21, Travel Policy (*For Possible Action*)**

Procurement and Contracts

- 3.15 Approve Amendment No. 2 to the Transit Vehicle Purchase Agreement with Proterra, Inc., effected on December 9, 2019, to incorporate the installation of two (2) shop chargers originally procured under this contract for the total firm-fixed not-to-exceed amendment price of \$309,341; authorize the RTC Executive Director to execute the amendment (*For Possible Action*)**
- 3.16 Approve Task Order #3 under the Master Services Agreement with CA Group, Inc. for design services and optional engineering during construction for the Bus**

- Stop Improvement and Connectivity Program for the 2021 construction season in an amount not-to-exceed \$552,625; approve an amendment to the Master Services Agreement to reflect the increased not-to-exceed amount; authorize the RTC Executive Director to execute the task order and amendment (*For Possible Action*)**
- 3.17 Approve Amendment No. 1 to the existing Professional Services Agreement (PSA) between the RTC and Kimley-Horn and Associates for Engineering During Construction (EDC) services related to the Kuenzli Street Project in an amount not to exceed \$77,939 for a new total contract not to exceed amount of \$303,353; authorize the RTC Executive Director to execute the agreement (*For Possible Action*)**
- 3.18 Approve a Professional Services Agreement (PSA) with Stantec Consulting Inc. to provide design services and optional engineering during construction for the TE Spot 10 – North Project in an amount not to exceed \$150,387; authorize the RTC Executive Director to execute the agreement (*For Possible Action*)**

Regional Road Impact Fees

- 3.19 Acknowledge receipt of the 6th Edition RRIF Program report (*For Possible Action*)**

On motion of Commissioner Hartung, seconded by Mayor Smith, which motion carried unanimously, Vice Chair Jardon ordered that Consent Items 3.1 through 3.19 be approved.

Item 4 METROPOLITAN PLANNING ORGANIZATION (MPO)

- 4.1 Receive a report and provide direction on the 2050 Regional Transportation Plan (RTP) Transportation Project Alternatives (*For Possible Action*)**

Mr. Dan Doenges, RTC Planning Manager, addressed the Board via Zoom and shared his screen to provide a presentation update on the 2050 Regional Transportation Plan (RTP).

Mr. Doenges began, saying that since 2017, the following installations were accomplished:

- 33.2 miles of bike lanes
- 10.7 miles of sidewalk
- 6.7 miles of multi-use paths
- 445 ADA compliant curb ramps

Additionally, RTC Transit provided 7.6 million RIDE trips in 2019 and 223,640 ACCESS trips in 2019.

Projects, programs and Services to be considered for the 2050 RTP are the following:

- Projects suggested by community members
- 2040 RTP projects
- Projects in recent/ongoing transportation studies
 - South Meadows Multimodal Transportation Study

- University Area Multimodal Transportation Study
- ADA Transition Plan
- Coordinated Human Services Transportation Plan
- Advanced Mobility Study
- Mt Rose Hwy & McCarran Blvd Studies

Mr. Doenges also provided information and maps on projects currently under development, projects in the current RTP, and projects broken out by specific areas in the region.

Commissioner Hartung asked if the RTC is considering partnering with the rail system to assist in getting citizens to/from the TRI Center to the east of Sparks.

Mr. Doenges responded that staff has been in contact with the Union Pacific Railroad but wasn't sure as to the details of those conversations. He added that NDOT is going to begin updating their rail plan and commuter rail will be looked at along with freight.

He then showed some of the specific suggested projects under consideration, such as:

- New connections in the North Valleys
- Support initiatives at Reno-Stead Airport & other planned developments
- New Connections to TRI Center
 - La Posada Extension
 - I-80 Widening
 - South Meadows Extension

The 2018-2022 Short Range Transit Plan, adopted in 2017, includes:

- Focus on service with the best opportunity for increasing ridership
- Focus on high employment & residential densities
- Service change concepts included:
 - Increasing service to high ridership corridors
 - Improving on-time performance
- Construct full-sized RAPID station
- Pursue FTA joint development identified in RTC Affordable Housing Study with City of Reno and Reno Housing Authority
- Extend RAPID Service
 - South Virginia to Mt. Rose Hwy/Geiger Grade
 - West 4th Street to Keystone Ave

FlexRIDE Expansion Requests:

- Red Rock/Cold Springs
- South Reno
- Incline Village/Lake Tahoe

Maintenance Facilities

- Potential relocation of Villanova facility due to Spaghetti Bowl Phase 4 (2035-2040)
 - Electric & hydrogen fueling capabilities
- Expand Sutro maintenance facility

Passenger Facilities

- Meadowood Mall transfer station relocation

Upon conclusion, Mr. Doenges offered to answer any questions.

Commissioner Hartung said there is a real need for capacity improvements on Pyramid Highway heading north toward Spanish Springs, but understands that it would most likely be an NDOT project. He added that Highland Ranch Parkway is another that could use widening, as could 7th street going to Golden Valley.

Mr. Doenges thanked the commissioner and said those requests would be added to the list.

Commissioner Delgado asked about the potential partnership with RTC and the Reno Housing Authority for use of the parcel across from the Peppermill, and what the status is.

Mr. Doenges suggested that Deputy Executive Director Cummings could better answer his question; however, due to the ongoing technical issues in the chambers, Ms. Cummings could not be unmuted. Therefore, Commissioner Delgado said he would just have an offline discussion with her about this topic.

Although NDOT roadways, Vice Chair Jardon would like to eventually know the timeline for safety and capacity improvements on North McCarran. She would also like to know what is in the plans for infrastructure out to Verdi where there is so much development.

Ms. Amy Cummings' audio was fixed and she told Commissioner Delgado that an environmental analysis is required by the FTA for the parcel across from the Peppermill he had asked about. That is underway now and it is very early in the project, but staff is working very closely with all partners involved.

Vice Chair Jardon suggested that an update on recent administration changes in Washington DC and how it will effect RTC projects going forward.

On motion of Commissioner Hartung, seconded by Commissioner Delgado, which motion carried unanimously, Vice Chair Jardon ordered receipt of the presentation be acknowledged.

Item 5.1 thru 5.3 DIRECTOR REPORTS

5.3 NDOT Director Report *(taken out of order due to technical difficulties in the Chambers)*

Ms. Kristina Swallow, Director of NDOT, provided updates on traffic safety, stating that there have been 131 lives lost on the Nevada roadway network so far this year, as compared to 133 at the same point the previous year.

Motorcycle and bicyclist fatalities are down but in Washoe County, crashes and fatalities are up 26% from the previous year and occupancy fatalities are up 80%.

COVID-19 caused a large reduction in traffic volumes in March, but since then, reductions are at about 20% or less and in some cases, volumes are higher than in March.

Director Swallow discussed some of the wildfires in the area and noted that NDOT is actively engaged in the fires to close the roads or clean up the roads following a fire. There are also damages that occur, such as guardrails being ruined.

Audio technicalities were repaired at this time.

Director Swallow mentioned a four mile long mudslide in Washoe County, up near the border with Oregon. This is another example of where NDOT staff is involved in natural disasters because they helped to clean the mud away which was 12' deep in some areas.

She then gave updates on the Parr Bridge project and the Spaghetti Bowl Express (SBX) project.

The bridge was removed in mid-June and work has been completed to support the precast new bridge. The project should be completed by the end of August.

The SBX project update included an announcement that the second of four preliminary approvals of the project design had been received and construction activities are still anticipated for late summer. A groundbreaking for the project may not be possible due to the current pandemic.

She then congratulated Commissioner Hartung on being recognized by the Water Environment Federation as the 2020 public official of the year.

Commissioner Hartung mentioned two different fatalities that had recently occurred on Pyramid Highway and asked for a Road Safety Audit from the library northward.

Mayor Smith thanked Director Swallow for her update.

5.1 RTC Executive Director Report

RTC Executive Director Bill Thomas first apologized to everyone for the audio difficulties that took place and then provided updates as follow:

He mentioned that Dale Keller had been promoted to Engineering Manager upon the retirement of Julie Masterpool.

Earlier in the week, the RTC began the Greg Street project and there is a project video available on the RTC website.

Discussions had been taking place amongst the various MPOs to potentially join forces and finances to do a demonstration project for on demand transportation service in spring of 2021. The

demonstration would run from South Reno to Carson City and Lake Tahoe. The RTC has approximately \$300,000 from the CARES Act funds to contribute to the project. If this occurs, it will be brought for approval and direction at the May 2021 Board meeting.

The SCR3 discussion that was supposed to occur has been delayed because the legislature is still in session. An important conversation is planned to figure out how revenue can be collected from non-internal combustion engine vehicles, amongst other topics. The meeting will potentially be moved to August.

RTC, Keolis and MTM have been diligent in following the direction of the Governor and his mandates. Mask dispensers were installed on all the buses for those who do not have a mask, although most do. July 7 – 13, there was actually 100% compliance of the mask mandate. He then thanked Mr. Mark Schlador from the RTC Facilities Maintenance department for getting those installed so quickly.

Lastly, E.D. Thomas provided an update on the status of the Virginia Street BRT Extension project, adding that a video is available on how to navigate a roundabout as there are a couple of them being installed in this project.

Vice Chair Jardon thanked Executive Director Thomas, Keolis GM Abul Hassan and Facilities and Fleet Supervisor Mark Schlador for making the masks available so quickly. She also gave a shout out to RTC passengers for being so good about following the mandate.

5.2 RTC Federal Report

RTC Executive Director Bill Thomas said there is a written report included in the meeting packets and mentioned that the House approved the Invest in America Act which would have funded transportation needs in light of the pandemic and reduced revenues, but it may not be taken up in the Senate as they are working on their own document to address funding needs.

Mobility on Demand, such as RTC FlexRIDE, would have benefited from the Invest in America Act which has been a concern for the RTC.

Item 4 LEGAL ISSUES - Report, discussion and possible action and/or direction to legal counsel and staff following receipt of information on legal issues. The RTC may, consistent with Chapter 241 of NRS, decide to interrupt the public meeting at any time to conduct a closed session to confer with legal counsel and possibly deliberate on legal issues. Any action on pending legal matters will be made when the public meeting is reconvened.

Legal Counsel Dale Ferguson said he had no items for discussion.

Item 10 PUBLIC INPUT

Due to the COVID-19 pandemic, no public comment was accepted after 4:00pm July 16th; therefore, there was no one wishing to speak.

Item 11 MEMBER ITEMS

Vice Chair Jardon said she only requests an update on Nevada Division of Environmental Protection (NDEP) changes with the new administration in place that she had mentioned earlier in the meeting.

Item 12 ADJOURNMENT

There being no further business to come before the Board, the meeting adjourned at 10:05 a.m.

NEOMA JARDON, Vice Chair
Regional Transportation Commission

DRAFT



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 3.2

TO: Regional Transportation Commission

FROM: Brian Stewart, P.E.
Engineering Director

Bill Thomas, AICP
Executive Director

SUBJECT: RTC Engineering Activity Report

RECOMMENDATION

Acknowledge receipt of the monthly Engineering Activity Report.

BICYCLE AND PEDESTRIAN IMPROVEMENTS

Bus Stop Improvement and Connectivity Program

The program is a multi-year effort to upgrade existing bus stops to comply with state and federal requirements, including the Americans with Disabilities Act (ADA). The first phase of bus stop improvements located within public Right-of-Way (13 bus stops) is complete. The process of obtaining necessary easements for other locations is ongoing. CA Group submitted easement packages for 37 bus stop locations associated with Task Order No. 1. Sixty percent (60%) Design was submitted for the final 90 bus stop locations. As easements are acquired, additional construction bus stop designs will be packaged and advertised for bids later this year.

Center Street Cycle Track Project

Headway Transportation completed the Traffic Analysis of the proposed alternative, which includes a two-way cycle track along Center Street from Cheney to 9th Street. The final report is being prepared along with an amendment to the existing agreement with the consultant to include design services for the project. The amendment will include additional work that is required for Center Street Cycle Track final design to include roadway rehabilitation.

Mill Street (Terminal Way to McCarran Boulevard)

The scope of this project is to design and construct various complete street improvements along Mill Street from Terminal Way to McCarran Boulevard, as identified in the RTC Complete Streets Masterplan completed in July 2016, and the Mill/Terminal corridor study completed in March 2013. The emphasis of this project is to assess and identify improvements for pedestrians, bicyclists, and transit riders as well as motorists. Deficiencies in pedestrian access related to Charter Schools and AACT High School in the area as well as a number of ADA deficient bus stops will be addressed.

Preliminary design is complete and 90% plan comments have been received from the agencies. An Amendment to the design contract has been approved that will split the project into two phases and provide for construction management services. Phase 1 will be from Rock Boulevard to McCarran Boulevard and Phase 2 will be on Mill Street from Terminal Way to Rock Boulevard. Right-of-way impacts have been identified and the right-of-way process for Phase 1 is beginning. The two phases will be constructed consecutively over a 5-year timeframe.

CAPACITY/CONGESTION RELIEF PROJECTS

ITS Pilot Project, Design of Phase 2 ITS Connectivity

The pilot project connected traffic signal systems of the City of Reno, the City of Sparks, Washoe County, and NDOT through fiber optic communication lines. This project also includes design of Phase 2A and 2B, which will expand communication to outlying signal systems and install ITS devices to monitor and remotely adjust traffic signals to respond to special events, changing traffic conditions, provide information to drivers and traffic incidents. Construction of the Pilot Project is complete. The ITS Phase 2A Project is complete. Phase 2B is currently under construction with a tentative completion in fall 2020.

ITS Phase 3

The project includes conduit and fiber optic cable at the following locations:

- Lake Street from 1st Street to 2nd Street
- Lemmon Drive from N. Virginia Street to US 395
- Rock Boulevard from Greg Street to Prater Way

Also included in ITS Phase 3 is a Road Weather Information Sensors (RWIS) at Sharlands Avenue at Robb Drive. The project will install 20 Gridsmart Performance Packages. These are upgrades to existing Gridsmart detection systems and can detect/count pedestrian and bicycles. Currently, the project is in the preliminary design phase.

North Valleys Package 3B

Package 3B is currently at 100% design. Package 3B includes adding capacity to the right turn lane at North Virginia Street/Business 395. This project also includes improvements to two bus stop pads located within the project area, and associated access and drainage improvements.

Sparks Boulevard Project

The project seeks to increase safety, maintain roadway capacity, and improve bicycle and pedestrian facilities by widening Sparks Boulevard to six (6) lanes between Greg Street and Baring Boulevard. Professional engineering services are underway with Atkins North America, Inc. to begin environmental studies and preliminary design.

The project team began defining the purpose and need statement for the National Environmental Policy Act (NEPA) process. RTC continuous to work with NDOT and FHWA to review possible environmental impacts. The first public meeting will be scheduled this fall.

Traffic Signal Timing 6 Project

Following a three year cycle schedule, the project includes review and timing optimization of approximately one-third (1/3) of the signals in the region per year. For 2020, this begins a new cycle where signals that were re-timed back in 2016, will be re-evaluated and re-timed to address the changes to traffic demand. For 2020, roughly 95 intersections will have revised timing implemented. Timing plans are developed in coordination with RTC/UNR. In the process, re-evaluation of the other settings such as vehicle passage times are calculated at each intersection to make sure it is up to current standards.

Progress as of August 2020

- Updating Vehicle and Pedestrian Intervals at various intersections (approx. 90 signals) – Completed
- N. McCarran Boulevard & Clear Acre Lane (10 Signals) – Sutro St. to Sullivan Ln – New timing plans to be implemented in mid-August
- Vista Blvd (9 Signals) – EB I-80 to S. Los Altos Pkwy – New Timing plans to be implemented in mid-August

Traffic Engineering (TE) Spot 9 – Package 1 Project

The project includes:

- Traffic signal at the intersection of Sharlands Avenue and Mae Anne Avenue;
- Battery backup systems for signalized intersections on Sun Valley Drive from Scottsdale Road to 7th Street;
- Minor striping improvements to improve traffic flow at Pyramid Way at York Way; and
- Traffic study with potential improvement to southbound right turn lane at the intersection of Vista Boulevard and Baring Boulevard. This component of the project will not move forward due to the cost associated with the improvement not justifying the benefit.

Titan Electrical Contractors was the apparent lower bidder and was awarded the construction contract on July 23, 2020. Construction will begin later this year.

Traffic Engineering (TE) Spot 9 – Package 2 Project

The project includes various traffic updates throughout the Reno/Incline area:

- Traffic signal cabinet and camera upgrades at various intersections in the Reno area;
- New traffic signal at the intersection of Rock Boulevard/Edison Way; and a
- 4th Street/Mesa/Woodland intersection study for future improvements.

Bids were opened on June 18, 2020. Titan Electrical Contractors was the apparent low bidder and was awarded the contract. Project construction is scheduled to begin in late September.

CORRIDOR IMPROVEMENT PROJECTS

Arlington Avenue Bridges

The Arlington Avenue Bridges Project is a feasibility study to analyze possible replacement bridge types and aesthetic themes, document design and environmental criteria, improve safety and multi-modal access in the Wingfield Park area, and review flood-capacity requirements. The crossing of

the Truckee River at Arlington Avenue has served the community of Reno and provided access to Wingfield Park for nearly a century. The bridges were built in the 1930's and while structurally safe to drive over they are showing signs of wear resulting from the variety of modifications over the years, their age, and the repeated exposure to flood events.

The team has developed two technical advisory committees (TACs); one specific to permitting and regulatory requirements and one focused on bridge and roadway elements. The Army Corps of Engineers hosted the TAC-1 permitting and regulatory meeting using a virtual format. The meeting was well attended and the Team received great feedback. The TAC-2 members received material in preparation of the bridge and roadway elements meeting, scheduled at the end of the month. Stakeholder Working Group meetings will follow later this year.

Kuenzli St. Conversion Project

This project includes the conversion of Kuenzli Street from its current one-way configuration to a two-way street from Giroux Street to Kirman Avenue. The scope of the project consists primarily of surface treatment and restriping to accommodate the conversion of Kuenzli from one-way to two-way traffic from Kirman Avenue to Giroux Street. Associated ADA and traffic signal modifications are included on both Kuenzli Street and Giroux Street.

Bids for this project were opened on August 5, 2020. Sierra Nevada construction was the apparent low bidder and the project will be awarded soon. Construction is scheduled to begin in the later part of August.

Oddie Boulevard/Wells Avenue Improvement Project

Final Design is underway and is scheduled to be complete by November 2020. Staff is working closely with the City of Reno, City of Sparks and NV Energy to coordinate the screen wall location. Additional information can be viewed at: <http://oddiewellsproject.com/>.

Pyramid Highway and US 395 Connection

NDOT continues to work on design of Phase 1 of the project that consists of capacity and multimodal improvements on Pyramid from Queen Way to Golden View Drive and design of this phase is anticipated to be complete in 2022. Pending funding, construction of Phase 1 could begin in 2023. The estimated overall Phase 1 cost is \$45 million. With support from NDOT and others, the RTC submitted an application for a BUILD grant in the amount of \$25 million from the Federal Highway Administration to help fund Phase 1.

Sun Valley Boulevard Corridor Improvement Project

Construction activities started on June 22, 2020. Construction activities are estimated to take seven months to complete. Traffic control during construction includes lane closures, but two-way traffic will be maintained with flaggers. A marathon week in mid-July detoured traffic on both directions between Middle Fork and Leon Drive. During the extensive pavement rehabilitation work, southbound traffic will be detoured and northbound traffic will be open. Additional information can be viewed at: <http://SunValleyBlvd.org>

Truckee River Shared Use Path Project

The proposed pathway will start at John Champion Memorial Park and continue along the south side of the Truckee River.

RTC is working to acquire easements necessary for the pathway. The application for the required United States Army Corp of Engineers (USACE) 408 permit has been approved by Carson Truckee Water Conservancy District contingent on approval by the USACE. The Truckee River Shared Use Path Project has submitted an application to USACE for a Section 408 Permit since portions of the pathway encroach the 14,000 cubic feet per second water surface elevation along the Truckee River. During coordination and submittal of permit, the USACE informed RTC of the ability to enter into a Funding Agreement to ensure continued review of the application through periods when the annual federal budget for review is exhausted. The USACE receives an annual federal budget to process and review 408 permit applications.

RTC has been informed that USACE has exhausted remaining available funds for the review 408 permit applications at the end of July 2020 and will not receive additional funds to continue review of applications until start of the next federal fiscal year. RTC is working to develop a funding agreement to ensure the Truckee River Shared Use Path can continue its review. The estimated amount of the funding agreement required is estimated to be \$30,000.

This project was included in the fiscal year (FY) 2017 Program of Projects. The design portion of this project is funded through federal funds and includes oversight by NDOT through a Local Public Agency (LPA) agreement. The project will be constructed by NDOT through the agreement approved for Spaghetti Bowl Xpress (SBX).

Virginia Street RAPID Extension

A detailed written report is included as a separate Board agenda item for this month. Additional information can be viewed at: <http://virginiastreetproject.com/>

PAVEMENT PRESERVATION PROJECTS

2020 Preventive Maintenance (Various Locations)

The 2020 Preventive Maintenance program is underway. This will provide patching, crack sealing, and slurry seal activities on approximately 200 lane miles of roadway. Bids were opened in April and the contract has been awarded to Sierra Nevada Construction (SNC). Patching, crack sealing and slurry sealing work is underway and is anticipated to be complete this fall.

Golden Valley Road Rehab Project

The project includes rehabilitation/reconstruction of Golden Valley Road from Yorkshire Drive to North Virginia Street. Lumos & Associates, Inc. is the consultant for Design and Engineering During Construction services. Final design is under review with Union Pacific Railroad (UPRR). The scheduled construction start date is September 2020 with a scheduled completion in October 2020.

Greg Street Rehab Project

The project includes corrective maintenance of Greg Street from McCarran Boulevard to the Union Pacific Railroad Tracks. Wood Rodgers, Inc. is the consultant for Design and Engineering During Construction. Sierra Nevada Construction was the apparent low bidder. The construction contract was awarded to Sierra Nevada Construction (SNC). Construction began in June with a scheduled completion in mid-August 2020.

Kings Row Rehab Project

The project includes rehabilitation/reconstruction of Kings Row from Keystone Avenue to Wyoming Avenue. Lumos and Associates, Inc. is the consultant for Design and Engineering During Construction Services. The preliminary plans are complete. This project is on track for construction in early 2021.

Lakeside Drive Rehab Project

The project includes rehabilitation/reconstruction of Lakeside Drive from Evans Creek Drive to McCarran Boulevard. Eastern Sierra Engineering is the consultant for Design and Engineering During Construction Services. Sierra Nevada Construction was the apparent low bidder for the project and was awarded the construction contract in June. Construction began in July and is to be complete in September 2020. To comply with ADA requirements, partial removal and replacement of the existing sidewalks and driveways on the west side of Lakeside Drive have been completed. The contractor has started the partial removal and replacement of the sidewalks on the eastside of Lakeside Drive. Roadwork will continue through August.

Newport Lane Rehab Project

The project includes rehabilitation/reconstruction of Newport Lane from Link Lane to McDaniel Street. CA Group is the consultant for Design and Engineering During Construction Services. CA Group has received 50% design comments from the RTC, City of Reno, and the utility companies. Construction schedule is scheduled to start in 2021.

Prater Way Rehab Project

The project includes rehabilitation/reconstruction of Prater Way from Howard Drive to Sparks Boulevard. Stantec Consulting Services, Inc. is the consultant for design and engineering during construction. The low bid contract was awarded to Spanish Springs Construction, Inc. (SSC) and work began in April with a scheduled completion of October 2020. Sewer replacement work is complete and roadway work has begun. Since April, approximately 2,000 lineal feet of sewer, 15,000 square feet of sidewalk, and 3,000 lineal feet of curb and gutter have been replaced. In addition, 4,600 lineal feet of new conduit has been installed and the bottom lift of asphalt paving was completed on the north half of the roadway.

Reno Consolidated 20-01 – Mayberry Drive, California Avenue, and First Street

The project includes rehabilitation/reconstruction of the following street segments: Mayberry Drive from Memory Lane to California Avenue, California Avenue from Hunter Lake Drive to Booth Street, and First Street from Sierra Center to Virginia Street. Nichols Consulting Engineers (NCE) is working on incorporating agency/public comments, design and grading of improvements. Utility coordination meetings and R/W activities are underway. Construction is anticipated to occur in 2021.

Reno Consolidated 21-01 – Lund Lane, Armstrong Lane, and Yuma Lane

The project includes rehabilitation/reconstruction of the following street segments: Lund Lane from Wedekind Road to Northtowne Lane; Armstrong Lane from Susileen Drive to Yuma Lane; and Yuma Lane from Armstrong Lane to Hunter Lake Drive. Eastern Sierra Engineering, P.E. (ESE) is the consultant for Design and Engineering During Construction Services. The project team is incorporating agency comments.

Sky Vista Parkway Widening and Rehabilitation Project

The project includes rehabilitation/widening of Sky Vista Parkway from just east of Vista Knolls Parkway to Silver Lake Road. Atkins Engineering, SNA-Lavalin (Atkins) is the consultant for Design and Engineering During Construction Services. Atkins is in the preliminary design phase with 50% design scheduled for the middle of September 2020. Construction is scheduled for the spring of 2022.

Sparks Consolidated 21-01 – Packer Way and Wild Island Court Project

The project includes rehabilitation/reconstruction of Packer Way from Glendale Avenue to the Cul de Sac and Wild Island Court from Lincoln Way to the Cul de Sac in the City of Sparks. Wood Rodgers Inc. is the consultant for Design and Engineering During Construction Services. Construction is scheduled for summer 2021.

OTHER PROJECTS

Park Lane RAPID Station Project

The Park Lane RAPID Station located just south of Plumb Lane on the east side of Virginia Street. Stantec Consulting Services, Inc. is the consultant for architectural and engineering services. The Professional Services Agreement was effective March 18, 2019. Q&D Construction was awarded the contract on May 14, 2020. Construction started July 27, 2020, with site prep and concrete pours. The project is scheduled to be substantially complete by October 2020.

REPORT ON NEGOTIATED SETTLEMENT AGREEMENTS FOR THE ACQUISITION OF PROPERTY - None

CONTRACTS UP TO \$50,000

Johnson Perkins Griffin in the amount of \$11,675 for an appraisal and Carter-Ott Appraisal in the amount of \$3,000 for a review appraisal of the Disposition of Parcels between 8th and 9th Street for the Virginia St. BRT Project.

ENGINEERING ON-CALL WORK ASSIGNMENTS

Attachment A summarizes the work assignments on the engineering pre-qualified on-call lists. Engineering Department consultant assignments are reported after Board approval of the professional services agreement with each firm.

ADVISORY COMMITTEE(S) RECOMMENDATION

There are no advisory committee recommendations pertaining to this agenda item.

Attachment

On Call Consultant Summary

Civil Engineering Design and Construction Management Services			
BOARD APPROVAL DATE	FIRM	PROJECT NAME	AMOUNT
No work has been assigned this period.			

Traffic Engineering Services			
BOARD APPROVAL DATE	FIRM	PROJECT NAME	AMOUNT
7/17/2020	Stantec Consulting, Inc.	TE Spot 10 - North	\$150,387

Engineering Design and Construction Management Services

List valid through June 20, 2022

Atkins North America, Inc.
 CA Group, Inc.
 Eastern Sierra Engineering, PC
 Jacobs Engineering Group, Inc.
 Lumos and Associates, Inc.
 Nichols Consulting Engineers, CHTD
 Stantec Consulting Services, Inc.
 Wood Rodgers, Inc.

Traffic Engineering Services - Categories

List valid through April 19, 2022

Traffic Engineering	I.T.S.
CA Group, Inc.	Atkins North America, Inc.
Headway Transportation, LLC	Headway Transportation, LLC
Kimley-Horn & Associates, Inc.	Kimley-Horn & Associates, Inc.
Westwood dba. Slater Hanifan Group, Inc.	
Stantec, Inc.	



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 3.3

TO: Regional Transportation Commission

FROM: Jeff Wilbrecht, P.E.
Engineer II

A handwritten signature in black ink, appearing to read "Bill Thomas", is written over a horizontal line.

Bill Thomas, AICP
Executive Director

SUBJECT: Virginia Street Bus RAPID Transit Extension Monthly Progress Update - Plumb to Liberty & Maple to 15th

RECOMMENDATION

Acknowledge receipt of the Virginia Street Bus RAPID Transit (BRT) Extension monthly progress report.

SUMMARY

South Virginia (Midtown) Roadway Reconstruction and BRT Project:

South Virginia Street reopened to two-way traffic this month. This segment of the project is very close to completion with only tie-in work, final planting of trees and landscape features, and final installation of apprentices remaining to complete this segment.

North Virginia (UNR) Roadway Reconstruction and BRT Project

Roadway reconstruction and BRT work along North Virginia Street continued during the month of July. Construction efforts focused on finishing concrete pavement on the east side of the roundabout, north of 15th Street. In addition, curb, gutter, and sidewalk reconstruction occurred between 8th Street and 9th Street.

The surfacing of the bridge over I-80 was also removed and the area prepared for resurfacing. Several of the bus rapid transit stations within this segment of the corridor progressed as well.

Outreach Activities:

During the month of July, the outreach effort continued with communicating to the public the accelerated schedule and providing information to various media outlets.

Project information continues to be communicated weekly through the Project Stakeholder Update that is electronically distributed to subscribers.

Project Photos:





PREVIOUS ACTIONS BY BOARD

- | | |
|-------------------|--|
| June 19, 2020 | Approved Change Order No. 16 to the Sierra Nevada Construction contract for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project |
| May 22, 2020 | Approved Change Order No. 15 to the Sierra Nevada Construction contract for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project |
| April 17, 2020 | Approved Change Order No. 11, 12, 13, and 14 to the Sierra Nevada Construction contract for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project |
| February 21, 2020 | Approved Change Order No. 07, 08, 09, and 10 to the Sierra Nevada Construction contract for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project |
| December 20, 2019 | Approved Change Order No. 05 and 06 to the Sierra Nevada Construction contract for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project |

- November 15, 2019 Approved Change Order No. 01, 02, 03, and 04 to the SNC construction contract for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project
- October 24, 2019 Approved Interlocal Cooperative Agreement with the City of Reno for additional utility conduits on Virginia Street during construction of the South Virginia Street during Construction of the Virginia Street Bus RAPID Transit Extension Project
- August 16, 2019 Approved Interlocal Cooperative Agreement with the City of Reno for Requested Enhancements to South Virginia Street during Construction of the Virginia Street Bus RAPID Transit Extension Project
- May 20, 2019 Approved the Construction Agreement between RTC and SNC (CMAR) for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project
- May 20, 2019 Approved the Professional Services Agreement between RTC and Atkins North America (Atkins) for Construction Support Services on Phase 2 of the Virginia Street Bus RAPID Transit Extension Project.

ADVISORY COMMITTEE(S) RECOMMENDATION

There are no advisory committee recommendations pertaining to this agenda item.



REGIONAL TRANSPORTATION COMMISSION


Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 3.4

TO: Regional Transportation Commission
FROM: Mark Maloney
Director of Public Transportation and
Operations



Bill Thomas, AICP
Executive Director

SUBJECT: RTC Public Transportation and Operations Report

RECOMMENDATION

Acknowledge receipt of the monthly Public Transportation and Operations Report.

HIGHLIGHTS



METRO Magazine features RTC Executive Director and Public Transportation and Operations, Fleet and Facilities Manager – The

July/August Edition featured a Q&A with RTC Executive Director Bill Thomas and an advertorial sponsored by Proterra, featuring RTC Washoe’s electric bus program managed by David Carr, RTC’s Fleet and Facilities Manager. Mr. Carr is quoted stating “From a maintenance perspective, our electric buses are operating on par with our diesel and hybrid buses, and they’re integral to the fleet. The models we have now require additional planning based on



their range capabilities, but the buses are just as reliable. RTC was one of Proterra’s first customers in 2014 with the deployment of four electric vehicles and today our fleet consists of 21 electric vehicles.



RTC Recognized as Battle Born Business - The RTC Board and staff thank Governor Steve Sisolak and Nevada Health Response for the recognition as a Battle Born Business. We share this recognition with our contractors Keolis and MTM Transit. We encourage the community to #RIDESafelyWithRTC We are also grateful to U.S. Department of Transportation and the Federal Transit Administration (FTA) for the provision of face masks for transit drivers and transit riders.

Celebrating 30 Years of the ADA - Thirty years ago, this month, President George H.W. Bush signed landmark legislation aimed at increasing access and opportunity for people with disabilities, the Americans with Disabilities Act (ADA). At the signing, he stated: "Every man, woman and child with a disability can now pass through once-closed doors into a bright new era of equality, independence and freedom."



The RTC supports the provisions of the ADA law and is a strong advocate to provide better access to public transportation in the Truckee Meadows. Additionally, ADA improvements are an important element of our road projects improving access and mobility for all users. In January 2020, the RTC Board approved the [ADA Transition Plan](#) which was completed with community input.

RTC RIDE KEY HIGHLIGHTS –

Keolis continues to respond effectively to the fluid issues surrounding the COVID-19 pandemic. Those measures include:

- Implementation and institution of Governor Sisolak’s Guidance on Directive 024: Face Coverings issued June 24, 2020, by:
 - Making the workforce fully compliant
 - Posting appropriate notification to the public and working within the context of Section 7 of the facemask mandate, federal ADA guidelines, and Title VI to ensure that the riding public is conforming to the mask policy while having their rights protected.
- Ordering and installation of mask dispensers on all buses
- Ordering and installation of hand sanitizers on all buses
- Installation of a hard shield on all Gillig buses
- Awaiting shipment of a similar shield designed for the Proterra buses
 - Due to logistics issues across the industry, delivery of hard shields by OEMs are severely delayed
 - To overcome this delay, Keolis continues to utilize temporary screens on remaining fleet, which were refreshed the third week of July
- Continued fogging of buses on a nightly basis utilizing environmentally compliant chemicals while killing COVID-19.
- Continued utilization of Pulse Consulting LLC as a 3rd party labor provider whose labor resources are focused purely on COVID-19 related cleaning of the buses nightly
- Full time utilization of one (1) FTE throughout the daytime to wipe down the inside of the buses upon arrival at 4th STREET STATION
 - Beginning in August, Keolis increased this effort to two (2) FTE spread over seven (7) days providing ad-hoc wipe down of major use areas on the buses throughout the day
- Transparent and timely disclosure of two positive staff tests
- News media interview to defuse misinformation that positives tests were caused by a passenger(s)

- Enforcing and correcting operator behavior contrary to RTC's personnel standards that all personnel maintain a professional, courteous attitude toward RTC customers
- Mitigating missed trips due to an increase in call-outs by employees
 - Increase in overtime pay for those available and interested in working
 - Utilizing Road Supervisors, Dispatchers, and Safety Manager to operate the buses
- Effectively responding to a third OSHA complaint resulting in another no fault finding
- Continued investment in PPE including hard face shields, disposable masks, cloth masks, gloves, BZK sanitization wipes, and more
- Continued achievement of nearly 92% on time performance despite historical call-out issues
- Miles between road calls at or near contractual threshold of 20,000 miles between valid mechanical road calls
- Overall reduction in Accident Frequency Ration (AFR) to 0.3 for the month of July

RTC ACCESS KEY HIGHLIGHTS

MTM Transit continues to respond effectively to the fluid issues surrounding the COVID-19 pandemic. Since March, MTM staff has delivered over 670 food boxes to families in need throughout the Reno/Sparks area. Other efforts include:

Facility and Workspace Protocols

- Disabling the Dispatch workstation
- Moving Reservationists to ensure 6 feet of distance for social distancing
- Modifying Dispatch operation for distribution of Operator car keys, manifests, etc.
- Sanitation & social distancing signs throughout facility
- Lunchroom Reconfiguration - 2 tables w/1 chair each + social distancing floor signs

Cleaning Protocols

- Employees clean/sanitize individual workstation daily
- Vacuuming and mopping performed daily (except Sat/Sun)
- Restrooms are cleaned and sanitized daily (except Sat/Sun)

Visitor Access

- Lobby area designated as a social distancing zone limiting only 1 visitor into the building at a time
- PPE is being provided to visitors
- Front office personnel received training in proper sanitation

Vehicles

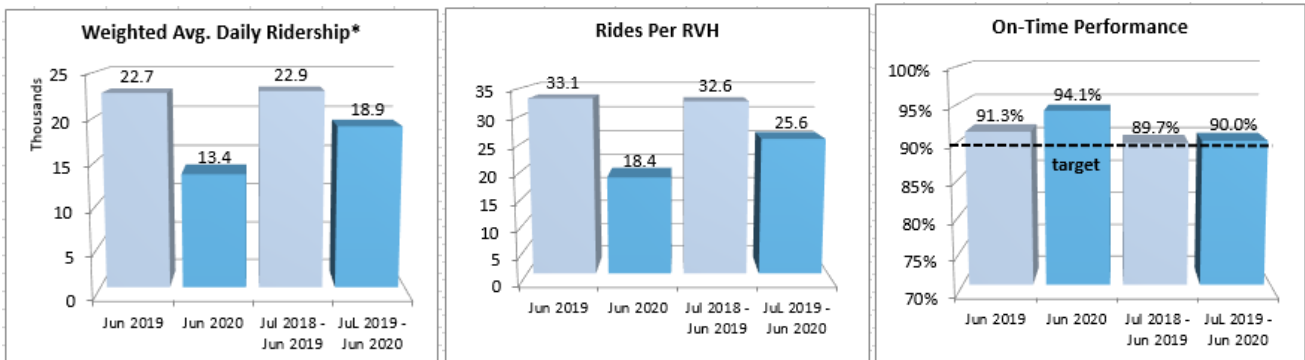
- Vehicles are cleaned and sanitized daily
- Personal hand sanitizers and disinfectant bottles were distributed to Operators and are replenished as needed.
- Facemasks are available and offered to passengers and are replenished as needed.

TRANSIT DEMAND MANAGEMENT (TDM) UPDATE

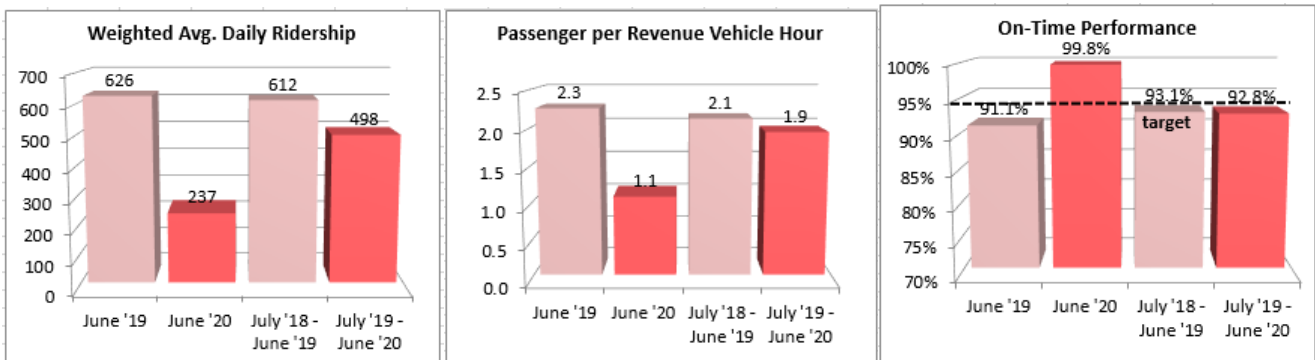
- Vanpools remained at 211 due to virus shutdowns with over 125 of those serving the Tahoe Reno Industrial Center (TRIC). Vans are still running to the Army depot, the prisons and Air National Guard. Tesla resumed operations. Staff will continue to monitor this situation.
- RTC staff is moving ahead with the Transportation Management Association (TMA) and plans to hold a workshop this fall, either in person or virtual. A virtual meeting was held July 30th with the TMA working group and established the agenda to present at its workshop for the TRIC employers.
- With Reno updating its zoning ordinances, the trip reduction ordinance is still moving forward. RTC staff continues to work with City of Reno Planning staff to finalize this initiative.
- With the summer sessions beginning at TMCC and no students on campus, RTC staff continued to work with Token Transit during TMCC’s summer session. With no students on campus, TMCC staff were able to provide the ED Pass to new students unable to get their student ID. Token Transit made the pass available to students through their Token Transit App. As the pandemic continues, RTC staff continues to work with TMCC to ensure that those passes would be good through the fall semester.

JUNE 2020 TRANSIT PERFORMANCE

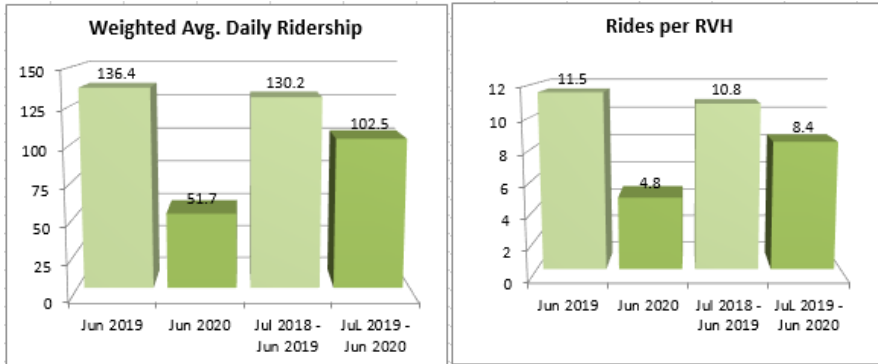
RTC RIDE



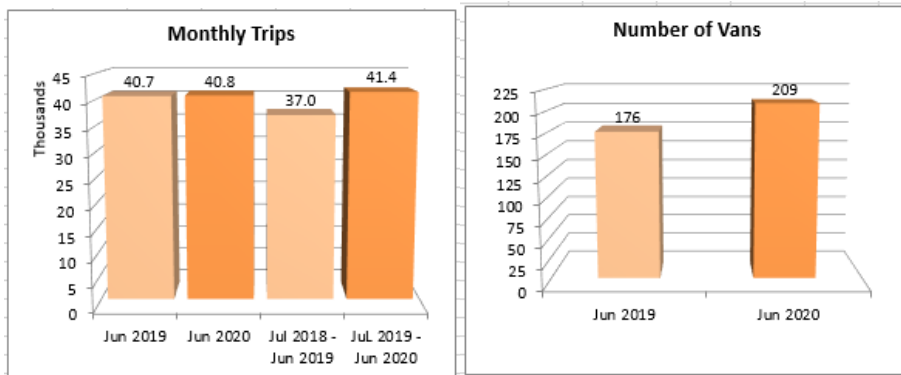
RTC ACCESS



TART



RTC VANPOOL



Attachments

RTC Transit Performance Statistics¹

Performance Indicator	Current month compared with same month last year			Current 12-months compared with previous year		
	Jun 2020	Percent Change	Jun 2019	JuL 2019 - Jun 2020	Percent Change	Jul 2018 - Jun 2019
Monthly Ridership*	404,040	-39.5%	668,385	6,835,263	-17.4%	8,274,137
Weighted Avg. Daily Ridership*	13,374	-41.0%	22,660	18,884	-17.5%	22,877
Revenue Vehicle Hours (RVH)	21,900	8.4%	20,195	266,563	4.9%	254,087
Rides Per RVH	18.4	-44.3%	33.1	25.6	-21.3%	32.6
Revenue Vehicle Miles (RVM)	236,251	5.5%	223,962	2,937,984	4.4%	2,814,069
Complaints Per 25,000 Rides	3.16	-12.1%	3.59	3.67	3.3%	3.56
On-Time Performance ²	94.1%	3.1%	91.3%	90.0%	0.4%	89.7%

Performance Indicator	May 2020	Percent Change	May 2019	Jun 2019 - May 2020	Percent Change	Jun 2018 - May 2019
Revenue	\$179,167	-61.1%	\$460,774	\$4,128,295	-21.0%	\$5,226,549
Farebox Recovery Ratio	7.6%	-60.4%	19.3%	12.7%	-32.6%	18.9%
Subsidy per Ride	\$6.74	138.3%	\$2.83	\$3.99	48.0%	\$2.70

¹ RTC Transit includes RTC RIDE, RTC RAPID, RTC REGIONAL CONNECTOR, SIERRA SPIRIT, and UNR Midtown Direct

² Percent of trips zero min. early and five minutes or less late

* - May 2019, the RTC started using a new passenger counting system. Data before May 2019 is adjusted for the new method.

RTC ACCESS Performance Statistics

Performance Indicator	Current month compared with same month last year			Current 12-months compared with previous year		
	June '20	Percent Change	June '19	July '19 - June '20	Percent Change	July '18 - June '19
Monthly Ridership	7,218	-59.7%	17,921	177,878	-21.6%	226,913
Weighted Avg. Daily Ridership	237	-62.1%	626	498	-18.6%	612
Revenue Vehicle Hours	6,696	-15.5%	7,924	91,350	-10.7%	102,290
Passenger per Revenue Vehicle Hour (does not include taxi data)	1.08	-52.3%	2.26	1.95	-8.4%	2.13
Revenue Vehicle Miles (RVM)	64,198	-54.0%	139,470	1,368,087	-18.6%	1,680,842
Complaints per 1,000 Rides	1.11	120.7%	0.50	0.57	-5.0%	0.60
ADA Capacity Denials	0	0.0%	0	0	0.0%	0
Other Denials	0	0.0%	0	0	-100.0%	1
Accidents per 100,000 Miles	1.56	0.0%	0.00	0.91	41.4%	0.64
On-Time Performance (does not include taxi data)	99.8%	9.5%	91.1%	92.8%	-0.2%	93.1%
Taxi On-Time Performance	0.0%	0.0%	0.0%	0.0%	-100.0%	51.8%
Performance Indicator	Mar '20	Percent Change	Mar '19	July '19 - Mar '20	Percent Change	July '18 - Mar '19
Revenue*	\$109,613	-40.9%	\$185,548	\$1,380,910	-12.5%	\$1,578,574
Farebox Recovery Ratio*	14.84%	-38.75%	24.23%	20.10%	-18.66%	24.71%
Subsidy per Passenger*	\$44.21	117.4%	\$20.34	\$26.56	38.4%	\$19.19

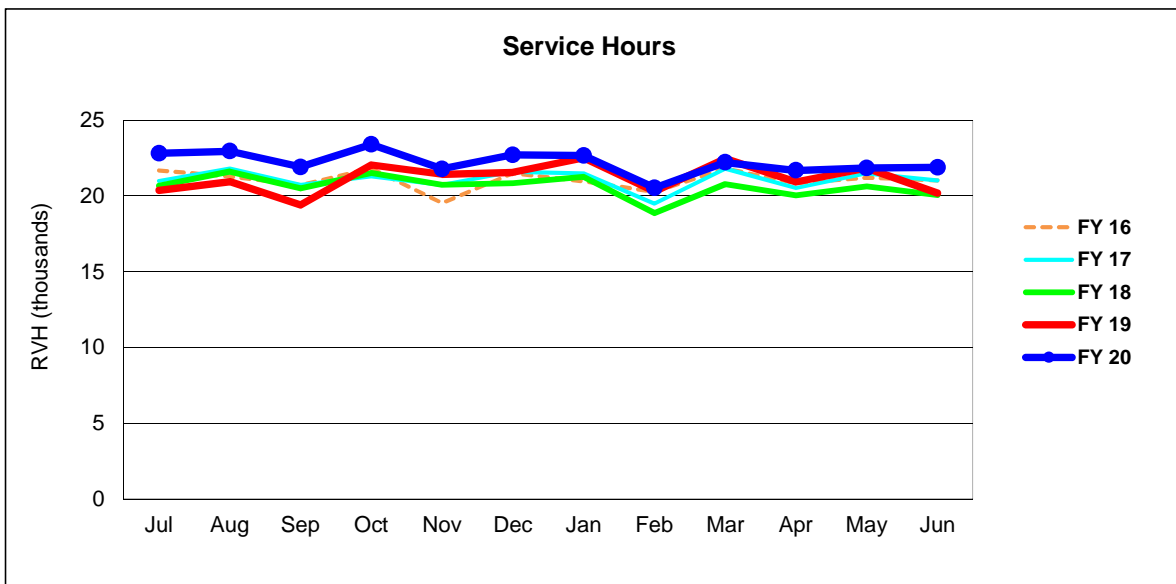
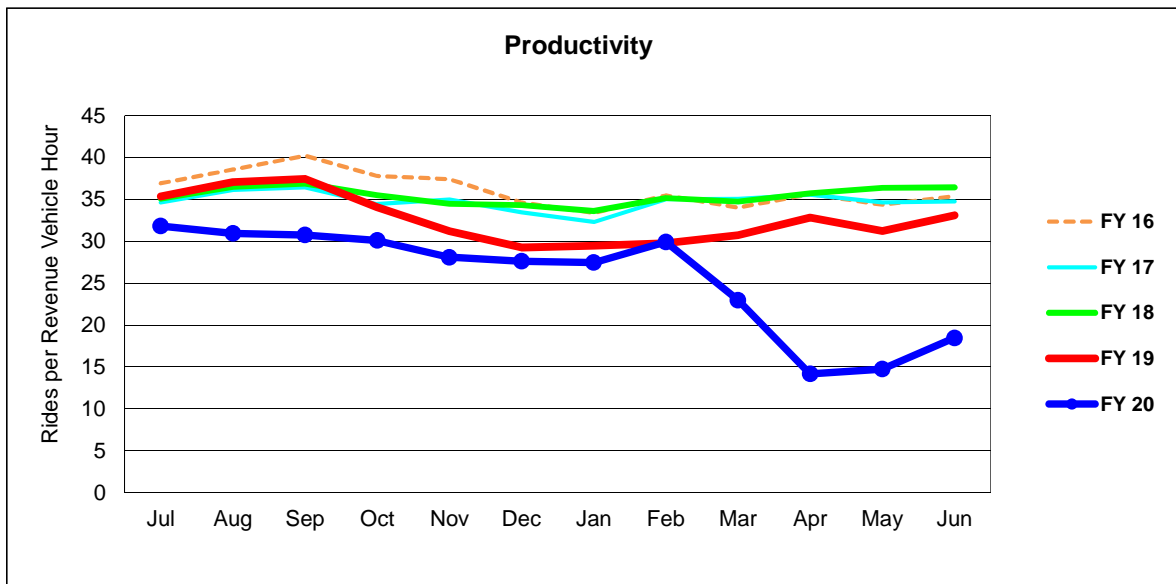
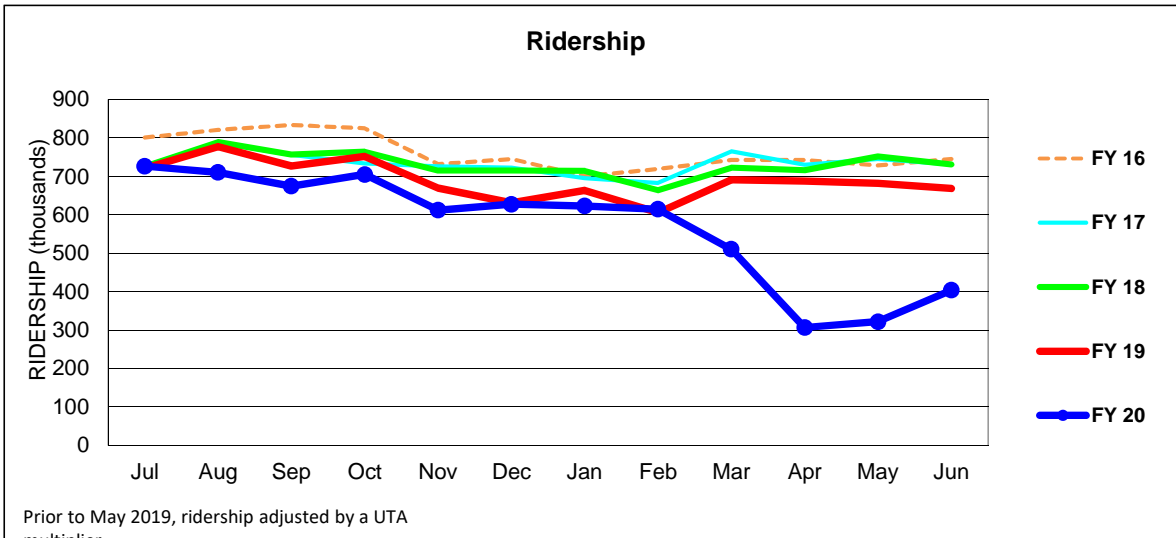
*March 2020 data is the latest available.

TART Performance Statistics

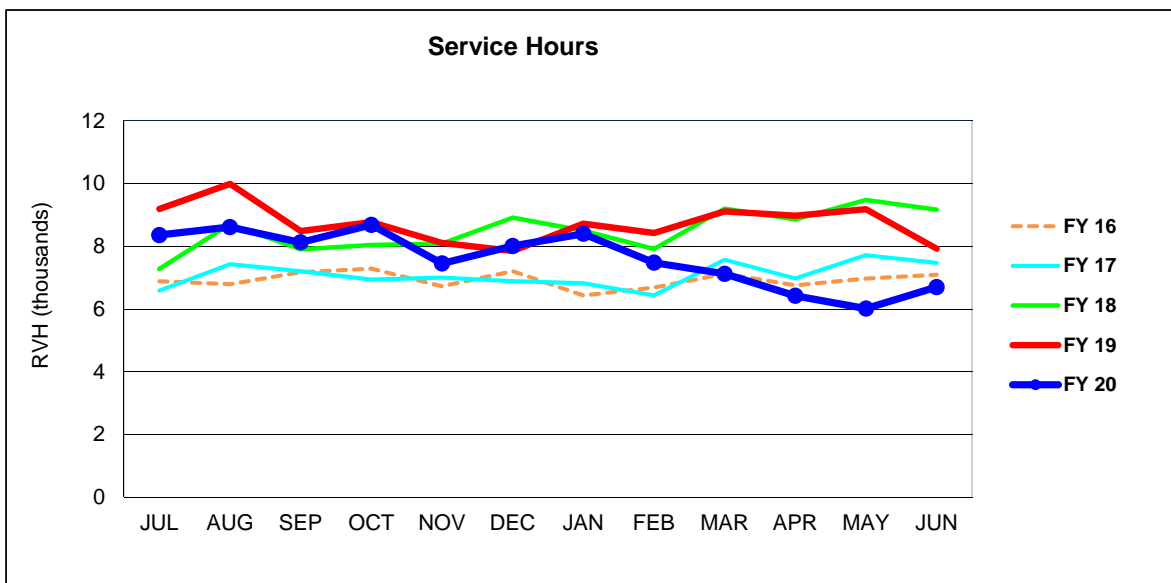
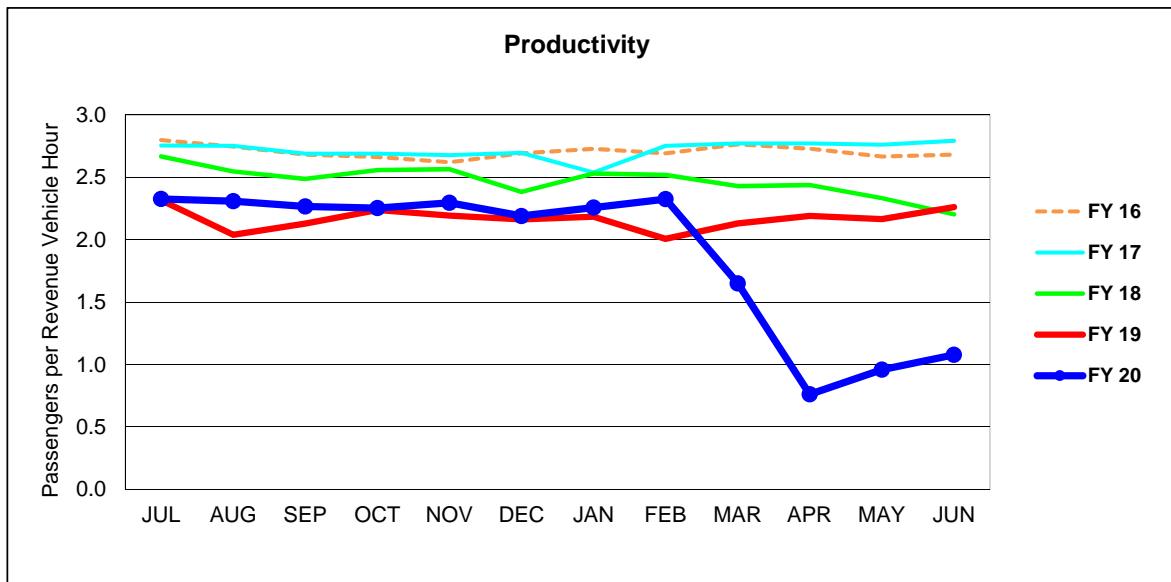
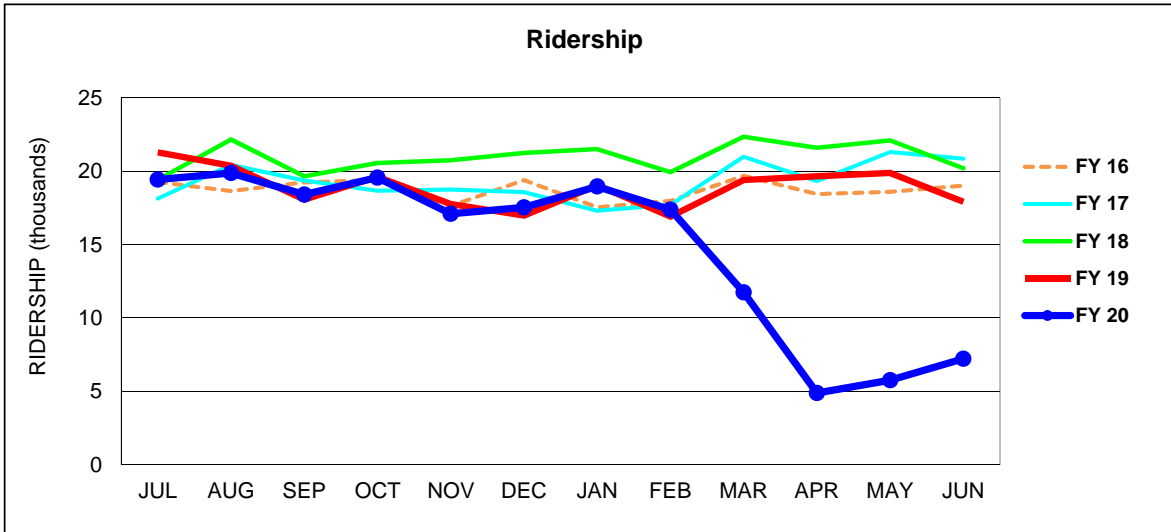
Performance Indicator	Current month compared with same month last year			Current 12-months compared with previous year		
	Jun 2020	Percent Change	Jun 2019	JuL 2019 - Jun 2020	Percent Change	Jul 2018 - Jun 2019
Monthly Ridership	1,558	-61.6%	4,061	37,108	-20.9%	46,907
Weighted Avg. Daily Ridership	51.7	-62.1%	136.4	102.5	-21.2%	130.2
Revenue Vehicle Hours (RVH)	327	-7.2%	353	4,427	2.0%	4,341
Rides per RVH	4.8	-58.6%	11.5	8.4	-22.4%	10.8
Revenue Vehicle Miles (RVM)	7,311	-4.9%	7,685	86,828	-6.6%	92,974
Revenue*	\$0	-100.0%	\$4,043	\$17,484	-63.9%	\$48,400
Farebox Recovery Ratio*	0.0%	-100.0%	9.6%	3.2%	-65.4%	9.3%
Subsidy per Ride	\$25.73	174.1%	\$9.39	\$14.15	41.0%	\$10.04

* - Effective December 12, 2019 TART started providing free rides for a two-year trial period.

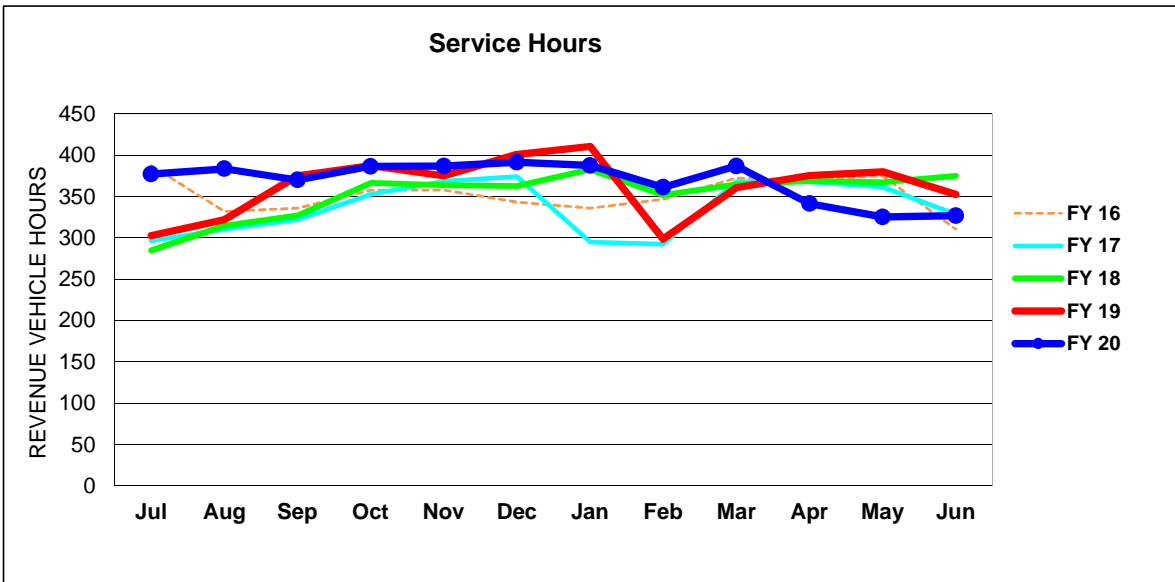
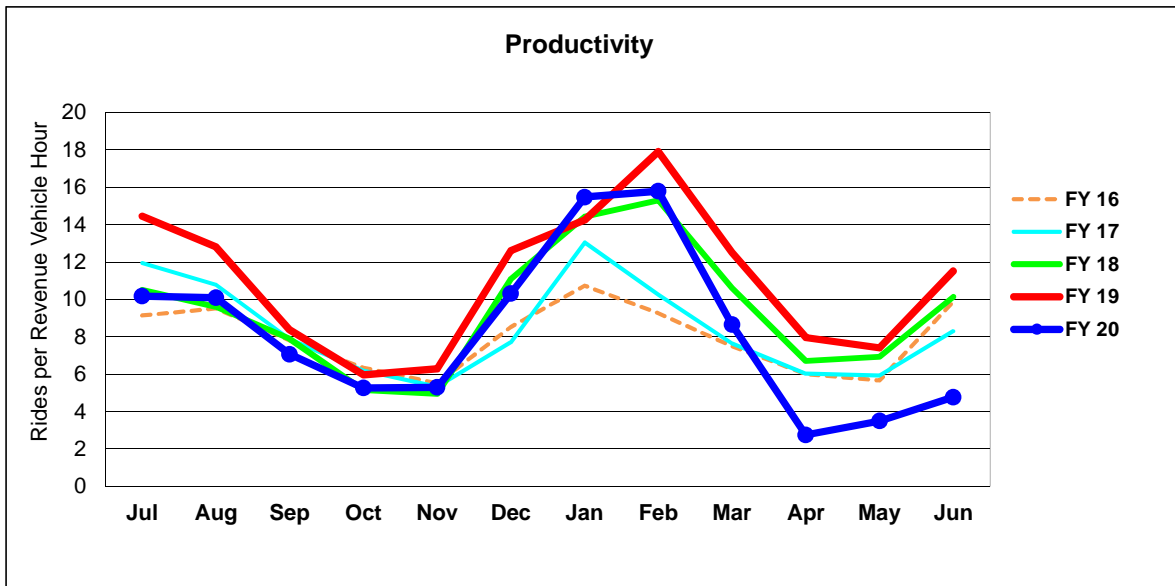
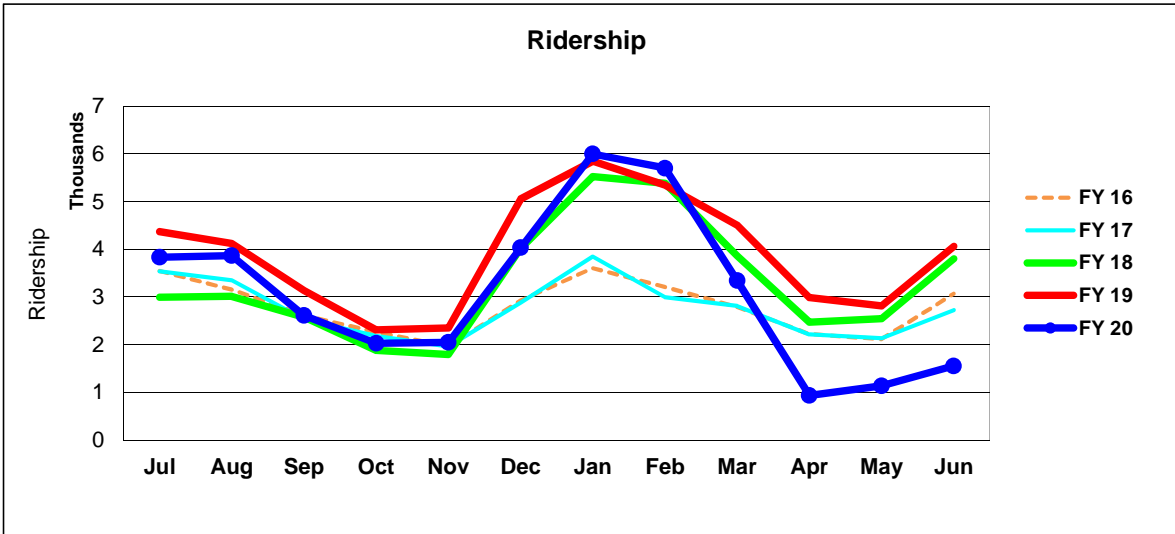
RTC Transit Fiscal Year Comparisons



RTC ACCESS Fiscal Year Comparisons



TART - Nevada Fiscal Year Comparisons





REGIONAL TRANSPORTATION COMMISSION

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Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 3.5

TO: Regional Transportation Commission

FROM: Amy Cummings, AICP, LEED AP
Deputy Executive Director/Director
of Planning

Bill Thomas, AICP
Executive Director

SUBJECT: RTC Planning Department Report

RECOMMENDATION

Acknowledge receipt of the monthly Planning Activity Report.

PLANNING STUDIES

Eagle Canyon Extension Alignment Alternatives and Planning and Environmental Linkages (PEL) Study

The purpose of the study is to enhance mobility and connectivity between the growing communities of Spanish Springs and Lemmon Valley and to facilitate safe and equitable access to economic and recreational opportunities while preserving the character and heritage of the area. Goals of the study include evaluation of traffic operations and safety on the existing Eagle Canyon Drive, development of a Planning and Environmental Linkages (PEL) checklist to assist with the environmental process during future project development, and to identify a preferred alignment for the proposed new roadway. The project team has begun drafting a report and is evaluating feedback from the project Technical Advisory Committee (TAC) regarding a preferred roadway alignment(s). The project team is currently working to consolidate potential alignment alternatives.

Bicycle and Pedestrian Planning

RTC is collaborating with other partner agencies on several initiatives to improve bicycle and pedestrian safety & facilities:

- The RTC continues to partner with the Truckee Meadows Bicycle Alliance (TMBA). TMBA announced that they have been awarded an official 501 (c) 3 Nonprofit status.
- TMBA is planning a socially distanced Bike Month for the month of September. Details can be found on www.bikewashoe.org. Bike Month is a way to encourage people to ride their bikes to and from work and appointments and to reduce the number of trips by vehicles.

- RTC has delivered bike maps to many bike shops in the region. RTC produces these maps and distributes them to the community for free. Many bike shop owners reported record sales in bicycles during the COVID pandemic. We can expect to see more bicycles on the road in the future.

Vision Zero Truckee Meadows

- Agendas and minutes are posted on www.visionzerotruckeemeadows.com.
- The task force has been produced a “post-it” sized handout for enforcement to use when they write a driver a ticket as means to educate drivers on traffic laws. The information is in both English and Spanish and paid for through a grant to REMSA and the Office of Traffic Safety.
- July 8, 2020, Vision Zero Truckee Meadows task force met to discuss potential safety improvement projects and corridors to be considered in the 2050 Regional Transportation Plan update. During this discussion the task force also discussed school safety improvements on regional roadways.
- Between January 1, 2020, and June 30, 2020, eight (8) pedestrians were killed in Washoe County. This is the same number of pedestrian fatalities as the same time period in 2019.
- Vision Zero is working with Reno Police Department, Sparks Police Department, Nevada Highway Patrol, and Washoe County School Police to remind drivers that youth will be back in school starting August 17th. Extra enforcement will be happening through a regional collaborative grant funded by the Office of Traffic Safety.
- Vision Zero provided an update on the work the task force has done over the past year at the Citizens Multimodal Advisory Committee on August 5, 2020, and Technical Advisory Committee on August 6, 2020.

Development Review

RTC staff routinely review development proposals from the local jurisdictions of Washoe County and the Cities of Reno and Sparks. Staff from Planning, Engineering and Public Transportation have reviewed and commented on the following number of development proposals from each of the jurisdictions since the last Board meeting:

- Washoe County – 0
- City of Reno – 6
- City of Sparks – 4

This does not include proposals that were reviewed on which staff did not have any comments.

COMMUNITY AND MEDIA OUTREACH ACTIVITIES

RTC staff conducted the following outreach activities from July 15 – August 26:

July 15	NV Health Response Statewide Meeting - COVID-19 Response Outreach
July 22	NV Health Response Statewide Meeting - COVID-19 Response Outreach
July 29	NV Health Response Statewide Meeting - COVID-19 Response Outreach

August 5 RTC Technical Advisory Committee (TAC) Meeting
August 6 RTC Citizens Multimodal Advisory Committee (CMAC) Meeting
August 6 Virtual Video Presentation: Coordinated Public Transportation Plan
August 6 Public Survey: Coordinated Human Services Public Transportation Plan
August 11 ASCE Virtual Luncheon - Virginia Street Project Presentation
August 12 NV Health Response Statewide Meeting - COVID-19 Response Outreach
August 14 Virginia Street Video – Welcome Back to Midtown
August 19 NAIOP Presentation - RTC Project Overview, 2050 RTP Outreach
August 19 NV Health Response Statewide Meeting - COVID-19 Response Outreach
August 26 NV Health Response Statewide Meeting - COVID-19 Response Outreach

Media Relations & Social Media

The RTC issued 14 news releases and participated in 17 media interviews on various topics, including the Virginia Street Project and reopening Virginia Street to two-way traffic, the Park Lane transit stop construction, the Sparks Boulevard Project night work, transit drivers who were diagnosed with COVID-19, detours for the Sun Valley Boulevard Project, mask dispensers installed on RTC buses, Virginia Street Project detours, the Lakeside Drive roadway rehabilitation project, the Greg Street rehabilitation project, the Coordinated Human Services Public Transportation Plan survey and video, and more.

Social media was used to promote RTC's Road Ahead segments, sharing COVID-19 safety information and mask/face covering information per the Governor's directive, Virginia Street Project construction updates, detours for the Sun Valley Blvd. Project, mask dispensers installed on RTC buses, Virginia Street Project detours, the Lakeside Drive roadway rehabilitation project, the Greg Street rehabilitation project, the Coordinated Human Services Public Transportation Plan survey and video, Immunize Nevada's upcoming immunization clinics, NDOT's Parr/Dandini closures, the 30th anniversary of the Americans with Disabilities Act, transit drivers who were diagnosed with COVID-19, the Governor's recognition of the RTC as a Battle Born Business, the RTC Board meeting and more.

Social media metrics for the month of July: 49,967 impressions on Facebook, Twitter, YouTube, and Instagram.

Informational Materials and Video Production

Four topics were broadcast on KOLO-TV for The Road Ahead with RTC. Segments included the Greg Street Roadway Rehabilitation Project, the Virginia Street Project Midtown Update, the Virginia Street Project University of Nevada, Reno update, and the Pavement Preservation Program.

COORDINATION WITH PARTNER AGENCIES

Truckee Meadows Regional Planning Agency (TMRPA)

The RTC continues to have coordination meetings with staff from the TMRPA as the agencies progress with the Shared Work Program. Areas for collaboration include population and employment forecasts, the Regional Plan update, affordable housing studies, and analysis of demographic and socioeconomic issues.

Nevada Department of Transportation (NDOT)

The RTC continues to have coordination meetings with staff from NDOT. Areas for collaboration include development of local public agency agreements between NDOT and RTC, maintenance of the regional travel demand model, bicycle and pedestrian improvements, transportation alternatives projects, coordination regarding funding and the State Transportation Improvement Program, One Nevada statewide plan, the I-80 and US 395 widening and improvements to the Spaghetti Bowl, and other ongoing transportation studies.

Statewide Transportation Planning

RTC meets monthly with staff from NDOT, the Federal Highway Administration (FHWA), RTC of Southern Nevada, Tahoe Regional Planning Agency, Tahoe Transportation District, and the Carson Area Metropolitan Planning Organization to discuss statewide transportation planning issues. Other topics addressed include statewide data for performance measures analysis, comments on proposed rulemaking, and reauthorization of federal transportation legislation.



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 3.6

TO: Regional Transportation Commission

FROM: Stephanie Haddock, CGFM
Director of Finance/CFO

Bill Thomas, AICP
Executive Director

SUBJECT: RTC Procurement Activity Report

RECOMMENDATION

Acknowledge receipt of the monthly Procurement Activity Report.

PROJECTS CURRENTLY ADVERTISED

<u>Invitations for Bids (IFB)</u>	
Project	Due Date
PWP-WA-2020-342 Kuenzli Street Project	August 5, 2020

<u>Request for Proposals (RFP)</u>	
Project	Due Date
RTC20-20 Microtransit Software Solution	August 5, 2020

REPORT ON BID AWARDS

Per NRS 332, NRS 338 and RTC’s Management Policy P-13 “Purchasing,” the Executive Director has authority to negotiate and execute a contract with the lowest responsive and responsible bidder on an Invitation for Bid (IFB) without Commission approval.

Project	Contractor	Award Date	Contract Amount
WA-2020-070 TE Spot 9 Package 1	Titan Electrical Contractors	7/23/2020	\$863,407
PWP-WA-2020-342 Kuenzli Street Project	Sierra NV Construction	8/12/2020	\$561,007

CHANGE ORDERS AND AMENDMENTS WITHIN EXECUTIVE DIRECTOR’S AUTHORITY

There were none.



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 3.7

TO: Regional Transportation Commission

FROM:

A handwritten signature in black ink, appearing to read "Bill Thomas", is written over a horizontal line.

Bill Thomas, AICP
Executive Director

SUBJECT: Executive Director Goals for Fiscal Year 2021

RECOMMENDATION

Set the Executive Director Goals for fiscal year 2021 (FY21).

SUMMARY

In accordance with the Executive Director's employment agreement, the Commission shall review the employee's performance at least once annually against the duties and obligations of the position, to include goals and objectives to which, to extent possible, have been reduced to writing and agreed upon between the parties. Please find attached the recommended Executive Director goals for Fiscal Year 2021. Once set by the Board, the goals will be used during the Executive Director's performance review later this fiscal year.

FISCAL IMPACT

There is no fiscal impact associated with this action.

PREVIOUS ACTIONS BY BOARD

March 20, 2020 Approved the Executive Director's employment agreement.

ADVISORY COMMITTEE(S) RECOMMENDATION

There are no advisory committee recommendations pertaining to this agenda item.

Attachment



Bill Thomas FY 2021 Goals

1. Guide Legal Services Efficiency Project through transition.
2. Implement a capital project debrief process to identify opportunities for improvement.
3. Create organizational key performance indicators to track effectiveness of operational strategies.
4. Publish dashboard with customer-relevant data visualization.
5. Continue succession planning throughout the organization.
6. Review organization health insurance for alignment with best practices.
7. Promote stronger regional alignment between TMRPA and the Regional MPO efforts of RTC.
8. Support Federal Priorities as identified by the Board.
9. Review and revise Personnel Rules and all Management Policies to ensure effective and efficient Agency operations.
10. Create internal technology team to identify and address new technology opportunities to allow the Agency to best meet the community needs with resources available.
11. Focused review of procurement practices to develop process changes which enhance Agency procurements.
12. Evaluate and implement grant management strategies to improve the value of grants applied for and received.
13. Strategically adjust goals as needed throughout the year to respond to Board direction in a prompt manner.



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 3.8

TO: Regional Transportation Commission

FROM: David Carr
Facilities and Fleet Manager

A handwritten signature in black ink, appearing to be "Bill Thomas", written over a horizontal line.

Bill Thomas, AICP
Executive Director

SUBJECT: Purchase of Two Ford Escape Hybrid vehicles to replace Vehicle #45 and #51

RECOMMENDATION

Approve the purchase of Two Ford Escape Hybrid vehicles utilizing the State of Nevada vehicle procurement contract number 99SWC-S490/S609, in the amount of \$56,011.06; authorize the RTC Executive Director to execute his acceptance of the quote provided.

SUMMARY

The RTC budgeted the purchase of two Ford Escape Hybrid vehicles to replace Vehicle #45 and #51 in their fiscal year 2021 budget. The purpose of this purchase is to replace the 2007 and 2010 Ford Escape Hybrid vehicles which are past their scheduled useful life and the older hybrid technology on those vehicles has become obsolete and more difficult to support and maintain.

FISCAL IMPACT

Funding for this agreement is included in the FY 2021 Board approved budget and is grant funded.

PREVIOUS BOARD ACTIONS

There has been no previous Board action on this item.

Attachment

Prepared for: David Carr



Prepared by: TIMOTHY SMITH
02/27/2020

Capital Ford | 3660 South Carson Street Carson City Nevada | 897015579

2020 Escape 4dr AWD SE Sport (U9B)

Price Level: 35 | Quote ID: 22720A

Pricing Summary - Single Vehicle

	MSRP
<i>Vehicle Pricing</i>	
Base Vehicle Price	\$29,765.00
Options & Colors	\$0.00
Upfitting	\$0.00
Destination Charge	\$1,195.00
Subtotal	\$30,960.00
<i>Pre-Tax Adjustments</i>	
Code	Description
56M	GPC
	-\$1,800.00
Subtotal	\$29,160.00
<i>Discount Adjustments</i>	
Discount	-\$1,154.47
Total	\$28,005.53

Customer Signature

Acceptance Date

Prices and content availability as shown are subject to change and should be treated as estimates only. Actual base vehicle, package and option pricing may vary from this estimate because of special local pricing, availability or pricing adjustments not reflected in the dealer's computer system. See salesperson for the most current information.



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 3.9

TO: Regional Transportation Commission

FROM: David Carr
Facilities and Fleet Manager,
Public Transportation and
Operations

Bill Thomas, AICP
Executive Director

SUBJECT: Compressed Natural Gas (CNG) Compressor Installation

RECOMMENDATION

Approve a contract with Fastech (Wayne Perry, Inc.) in an amount not to exceed \$188,515, for materials and installation of a new Angi CNG compressor; authorize the RTC Executive Director to award and execute the contract.

SUMMARY

An Invitation for Bid (IFB) procurement was completed in December 2019 for the installation of the new ANGI CNG compressor to replace the existing unit at 600 Sutro Street in Reno. This compressor provides CNG fuel for our ACCESS paratransit fleet. The bid was awarded in August 2019 to Trillium Inc. It was determined that Trillium Inc. was unable to find a licensed Nevada contractor to complete the installation. As a result, a new IFB was issued in July 2020, to which no bids were received. RTC staff contacted Fastech, who is the only responsible installer licensed in the State of Nevada that was able to submit a complete proposal. RTC was successful in negotiating a satisfactory contract with Fastech and is submitting it for Board approval.

FISCAL IMPACT

Funding is included in the FY 2021 Board approved budget.

PREVIOUS BOARD ACTIONS:

July 2020: Acknowledged receipt of monthly Procurement Activity Report that included RTC 20-19 – CNG Compressor Installation notice of Invitation for Bid due July 7, 2020.

Sept 2019 Acknowledged receipt of monthly Procurement Activity Report that included Report on Bid Awards for “Installation of Ariel CNG Compressor to Trillium CNG” awarded August 19, 2019 in the amount of \$139,378.

Aug 2019 Acknowledged receipt of monthly Procurement Activity Report that included RTC WA-2019-201 – CNG Compressor Installation notice of Invitation for Bid due August 13, 2019.

Attachment

CONTRACT

This Contract is dated and effective as of August 3, 2020, by and between the Regional Transportation Commission of Washoe County (“RTC”), and Fastech (Wayne Perry, Inc.).

WITNESSETH

The RTC and the Contractor, for the consideration hereinafter set forth, agree as follows:

Article 1. Scope of Work. The Contractor shall furnish all of the materials and perform all of the work described in the Solicitation Documents for #RTC20-19 - Installation of CNG Compressor, in a professional manner, and as may be required by this Contract.

Article 2. The Contract Documents. The Contract consists of the following, set forth in order of precedence: change orders and contract amendments, this document including exhibits, , the “Standard Specifications for Public Works Construction” (hereinafter designated “Standard Specifications”), including addenda through Revision 8 dated October 19, 2018, and the City of Reno “Standard Details for Public Works Construction,” including updates through January 2020.

Article 3. Notice to Proceed, Time of Completion, and Damages. The Contractor shall not commence work, nor incur any expense therewith, before receiving notification to proceed with the work. The work to be performed under this Contract shall commence within five (5) calendar days of the commencement date set forth in the Notice to Proceed.

The following performance periods shall apply:

- [A] The work shall be substantially completed pursuant to the schedule attached as Exhibit A, no later than one hundred twenty (120) days after the commencement date set forth in the Notice to Proceed. The Contractor will have ninety (90) days to start construction, and then thirty (30) days to complete construction. Upon completion, the work shall be accepted by the RTC within thirty (30) working days.
- [B] Unless otherwise directed or approved by the RTC Project Manager, all work shall be accomplished during Normal Working Hours that are defined as being from 7:00 a.m. to 6:00 p.m., Monday through Friday.
- [C] It is critically time sensitive for the Contractor to meet the scheduled deadline for ANGI to come out to inspect and commission the system. Failure of the Contractor to meet the scheduled deadline for ANGI to inspect and commission will result in increased costs to the RTC and such costs shall be the responsibility of the Contractor, including but not limited to, additional costs incurred by ANGI and any additional costs incurred by RTC in having to obtain alternative charging services.

Article 4. The Contract Sum. The RTC shall pay the Contractor, as full compensation for furnishing all materials and labor and doing all the work in strict accordance with the plans and specifications and to the satisfaction of the RTC, amounts as set forth in the Contractor’s proposal. Contractor’s bid of \$188,515.00 includes all work and materials to perform the scope of work.

Article 5. Progress Payments. Except as otherwise authorized by Nevada Revised Statute (NRS) 338.525, progress payments will be made by the RTC once each month based upon a progress invoice submitted by the Contractor and satisfactory to the RTC. The progress invoice shall be based upon materials on the job site and invoiced, or upon material in place and all labor expended thereon. The RTC shall make payment within thirty (30) calendar days of receipt of a satisfactory progress invoice. Ten percent (10%) of the amount billed will be deducted and retained by the RTC until after fifty percent (50%) of the work has been completed in an acceptable manner. At that time the RTC may, at its discretion, pay any of the remaining progress payments without withholding additional money if, in the opinion of the RTC, satisfactory progress is being made in the work.

The RTC will pay to the Contractor, at the end of each quarter, interest earned on the amount withheld under the Contract during the quarter as provided for in Section 6 of NRS 338.515. Pursuant to NRS 338.550, the Contractor shall, within ten (10) calendar days after receipt of the money, pay to each Subcontractor or supplier that portion of the interest in direct proportion to the Subcontractor's basis in the progress bill or retainage and any accrued interest thereon.

No interest will be paid on funds withheld for defective work not remedied, on funds held as a result of third party claims for failure to make proper payments to Subcontractors for labor, materials or equipment, or for work, materials or equipment still to be furnished or installed.

No monies payable under this Contract may be assigned by the Contractor except upon written consent of the RTC.

Article 6. Notice.

Notices required under this Contract shall be given as follows:

RTC: Bill Thomas
AICP, Executive Director
1105 Terminal Way
Reno, Nevada 89502
Mark Schlador Project Manager
1105 Terminal Way
Reno, Nevada 89502

Contractor: Thomson Wyper
Vice President
7050 Village Drive, Suite D
Buena Park, CA 90621

Article 7. Acceptance and Final Payment. As soon as practical following completion of the work, the Contractor shall make a written request to the RTC for final inspection and acceptance of the work. Except with respect to payments withheld from a progress payment or retainage reasonably sufficient to pay the expenses the RTC expects to incur as a result of the failure of the Contractor to comply with the Contract, applicable billing code, law or regulation, the remaining balance shall be paid within thirty (30) calendar days of:

- [A] The occurrence of one (1) or more of the conditions of NRS 338.520; or
- [B] The Contractor submits evidence satisfactory to the RTC that all payrolls, bills for materials, interest or retention and all other indebtedness connected with the work have been paid, or
- [C]
- [D] No claims, liens or outstanding debts have been filed against the work in response to any 'Notice of Completion' which RTC may file with the County Recorder. In the event any claims, liens or outstanding debts are filed against the work, the parties agree that the RTC may continue to hold the retainage until such time as the claims, liens or outstanding debts are resolved.

Article 8. Fair Employment Practices. In connection with the performance of work under this Contract, the Contractor agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex or age. Such agreement shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

The Contractor further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

Any violation of such provision by Contractor shall constitute a material breach of Contract.

Article 9. Selected Alternates and Options. The following alternates and options have been selected by the RTC and are herewith made part of the scope of work to be performed under this Contract:

Alternatives: NONE

Options: NONE

Article 10. No Third Party Beneficiary. This Contract and the rights and obligations arising therefrom are strictly for the benefit of the parties to this Contract. The parties agree that any benefit asserted by any third party and/or found to exist by any court or arbitrator is merely an incidental, collateral, or consequential benefit arising from the performance or non-performance of this Contract and is not intended to create a right of action in any person not a signatory to this Contract.

Article 11. Prevailing Wage. Prevailing wage rates pursuant to federal requirements (Davis-Bacon Act) and Washoe County shall be posted on the work site and whichever is higher shall be paid to all classifications of labor. The Contractor's attention is specifically directed to the reporting requirements stipulated under NRS 338.070 and the consequences of violating prevailing wage payments or reporting requirements stipulated under NRS 338.060.

Pursuant to NRS 338.060, the Nevada legislature has adopted certain penalties if workers on public work projects are paid less than the designated prevailing wage rate. The provisions of NRS 338.060 are incorporated herein by this reference. Contractor agrees to comply with the provisions of NRS 338.060 and the Contractor's failure to comply with the provisions of NRS 338.060 shall have the effects set forth in NRS 338.060.

The Contractor and all Subcontractors (at ALL tiers) are required to submit certified payroll reports and labor compliance documentation using the RTC's electronic certified payroll system. The Contractor and each subcontractor will be given a Log On identification and password to access the system. The required documentation shall be transmitted to Pamela Fox-Reid at wagecomplyrtc@trifoxent.com. The name and contact information of the Payroll Officer who prepared the required documentation shall be displayed clearly on reports.

The Contractor and all Subcontractors (at ALL tiers) are required to submit certified payroll reports and labor compliance documentation. It shall be the Contractor's responsibility to comply with, and ensure compliance by all Subcontractors to these provisions.

The Contractor shall also provide a "Weekly Subcontractor Report" listing all subcontractors who worked on the project the previous week. This report shall be updated and submitted electronically to wagecomplyrtc@trifoxent.com. An electronic copy of the "Weekly Subcontractor Report" in Microsoft Excel can be obtained from RTC's project manager.

Article 13. Apprenticeship Utilization Act. Effective January 1, 2020, contractors and subcontractors are required to comply with Senate Bill 207 (2019), i.e. the Apprenticeship Utilization Act, if and when engaged in "vertical construction" and/or "horizontal construction" on a "public work" as those terms are defined in NRS chapter 338.

- [A] Contractor shall transmit documentation to Pamela Fox-Reid at wagecomplyrtc@trifoxllc.com.
- [B] Contractors/subcontractors will upload any Apprenticeship Agreements to LCP Tracker.
- [C] Contractors/subcontractors will upload any Apprenticeship Verifications to LCP Tracker.
- [D] Upon the request of a contractor or subcontractor and submittal of any necessary supporting documentation, RTC will submit a request to the Labor Commissioner to modify or waive the percentage of hours of labor provided by one or more apprentices for "good cause."
- [E] Contractors/subcontractors will upload any approved waivers to LCP Tracker.

For additional information, please contact the Nevada Labor Commissioner or visit its website at <http://labor.nv.gov/>

Article 14. Insurance. The Contractor shall not commence any work or permit any employee/agent to commence any work until satisfactory proof has been submitted to RTC that all insurance requirements have been met.

In conjunction with the performance of the work required by the terms of this Contract, Contractor shall obtain all types of amounts of insurance set forth in Exhibit C, and shall comply with all provisions set forth therein.

Article 15. Indemnification and Hold Harmless. The Contractor's obligation under this provision is set forth in Exhibit C, and shall comply with all provisions set forth therein.

Article 16. Warranty. The Contractor will warranty any defects in the materials it provides during the installation for one year. The Contractor will warranty any equipment failure caused by the Contractor due to improper installation for one year.

Article 17. Termination.

- [A] Mutual Assent. This Contract may be terminated by mutual written agreement of the parties.
- [B] Convenience. The RTC may terminate this Contract in whole or in part for convenience upon written notice to Contractor.
- [C] Default. Either party may terminate this Contract for default by providing written notice of termination, provided that the non-defaulting party must first provide written notice of default and give the defaulting party an opportunity to cure the default within a reasonable period of time.

Article 18. Rights, Remedies and Disputes.

- [A] The RTC shall have the following rights in the event the Contractor breaches any term under the Contract:
 - (1) The right to take over and complete the work or any part thereof as agency for and at the expense of the Contractor, either directly or through other contractors;
 - (2) The right to cancel this Contract as to any or all of the work yet to be performed;
 - (3) The right to specific performance, an injunction or any other appropriate equitable remedy; and
 - (4) The right to money damages.
- [B] Inasmuch as the Contractor can be adequately compensated by money damages for any breach of this Contract, which may be committed by the RTC, the Contractor expressly agrees that no default, act or omission of the RTC shall constitute a material breach of this Contract, entitling Contractor to cancel or rescind the Contract (unless the RTC directs the Contractor to do so) or to suspend or abandon performance.
- [C] Disputes arising in the performance of this Contract that are not resolved by agreement of the parties shall be decided in writing by the authorized representative of RTC's Executive Director. This decision shall be final and conclusive unless within 10 days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to RTC's Executive Director. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of RTC's Executive Director shall be binding upon the Contractor and the Contractor shall abide by the decision.
- [D] Unless otherwise directed by the RTC, the Contractor shall continue performance under this Contract while matters in dispute are being resolved.

Article 19. Miscellaneous Provisions. Pursuant to NRS Section 338.125(2), in connection with the performance of work under this contract, the contractor agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation, gender identity or expression, or age, including, without limitation, with regard to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including, without limitation, apprenticeship.

The contractor further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

Pursuant to NRS 338.130, the Nevada legislature has adopted certain preferential hiring practices in relation to contracts for the construction of public works. The provisions of NRS Section 338.130 are incorporated herein by this reference. Contractor agrees to comply with the provisions of NRS Section 338.130 and the Contractor's failure to comply with the provisions of NRS Section 338.130 shall have the effects set forth in NRS 338.130.

Article 20. Federal Clauses. This Contract is funded in whole or in part with money administered by the Federal Transit Administration. As a condition for receiving payment under this Contract, CONSULTANT agrees to comply with the federally required clauses set forth in Exhibit D.

CONSULTANT has also completed and signed the following: (1) Affidavit of Non-Collusion; (2) Certification Regarding Debarment, Suspension, Other Ineligibility and Voluntary Exclusion; (3) Certification Required by 31 U.S.C. § 1352, Restrictions on Lobbying Using Federal Appropriated Funds, and "Instructions for Completion of SF-LLL, Disclosure of Lobbying Activities". CONSULTANT affirms that such certifications remain valid and shall immediately notify RTC if circumstances change that affect the validity of these certifications.

IN WITNESS WHEREOF, the parties hereto have made and executed this Contract the day and year first above written.

REGIONAL TRANSPORTATION COMMISSION
OF WASHOE COUNTY

By: _____
Bill Thomas, Executive Director

FASTECH (WAYNE PERRY, INC.)

By: _____
Thompson Wyper, Vice President

EXHIBIT A

GENERAL SCOPE OF WORK

Major work items include:

- 1) Removal of old Ariel Compressor located at 600 Sutro St., Reno NV 89512
 - a. All equipment, materials and labor required to remove/dispose of old compressor with the enclosure.
 - b. Haul off and properly dispose of old compressor and enclosure providing the RTC first choice at removing any needed parts from old compressor, building or electrical items prior to disposal for spare parts.
- 2) Installation of new Ariel JGP/2 Compressor job #50726.
 - a. If necessary, prepare site for installation of new unit. Ensure current pad is adequate for new compressor.
 - b. Install and mount new compressor and enclosure to include all materials and equipment necessary to do the job. New Compressor is currently located in the yard approximately 250 feet away.
 - c. Replace and make all necessary connections/changes between the new electrical soft start (contractor to supply soft start equipment) and the compressor per plans.
 - d. Make all connections to the current natural gas supply per the manufacturer plans. Gas main supply located at Southeast corner of Bus Wash building.
 - e. Make all electrical connections as per ANGI and latest NEC specifications. Electrical connections are located at Southeast corner of Bus Wash building.
 - f. Run conduit and cable to connect to the cp400 module for monitoring compressor.
 - g. Follow all changes that are in the submittal # 1 document included in this scope of work as exhibit AA
 - h. Ensure the compressor, controls and fast fill are all integrated and 100% operational to RTC staff and ANGI commissioning crew prior to completion of project.
- 3) Additional contractor responsibilities.
 - a. To adhere to all OSHA rules and regulations while on the property. Specifically - All lock out – tag out and PPE's requirements shall be followed.
 - b. To adhere to all Federal, State and local rules and regulations.

- c. To adhere to all manufacturer related specifications and all industry accepted standards and practices related to compressed natural gas installations and Operations. Communicate daily with RTC Facility Management, Ride Right Operations and maintenance staff to minimize any disruptions to service or any work, vehicles, material laydown and/or construction related impacts within the work area.
- d. Vehicle parking shall be restricted to minimize impact on traffic within the Sutro area yard. Any vehicles not specifically need to perform work on site shall be parked outside of the Sutro yard and in the front parking area only unless approved by RTC Maintenance staff or Ride Right Maintenance Manager.
- e. To operate on the job site in a safe and non-discriminating manor.
- f. All shut downs must be kept to the minimum, as we are an agency who is critical to the public's wellbeing. All shut downs will be scheduled through Mark Schlador or Heinz Schöner with 24 hours advance notice required. Any shut downs required by an emergency shall be communicated to RTC FM and Ride Right staff immediately. During installation, only the existing ANGI compressor will be in use and fuel must be available for the fleet. If shutdown is necessary, 12 hours' notice will be required and shutdown of existing compressor cannot exceed 3 hours.
- g. Upon award, Contractor will then have 90-days to start construction and 30-days to complete construction.
- h. ANGI will be on site for four days to commission the compressor once installation is completed. Contractor will be responsible for any time and related costs, including but not limited to, rescheduling costs incurred by ANGI and costs of RTC in having to obtain alternative charging services, over the four-day allotment. Contractor is responsible for scheduling commissioning with ANGI.

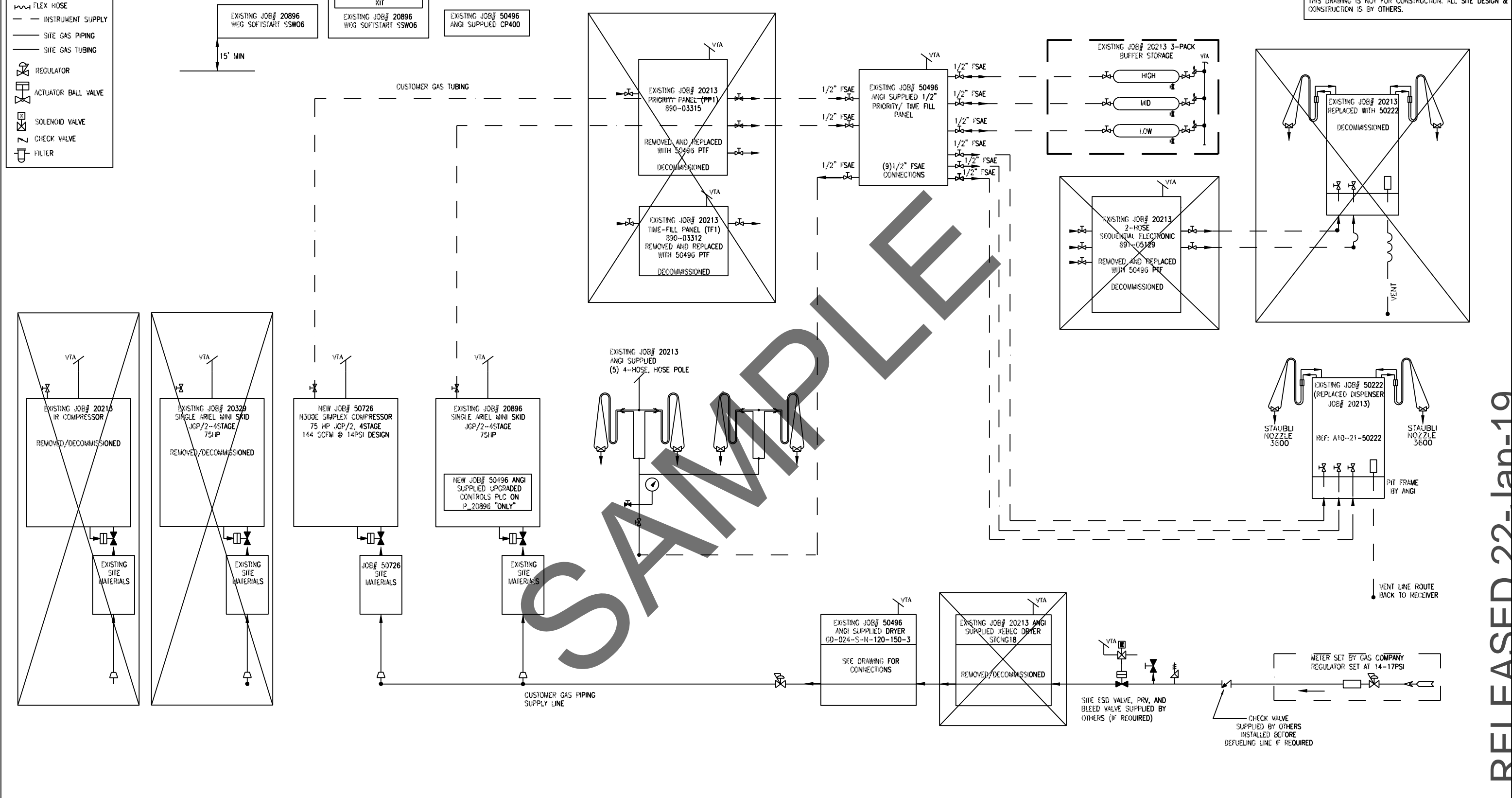
Please note:

- 1.) All pressures on system will be at 0 psi and all electricity will be disconnected while work is being accomplished.

LEGEND

- MANUAL BALL VALVE
- FLEX HOSE
- INSTRUMENT SUPPLY
- SITE GAS PIPING
- SITE GAS TUBING
- REGULATOR
- ACTUATOR BALL VALVE
- SOLENOID VALVE
- CHECK VALVE
- FILTER

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REV	DATE/BY	DESCRIPTION	REV	DATE/BY	DESCRIPTION
A	01/11/19	MCV RELEASED			



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305 W DELAVAN DR
JANESVILLE, WI 53546
PH: 608-563-2800
www.angienergy.com

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UNLESS OTHERWISE SPECIFIED

BREAK SHARP EDGES .005-.015
ALL DIMENSIONS IN INCHES

FRACTIONAL ± 1/8
TWO PLACE DECIMAL ±.010
THREE PLACE DECIMAL ±.005
ANGLES ±1°

TITLE				SITE PID			
CUSTOMER				PROJECT NO.			
RTC--RENO				50726			
DRN	MCV	DATE	01/09/19	SCALE	NTS	DRAWING NO.	REV.
CHK	MP	DATE	01/11/19	SHT	1	A00--01--50726	A

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20896 EXISTING MOTOR STARTER PANEL IN NON CLASSIFIED AREA ADD COMPONENTS FOR 50726 COMPRESSOR

- C111 1" 12VAC POWER TO PRIORITY/TIME FILL
- C110 1" 12VAC POWER TO CP400
- C101 1-1/2" 480VAC TO COMPRESSOR MTR
- C103 1" 480VAC TO COOLING FAN/PRE-LUBE MOTORS
- C105 1" CONTROL SIGNALS
- C102 1-1/2" 480VAC TO COMPRESSOR MTR
- C104 3/4" 480VAC TO COOLING FAN
- C106 3/4" CONTROL SIGNALS

EXISTING 50496 PRIORITY/TIME FILL

C205 1" SIGNALS
C204 1" SIGNALS

EXISTING DISPENSER 50222

EXISTING DRYER

20329 REMOVE EXISTING COMPRESSOR B 75HP THAT HAD CTC CONTROLLER REPLACE W/50726 0726 COMPRESSOR THAT HAS RX371 CONTROLLER

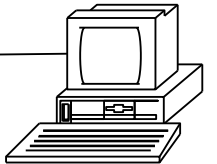
UNIT CONTROL PANEL

UNIT CONTROL PANEL

20896 NOW 50496-02 EXISTING COMPRESSOR A 75HP CHANGE NX251 CONTROLLER TO RX371 CONTROLLER

EXISTING 50496 CP-400 COM PANEL

C202A 1" J5



CUSTOMER INTERFACE

AUTODIALER WAS ADDED TO BUILDING ON SITE

SITE BUILDING

C107 1" CONTROL SIGNALS

C108 3/4" ESD INTERCONNECT

C109 1/2" MODEM CONDUIT

C201 1/2" CONTROL SIGNALS

C202 1" SIGNALS

C203 1" CONTROL SIGNALS

TO EXISTING IR COMPRESSORS/BEACON

TO EXISTING IR COMPRESSORS

C206 1" SIGNALS

NOTE: 10% SPARES MUST BE INCLUDED AND CLEARLY LABELED IN CONDUIT RUNS WHENEVER POSSIBLE

ALL ELECTRICAL CONNECTIONS MUST BE COMPLETED OR SUPERVISED BY QUALIFIED PERSONNEL, AND MEET ALL LOCAL AND APPLICABLE CODES. REFER TO NEC FOR MORE INFORMATION.



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TITLE CONDUIT/CUSTOMER INTERCONNECT DETAILS SITE LAYOUT

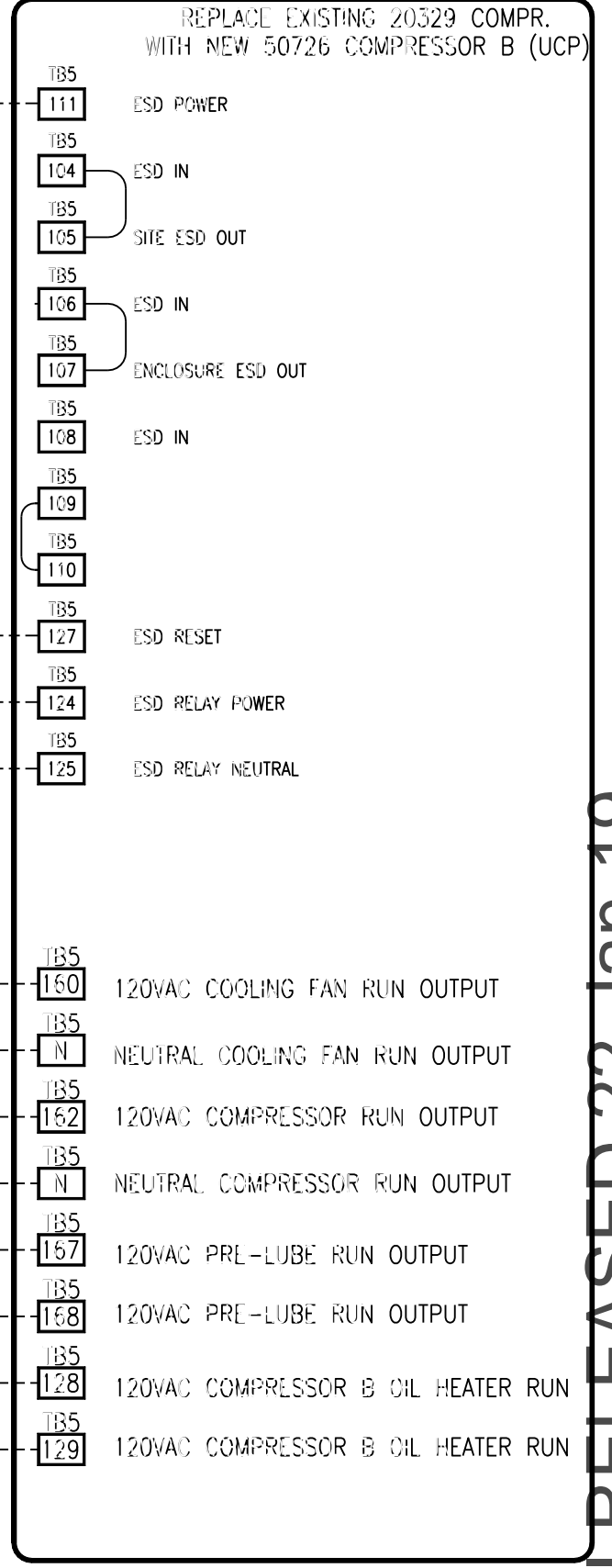
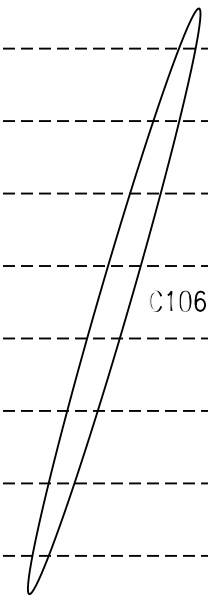
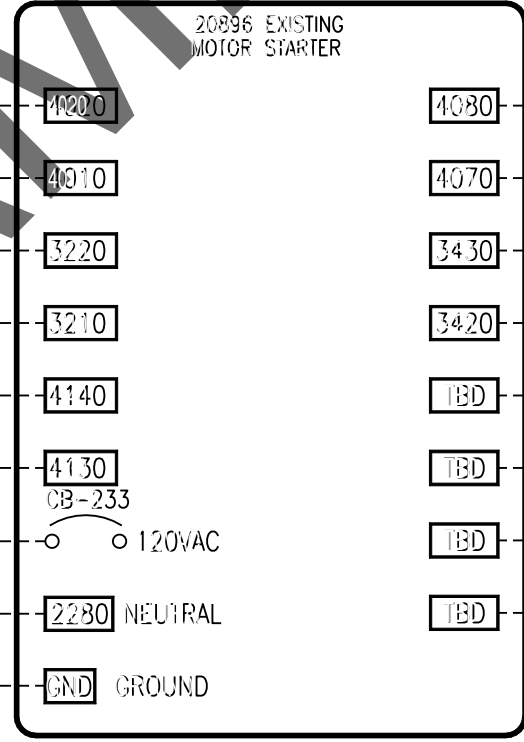
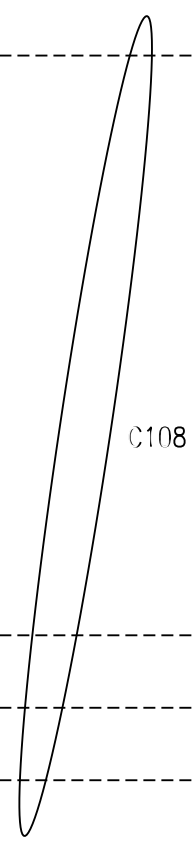
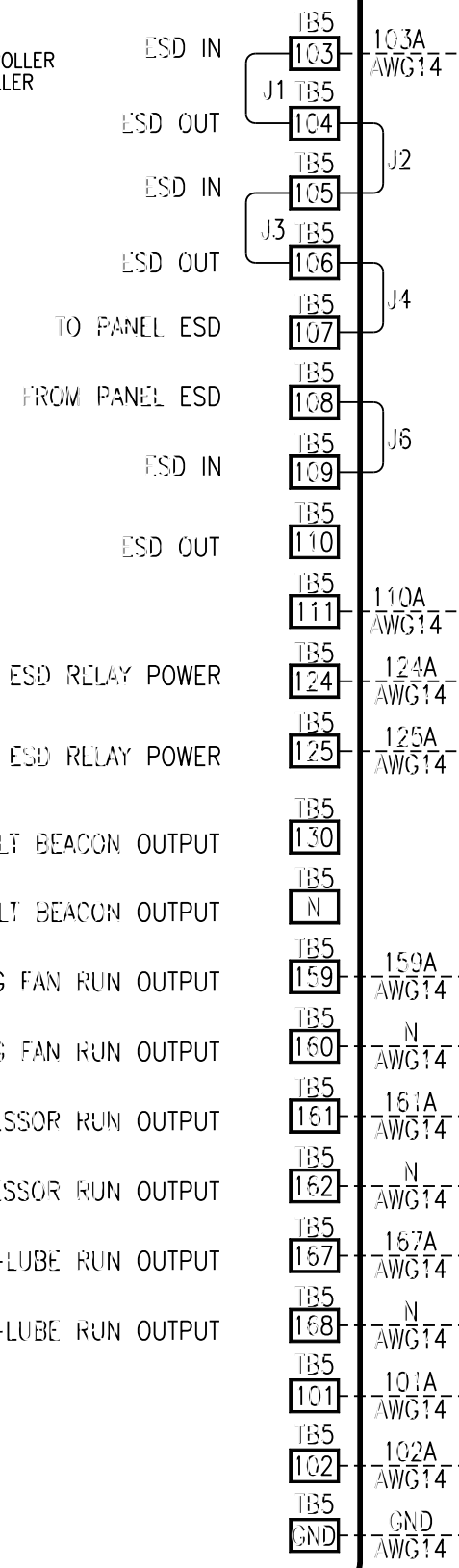
CUSTOMER RTC - Reno Upgrade PROJECT NO. 50726

DRN	NDA	DATE	1/9/19	SCALE	1:1	DRAWING NO.	A80--50--50726	REV.	A
CHK	-	DATE	-	SHT	3	TOT	9		

AUTOCAD WINDCHILL

ANGI RELEASED 22-Jan-19

20896 NOW 50496-02
 EXISTING
 COMPRESSOR A
 75HP
 CHANGE NX251 CONTROLLER
 TO RX371 CONTROLLER



REPLACE EXISTING 20329 COMPR.
 WITH NEW 50726 COMPRESSOR B (UCP)

SAMPLE

REV	DATE/BY	DESCRIPTION	REV	DATE/BY	DESCRIPTION
A	1/9/19 NDA	FIRST RELEASE FROM A80-50-20896/ 50496 UPGRADES ACN1010310			

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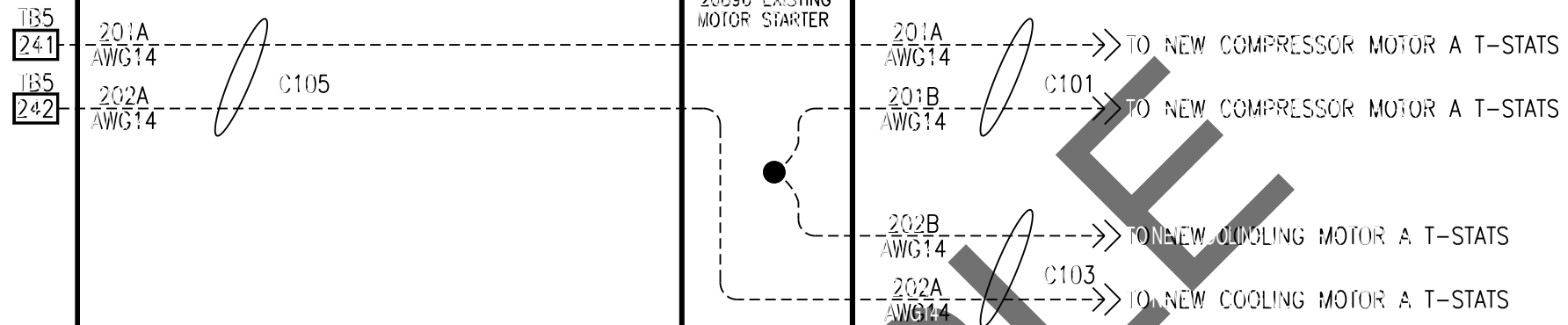
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DRN NDA	DATE 1/9/19	SCALE 1:5	DRAWING NO. A80-50-50726
CHK -	DATE -	SHT 4	TOT 9
			REV. A

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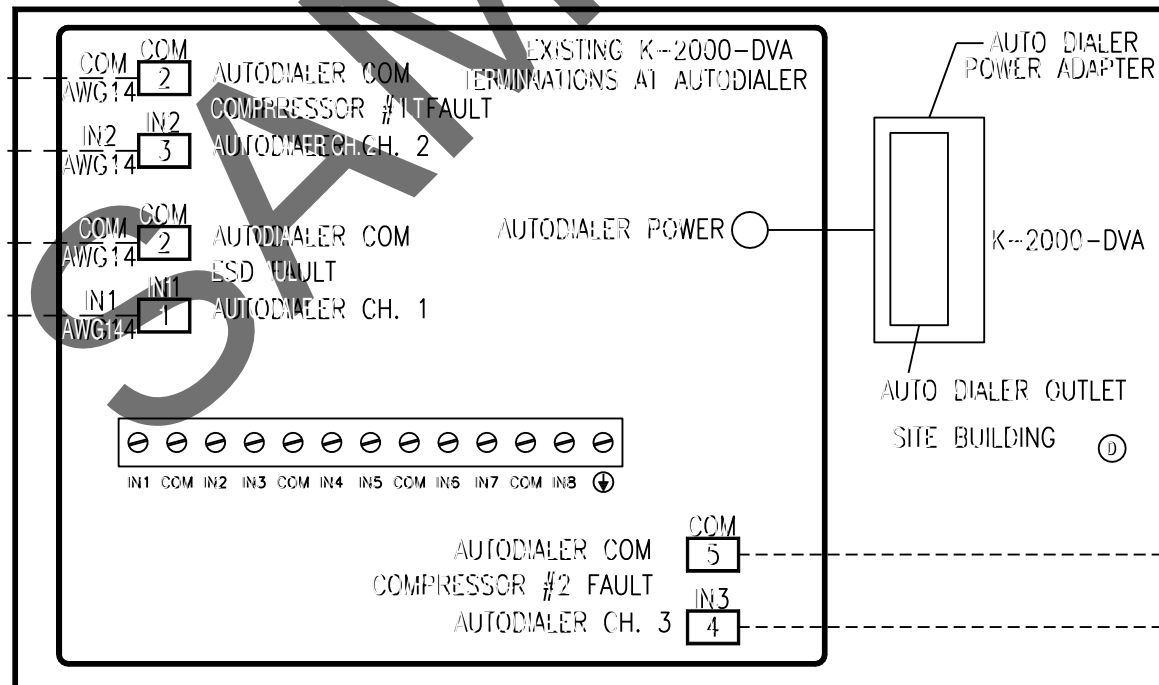
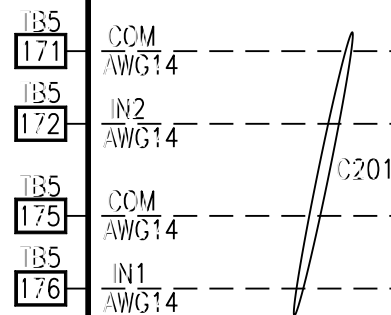
REPLACE EXISTING 20329 COMPR.
WITH NEW 50726 COMPRESSOR B (UCP)

WIRES #25,25A,181&182
REMOVED NOT NEEDED.

20896 NOW 50496-02
EXISTING
COMPRESSOR A
75HP
CHANGE NX251 CONTROLLER
TO RX371 CONTROLLER



COMPRESSOR FAULT DRY CONTACT
COMPRESSOR FAULT DRY CONTACT
COMPRESSOR FAULT DRY CONTACT
COMPRESSOR FAULT DRY CONTACT



TB5
171
TB5
172

REV	DATE/BY	DESCRIPTION	REV	DATE/BY	DESCRIPTION
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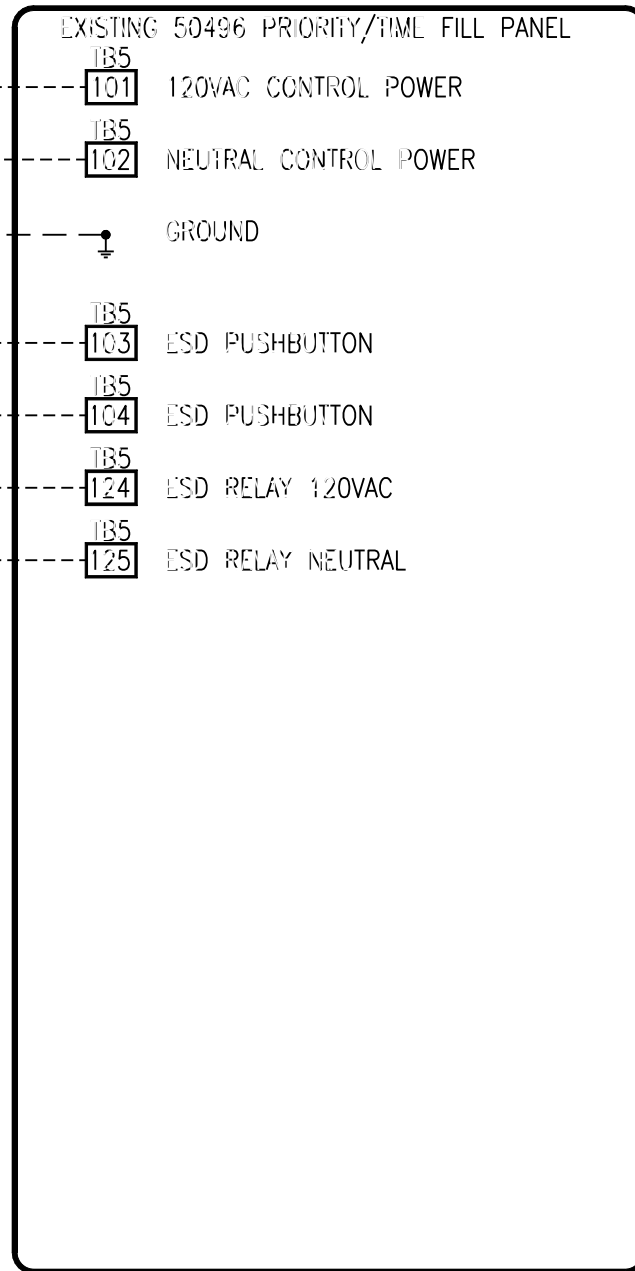
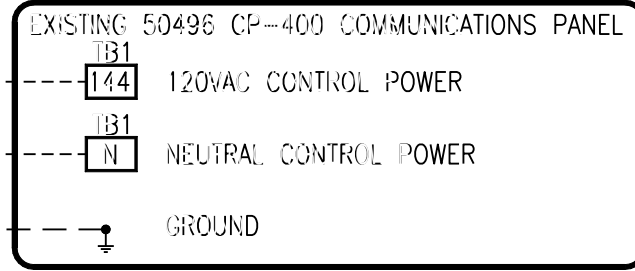
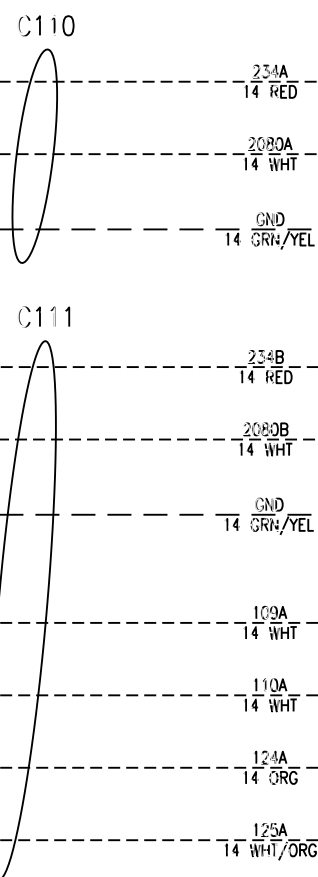
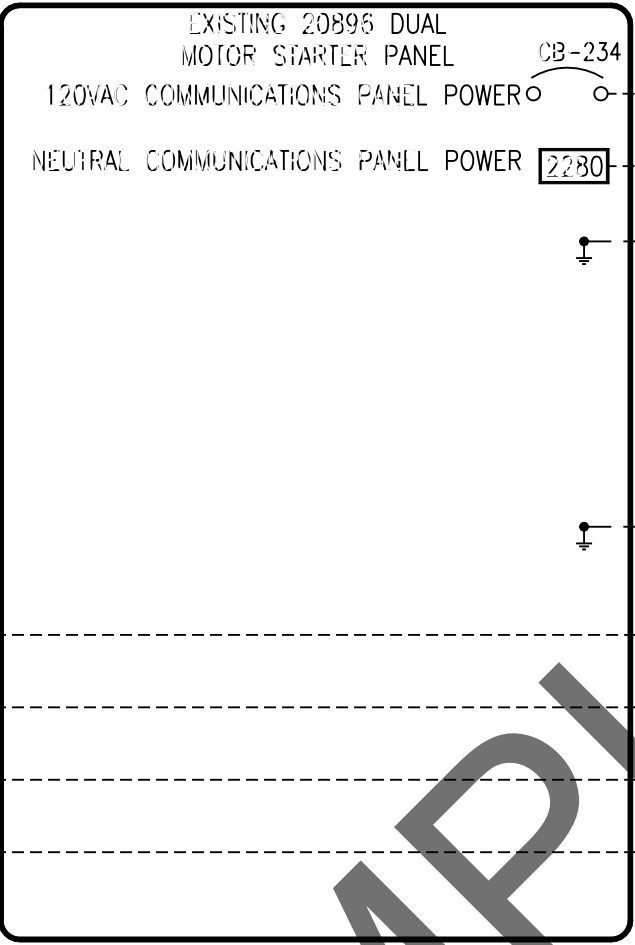
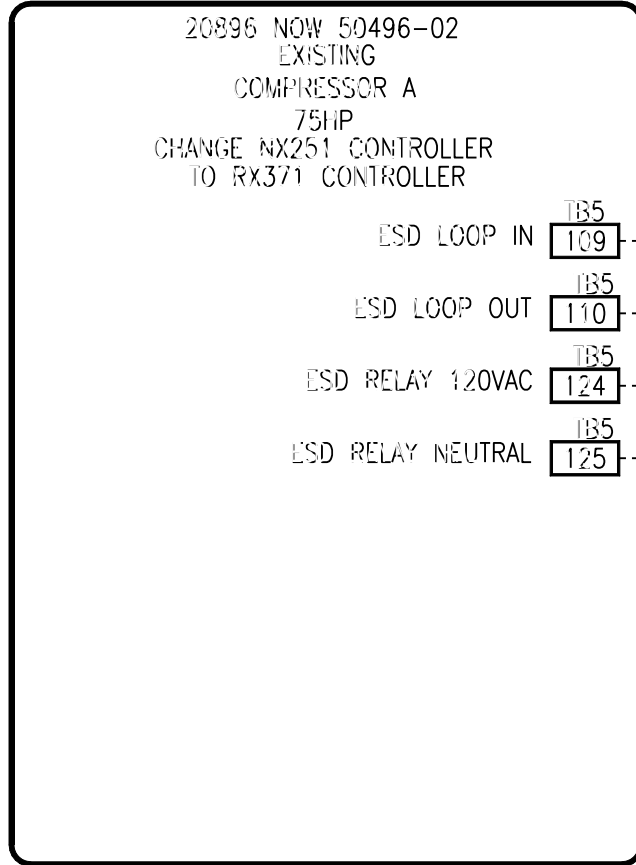
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TITLE		CONDUIT/CUSTOMER INTERCONNECT DETAILS SITE INTERCONNECT WIRING			
CUSTOMER		RTC - Reno Upgrade		PROJECT NO. 50726	
DRN	NDA	DATE	1/9/19	SCALE	1:1
CHK	-	DATE	-	SHT	5 OF 9
				DRAWING NO. A80-50-50726	
					REV. A

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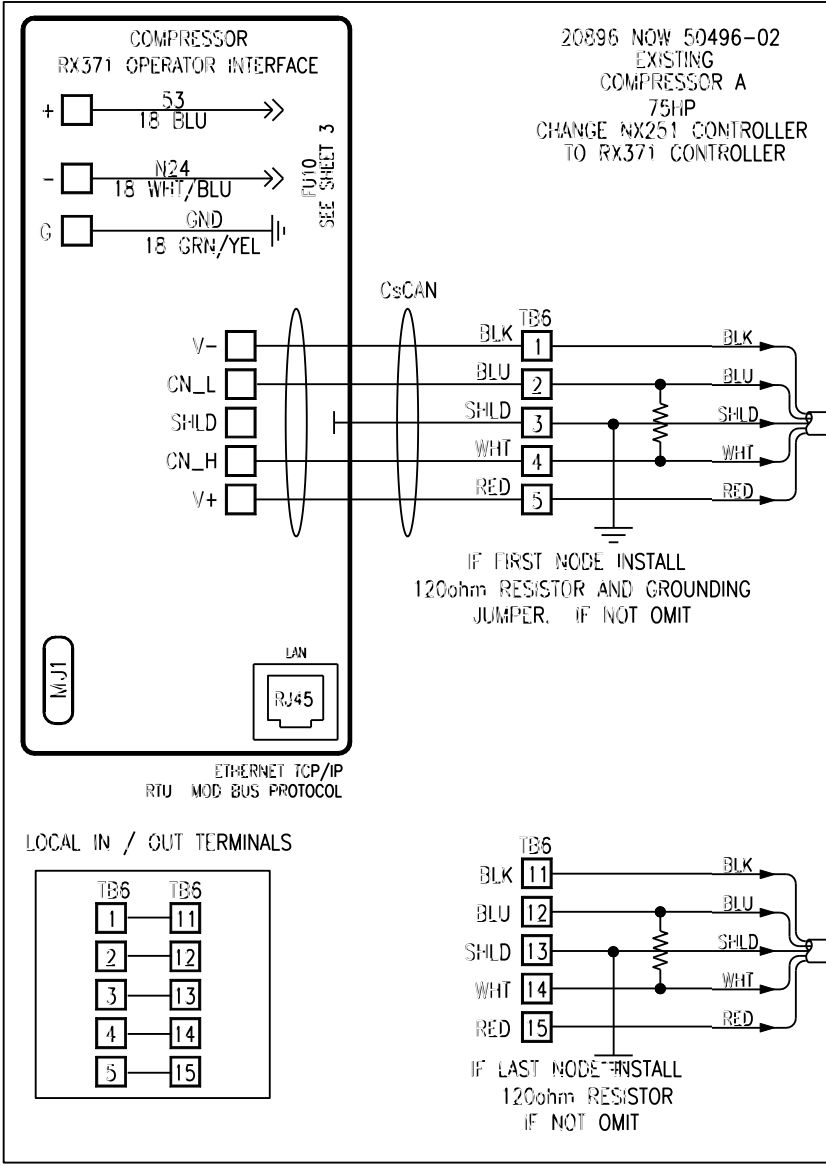
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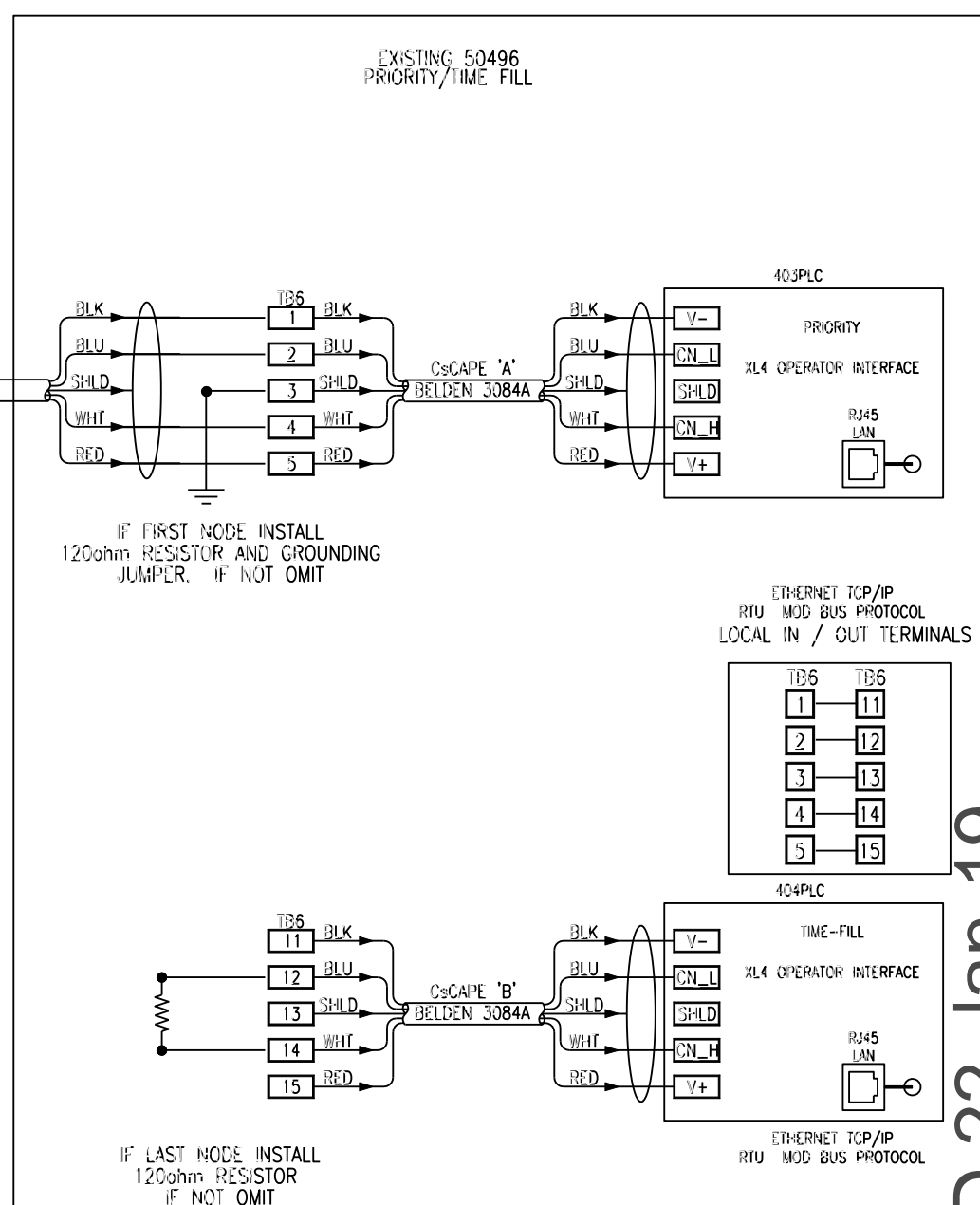
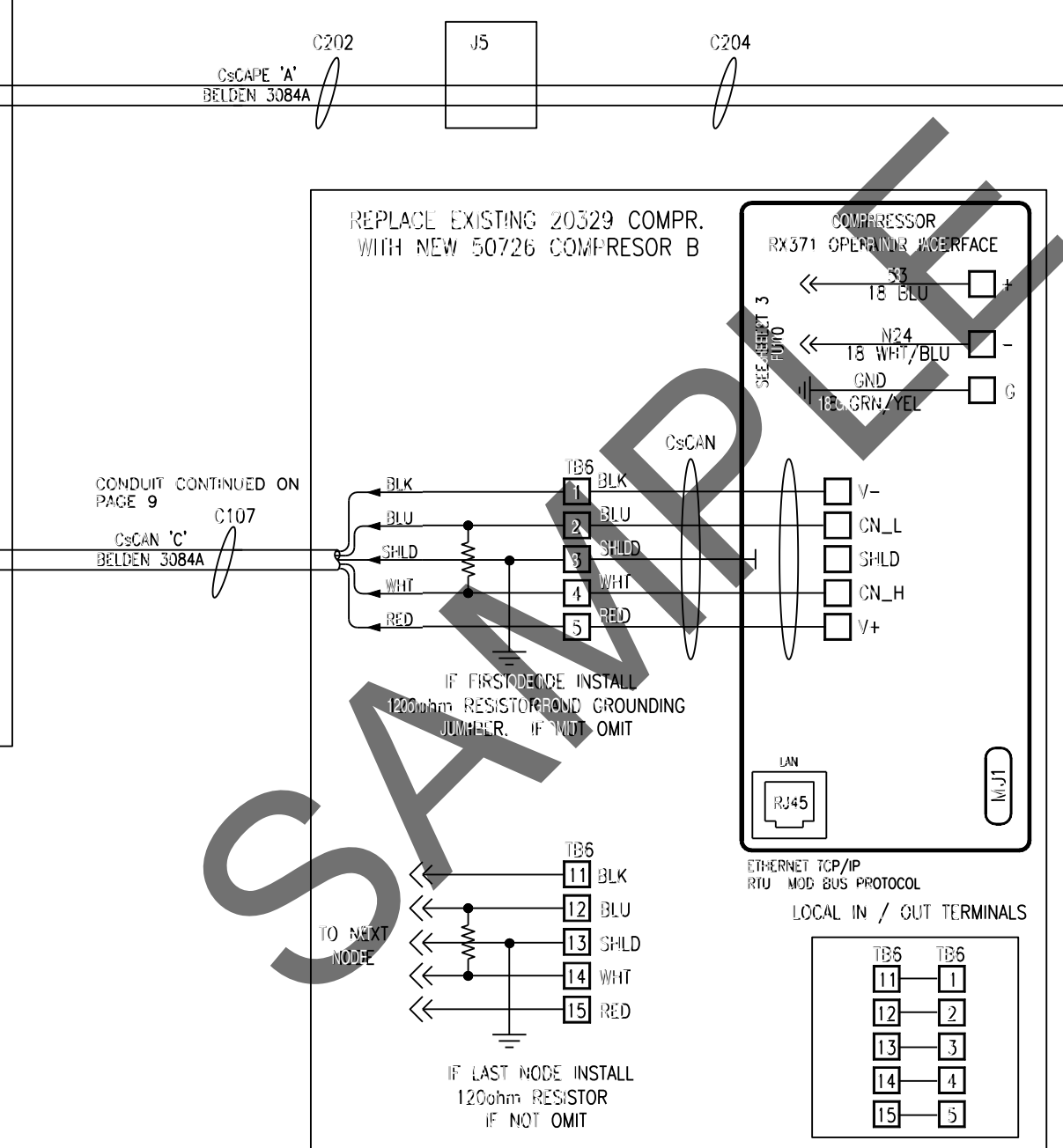
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CUSTOMER RTC - Reno Upgrade		PROJECT NO. 50726	
DRN NDA	DATE 1/9/19	SCALE 1:1	DRAWING NO. A80--50--50726
CHK -	DATE -	SHT 6	TOT 9
			REV. A

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* NOTE:
USE BELDEN 3082A CABLE FOR LENGTHS
GREATER THAN 100m (328 ft)



REV	DATE/BY	DESCRIPTION	REV	DATE/BY	DESCRIPTION
A	1/9/19 NDA	FIRST RELEASE FROM 800-50-20896/ 50496 UPGRADES ACN1010310			

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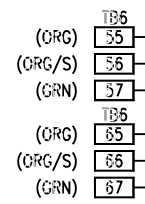
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CUSTOMER		RTC - Reno Upgrade		PROJECT NO. 50726	
DRN	NDA	DATE	1/9/19	SCALE	1:1
CHK	-	DATE	-	SHT	7 OF 9
DRAWING NO. A80-50-50726				REV.	A

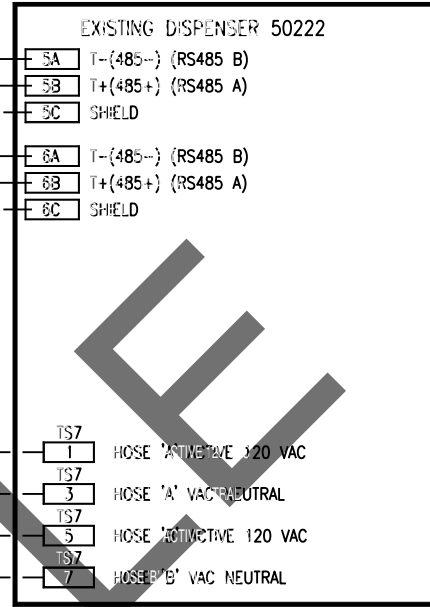
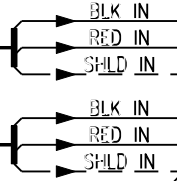
ANGI RELEASED 22-Jan-19

EXISTING 50496 CP-400 COMMUNICATIONS PANEL



120 OHM RESISTOR
INSTALLED ON LAST DISPENSER

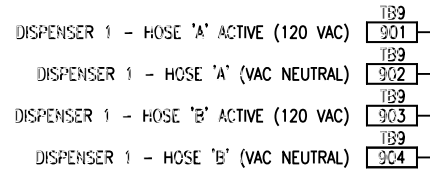
C206



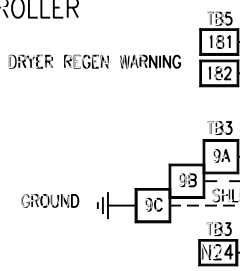
120 OHM RESISTOR
INSTALLED ON LAST DISPENSER

C205

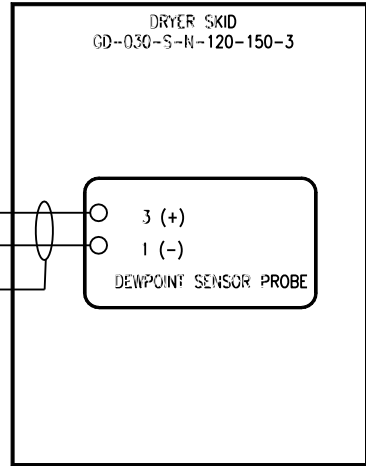
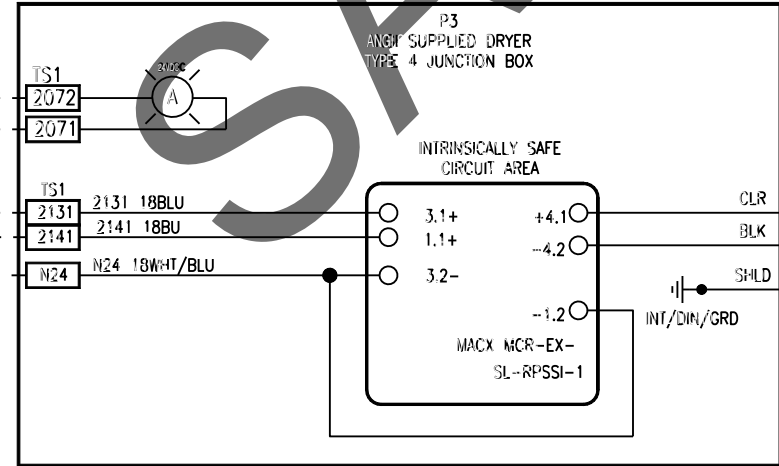
EXISTING 50496
PRIORITY/TIME FILL



20896 NOW 50496-02
EXISTING
COMPRESSOR A
75HP
CHANGE NX251 CONTROLLER
TO RX371 CONTROLLER



C203



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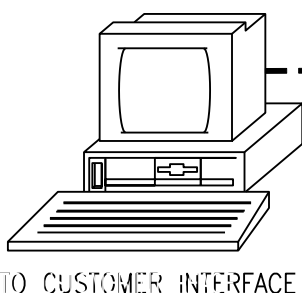
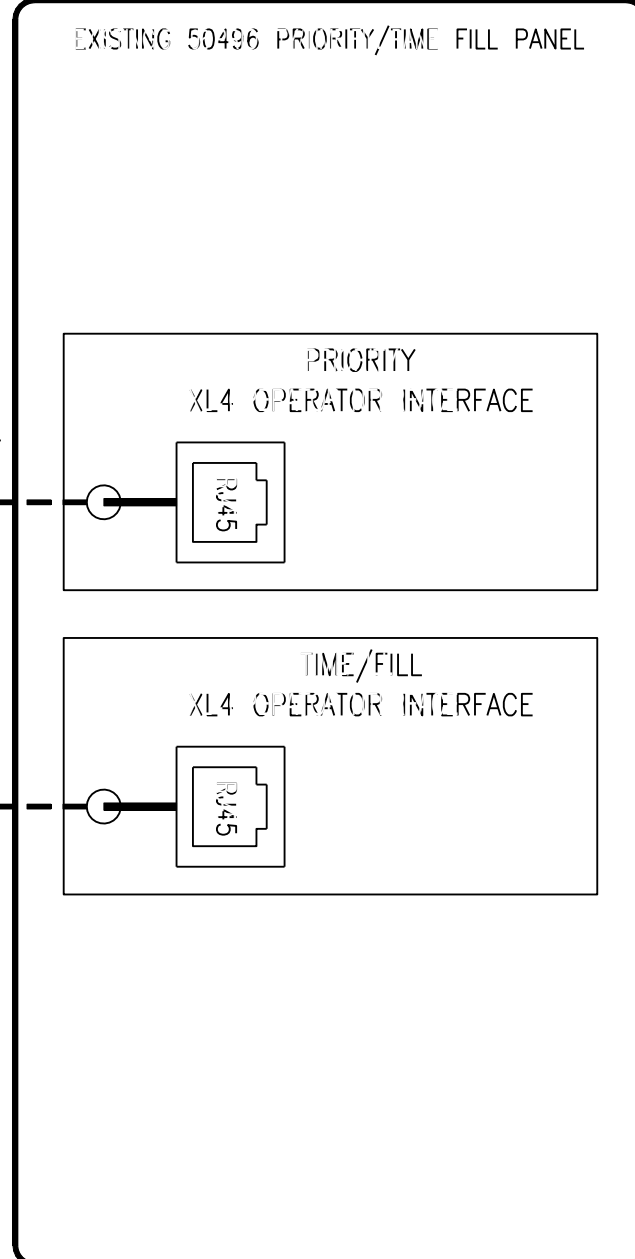
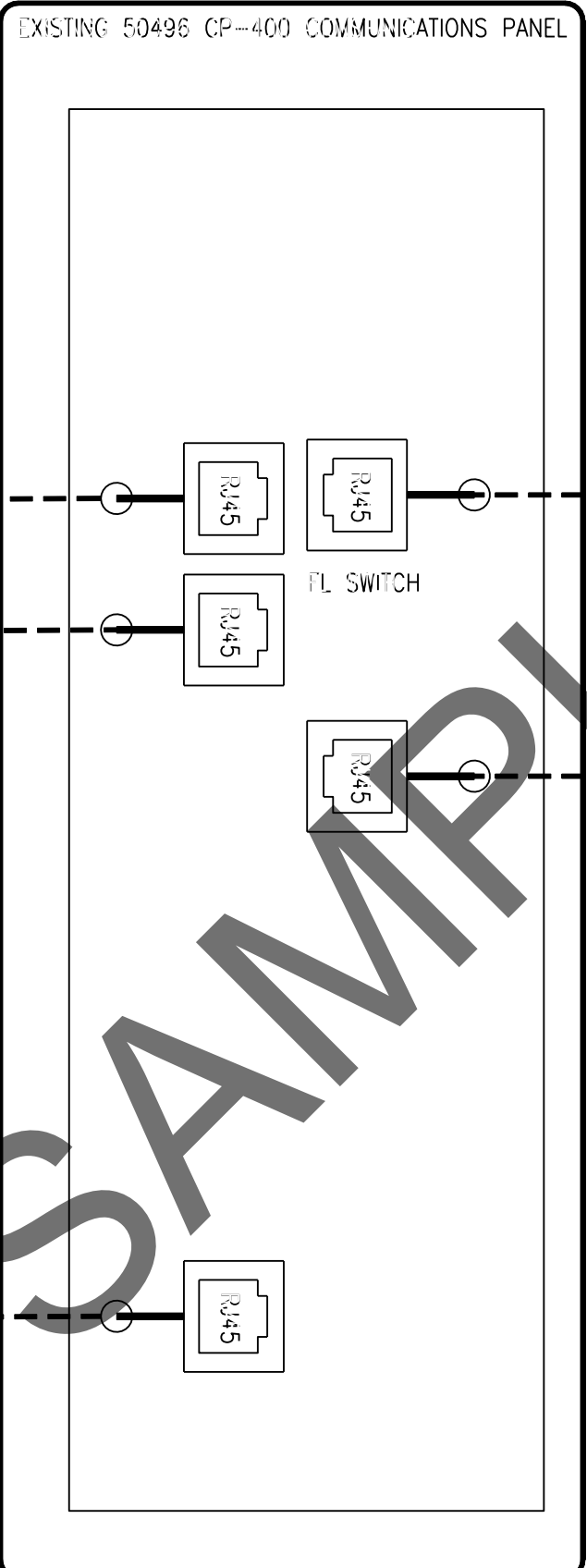
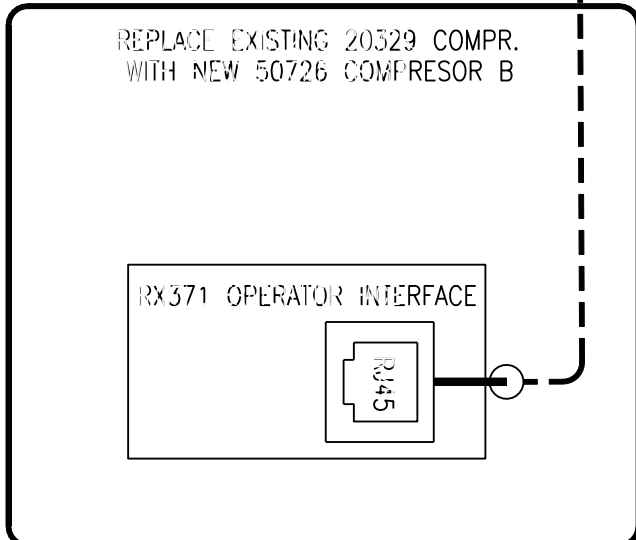
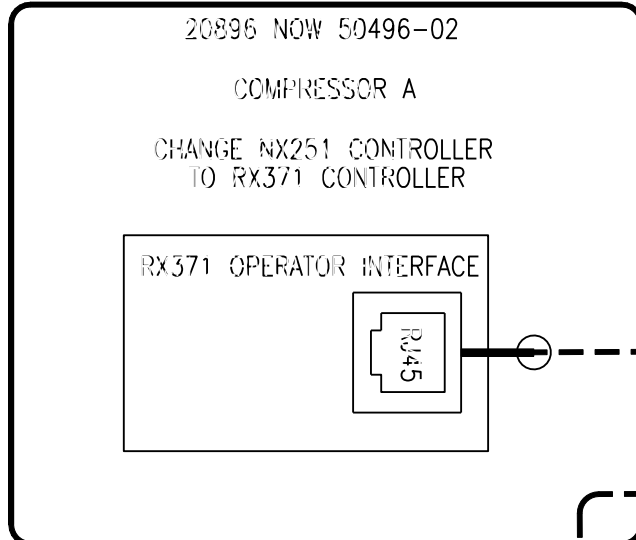


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TITLE		CONDUIT/CUSTOMER INTERCONNECT DETAILS SITE INTERCONNECT WIRING			
CUSTOMER		RTC - Reno Upgrade		PROJECT NO. 50726	
DRN	NDA	DATE	1/9/19	SCALE	1:1
CHK	-	DATE	-	SHT	8
				DRAWING NO.	A80--50--50726
					REV. A

REV	DATE/BY	DESCRIPTION	REV	DATE/BY	DESCRIPTION
A	1/9/19 NDA	FIRST RELEASE FROM A80-50-20896/ 50496 UPGRADES ACN1010310			

ANGI RELEASED 22-Jan-19



REV	DATE/BY	DESCRIPTION	REV	DATE/BY	DESCRIPTION
A	1/9/19 NDA	FIRST RELEASE FROM 880-50-20896/ 50496 UPGRADES ACN1010310			

ALL ELECTRICAL CONNECTIONS MUST BE COMPLETED OR SUPERVISED BY QUALIFIED PERSONNEL, AND MEET ALL LOCAL AND APPLICABLE CODES. REFER TO NEC FOR MORE INFORMATION.

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ANGI ENERGY SYSTEMS
305 W DELAVAN DR
JANESVILLE, WI 53546
PH: 608-563-2800
www.angienergy.com

CONTROLLED DRAWING
THIS DRAWING COMPLIES WITH AGENCY LISTINGS. DO NOT CHANGE WITHOUT APPROVAL FROM ENGINEERING DEPARTMENT.

TITLE		CONDUIT/CUSTOMER INTERCONNECT DETAILS CP-400 SITE INTERCONNECT WIRING			
CUSTOMER		RTC - Reno Upgrade		PROJECT NO. 50726	
DRN	NDA	DATE	1/9/19	SCALE	1:1
CHK	-	DATE	-	SHT	9 OF 9
				DRAWING NO. A80-50-50726	
					REV. A

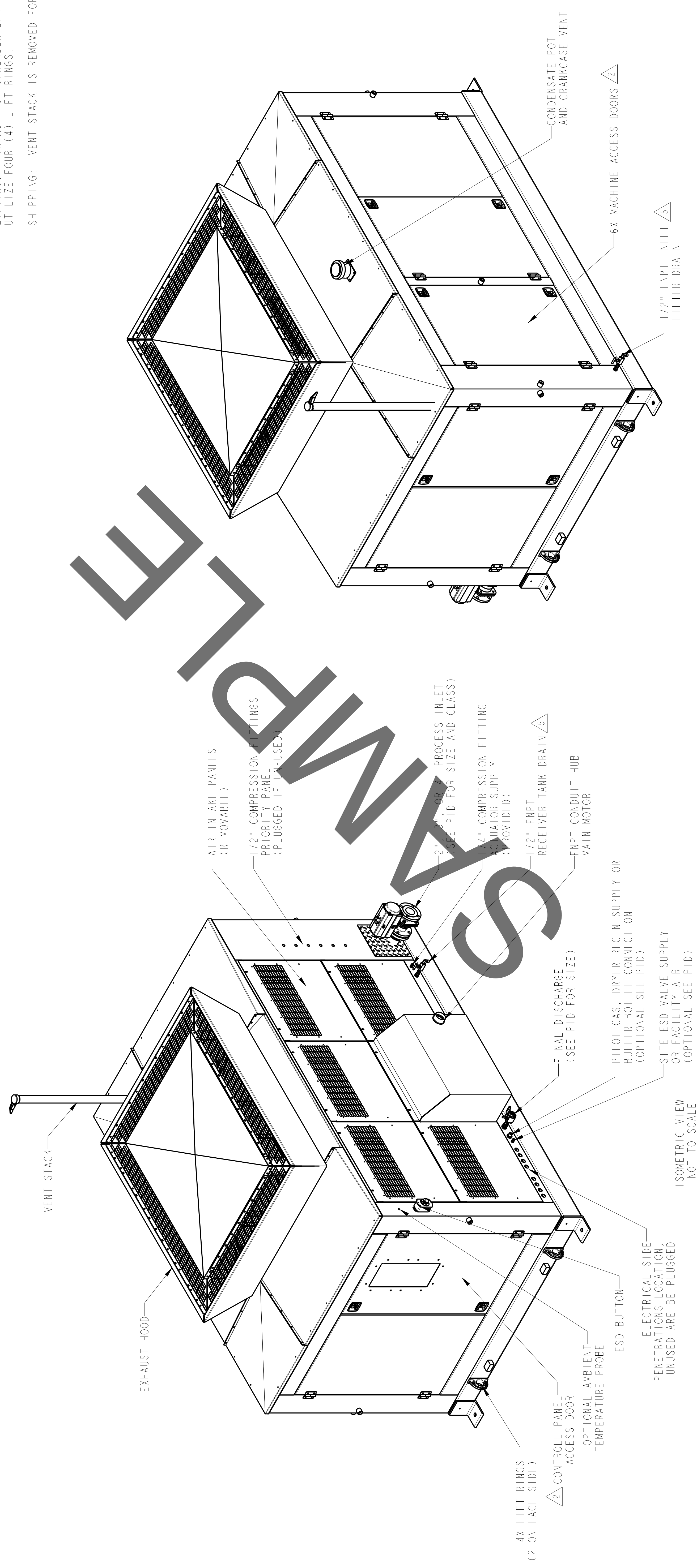
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NOTES:

1. DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5M-2009.
2. ALL HINGED DOORS SWING OUT 36" FROM THE ENCLOSURE.
3. ALLOW 48" ON THE MOTOR SIDE TO ALLOW FOR COOLER REMOVAL SEE SHEET 2.
4. THIS DRAWING IS AN ELECTRICAL SIDE CONDUIT CONFIGURATION, UNUSED SIDE ELECTRICAL PENETRATIONS ARE PLUGGED.
5. DRAIN VALVES EXTEND APPROXIMATELY 6 INCHES OUT FROM THE ENCLOSURE.

COMPRESSOR DATA

WEIGHT: 15,000 LBS.
 TYPE: ARIEL RECIPROCATING COMPRESSOR, CYLINDERS MAY VARY FROM THOSE SHOWN.
 CLEARANCE: ALLOW 36" MINIMUM ON ALL SIDES FOR ACCESS UNLESS OTHERWISE INDICATED.
 MOUNTING: REQUIRES SIX (6) 1" DIAMETER ANCHOR BOLTS (NOT PROVIDED BY ANGI). GROUTING THE COMPRESSOR TO THE CONCRETE PAD IS NOT RECOMMENDED.
 LIFTING: MINIMUM 13' SPREADER BAR IS REQUIRED. UTILIZE FOUR (4) LIFT RINGS.
 SHIPPING: VENT STACK IS REMOVED FOR SHIPPING.



ISOMETRIC VIEW
NOT TO SCALE

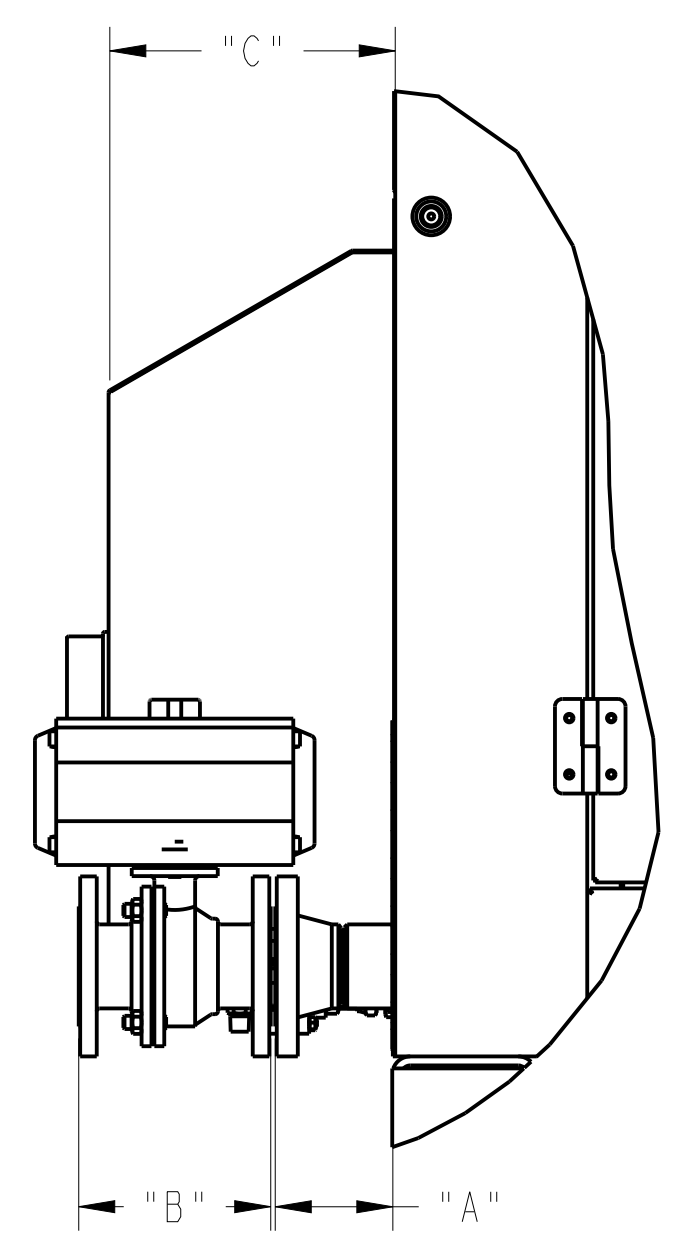
REV	DATE	APPROVED	TITLE	DESCRIPTION
C	01/11/2019	TCS/JFO	ADDED T5HP NOTE TO SHEET 2. ACN1010192	
B	01/31/2018	JFO	ADDED AMBIENT TEMP PROBE LOCATION; ACN1005539	
A	11/13/2017	JFO	NEW GAD; ACN1003900	

UNLESS OTHERWISE SPECIFIED		GENERAL LAYOUT-NG300E SIMPLEX-SIDE PENETRATION	
BREAK SHARP EDGES	± 0.015	CUSTOMER	PROJECT NO
FRACTIONAL DECIMALS	± 1/8	SHEET 1 of 2	DRAWING NO
WELD FACE DECIMALS	± 0.10	SCALE 0.063	A05-10-ES-SIDE
ANGLES	± 1°	DATE 11/09/2017	REF C

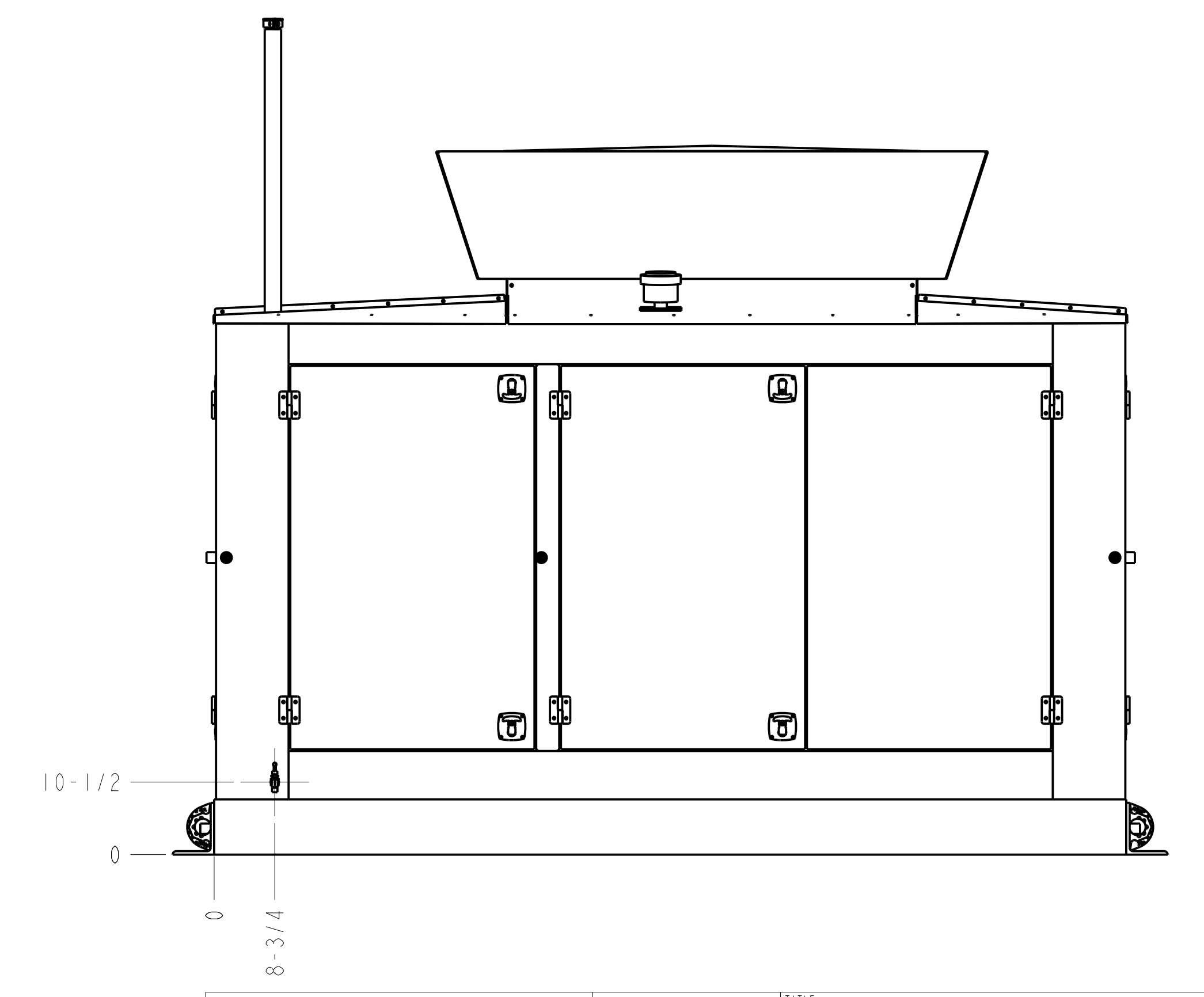
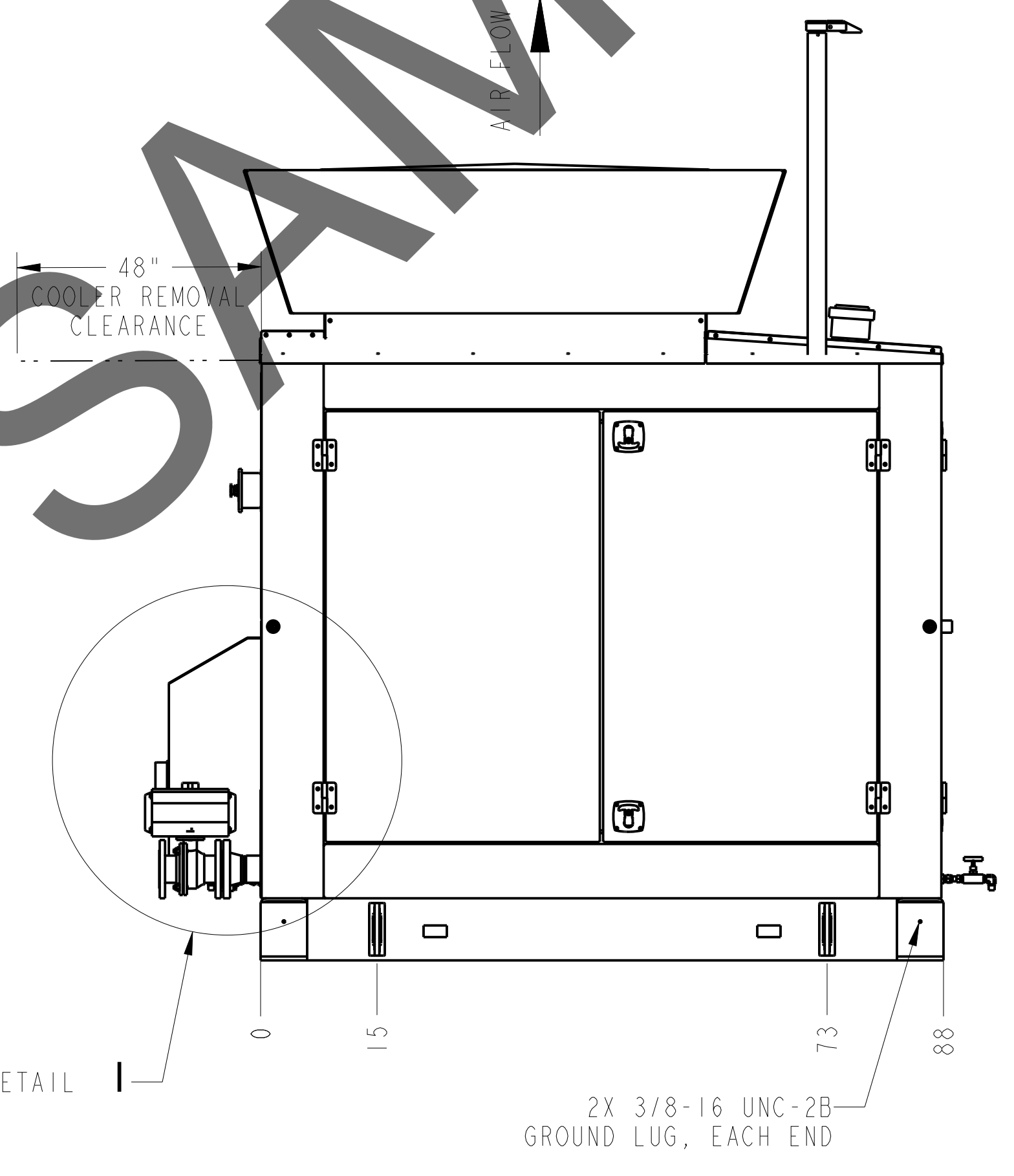
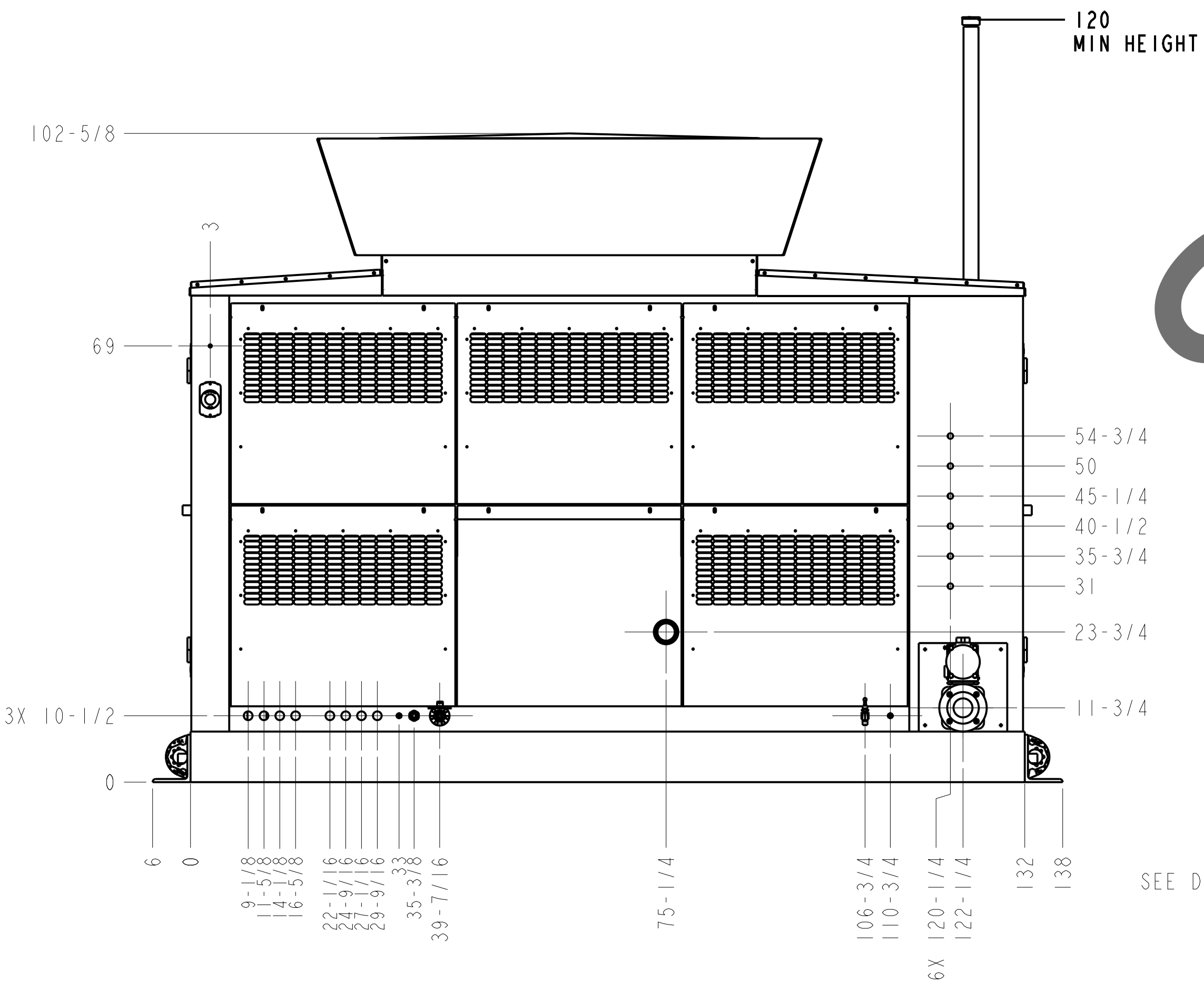
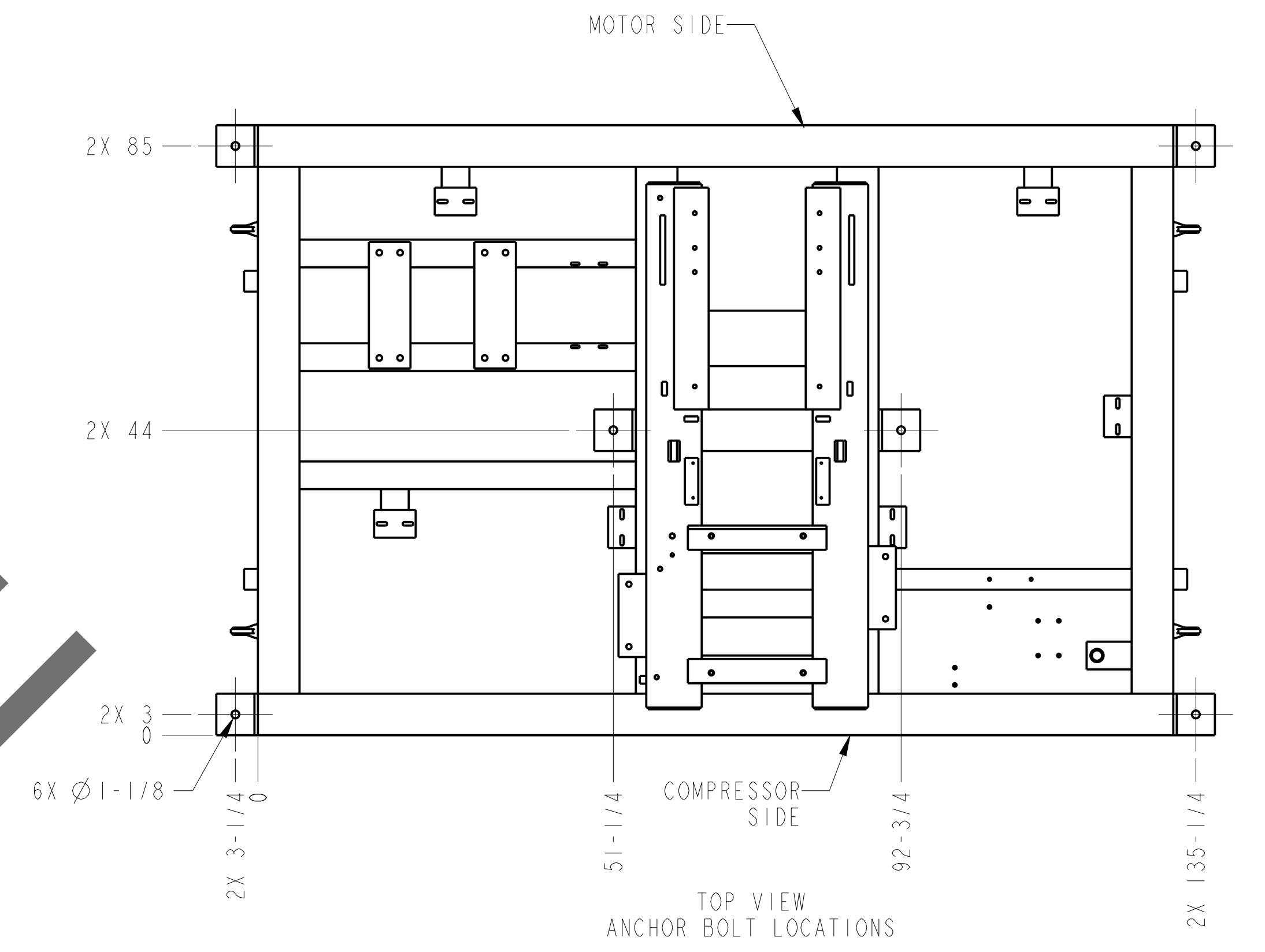
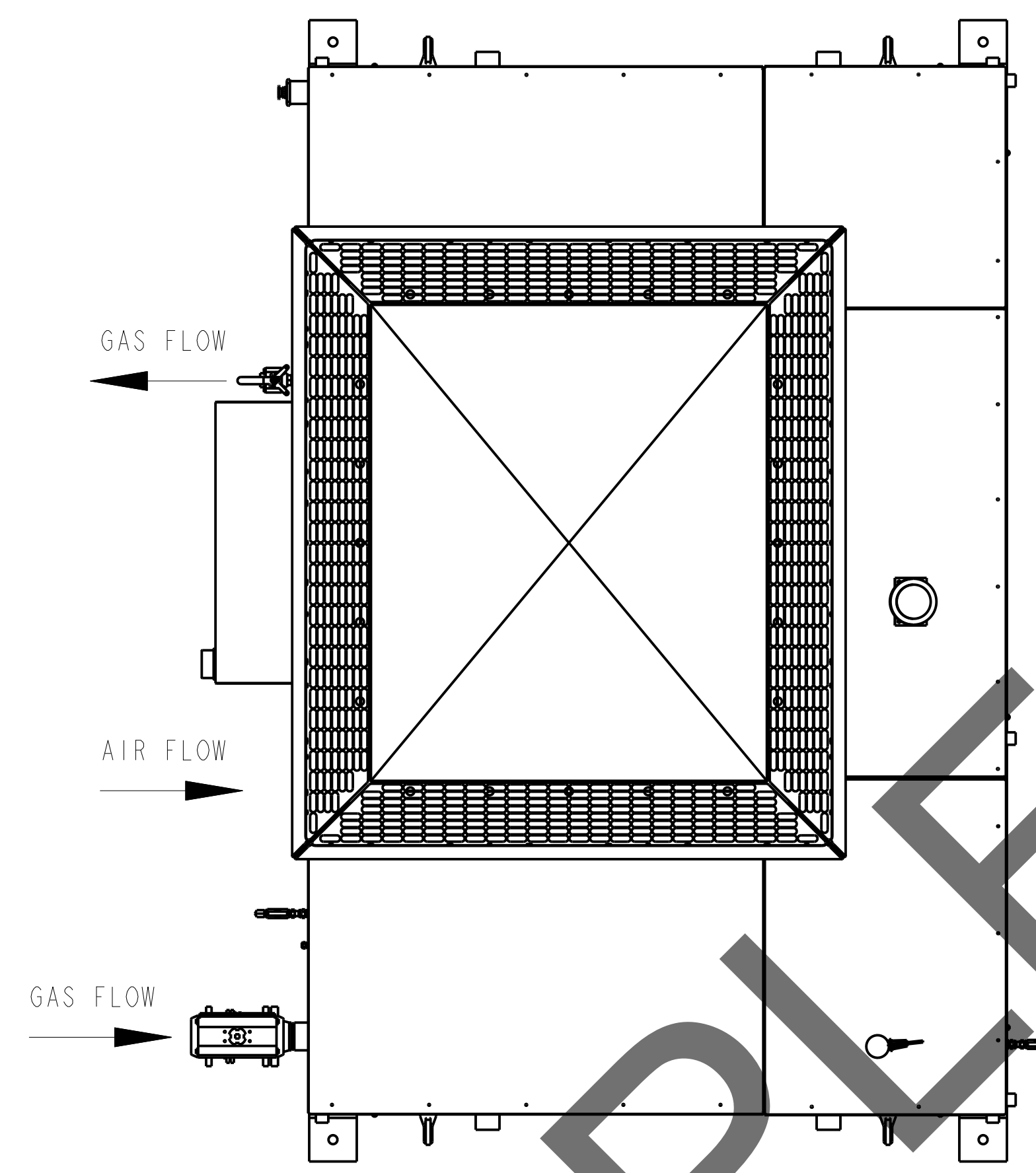
ANGI
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 10000 WISCONSIN AVE
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 WWW.ANGIENERGY.COM

INLET VALVE CHARTED DIMENSIONS			
SIZE INLET Ø	CLASS	DIM "A" ± 1/2"	DIM "B"
2	150	5.00	7.00
2	300	5.00	8.50
2	600	5.00	8.50
3	300	5.00	11.12
3	300	5.00	11.12
3	150	5.00	8.00
4	150	5.00	9.00

ENCLOSURE BUMP OUT WIDTH - SEE SITE PID TO DETERMINE DIM "C"		
MOTOR HP	BUMP OUT STYLE	DIM "C"
75 HP	E1	0.00
100 HP	E1	0.00
125 HP	E1	0.00
150 HP	E1	0.00
200 HP	E2	5.19
250 HP	E2	5.19
300 HP	E3	10.39
300+ HP	E4	11.89

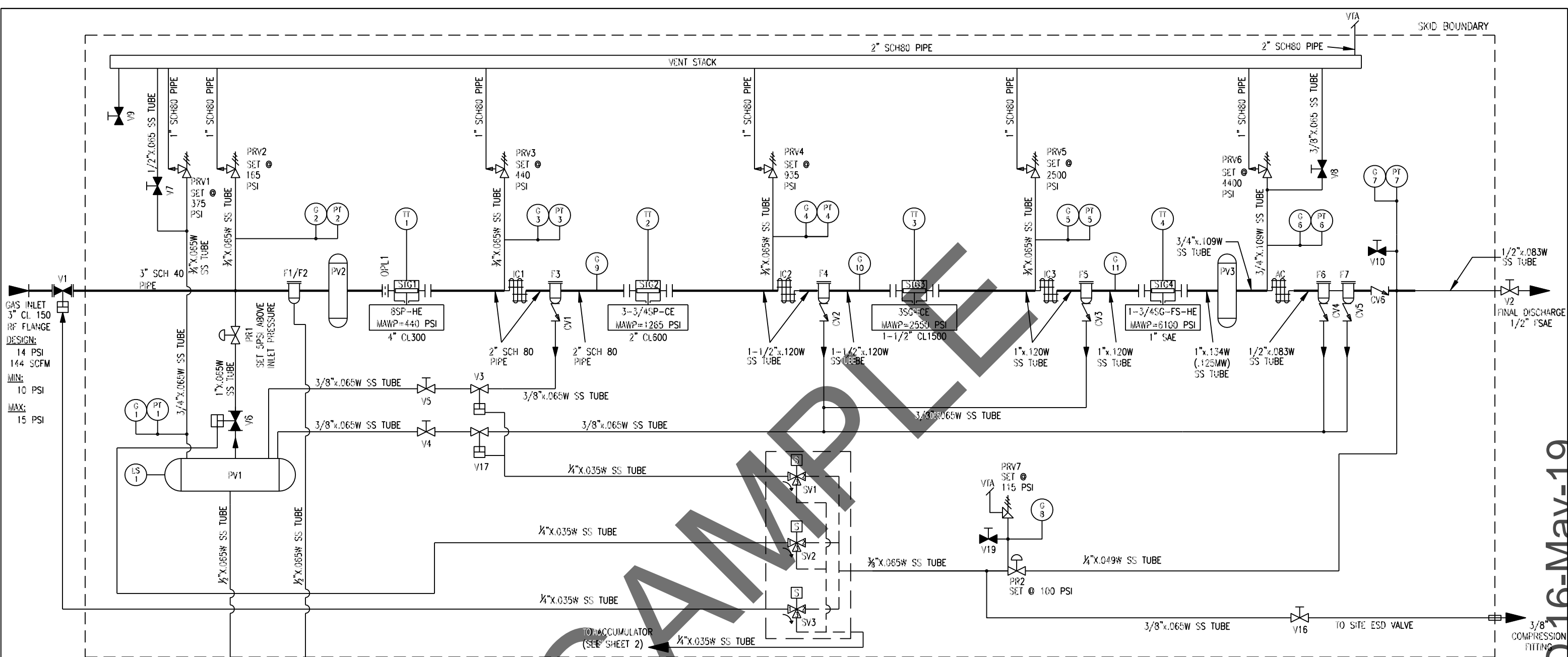


DETAIL I
INLET AND ENCLOSURE
BUMP OUT DETAIL
SCALE 0.125



	ANGI ENERGY SYSTEMS 305 W DELAWARE DR JANEVILLE, WI 53546 PH: 608-563-2800 WWW.ANGIENERGY.COM	UNLESS OTHERWISE SPECIFIED BREAK SHARP EDGES .005 - .015 ALL DIMENSIONS IN INCHES FRACTIONAL ± 1/8 TWO PLACE DECIMAL ± .010 THREE PLACE DECIMAL ± .005 ANGLES ± 1°	TITLE GENERAL LAYOUT-NG300E SIMPLEX-SIDE PENETRATION
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	DRAWN BY JFO	DATE 11/09/2017	DRAWING NO. A05-10-ES-SIDE
			REV C

ANGI RELEASED 11-Jan-19



DESIGN:
14 PSI
144 SCFM
MIN:
10 PSI
MAX:
15 PSI

DESIGNATOR	PART NUMBER	TOTAL QTY	DESCRIPTION
V16	334-07662	1	VALVE-BALL MERIT 1/4 1000# SS F.P. (MV416)

V11,12	334-07253	2	VALVE-40# 1/2 FNPT 10,000# (MLV27)
V10,19	330-07281	2	VALVE-BORGE 1/4 MNPT 6000# SS (BV7)
V9	334-07284	1	VALVE-BALL MV 1/2 600# W/LOCK (MV167)
V7,8	330-07231	2	VALVE-PURGE 1/4 FML 6000# AG (BV3)
V6	334-07470	1	VALVE/ACT-SVF 1 NC (MV265)
V4,5	330-02424	2	VALVE-BALL HOKE 3/8 6000# SS (MV4)
V3,17	334-07497	2	VALVE/ACT-SVF SAE-8 NO 6000# (MV287)
V2	334-07543	1	VALVE-BALL SVF SAE-8 6000# W/LOCK (MV332)
V1	334-07504	1	VALVE/ACT-SVF 3CL150 CS (MV294)
TT1-4	700-08041	4	RTD ASSY-400F MAX 5700# W/TWELL (RTD14)
SV1-3	337-07277	1	VALVE-SOL 3WY 150# 120V NC (SV50)
PV3	B02-88-018	1	PULSATION BOTTLE, 90CU-IN, 6100# MAWP
PV2	B02-16-020	1	PULSATION BOTTLE, 4X3 CL150 1060CU-IN
PV1	Q44-07289	1	TANK-VERT 104GAL 375# (PV109)
PT6,7	410-07298	2	TRANSD 0-6000# IS/UL (PT60)

PT5	410-07297	1	TRANSD 0-3000# IS/UL M12x1 (PT59)
PT4	410-07295	1	TRANSD 0-1000# IS/UL M12x1 (PT57)
PT2	410-07292	1	TRANSD 0-100# IS/UL M12x1 (PT54)
PT1,3	410-07294	2	TRANSD 0-600# IS/UL M12x1 (PT56)
PRV7	331-08287	1	VALVE-RELIEF 115# 1/4 ASME REGO (SRV344)
PRV6	331-08048	1	VALVE-RELIEF 4400# C-ORF MERCER (SRV148)
PRV5	331-08043	1	VALVE-RELIEF 2500# C-ORF MERCER (SRV143)
PRV4	331-08077	1	VALVE-RELIEF 935# D-ORF MERCER (SRV223)
PRV3	331-08160	1	VALVE-RELIEF 440# D-ORF MERCER (SRV252)
PRV2	331-08192	1	VALVE-RELIEF 165# E-ORF MERCER (SRV274)
PRV1	331-08242	1	VALVE-RELIEF 375# D-ORF MERCER (SRV321)
PR2	500-01674	1	REG-MECO PRIMARY W/O ENV CAP15 (PR13)
PR1	991-07667	1	REG-1" 15-40#SPRG 3/8ORF 627 (PR156)
OPL1	R1017	1	ORIFICE-PLATE 4" CL300 (2.14" HOLE)
LS1	485-02138	1	SWITCH-RECLVL MPHY L1100 EX1.5 (LLS7)

G8	741-07240	1	GAUGE-PRES 2000#/B BM PM GF WIKA (G22)
G6,7	741-07248	2	GAUGE-PRES 6000#/B BM PM GF WIKA (G30)
G5,11	741-07245	2	GAUGE-PRES 3000#/B BM PM GF WIKA (G27)
G4,10	741-07244	2	GAUGE-PRES 1500#/B BM PM GF WIKA (G26)
G2	741-07240	1	GAUGE-PRES 200#/B BM PM GF WIKA (G22)
G1,3,9	741-07243	3	GAUGE-PRES 600#/B BM PM GF WIKA (G25)
F7	772-07305	1	FILTER-ANGI SAE-16 GR4 COALESCING (F175)
F6	772-07304	1	FILTER-ANGI SAE-16 GR10 COALESCING (F174)
F5	772-07300	1	FILTER-ANGI SAE-12 SS 100 MICRON (F170)
F4	772-07303	1	FILTER-ANGI SAE-16 SS 100 MICRON (F173)
F3	772-07274	1	FILTER-FINITE MSBS COALESCING (F101)
F2	770-07283	1	ELEMENT-RSDL 13x30x150MESH (F52)
F1	770-07690	1	FILTER-RSDL 3 CL150 W/O ELEMENT (F283)
CV6	336-07260	1	VALVE-CHECK 1/2 FML 6000# (CV50)
CV1-5	336-07266	5	VALVE-CHECK 3/8 FML 6000# (CV55)

REV	DATE/BY	DESCRIPTION	REV	DATE/BY	DESCRIPTION
B	05/14/19 MPINN	CHANGE G2 TO 200# ACN1011303			
A	01/14/19 MCV	RELEASED			

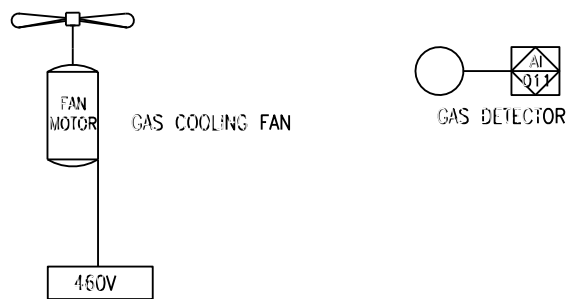


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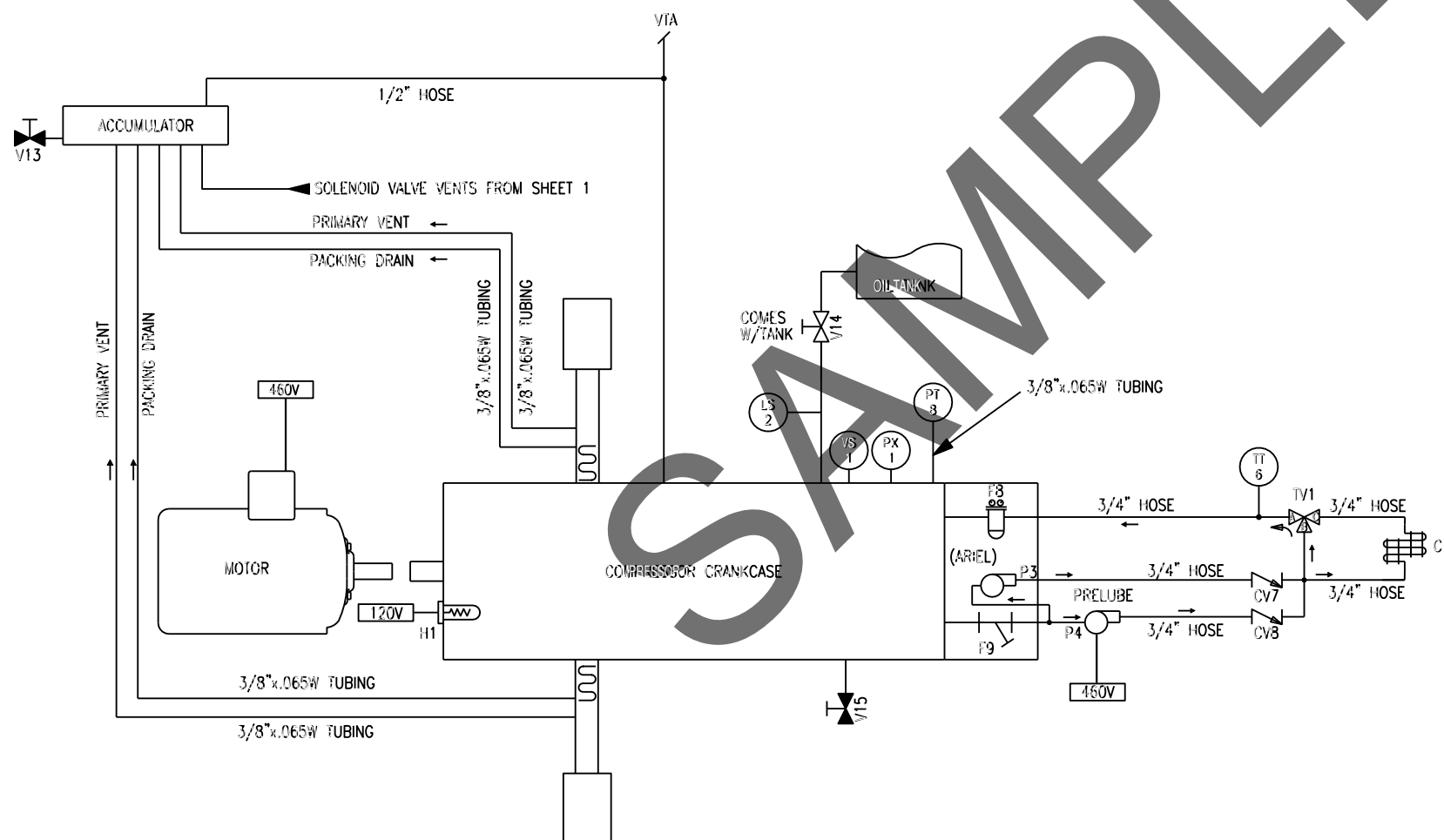
UNLESS OTHERWISE SPECIFIED
BREAK SHARP EDGES .005-.015
ALL DIMENSIONS IN INCHES
FRACTIONAL ± 1/8
TWO PLACE DECIMAL ± .010
THREE PLACE DECIMAL ± .005
ANGLES ± 1°

TITLE		CUSTOMER		PROJECT NO.	
2 THROW, 4 STAGE COMPRESSOR PIPING AND INSTRUMENTATION PIPING SYSTEM		RTC -- RENO		50726	
DRN	MCV	DATE	SCALE	DRAWING NO.	REV.
CHK	ADM	01/12/19	NA	A05--20--50726	B
DATE	BY	SHT	TOT		
01/14/19		1	2		

ANGI RELEASED 16-May-19



LEGEND			
C	= OIL COOLER	PX	= PROXIMITY SWITCH
CV	= CHECK VALVE	PT	= PRESSURE TRANSDUCER
F	= FILTER	PV	= PRESSURE VESSEL
G	= PRESSURE GAUGE	SV	= SOLENOID VALVE
LS	= LEVEL SWITCH	T	= THERMOMETER
N.C.	= NORMALLY CLOSED	TS	= TEMPERATURE SWITCH
N.O.	= NORMALLY OPEN	TT	= TEMPERATURE TRANSMITTER
OPL	= ORIFICE PLATE	TV	= THERMOSTATIC VALVE
P	= OIL PUMP	V	= MANUAL/ACTUATED VALVE
PR	= PRESSURE REGULATOR	VS	= VIBRATION SWITCH
PRV	= PRESSURE RELIEF VALVE	VTA	= VENT TO ATMOSPHERE



-	940-07237	1	TANK-OIL RESERVOIR 5 GAL 1/2FNPT
V15	334-07264	1	VALVE-BALL 1/2 600# W/LKG HDL BRONZE (MV74)
V14	334-07264	1	VALVE-BALL 1/2 BRONZE (SUPPLIED WITH TANK)
V13	334-07284	1	VALVE-BALL 1/2 600# BRONZE LKG HDL (MV167)
VS1	480-07246	1	SWITCH-VIBRATION MURPHY NON-EX (VS2)
TV1	330-07411	1	VALVE-THERMOSTATIC 3-WAY 1/2 160F (TV11)
TT6	700-08322	1	RTD - 0.5 x 1/2 1/2 FNPT W/THERMOWELL (RTD26)
PT8	410-07292	1	TRANSDUCER-PRESS 0-100# IS/UL M12x1 (PT54)
PX1	540-07235	1	PROXIMITY SWITCH - WHITLOCK (ARIEL SUPPLIED)
-	-	-	RESERVED
P4	904-07229	1	PUMP-PRELUBE 1/2 FNPT TUTHILL
P3		1	PUMP-OIL (ARIEL SUPPLIED)
C1	150-07375	1	COOLER-OIL 4.5KW, 100CFM, 2.7GPM 3/4" MJIC
LS2	485-07239	1	SWITCH-OIL MNT LIQUID LEVEL 9.5#MAX (LS17)
H1	707-07241	1	HEATER-OIL 1NPT 120V 150W (CH5)
F9		1	Y-STRAINER OIL (ARIEL SUPPLIED)
F8		1	FILTER-OIL (ARIEL SUPPLIED)
CV7,8	336-07231	2	VALVE-CHECK 1/2 FML BRASS 200# (CV24)
DESIGNATOR	PART NUMBER	TOTAL QTY	DESCRIPTION

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UNLESS OTHERWISE SPECIFIED

BREAK SHARP EDGES .005-.015
ALL DIMENSIONS IN INCHES

FRACTIONAL ± 1/8
TWO PLACE DECIMAL ±.010
THREE PLACE DECIMAL ±.005
ANGLES ±1°

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TITLE		CUSTOMER		PROJECT NO.	
2 THROW, 4 STAGE COMPRESSOR PIPING AND INSTRUMENTATION LUBRICATION CIRCUIT		RTC -- RENO		50726	
DRN	MVCV	DATE	01/12/19	SCALE	NA
CHK	ADM	DATE	01/14/19	SHT	2
DRAWING NO.			REV.		
A05--20--50726			B		

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Drawing No. A05-30-50726

Rev. A



ANGI Model No. NG-300E

PLC Horner

Inlet Pressure based on VVCP settings below:
 VVCP % VVCP Turns

Rev.A

HORNER PLC I/O	P&ID No.	Label	Check if Used	Transducer Range/Units	Signal	Minimum Normal Operation	Maximum Normal Operation	Relief Valve Setting	Low Shutdown	Low Warning	High Warning	High Shutdown
%AI001	PT2	Inlet Pressure	<input checked="" type="checkbox"/> I/O Active	0 - 100 psig	4-20 mA	8 psig	9 psig	165 psig	7 psig	8 psig	10 psig	10 psig
%AI002	PT7	Final Pressure	<input checked="" type="checkbox"/> I/O Active	0 - 6000 psig	4-20 mA		3636 psig	4400 psig	-100 psig	-50 psig	4106 psig	4200 psig
%AI003	PT8	Compressor Oil	<input checked="" type="checkbox"/> I/O Active	0 - 100 psig	4-20 mA	50 psig	70 psig		45 psig	50 psig	80 psig	90 psig
%AI004	PT1	Receiver Tank Pressure	<input checked="" type="checkbox"/> I/O Active	0 - 600 psig	4-20 mA			375 psig	-100 psig	-50 psig	331 psig	338 psig
%AI005	PT3	Stage 1 Pressure	<input checked="" type="checkbox"/> I/O Active	0 - 600 psig	4-20 mA			440 psig	-100 psig	-50 psig	388 psig	396 psig
%AI006	PT4	Stage 2 Pressure	<input checked="" type="checkbox"/> I/O Active	0 - 1000 psig	4-20 mA			935 psig	-100 psig	-50 psig	825 psig	842 psig
%AI007	PT5	Stage 3 Pressure	<input checked="" type="checkbox"/> I/O Active	0 - 3000 psig	4-20 mA			2500 psig	-100 psig	-50 psig	2205 psig	2250 psig
%AI008	PT6	Stage 4 Pressure	<input checked="" type="checkbox"/> I/O Active	0 - 6000 psig	4-20 mA			4400 psig	-100 psig	-50 psig	3881 psig	3960 psig
%AI009	PT9 or DP1	Stage 5 Pressure, Dryer Dew Point(opt.)	<input type="checkbox"/> I/O Active		4-20 mA				-100 psig	-50 psig		
%AI010	PT	Control Air Pressure (opt.)	<input type="checkbox"/> I/O Active	0 - 300 psig	4-20 mA				70 psig	80 psig	110 psig	115 psig
%AI011	GD1	Gas Detector LEL (opt.)	<input checked="" type="checkbox"/> I/O Active	0 - 100 %LEL	4-20 mA		20 % LEL		-6 % LEL	-5 % LEL	20 % LEL	40 % LEL
%AI012	PT60-1	Low Bank Pressure (opt.)	<input type="checkbox"/> I/O Active		4-20 mA				-100 psig	-50 psig	4500 psig	4600 psig
%AI013	PT60-2	Mid Bank Pressure (opt.)	<input type="checkbox"/> I/O Active		4-20 mA				-100 psig	-50 psig	4500 psig	4600 psig
%AI014	PT60-3	High Bank Pressure (opt.)	<input type="checkbox"/> I/O Active		4-20 mA				-100 psig	-50 psig	4500 psig	4600 psig
%AI015	TT7	Final Temperature (opt.)	<input type="checkbox"/> I/O Active	32 - 392 °F	4-20 mA				-40 DegF	-10 DegF	130 DegF	150 DegF
%AI016	TT1	Stage 1 Temperature	<input checked="" type="checkbox"/> I/O Active	32 - 392 °F	4-20 mA		300 DegF		-40 DegF	-10 DegF	349 DegF	350 DegF
%AI017	TT2	Stage 2 Temperature	<input checked="" type="checkbox"/> I/O Active	32 - 392 °F	4-20 mA		288 DegF		-40 DegF	-10 DegF	346 DegF	350 DegF
%AI018	TT3	Stage 3 Temperature	<input checked="" type="checkbox"/> I/O Active	32 - 392 °F	4-20 mA		312 DegF		-40 DegF	-10 DegF	349 DegF	350 DegF
%AI019	TT4	Stage 4 Temperature	<input checked="" type="checkbox"/> I/O Active	32 - 392 °F	4-20 mA		333 DegF		-40 DegF	-10 DegF	349 DegF	350 DegF
%AI020	TT6	Compressor Oil Temperature	<input checked="" type="checkbox"/> I/O Active	-58 - 212 °F	4-20 mA				-10 DegF	20 DegF		190 DegF
%AI021		Ambient Temp.(opt.)	<input type="checkbox"/> I/O Active	-58 - 122 °F	4-20 mA				-40 DegF	-20 DegF		120 DegF
%AI022		Time Fill Pressure #1 (opt.)	<input type="checkbox"/> I/O Active		4-20 mA				-100 psig	-50 psig	4400 psig	4450 psig
%AI023		Spare, Time Pressure #2 (opt.)	<input type="checkbox"/> I/O Active		4-20 mA				-100 psig	-50 psig	4400 psig	4450 psig
%AI024		Spare	<input type="checkbox"/> I/O Active	-	4-20 mA							
%AI025			<input type="checkbox"/> I/O Active	-	4-20 mA							
%AI026			<input type="checkbox"/> I/O Active	-	4-20 mA							
%AI027			<input type="checkbox"/> I/O Active	-	4-20 mA							
%AI028			<input type="checkbox"/> I/O Active	-	4-20 mA							



Ariel Performance



Company: ANGI Energy Systems
 Project #: AP034753 Rev:1
 Case 2: 10psi (75HP) MIN

Customer: RTC
 Inquiry:
 Project: RTC Reno Upgrade

Compressor Data:

Elevation,ft:	4500.00	Barmtr,psia:	12.435	Ambient,F:	105.00
Frame:	JGP/2	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	12000	Max RL Tens, lbf:	6000	Max RL Comp, lbf:	7000
Rated RPM:	1800	Rated BHP:	170.0	Rated PS FPM:	900.0
Calc RPM:	1775.0	BHP:	62	Calc PS FPM:	887.5

Driver Data:

Type:	Electric
Mfg:	
Model:	
BHP:	75
Avail:	75

Disch Temp

Services

Gas Model

Service 1

VMG-APRNL2

Stage Data:

	1 (SG)	2	3	4
Target Flow, SCFM	150.000	150.000	150.000	150.000
Flow Calc, SCFM	121.052	121.009	120.757	120.695
BHP per Stage	15.7	12.4	13.5	14.2
Specific Gravity	0.5900	0.5883	0.5816	0.5803
Ratio of Sp Ht (N)	1.2623	1.2632	1.2725	1.2852
Comp Suct (Zs)	0.9963	0.9883	0.9680	0.8983
Comp Disch (Zd)	0.9950	0.9863	0.9703	0.9963
Pres Suct Line, psig	10.00	N/A	N/A	N/A
Pres Suct Flg, psig	10.00	75.00	238.48	891.22
Pres Disch Flg, psig	77.40	244.18	901.36	3636.12
Pres Disch Line, psig	N/A	N/A	N/A	3600.00
Pres Ratio F/F	4.004	2.935	3.642	4.038
Temp Suct, F	80.00	115.00	115.00	115.00
Temp Clr Disch, F	115.00	115.00	115.00	115.00

Cylinder Data:

	Throw 2	Throw 2	Throw 1	Throw 1
Cyl Model	8SP-HE	3-3/4SP-CE	3SG-CE	1-3/4SG-FS-HE
Cyl Bore, in	8.000	3.750	3.000	1.250
Cyl RDP (API), psig	400.0	1150.0	2318.2	5545.5
Cyl MAWP, psig	440.0	1265.0	2550.0	6100.0
Cyl Action	HE	CE	CE	HE
Cyl Disp, CFM	154.9	31.0	18.7	3.8
Pres Suct Intl, psig	7.72	68.54	233.15	883.94
Temp Suct Intl, F	88	120	120	120
Pres Disch Intl, psig	84.96	262.11	923.26	3669.55
Temp Disch Intl, F	300	288	312	<u>333</u>
HE Suct Gas Vel, FPM	10881	0	0	3018
HE Disch Gas Vel, FPM	9716	N/A	N/A	3304
HE Spcrs Used/Max	0/2	N/A	N/A	N/A
HE Vol Pkt Avail, %	No Pkt	N/A	N/A	No Pkt
Vol Pkt Used, %	No Pkt	N/A %	N/A %	No Pkt
HE Min Clr, %	19.32	N/A	N/A	24.00
HE Total Clr, %	19.32	N/A	N/A	24.00
CE Suct Gas Vel, FPM	0	9523	5085	0
CE Disch Gas Vel, FPM	N/A	8752	5196	N/A
CE Spcrs Used/Max	N/A	0/2	N/A	N/A
CE Min Clr, %	N/A	16.28	29.67	N/A
CE Total Clr, %	N/A	16.28	29.67	N/A
Suct Vol Eff HE/CE, %	53.0/N/A	N/A/71.8	N/A/40.5	51.6/N/A
Disch Event HE/CE, ms	4.3/N/A	N/A/6.8	N/A/4.6	<u>4.3</u> /N/A
Suct Pseudo-Q HE/CE	9.3/N/A	N/A/8.3	N/A/2.5	1.3/N/A
Gas Rod Ld Comp, %	45.6 C	45.6 C	64.0 C	64.0 C
Gas Rod Ld Tens, %	44.0 T	44.0 T	52.2 T	52.2 T
Gas Rod Ld Total, %	48.6	48.6	63.4	63.4
Xhd Pin Deg/%RvrsI lbf	173/71.0	173/71.0	127/88.5	127/88.5
Flow Calc, SCFM	121.052	121.009	120.757	120.695
Cyl BHP	15.7	12.4	13.5	14.2



Ariel Performance



Company: ANGI Energy Systems
 Project #: AP034753 Rev:1
 Case 1: 14psi (75HP) DESIGN

Customer: RTC
 Inquiry:
 Project: RTC Reno Upgrade

7.7.6.0

Compressor Data:

Elevation,ft:	4500.00	Barmtr,psia:	12.435	Ambient,F:	105.00
Frame:	JGP/2	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	12000	Max RL Tens, lbf:	6000	Max RL Comp, lbf:	7000
Rated RPM:	1800	Rated BHP:	170.0	Rated PS FPM:	900.0
Calc RPM:	1775.0	BHP:	70	Calc PS FPM:	887.5

Driver Data:

Type:	Electric
Mfg:	
Model:	
BHP:	75
Avail:	75

Services

Gas Model

Service 1

VMG-APRNL2

Stage Data:

1 (SG)

2

3

4

Target Flow, SCFM	150.000	150.000	150.000	150.000
Flow Calc, SCFM	144.323	144.254	143.854	143.787
BHP per Stage	18.6	14.2	15.6	15.7
Specific Gravity	0.5900	0.5881	0.5796	0.5784
Ratio of Sp Ht (N)	1.2619	1.2639	1.2744	1.2867
Comp Suct (Zs)	0.9956	0.9864	0.9644	0.8917
Comp Disch (Zd)	0.9941	0.9841	0.9677	0.9915
Pres Suct Line, psig	14.00	N/A	N/A	N/A
Pres Suct Flg, psig	14.00	89.48	268.27	966.83
Pres Disch Flg, psig	92.20	274.45	977.40	3636.12
Pres Disch Line, psig	N/A	N/A	N/A	3600.00
Pres Ratio F/F	3.958	2.815	3.526	3.726
Temp Suct, F	80.00	115.00	115.00	115.00
Temp Clr Disch, F	115.00	115.00	115.00	115.00

Cylinder Data:

Throw 2

Throw 2

Throw 1

Throw 1

Cyl Model	8SP-HE	3-3/4SP-CE	3SG-CE	1-3/4SG-FS-HE
Cyl Bore, in	8.000	3.750	3.000	1.250
Cyl RDP (API), psig	400.0	1150.0	2318.2	5545.5
Cyl MAWP, psig	440.0	1265.0	2550.0	6100.0
Cyl Action	HE	CE	CE	HE
Cyl Disp, CFM	154.9	31.0	18.7	3.8
Pres Suct Intl, psig	11.31	81.93	262.29	958.90
Temp Suct Intl, F	88	120	120	120
Pres Disch Intl, psig	101.04	294.69	1001.22	3670.18
Temp Disch Intl, F	298	281	308	320
HE Suct Gas Vel, FPM	10881	0	0	3018
HE Disch Gas Vel, FPM	9716	N/A	N/A	3304
HE Spcrs Used/Max	0/2	N/A	N/A	N/A
HE Vol Pkt Avail, %	No Pkt	N/A	N/A	No Pkt
Vol Pkt Used, %	No Pkt	N/A %	N/A %	No Pkt
HE Min Clr, %	19.32	N/A	N/A	24.00
HE Total Clr, %	19.32	N/A	N/A	24.00
CE Suct Gas Vel, FPM	0	9523	5085	0
CE Disch Gas Vel, FPM	N/A	8752	5196	N/A
CE Spcrs Used/Max	N/A	0/2	N/A	N/A
CE Min Clr, %	N/A	16.28	29.67	N/A
CE Total Clr, %	N/A	16.28	29.67	N/A
Suct Vol Eff HE/CE, %	53.6/N/A	N/A/73.3	N/A/42.9	56.3/N/A
Disch Event HE/CE, ms	4.4/N/A	N/A/6.9	N/A/4.8	4.7/N/A
Suct Pseudo-Q HE/CE	9.3/N/A	N/A/8.3	N/A/2.5	1.3/N/A
Gas Rod Ld Comp, %	53.0 C	53.0 C	64.0 C	64.0 C
Gas Rod Ld Tens, %	49.0 T	49.0 T	55.6 T	55.6 T
Gas Rod Ld Total, %	55.4	55.4	65.1	65.1
Xhd Pin Deg/%Rvrs lbf	180/73.2	180/73.2	128/87.8	128/87.8
Flow Calc, SCFM	144.323	144.254	143.854	143.787
Cyl BHP	18.6	14.2	15.6	15.7



Ariel Performance



Company: ANGI Energy Systems
 Project #: AP034753 Rev:1
 7.7.6.0 Case 3: 15psi (75HP) MAX

Customer: RTC
 Inquiry:
 Project: RTC Reno Upgrade

Compressor Data:

Elevation,ft:	4500.00	Barmtr,psia:	12.435	Ambient,F:	105.00
Frame:	JGP/2	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	12000	Max RL Tens, lbf:	6000	Max RL Comp, lbf:	7000
Rated RPM:	1800	Rated BHP:	170.0	Rated PS FPM:	900.0
Calc RPM:	1775.0	BHP:	72	Calc PS FPM:	887.5

Driver Data:

Type:	Electric
Mfg:	
Model:	
BHP:	75
Avail:	75

Services

Gas Model

Service 1

VMG-APRNL2

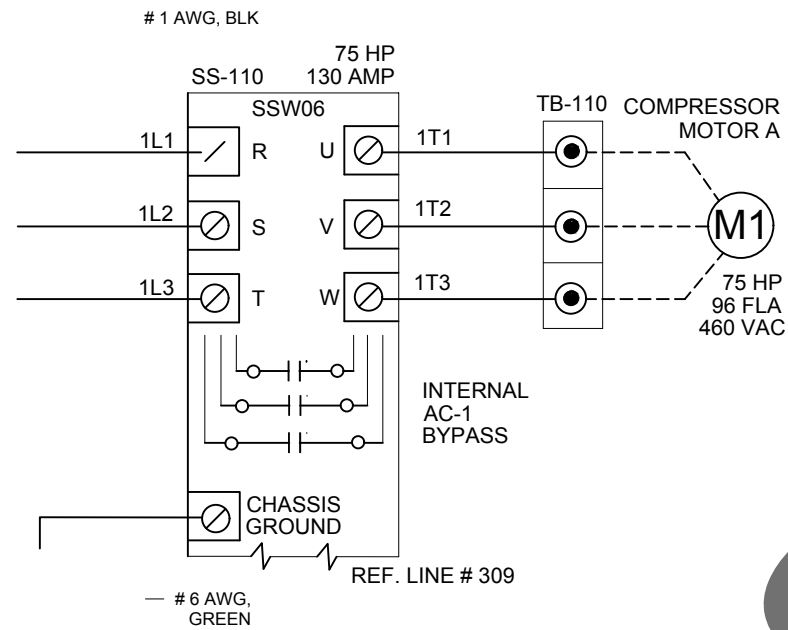
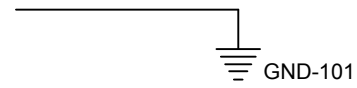
Stage Data:

	1 (SG)	2	3	4
Target Flow, SCFM	150.000	150.000	150.000	150.000
Flow Calc, SCFM	150.756	150.021	148.356	147.785
BHP per Stage	19.4	14.6	16.0	16.0
Specific Gravity	0.5900	0.5883	0.5799	0.5789
Ratio of Sp Ht (N)	1.2631	1.2653	1.2751	1.2870
Comp Suct (Zs)	0.9953	0.9858	0.9636	0.8902
Comp Disch (Zd)	0.9938	0.9836	0.9671	0.9904
Pres Suct Line, psig	15.00	N/A	N/A	N/A
Pres Suct Flg, psig	15.00	92.80	273.62	979.50
Pres Disch Flg, psig	95.59	279.91	990.16	3636.12
Pres Disch Line, psig	N/A	N/A	N/A	3600.00
Pres Ratio F/F	3.937	2.778	3.505	3.678
Temp Suct, F	80.00	115.00	115.00	115.00
Temp Clr Disch, F	115.00	115.00	115.00	115.00

Cylinder Data:

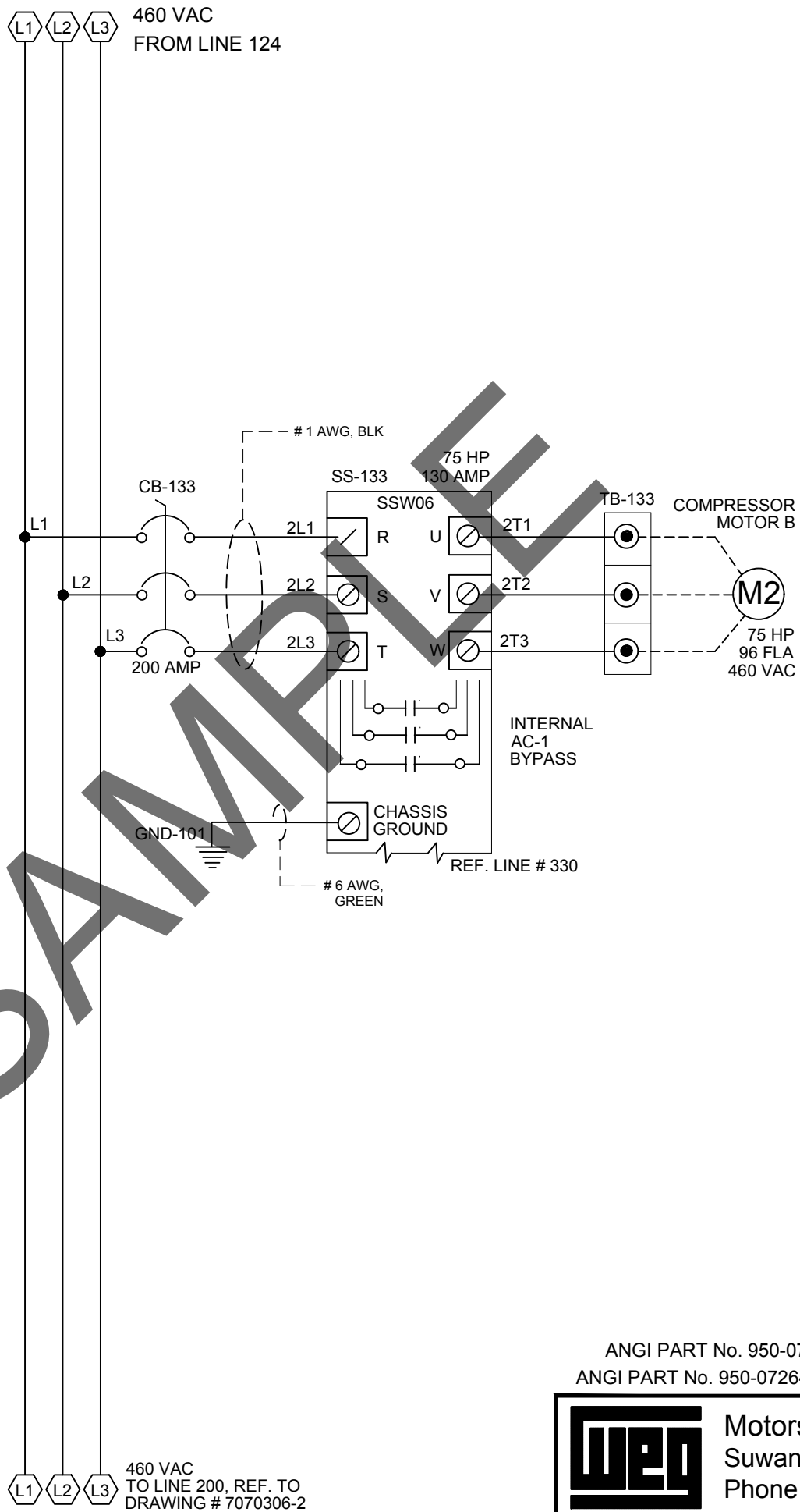
	Throw 2	Throw 2	Throw 1	Throw 1
Cyl Model	8SP-HE	3-3/4SP-CE	3SG-CE	1-3/4SG-FS-HE
Cyl Bore, in	8.000	3.750	3.000	1.250
Cyl RDP (API), psig	400.0	1150.0	2318.2	5545.5
Cyl MAWP, psig	440.0	1265.0	2550.0	6100.0
Cyl Action	HE	CE	CE	HE
Cyl Disp, CFM	154.9	31.0	18.7	3.8
Pres Suct Intl, psig	12.21	84.99	267.52	971.45
Temp Suct Intl, F	88	120	120	120
Pres Disch Intl, psig	104.72	300.60	1014.34	3670.33
Temp Disch Intl, F	298	280	308	318
HE Suct Gas Vel, FPM	10881	0	0	3018
HE Disch Gas Vel, FPM	9716	N/A	N/A	3304
HE Spcrs Used/Max	0/2	N/A	N/A	N/A
HE Vol Pkt Avail, %	No Pkt	N/A	N/A	No Pkt
Vol Pkt Used, %	No Pkt	N/A %	N/A %	No Pkt
HE Min Clr, %	19.32	N/A	N/A	24.00
HE Total Clr, %	19.32	N/A	N/A	24.00
CE Suct Gas Vel, FPM	0	9523	5085	0
CE Disch Gas Vel, FPM	N/A	8752	5196	N/A
CE Spcrs Used/Max	N/A	0/2	N/A	N/A
CE Min Clr, %	N/A	16.28	29.67	N/A
CE Total Clr, %	N/A	16.28	29.67	N/A
Suct Vol Eff HE/CE, %	53.9/N/A	N/A/73.8	N/A/43.4	57.0/N/A
Disch Event HE/CE, ms	4.4/N/A	N/A/7.0	N/A/4.9	4.7/N/A
Suct Pseudo-Q HE/CE	9.3/N/A	N/A/8.3	N/A/2.5	1.3/N/A
Gas Rod Ld Comp, %	54.6 C	54.6 C	64.0 C	64.0 C
Gas Rod Ld Tens, %	49.9 T	49.9 T	56.2 T	56.2 T
Gas Rod Ld Total, %	56.8	56.8	65.4	65.4
Xhd Pin Deg/%RvrsI lbf	180/73.8	180/73.8	128/87.6	128/87.6
Flow Calc, SCFM	150.756	150.021	148.356	147.785
Cyl BHP	19.4	14.6	16.0	16.0

POWER 460 VAC, 3-Ph., 50 / 60 Hz.



460 VAC FROM LINE 124

125
126
127
128
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130
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145
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147
148
149



COMPRESSOR A
SS - 110
PARAMETER SETTINGS:
P023 = VERSION 1.33
P201 = 1, ENGLISH
P202 = 0, VOLTAGE RAMP
P220 = 2, HMI
P229 = 1, DIGITAL INPUTS
P277 = 1, RL1 RUN
P278 = 7, FAULT
P279 = 7, FAULT
P295 = 130 AMP
P296 = 220-575 VAC
P400 = 460 VAC, MOTOR VOLT.
P401 = 96, MOTOR FLA
P402 = 1780, MOTOR SPEED
P404 = 75 HP // 55.5 KW
P405 = 0.89 POWER FACTOR
P406 = 1.00 SERVICE FACTOR
P616 = 1 UNDERCURRENT ACTIVE

COMPRESSOR B
SS - 133
PARAMETER SETTINGS:
P023 = VERSION 1.33
P201 = 1, ENGLISH
P202 = 0, VOLTAGE RAMP
P220 = 2, HMI
P229 = 1, DIGITAL INPUTS
P277 = 1, RL1 RUN
P278 = 7, FAULT
P279 = 7, FAULT
P295 = 130 AMP
P296 = 220-575 VAC
P400 = 460 VAC, MOTOR VOLT.
P401 = 96, MOTOR FLA
P402 = 1780, MOTOR SPEED
P404 = 75 HP // 55.5 KW
P405 = 0.89 POWER FACTOR
P406 = 1.00 SERVICE FACTOR
P616 = 1 UNDERCURRENT ACTIVE

LEGEND

- TERMINAL BLOCK, 120 VAC OR LESS
- ⊙ POWER TERMINAL, OVER 120 VAC
- WIRING TO BE ADDED BY CUSTOMER

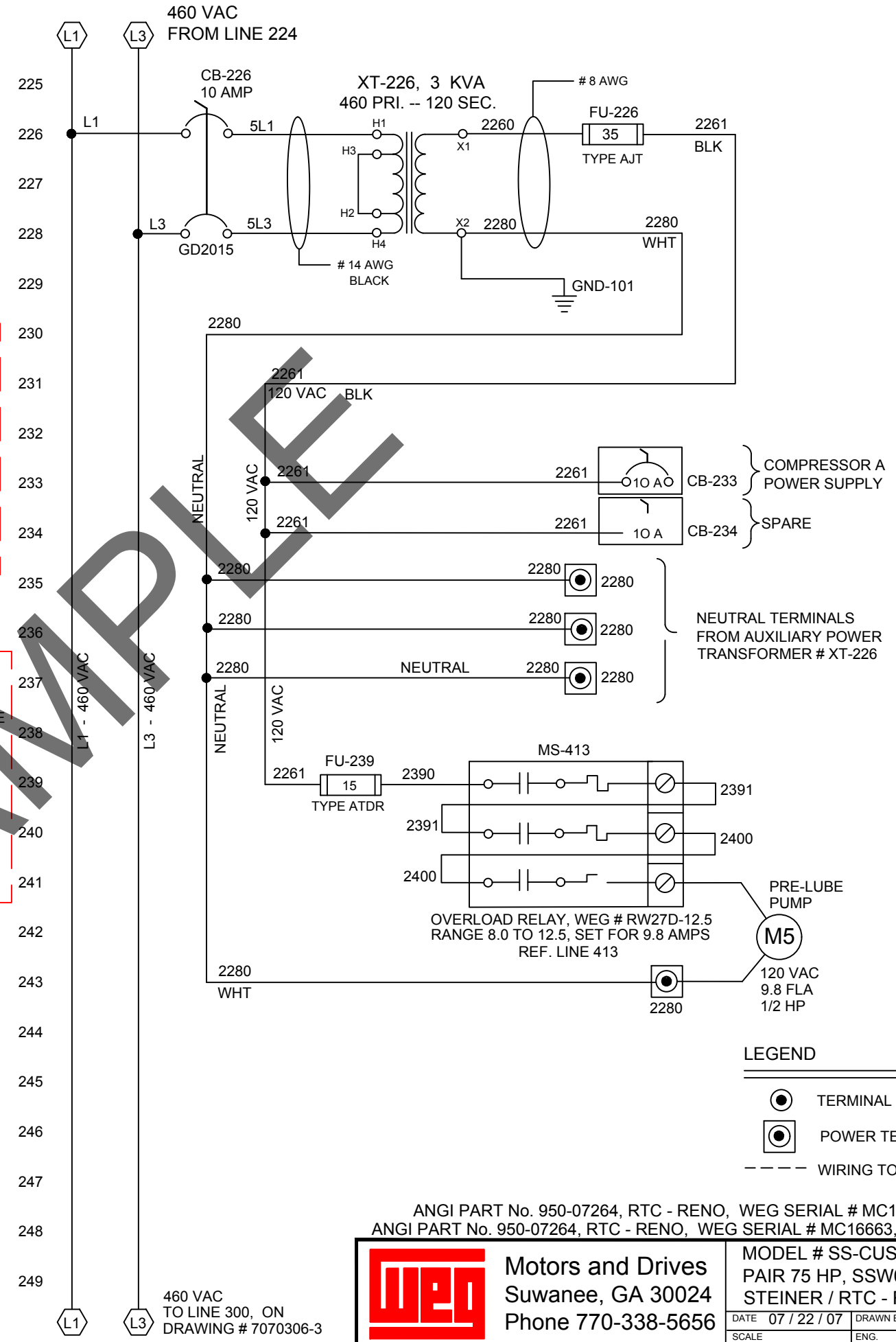
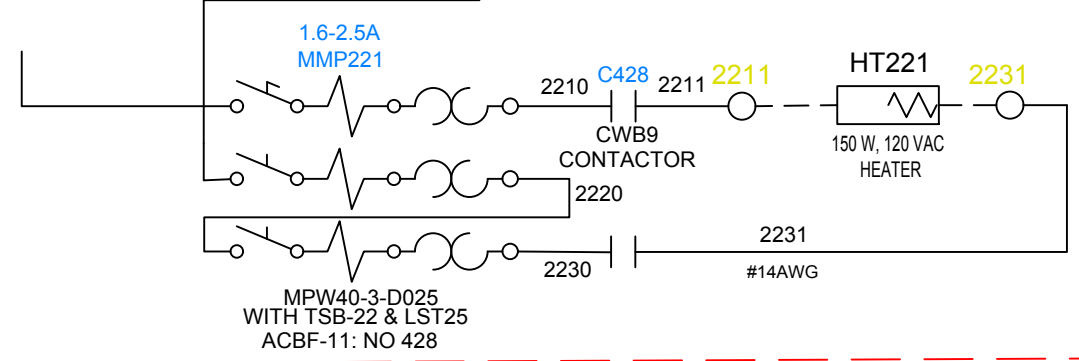
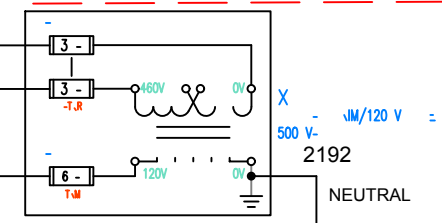
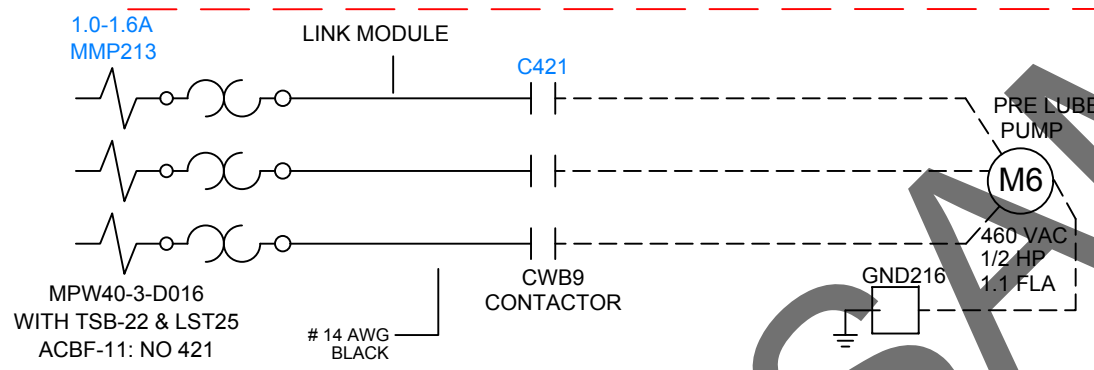
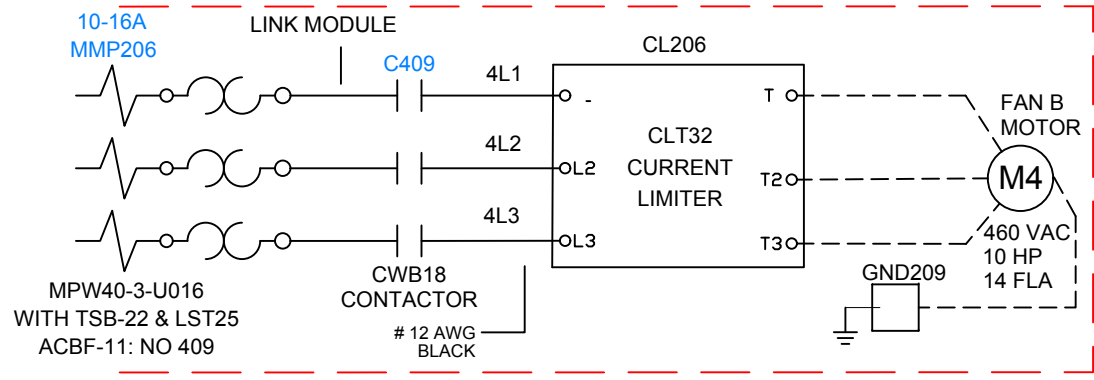
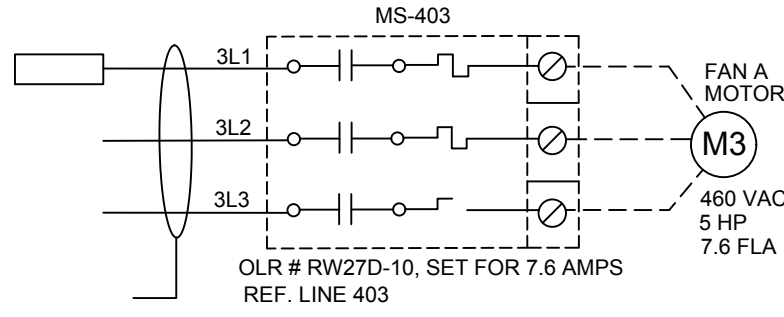
ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, AS BUILT: 08 / 21 / 07
ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, MODIFICATION: 02/19/2019

WEG Motors and Drives
Suwanee, GA 30024
Phone 770-338-5656

MODEL # SS-CUSTOM-00128, 460 VAC, N-3R
PAIR 75 HP, SSW06130 - S.O. # CHS.36256
STEINER / RTC - RENO, PO # S002168945

DATE 07 / 22 / 07	DRAWN BY PAP	DWG. NO. 7070306-1	REV 1.0
SCALE	ENG. MT	DWG. NO. 1 of 8	

FROM LINE 149
REF. DWG. # 7070306-1



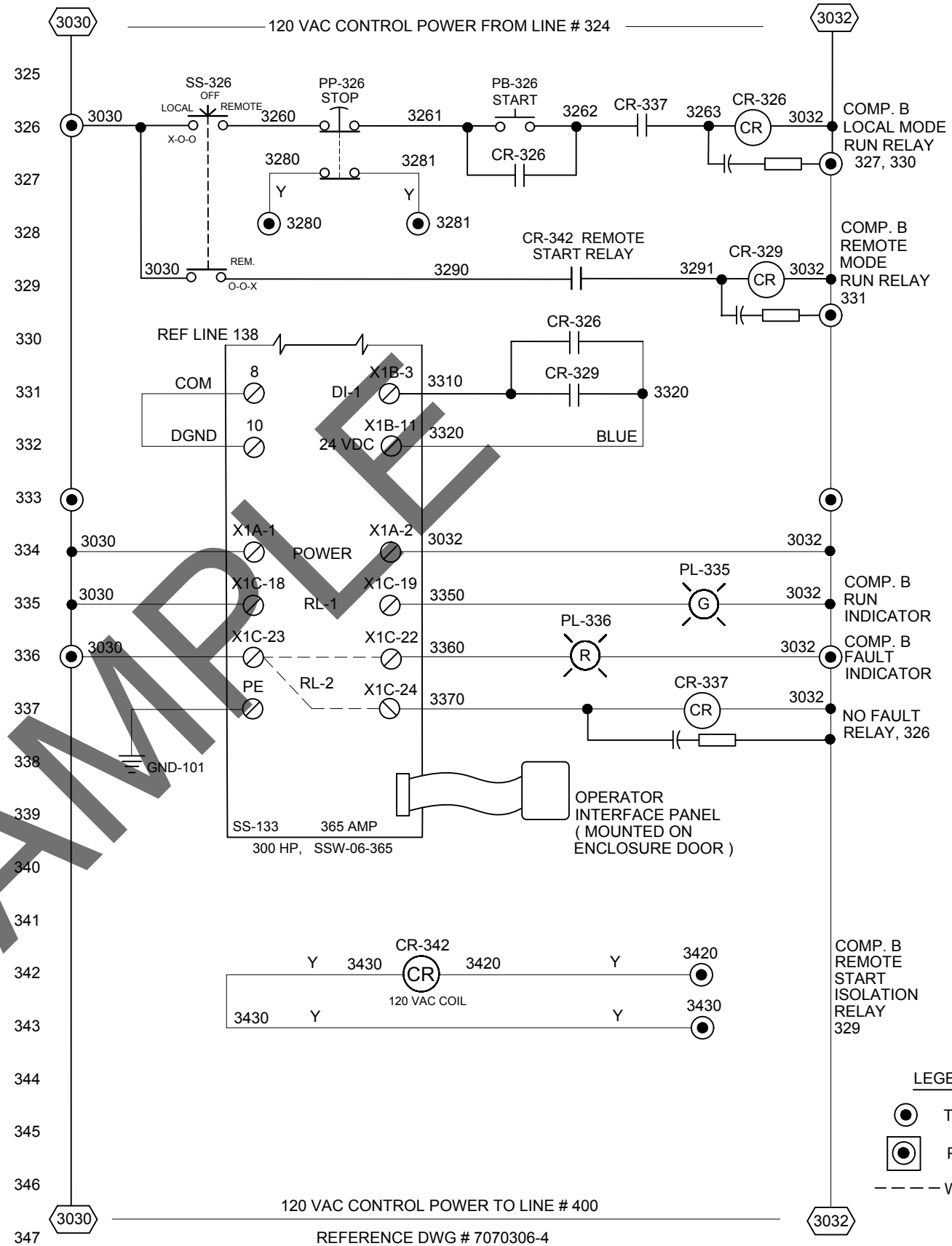
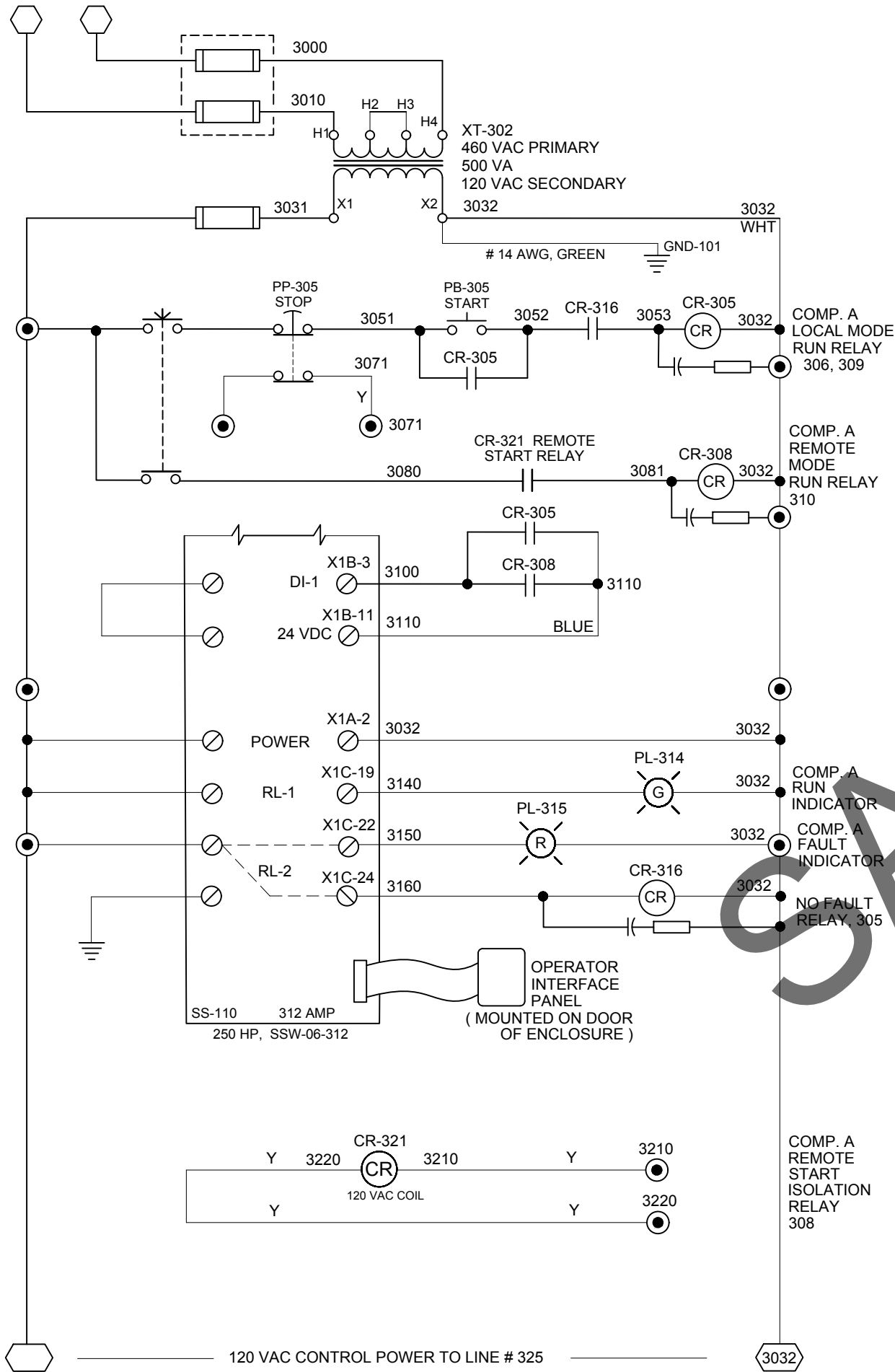
- LEGEND**
- TERMINAL BLOCK, 120 VAC OR LESS
 - POWER TERMINAL, OVER 120 VAC
 - WIRING TO BE ADDED BY CUSTOMER

ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, AS BUILT: 08 / 21 / 07
ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, MODIFICATION: 02/19/2019

WEG Motors and Drives
Suwanee, GA 30024
Phone 770-338-5656

MODEL # SS-CUSTOM-00128, 460 VAC, N-3R
PAIR 75 HP, SSW06130 - S.O. # CHS.36256
STEINER / RTC - RENO, PO # S002168945

DATE 07 / 22 / 07	DRAWN BY PAP	DWG. NO. 7070306-2	REV 28
SCALE	ENG. MT	DWG # 2 of 8	1.0



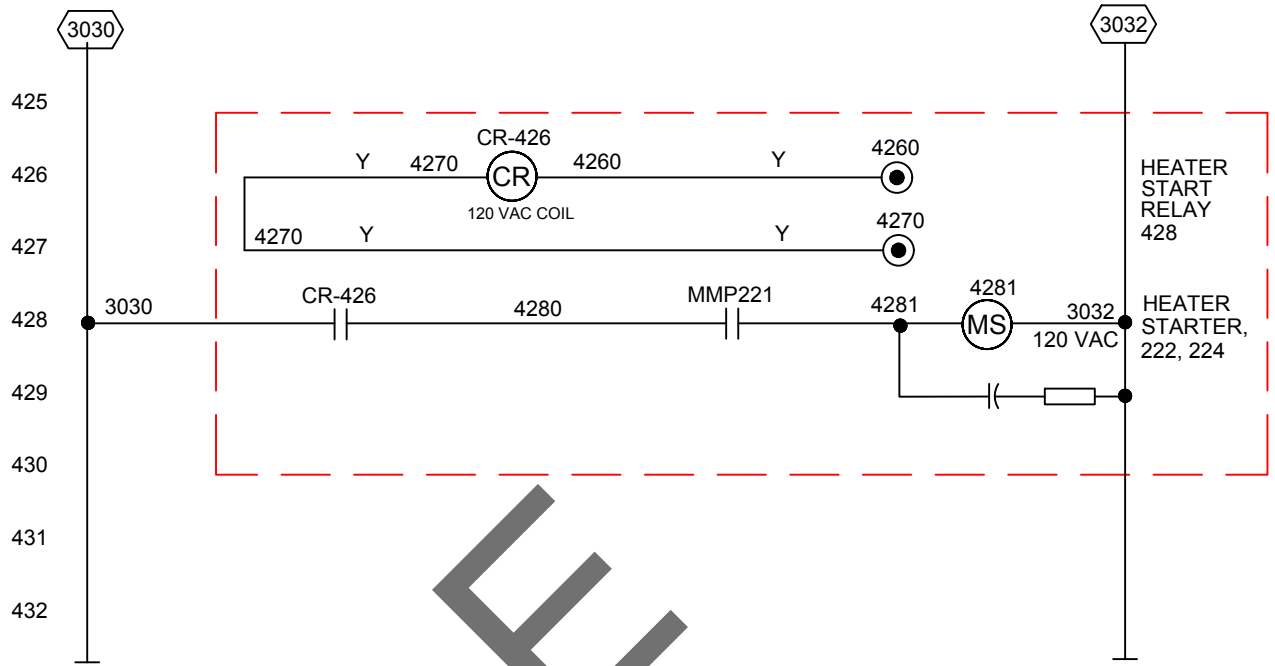
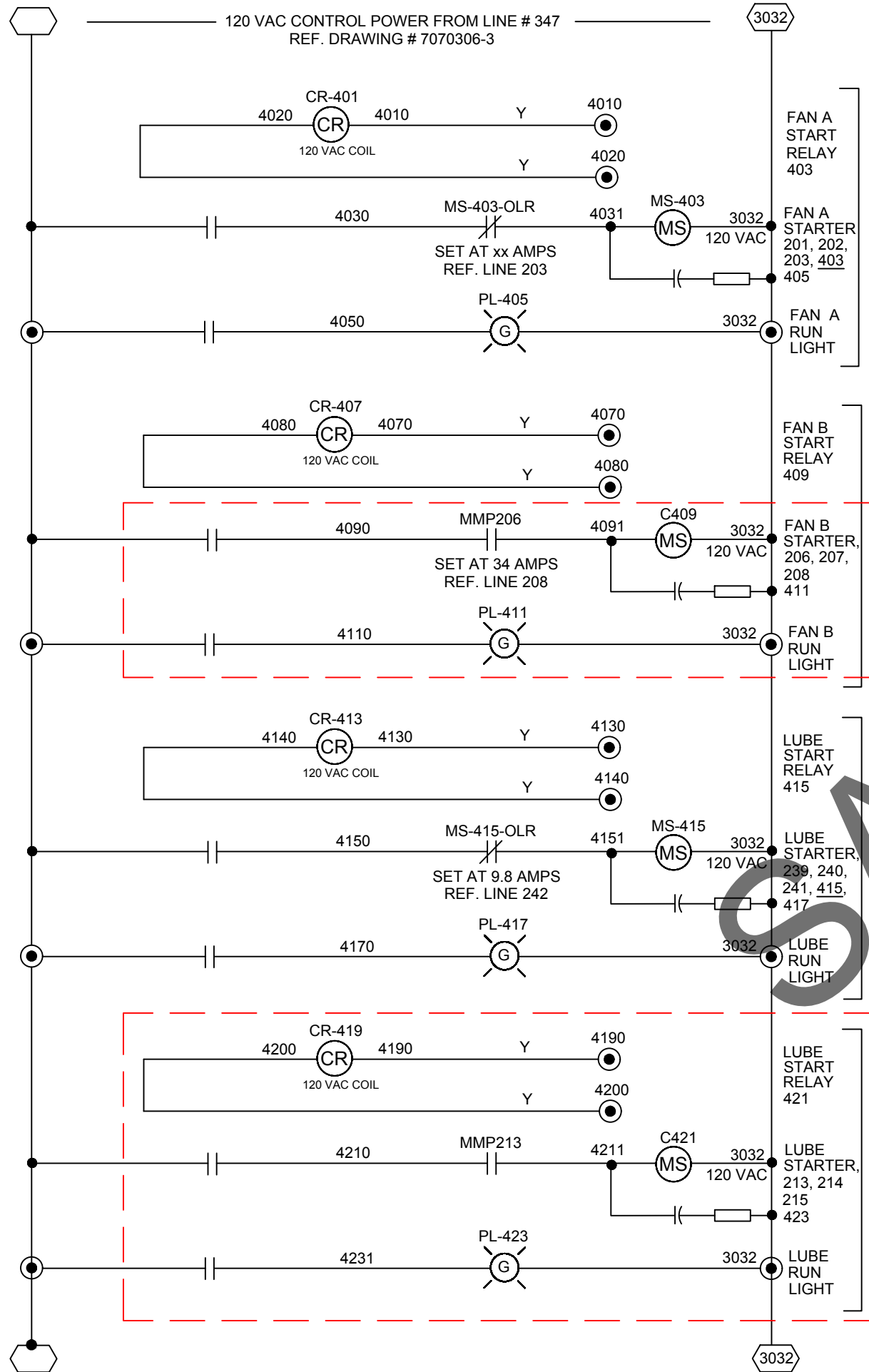
WARNING:
 MULTIPLE POWER SOURCES
 PRESENT IN THIS PANEL:
 DISCONNECTING MAIN BREAKER
 MAY NOT REMOVE POWER
 FROM ALL CIRCUITS.
 TEST ALL YELLOW WIRES
 BEFORE SERVICING.

NOTE:
 PARAMETER SETTINGS ARE
 LISTED ON DWG # 7040280-1

LEGEND
 TERMINAL BLOCK, 120 VAC OR LESS
 POWER TERMINAL, OVER 120 VAC
 - - - WIRING TO BE ADDED BY CUSTOMER

ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, AS BUILT: 08 / 21 / 07
 ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, MODIFICATION: 02/19/2019

	Motors and Drives Suwanee, GA 30024 Phone 770-338-5656	MODEL # SS-CUSTOM-00128, 460 VAC, N-3R PAIR 75 HP, SSW06130 - S.O. # CHS.36256 STEINER / RTC - RENO, PO # S002168945	
		DATE 07 / 22 / 07 SCALE	DRAWN BY PAP ENG. MT



WARNING:
MULTIPLE POWER SOURCES
PRESENT IN THIS PANEL:
DISCONNECTING MAIN BREAKER
MAY NOT REMOVE POWER
FROM ALL CIRCUITS.
TEST ALL YELLOW WIRES
BEFORE SERVICING.

CUSTOMER TERMINALS

⊖	CB-233	⊖	10-AMP, 120 VAC, COMP. A POWER SUPPLY
⊖	CB-234	⊖	10-AMP, 120 VAC, SPARE
⊖	2280	1	120 NEUTRAL
⊖	2280	2	120 NEUTRAL
⊖	2280	3	120 NEUTRAL
⊖	3070	4	COMPRESSOR A MANUALLY STOPPED
⊖	3071	5	
⊖	3210	6	COMPRESSOR A ISOLATED START RELAY
⊖	3220	7	
⊖	3280	8	COMPRESSOR B MANUALLY STOPPED
⊖	3281	9	
⊖	3420	10	COMPRESSOR B ISOLATED START RELAY
⊖	3430	11	
⊖	4010	12	FAN A START ISOLATED START RELAY
⊖	4020	13	
⊖	4070	14	FAN B START ISOLATED START RELAY
⊖	4080	15	
⊖	4130	16	PRE-LUBE PUMP ISOLATED START RELAY
⊖	4140	17	
⊖	4190	18	PRE-LUBE PUMP FOR COMPRESSOR B ISOLATED START RELAY
⊖	4120	19	
⊖	2231	20	HEATER TERMINALS
⊖	2192	21	
⊖	4260	22	
⊖	4270	23	HEATER START RELAY
⊖	SPARE		
⊖	SPARE		
⊖	GND	26	GROUND

LEGEND

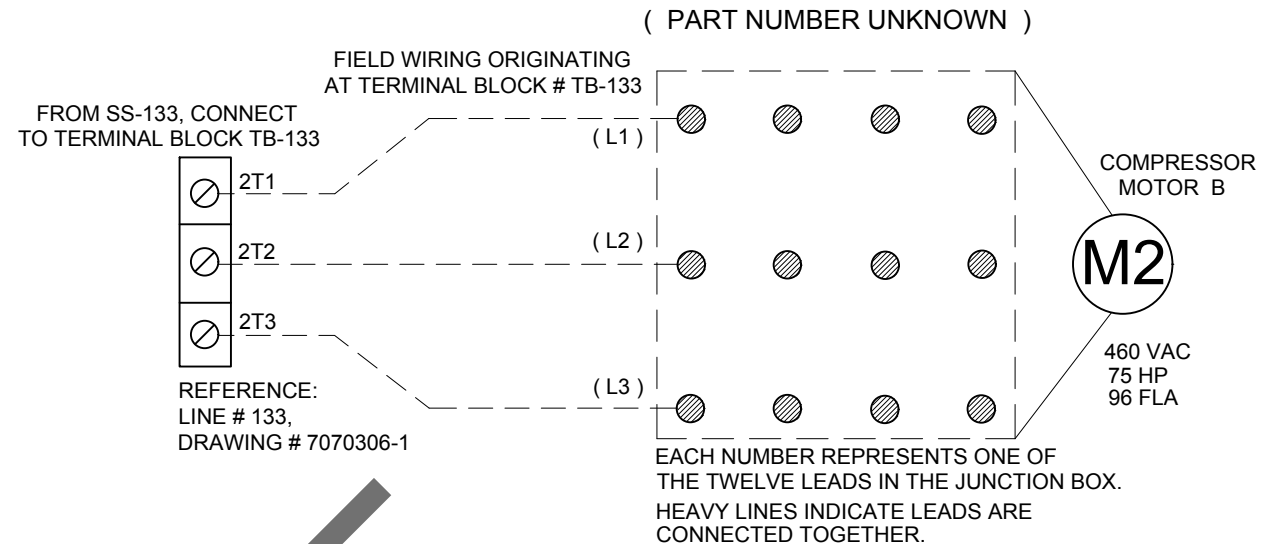
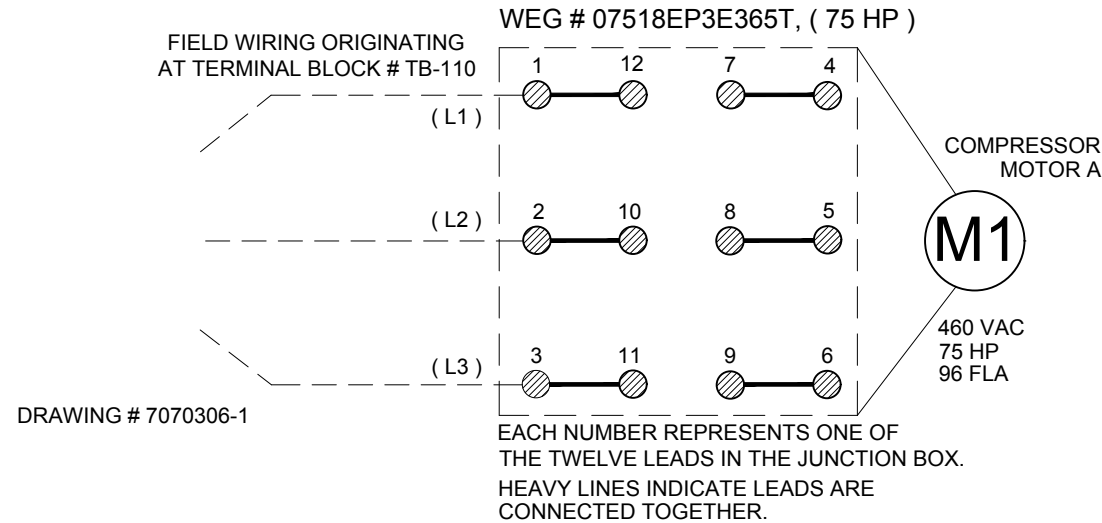
- ⊖ TERMINAL BLOCK, 120 VAC OR LESS
- ⊖ POWER TERMINAL, OVER 120 VAC
- WIRING TO BE ADDED BY CUSTOMER

ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, AS BUILT: 08 / 21 / 07
ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, MODIFICATION: 02/19/2019

WEG Motors and Drives
Suwanee, GA 30024
Phone 770-338-5656

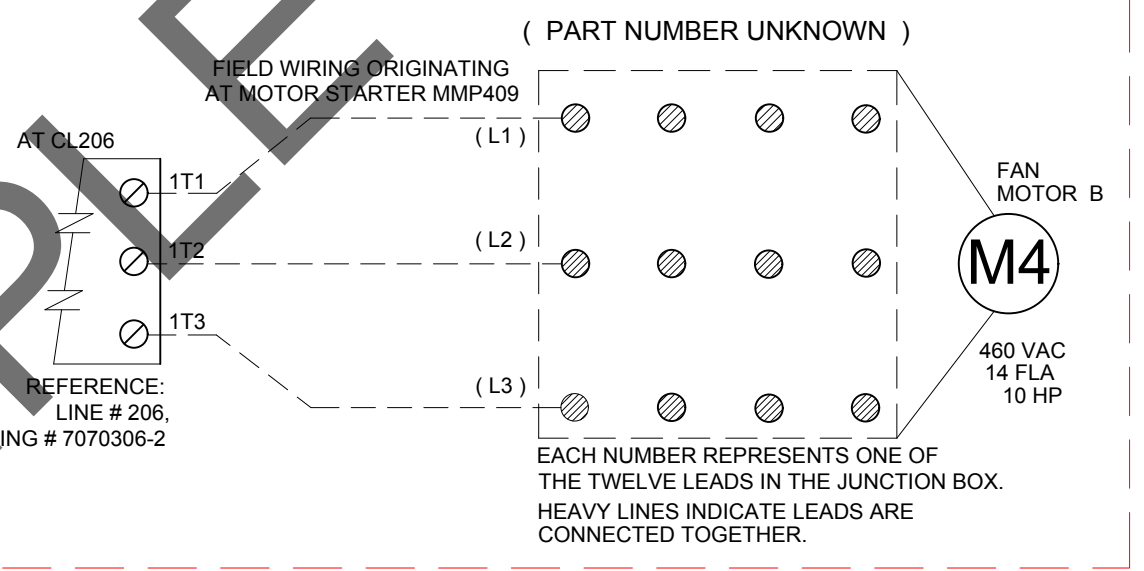
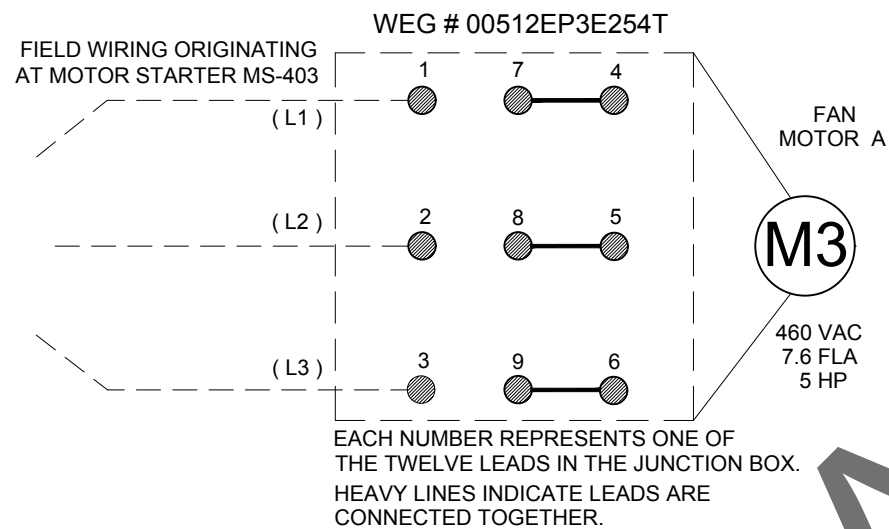
MODEL # SS-CUSTOM-00128, 460 VAC, N-3R
PAIR 75 HP SSW06130 - S.O. # CHS.36256
STEINER / RTC - RENO, PO # S002168945

DATE 07 / 22 / 07	DRAWN BY PAP	DWG. NO. 7070306-4	REV 1.0
SCALE	ENG. MT	DWG. # 4 of 8	

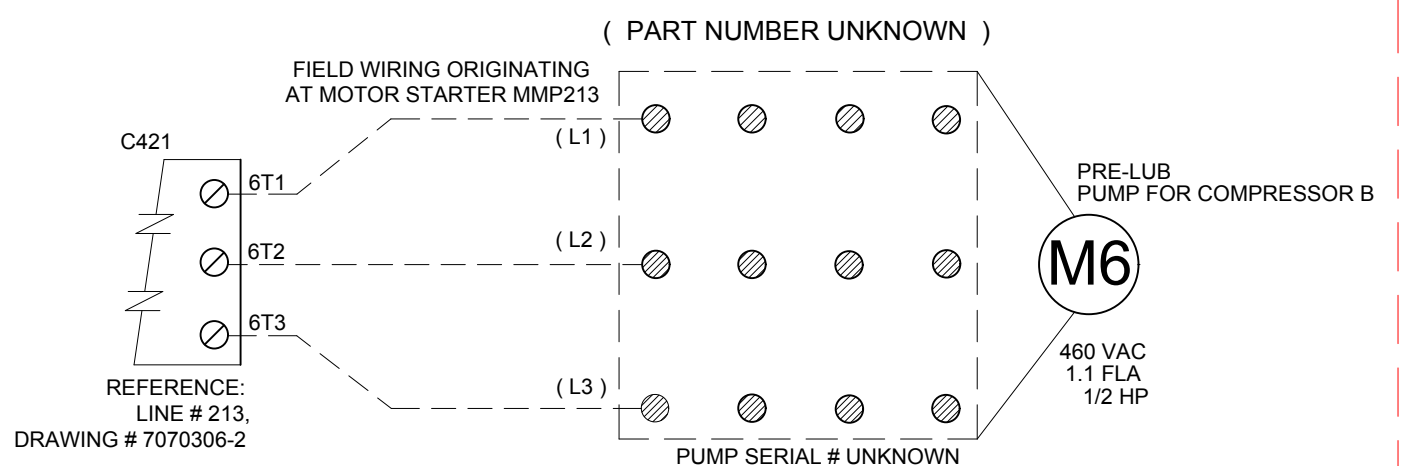
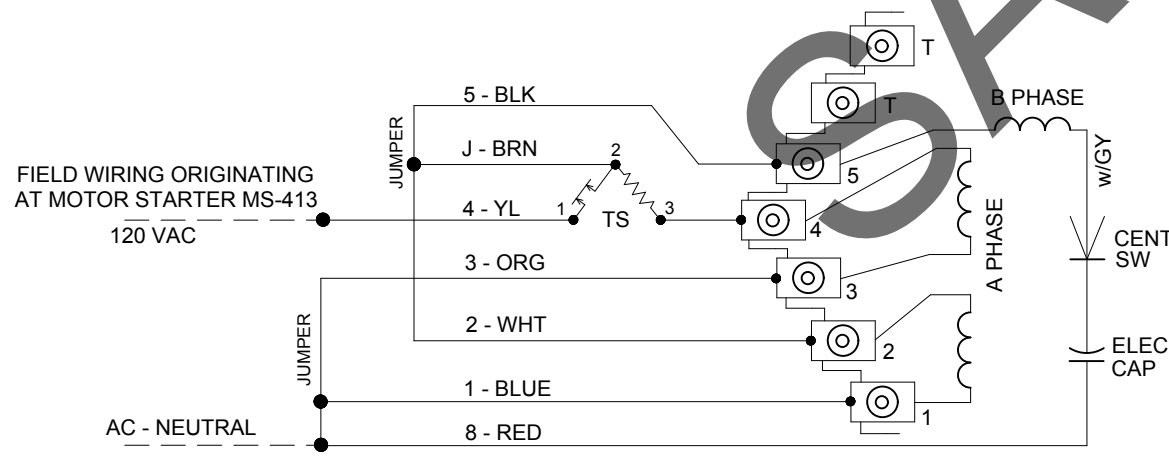


DRAWING # 7070306-1

REFERENCE: LINE # 133, DRAWING # 7070306-1



REFERENCE: LINE # 206, DRAWING # 7070306-2



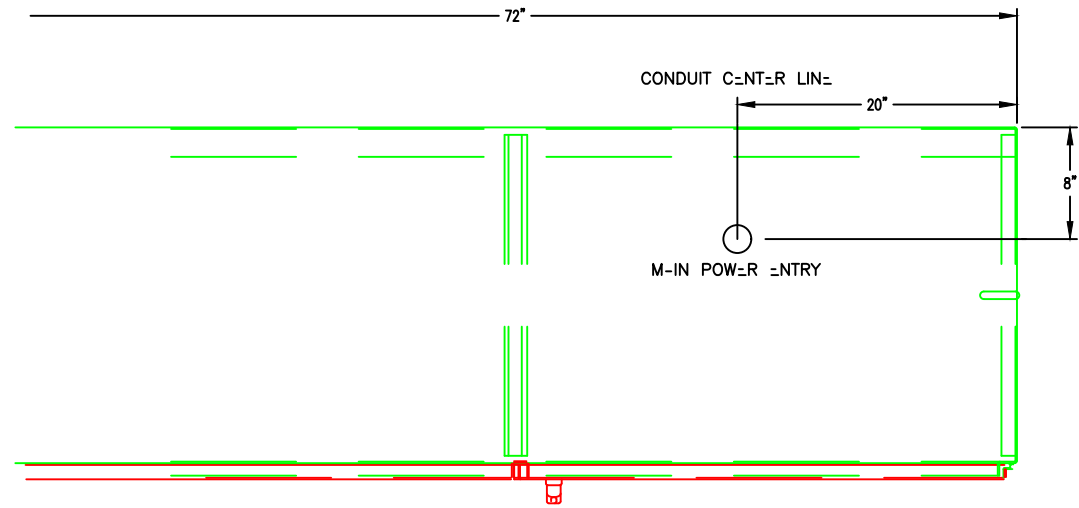
REFERENCE: LINE # 213, DRAWING # 7070306-2

PRE-LUBE PUMP MOTOR M5
ANGI # 976-07260
BALDOR # CL5004A
CONNECTION SHOWN IS FOR 120 VAC, STANDARD ROTATION

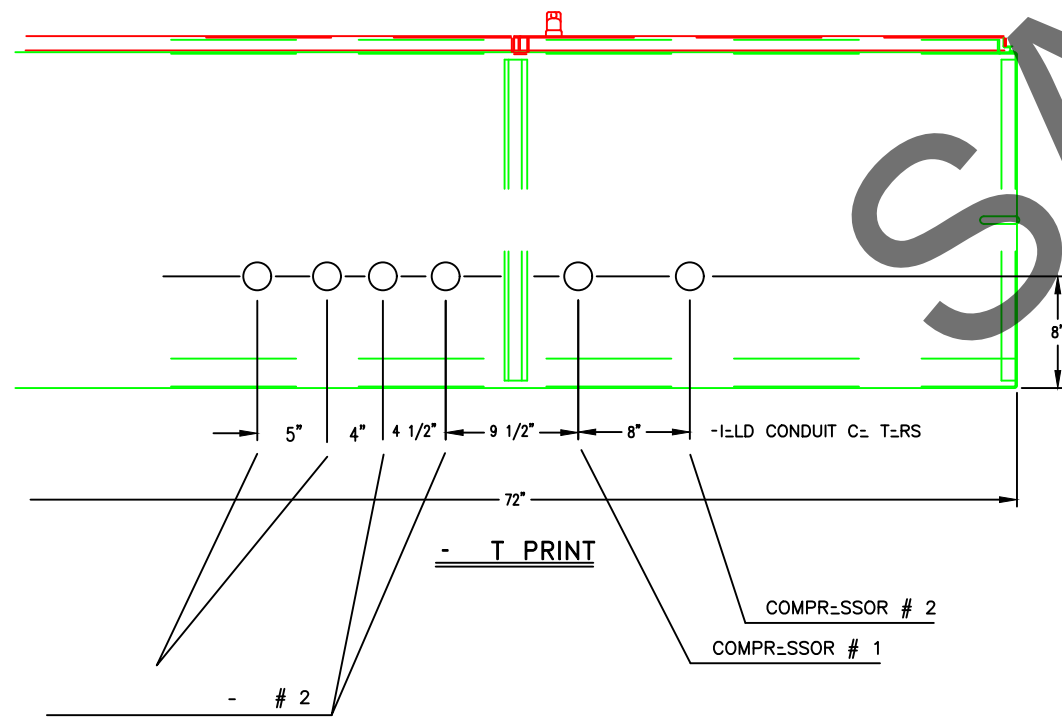
COMPRESSOR A: WEG # 07518EP3E365T
COMPRESSOR B: (NOT KNOWN AT THIS TIME)
FAN A: WEG # 00512EP3E254T
FAN B: (NOT KNOWN AT THIS TIME)
PRE-LUBE PUMP MOTOR: BALDOR # CL5004A

ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, AS BUILT: 08 / 21 / 07
ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, MODIFICATION: 02/19/2019

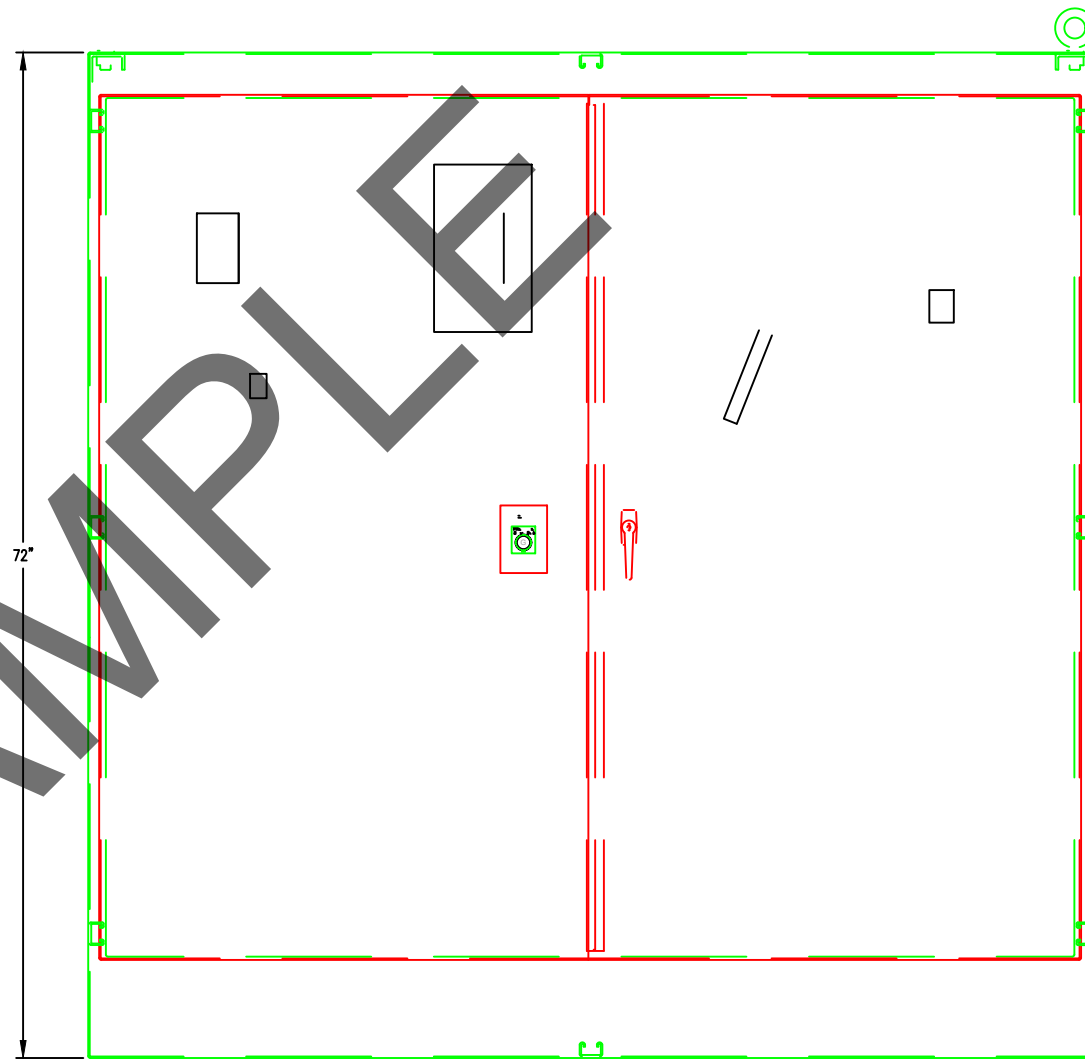
	Motors and Drives Suwanee, GA 30024 Phone 770-338-5656	MODEL # SS-CUSTOM-00128, 460 VAC, N-3R PAIR OF SSW06130 - S.O. # CHS.36256 STEINER / RTC - RENO, PO # S002168945	
		DATE 07 / 26 / 07	DRAWN BY PAP
SCALE	ENG. MT	DWG. NO. 7070306-5	REV 1.0



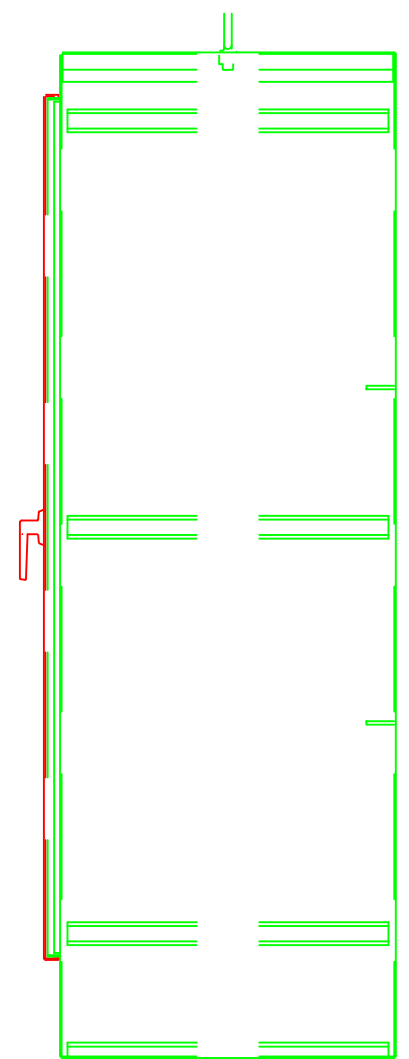
TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW



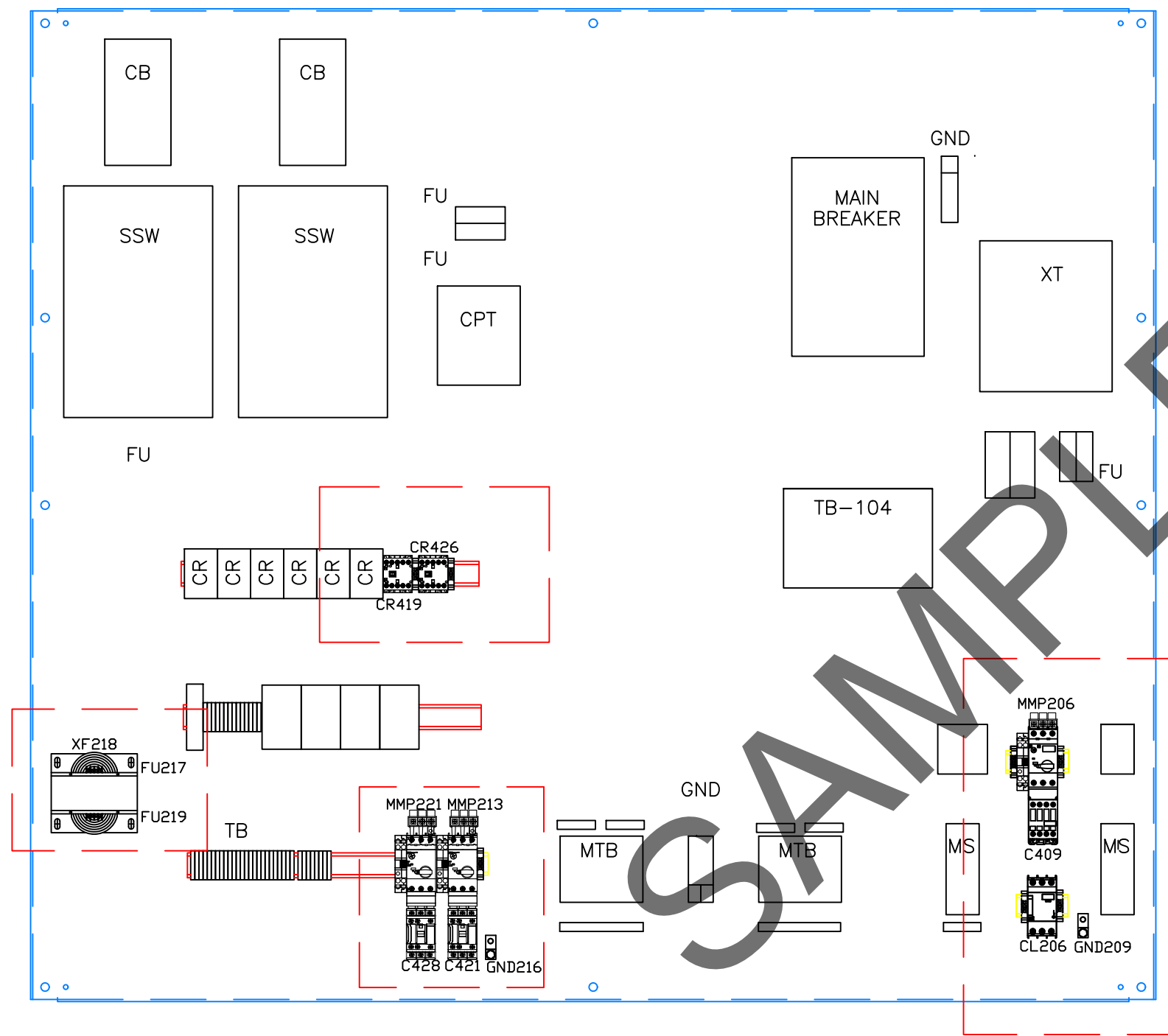
FRONT VIEW

ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, AS BUILT: 08 / 21 / 07
 ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, MODIFICATION: 02/19/2019

WEG Motors and Drives
 Suwanee, GA 30024
 Phone 770-338-5656

MODEL # SS-CUSTOM-00128, 460 VAC, N-3R
 PAIR 75 HP, SSW06130 - S.O. # CHS.36256
 STEINER / RTC - RENO, PO # S002168945

DATE 07 / 22 / 07	DRAWN BY PAP	DWG. NO. 7070306-6	REV
SCALE	ENG. MT	DWG # 2 of 8	1.0



THIS DRAWING DOES NOT SHOW REAL DIMENSIONS. USE LAYOUT AS REFERENCE ONLY.

NUMERALS SHOWN INSIDE HEX SYMBOLS CORRESPOND WITH ITEM NUMBERS AS LISTED ON BILL OF MATERIALS, REFER TO DRAWING # 7040277-7

FIELD CONDUIT CENTERS (FROM SIDES OF SUBPANEL)

BACK SUBPANEL LAYOUT

ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, AS BUILT: 08 / 21 / 07
 ANGI PART No. 950-07264, RTC - RENO, WEG SERIAL # MC16663, MODIFICATION: 02/19/2019


 Motors and Drives Suwanee, GA 30024 Phone 770-338-5656	MODEL # SS-CUSTOM-00128, 460 VAC, N-3R PAIR 75 HP, SSW06130 - S.O. # CHS.36256 STEINER / RTC - RENO, PO # S002168945	
	DATE 07 / 22 / 07 SCALE	DRAWN BY PAP ENG. MT

EXHIBIT C

INDEMNIFICATION AND INSURANCE REQUIREMENTS FOR MAINTENANCE, OPERATIONS & SERVICE AGREEMENTS

2019-11-11 Version

1. INTRODUCTION

IT IS HIGHLY RECOMMENDED THAT BIDDERS CONFER WITH THEIR INSURANCE CARRIERS OR BROKERS TO DETERMINE THE AVAILABILITY OF THESE INSURANCE CERTIFICATES AND ENDORSEMENTS IN ADVANCE OF BID OR PROPOSAL SUBMISSION. IF THERE ARE ANY QUESTIONS REGARDING THESE INSURANCE REQUIREMENTS, IT IS RECOMMENDED THAT THE AGENT/BROKER CONTACT RTC'S FINANCE DIRECTOR DIRECTLY AT (775) 348-0400.

2. INDEMNIFICATION

CONTRACTOR agrees to defend save and hold harmless and fully indemnify RTC, Washoe County, City of Reno, and City of Sparks, including their elected officials, officers, employees, and agents (hereafter, "Indemnitees") from and against any and all claims, proceedings, actions, liability and damages, including reasonable attorneys' fees and defense costs incurred in any action or proceeding (collectively "Damages") arising out of:

- A. Any breach of duty, neglect, or negligent error, misstatement, misleading statement or omission committed in the conduct of CONTRACTOR'S profession by CONTRACTOR, its employees, agents, officers, directors, Subs (as that term is defined below), or anyone else for which CONTRACTOR may be legally responsible; and
- B. The negligent acts of CONTRACTOR, its employees, agents, officers, directors, subs, or anyone else for which CONTRACTOR is legally responsible; and
- C. The infringement of any patent or copyright resulting from the use by the Indemnitees of any equipment, part, component, or other deliverable (including software) supplied by CONTRACTOR under or as a result of this Agreement, but excluding any infringement resulting from the modification or alteration by the Indemnitees of any equipment, part, component, or other deliverable (including software) except as consented to by CONTRACTOR.

The Damages shall include, but are not limited to, those resulting from personal injury to any person, including bodily injury, sickness, disease or death and injury to real property or personal property, tangible or intangible, and the loss of use of any of that property, whether or not it is physically injured.

If the Indemnitees are involved in defending actions, CONTRACTOR shall reimburse the Indemnitees for the time spent by such personnel at the rate the Indemnitees pay for such services.

If an Indemnitee is found to be liable in the proceeding, then CONTRACTOR'S obligation here under shall be limited to the proportional share of the liability attributed to CONTRACTOR.

In determining whether a claim is subject to indemnification, the incident underlying the claim shall determine the nature of the claim.

In the event of a violation or an infringement under paragraph 2.C above and the use is enjoined, CONTRACTOR, at its sole expense, shall either (1) secure for the Indemnitees the right to continue using the materials by suspension of any injunction or by procuring a license or licenses for the Indemnitees; or (2) modify the materials so that they become non-infringing. This covenant shall survive the termination of this Agreement.

3. GENERAL REQUIREMENTS

Prior to the start of any work on a RTC project, CONTRACTOR shall purchase and maintain insurance of the types and limits as described herein insuring against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONTRACTOR, its Subs, or their employees, agents, or representatives. The cost of all such insurance shall be borne by CONTRACTOR.

4. VERIFICATION OF COVERAGE

CONTRACTOR shall furnish RTC with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth herein, on forms acceptable to RTC. All deductibles and self-insured retentions requiring RTC approval shall be shown on the certificate. All certificates and endorsements are to be addressed to RTC's Finance Director and be received and approved by RTC before work commences. RTC reserves the right to require complete, certified copies of all required insurance policies, including all Subs' policies, at any time. Copies of applicable policy forms or endorsements confirming required additional insured, waiver of subrogation and notice of cancellation provisions are required to be provided with any certificate(s) evidencing the required coverage.

5. NOTICE OF CANCELLATION

Contractor or its insurers shall provide at least thirty (30) days' prior written notice to RTC prior to the cancellation or non-renewal of any insurance required under this Agreement. An exception may be included to provide at least ten (10) days' written notice if cancellation is due to non-payment of premium. CONTRACTOR shall be responsible to provide prior written notice to RTC as soon as practicable upon receipt of any notice of cancellation, non-renewal, reduction in required limits or other material change in the insurance required under this Agreement.

6. SUBCONTRACTORS & SUBCONSULTANTS

CONTRACTOR shall include all subcontractors and subconsultants (referred to collectively as "Subs") as insureds under its liability policies OR it shall require its Subs to maintain separate

liability coverages and limits of the same types specified herein. If any Subs maintain separate liability coverages and limits, each shall include the RTC, Washoe County, City of Reno and City of Sparks as additional insureds under its commercial general liability policy subject to the same requirements stated herein without requiring a written contract or agreement between each of the additional insureds and any sub-consultant or sub-contractor. Any separate coverage limits of liability maintained by Subs shall be at least be **\$1,000,000** per occurrence **\$1,000,000** for any applicable coverage aggregates for or the amount customarily carried by the Sub, whichever is GREATER. If any Subs provide their own insurance with limits less than required of the Contractor, Contractor shall include Subs in their coverage up to the full limits required of the Contractor. When requested by RTC, CONTRACTOR shall furnish copies of certificates of insurance evidencing coverage for each Sub. CONTRACTOR shall require its Subs provide appropriate certificates and endorsements from their own insurance carriers naming CONTRACTOR and the Indemnitees (see paragraph 2 above) as additional insureds.

7. DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions that exceed **\$25,000** per occurrence or claim must be declared to and approved by RTC's Finance Director prior to signing this Contract. RTC is entitled to request and receive additional documentation, financial or otherwise, prior to giving its approval of the deductibles and self-insured retentions. Any changes to the deductibles or self-insured retentions made during the term of this Contract or during the term of any policy must be approved by RTC's Finance Director prior to the change taking effect. Contractor is responsible for any losses within deductibles or self-insured retentions.

8. ACCEPTABILITY OF INSURERS

Insurance is to be placed with insurers with a Best's rating of no less than A-VII and acceptable to RTC. RTC may accept coverage with carriers having lower Best's ratings upon review of financial information concerning CONTRACTOR and insurance carrier. RTC reserves the right to require that CONTRACTOR'S insurer be a licensed and admitted insurer in the State of Nevada or meet any applicable state and federal laws and regulations for non-admitted insurance placements.

9. MISCELLANEOUS CONDITIONS

- A. Failure to furnish the required certificate(s) or failure to maintain the required insurance may result in termination of this Agreement at RTC's option.
- B. If CONTRACTOR fails to furnish the required certificate or fails to maintain the required insurance as set forth herein, RTC shall have the right, but not the obligation, to purchase said insurance at CONTRACTOR's expense.
- C. Any waiver of CONTRACTOR's obligation to furnish such certificate or maintain such insurance must be in writing and signed by an authorized representative of RTC. Failure of RTC to demand such certificate or other evidence of full compliance with these insurance requirements or failure of RTC to identify a deficiency from evidence that is provided shall not be construed as a waiver of CONTRACTOR's obligation to maintain

such insurance, or as a waiver as to the enforcement of any of these provisions at a later date.

- D. By requiring insurance herein, RTC does not represent that coverage and limits will necessarily be adequate to protect CONTRACTOR, and such coverage and limits shall not be deemed as a limitation on CONTRACTOR's liability under the indemnities granted to RTC in this contract.
- E. If CONTRACTOR'S liability policies do not contain the standard ISO separation of insureds condition, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

10. COMMERCIAL GENERAL LIABILITY

CONTRACTOR shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than **\$1,000,000** each occurrence. If such CGL insurance contains a general aggregate limit, it shall be increased to equal twice the required occurrence limit or revised to apply separately to this project or location.

CGL insurance shall be written on ISO occurrence form CG 00 01 04 13 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, products-completed operations, personal and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

There shall be no endorsement or modification of the CGL limiting the scope of coverage for liability arising from pollution, explosion, collapse, underground property damage, or damage to the named insured's work. In addition, coverage for Explosion, Collapse and Underground exposures (as applicable to the project) must be reflected in the insurance certificates.

RTC and any other Indemnitees listed in section 2. INDEMNIFICATION of this Agreement shall be included as an insured under the CGL, using ISO additional insured endorsement CG 20 10 07/04 or a substitute providing equivalent coverage, and under the commercial umbrella, if any.

This insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to RTC or any other Indemnitees under this Agreement

The status of RTC as an additional insured under a CGL obtained in compliance with this agreement shall not restrict coverage under such CGL with respect to the escape of release of pollutants at or from a site owned or occupied by or rented or loaned to RTC.

CONTRACTOR waives all rights against RTC and any other Indemnitees listed in section 2. INDEMNIFICATION of this Agreement for recovery of damages to the extent these damages are covered by the commercial general liability or commercial umbrella liability insurance maintained pursuant to this agreement. CONTRACTOR's insurer shall endorse CGL policy to waive subrogation against RTC with respect to any loss paid under the policy.

Continuing Completed Operations Liability Insurance. CONTRACTOR shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella liability insurance, both applicable to liability arising out of CONTRACTOR's completed operations, with a limit of not less than \$1,000,000 each occurrence for at least 5 years following substantial completion of the work.

- a. Continuing CGL insurance shall be written on ISO occurrence form CG 00 01 04 13 (or a substitute form providing equivalent coverage) and shall, at minimum, cover liability arising from products-completed operations and liability assumed under an insured contract
- b. Continuing CGL insurance shall have a products-completed operations aggregate of at least two times the each occurrence limit.
- c. Continuing commercial umbrella coverage, if any, shall include liability coverage for damage to the insured's completed work equivalent to that provided under ISO form CG 00 01.

11. COMMERCIAL AUTOMOBILE LIABILITY

CONTRACTOR shall maintain automobile liability and, if necessary, commercial umbrella liability insurance with a limit of not less than **\$1,000,000** each accident. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos).

Coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 25, or a substitute form providing equivalent liability coverage for all owned, leased, hired (rented) and non-owned vehicles (as applicable). RTC may agree to accept auto liability for non-owned and hired (rented) vehicles under the CGL if CONTRACTOR does not own or operate any owned or leased vehicles.

CONTRACTOR waives all rights against RTC, its officers, employees and volunteers for recovery of damages to the extent these damages are covered by the automobile liability or commercial umbrella liability insurance obtained by CONTRACTOR pursuant to this Agreement.

In lieu of a separate Business Auto Liability Policy, RTC may agree to accept Auto Liability covered in the General Liability Policy, if CONTRACTOR does not have any owned or leased automobiles and non-owned and hired auto liability coverage is included.

If project involves the transport of hazardous wastes or other materials that could be considered pollutants, CONTRACTOR shall maintain pollution liability coverage equivalent to that provided under the ISO pollution liability-broadened coverage for covered autos endorsement (CA 99 48) shall be provided, and, if applicable, the Motor Carrier Act endorsement (MCS 90) shall be attached.

Waiver of Subrogation. CONTRACTOR waives all rights against RTC and its agents, officers, directors and employees for recovery of damages to the extent these damages are covered by the

business auto liability or commercial umbrella liability insurance obtained by Contractor pursuant to this agreement.

12. INDUSTRIAL (WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY) INSURANCE

It is understood and agreed that there shall be no Industrial (Worker's Compensation and Employer's Liability) Insurance coverage provided for CONTRACTOR or any Sub by RTC. CONTRACTOR, and any Subs, shall procure, pay for and maintain required coverages.

CONTRACTOR shall maintain workers' compensation and employer's liability insurance meeting the statutory requirements of the State of Nevada, including but not limited to NRS 616B.627 and NRS 617.210. The employer's liability limits shall not be less than **\$1,000,000** each accident for bodily injury by accident or \$1,000,000 each employee for bodily injury by disease.

Should CONTRACTOR be self-funded for Industrial Insurance, CONTRACTOR shall so notify RTC in writing prior to the signing of a Contract. RTC reserves the right to accept or reject a self-funded CONTRACTOR and to approve the amount of any self-insured retentions. CONTRACTOR agrees that RTC is entitled to obtain additional documentation, financial or otherwise, for review prior to entering into a Contract with the self-funded CONTRACTOR.

Upon completion of the project, CONTRACTOR shall, if requested by RTC, provide RTC with a Final Certificate for itself and each Sub showing that CONTRACTOR and each Sub had maintained Industrial Insurance by paying all premiums due throughout the entire course of the project.

If CONTRACTOR or Sub is a sole proprietor, coverage for the sole proprietor must be purchased and evidence of coverage must appear on the Certificate of Insurance and Final Certificate.

CONTRACTOR waives all rights against RTC, its elected officials, officers, employees and agents, for recovery of damages to the extent these damages are covered by the workers compensation and employer's liability or commercial umbrella liability insurance obtained by Tenant pursuant to this agreement. CONTRACTOR shall obtain an endorsement equivalent to WC 00 03 13 to affect this waiver.

EXHIBIT D
FTA REQUIRED CLAUSES

CLAUSE 1 - ENERGY CONSERVATION [42 U.S.C. 6321 et seq.; 49 C.F.R. part 622, subpart C]

The Contractor agrees to comply with the mandatory standards and policies relating to energy efficiency that are contained in the State Energy Conservation Plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. § 6321, et seq.).

CLAUSE 2 - CLEAN WATER REQUIREMENTS [33 U.S.C. §§ 1251-1387; 2 C.F.R. part 200, Appendix II (G)]

- A. The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251, et seq. The Contractor agrees to report each violation to the RTC and understands and acknowledges that the RTC will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
- B. The Contractor also agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.

CLAUSE 3 - LOBBYING RESTRICTIONS [31 U.S.C. § 1352; 2 C.F.R. § 200.450; 2 C.F.R. part 200 appendix II (J); 49 C.F.R. part 20]

Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 C.F.R. Part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. § 1352. Such disclosures are forwarded from tier to tier up to the RTC.

CLAUSE 4 - ACCESS TO RECORDS AND REPORTS [49 U.S.C. § 5325(g); 2 C.F.R. § 200.333; 49 C.F.R. part 633]

The following access to records requirements apply to the Agreement:

- A. The Contractor agrees to provide the RTC, the FTA Administrator, the DOT Office of Inspector General, Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to the Agreement for the purposes of making audits, examinations, excerpts, and transcriptions, and as may be necessary for the RTC to meet

its obligations under 2 CFR Part 200. This access includes timely and reasonable access to personnel for interviews and discussions related to the records. This right of access is not limited to the required retention period set forth in subsection C below, but continues as long as the records are retained.

- B. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
- C. The Contractor agrees to maintain all books, records, accounts, and reports required under the Agreement for a period of not less than three years, except in the event of litigation or settlement of claims arising from the performance of the Agreement, in which case the Contractor agrees to maintain such materials until the RTC, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims, or exceptions related thereto. The retention period commences after the RTC makes final payment and all other pending contract matters are closed.
- D. The Contractor shall include this clause in all subcontracts and shall require all subcontractors to include the clause in their subcontracts, regardless of tier.

CLAUSE 5 - FEDERAL CHANGES

The Contractor shall at all times comply with all applicable FTA regulations, policies, procedures, and directives, including without limitation those listed directly or by reference in the Master Agreement between the RTC and the FTA, as they may be amended or promulgated from time to time during the term of the Agreement. The Contractor's failure to so comply shall constitute a material breach of the Agreement.

CLAUSE 6 - CLEAN AIR ACT [42 U.S.C. §§ 7401 – 7671q; 2 C.F.R. part 200, Appendix II (G)]

- A. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401, et seq. The Contractor agrees to report each violation to the RTC and understands and agrees that the RTC will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
- B. The Contractor also agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.

CLAUSE 7 - RECYCLED PRODUCTS [42 U.S.C. § 6962; 40 C.F.R. part 247; 2 C.F.R. part § 200.322]

The Contractor agrees to provide a preference for those products and services that conserve natural resources, protect the environment, and are energy efficient by complying with and facilitating compliance with the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. § 6962), and the regulatory provisions of 40 C.F.R. Part 247.

CLAUSE 8 - NO GOVERNMENT OBLIGATION TO THIRD PARTIES

- A. The RTC and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying Agreement, absent the express written consent by the Federal Government, the Federal Government is not a party to the Agreement and shall not be subject to any obligations or liabilities to the RTC, the Contractor, or any other party (whether or not a part to that Agreement) pertaining to any matter resulting from the underlying Agreement.
- B. The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

CLAUSE 9 - PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS [49 U.S.C. § 5323(l) (1); 31 U.S.C. §§ 3801-3812; 18 U.S.C. § 1001; 49 C.F.R. part 31]

- A. The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801, et seq., and U.S. DOT regulations, “Program Fraud Civil Remedies”, 49 C.F.R. Part 31, apply to its actions pertaining to the Agreement. Upon execution of the Agreement, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the Agreement or the FTA assisted project for which the work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.
- B. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5323(l)(1) on the Contractor, to the extent the Federal Government deems appropriate.
- C. The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

CLAUSE 10 - GOVERNMENT-WIDE DEBARMENT AND SUSPENSION [2 C.F.R. part 180; 2 C.F.R. part 1200; 2 C.F.R. § 200.213; 2 C.F.R. part 200 Appendix II (I); Executive Order 12549; Executive Order 12689]

- A. Contractor shall comply and facilitate compliance with U.S. Department of Transportation regulations, “Nonprocurement Suspension and Debarment,” 2 CFR Part 1200, which adopts and supplements the U.S. Office of Management and Budget “Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement),” 2 CFR Part 180. These provisions apply to each contract at any tier of \$25,000 or more, and to each contract at any tier for a federally required audit (irrespective of the contract amount), and to each contract at any tier that must be approved by a Federal Transit Administration official irrespective of the contract amount. As such, Contractor shall verify that its principals, affiliates, and subcontractors are eligible to participate in this federally funded contract and are not presently declared by any Federal department or agency to be:
1. Debarred from participation in any federally assisted award;
 2. Suspended from participation in any federally assisted award;
 3. Proposed for debarment from participation in any federally assisted award;
 4. Declared ineligible to participate in any federally assisted award;
 5. Voluntarily excluded from participation in any federally assisted award; or
 6. Disqualified from participation in any federally assisted award.
- B. Contractor certifies that it and/or its principals, affiliates, and subcontractors are not currently debarred or suspended. Contractor shall promptly inform the RTC of any change in the suspension or debarment status of Contractor or its principals, affiliates, and subcontractors during the term of the Agreement. Further, Contractor shall include a provision requiring compliance with the requirements of 2 CFR Part 180, Subpart C, as supplemented by 2 CFR Part 1200 in its lower-tier covered transactions.
- C. The certification in this clause is a material representation of fact relied upon by RTC. If it is later determined by the RTC that Contractor knowingly rendered an erroneous certification, in addition to remedies available to the RTC, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- D. Contractor agrees to comply with the requirements of 2 CFR Part 180, Subpart C, as supplemented by 2 CFR Part 1200, throughout the term of the Agreement.

CLAUSE 11 - CIVIL RIGHTS LAWS AND REGULATIONS

The Contractor agrees to comply with all applicable civil rights laws and regulations in accordance with applicable federal directives. The Contractor agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties. These include, but are not limited to, the following:

- A. Nondiscrimination in Federal Public Transportation Programs

Contractor shall prohibit discrimination on the basis of race, color, religion, national origin, sex (including gender identity), disability, or age. Contractor shall prohibit the (i) exclusion from participation in employment or a business opportunity for reasons identified in 49 U.S.C. § 5332; (ii) denial of program benefits in employment or a business opportunity identified in 49 U.S.C. § 5332; or (iii) discrimination identified in 49 U.S.C. § 5332, including discrimination in employment or a business opportunity. Contractor shall follow the most recent edition of Federal Transit Administration Circular 4702.1, “Title VI Requirements and Guidelines for Federal Transit Administration Recipients,” to the extent consistent with applicable Federal laws, regulations, requirements, and guidance, and other applicable Federal guidance that may be issued.

B. Nondiscrimination—Title VI of the Civil Rights Act

1. Contractor shall prohibit discrimination on the basis of race, color, or national origin.
2. Contractor shall comply with (i) Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000d et seq.; (ii) U.S. Department of Transportation regulations, “Nondiscrimination in Federally-Assisted Programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964,” 49 CFR Part 21; and (iii) Federal transit law, specifically 49 U.S.C. § 5332.
3. Contractor shall follow (i) the most recent edition of Federal Transit Administration Circular 4702.1, “Title VI Requirements and Guidelines for Federal Transit Administration Recipients,” to the extent consistent with applicable Federal laws, regulations, requirements, and guidance; (ii) U.S. Department of Justice “Guidelines for the enforcement of Title VI, Civil Rights Act of 1964,” 28 CFR 50.3; and (iii) all other applicable Federal guidance that may be issued.

C. Equal Employment Opportunity

1. Federal Requirements and Guidance. Contractor shall prohibit discrimination on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin, and (i) comply with Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e et seq.; (ii) facilitate compliance with Executive Order No. 11246, “Equal Employment Opportunity” September 24, 1965, 42 U.S.C. § 2000e note, as amended by any later Executive Order that amends or supersedes it in part and is applicable to Federal assistance programs; (iii) comply with Federal transit law, specifically 49 U.S.C. § 5332; (iv) comply with Federal Transit Administration Circular 4704.1 “Equal Employment Opportunity (EEO) Requirements and Guidelines for Federal Transit Administration Recipients;” and (v) follow other Federal guidance pertaining to equal employment opportunity laws, regulations, and requirements, and prohibitions against discrimination on the basis of disability.

2. Specifics. Contractor shall ensure that applicants for employment are employed and employees are treated during employment without discrimination on the basis of their race, color, religion, national origin, disability, age, sexual orientation, gender identity, or status as a parent, as provided in Executive Order No. 11246 and by any later executive order that amends or supersedes it, and as specified by U.S. Department of Labor regulations. Contractor shall take affirmative action that includes but is not limited to (i) recruitment advertising, recruitment, and employment; (ii) rates of pay and other forms of compensation; (iii) selection for training, including apprenticeship, and upgrading; and (iv) transfers, demotions, layoffs, and terminations. Contractor recognizes that Title VII of the Civil Rights Act of 1964, as amended, exempts Indian Tribes under the definition of “Employer.”

3. Equal Employment Opportunity Requirements for Construction Activities. Contractor shall comply, when undertaking “construction” as recognized by the U.S. Department of Labor, with (i) U.S. Department of Labor regulations, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor,” 41 CFR Chapter 60; and (ii) Executive Order No. 11246, “Equal Employment Opportunity in Federal Employment,” September 24, 1965, 42 U.S.C. § 2000e note, as amended by any later executive order that amends or supersedes it, referenced in 42 U.S.C. § 2000e note.

D. Nondiscrimination on the Basis of Sex

Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. § 1681 et seq. and implementing Federal regulations, “Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance,” 49 CFR Part 25 prohibit discrimination on the basis of sex.

E. Nondiscrimination on the Basis of Age

In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. §§ 621-634; Federal transit law at 49 U.S.C. § 5332; the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101 et seq.; 49 CFR Part 90, and 29 CFR Part 1625, Contractor agrees to refrain from discrimination for reason of age. In addition, Contractor agrees to comply with applicable Federal implementing regulations.

F. Nondiscrimination on the Basis of Disability

In accordance with Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794; the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. § 12101 et seq.; the Architectural Barriers Act of 1968, as amended, 42 U.S.C. § 4151 et seq.; and Federal transit law at 49 U.S.C. § 5332, Contractor agrees that it will not discriminate against individuals on the basis of disability. Contractor further agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, “Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act,”

29 CFR Part 1630, pertaining to employment of persons with disabilities. In addition, Contractor agrees to comply with applicable Federal implementing regulations.

G. Drug or Alcohol Abuse - Confidentiality and Other Civil Rights Protections

To the extent applicable, Contractor agrees to comply with the confidentiality and civil rights protections of the Drug Abuse Office and Treatment Act of 1972, as amended, 21 U.S.C. § 1101, et seq., the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act of 1970, as amended, 42 U.S.C. § 4541, et seq., and the Public Health Service Act, as amended, 42 U.S.C. §§ 290dd-290dd-2.

H. Access to Services for Persons with Limited English Proficiency

Contractor agrees to promote accessibility of public transportation services to persons with limited understanding of English by following Executive Order No. 13166, "Improving Access to Services for Persons with Limited English Proficiency," 42 U.S.C. § 2000d-1 note, and U.S. DOT Notice, "DOT Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficiency (LEP) Persons," 70 Fed. Reg. 74087, Dec. 14, 2005.

CLAUSE 12 - DISADVANTAGED BUSINESS ENTERPRISES (DBE) [49 C.F.R. part 26]

- A. The RTC has established a DBE Program pursuant to 49 C.F.R. Part 26. The requirements and procedures of RTC's DBE Program are hereby incorporated by reference into this Agreement. The Contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Agreement. Failure by the Contractor to carry out RTC's DBE Program procedures and requirements or applicable requirements of 49 C.F.R. Part 26 shall be considered a material breach of this Agreement and may be grounds for termination of this Agreement, or other such remedy as RTC deems appropriate, which may include, but is not limited to withholding monthly payments, assessing sanctions, liquidated damages, and/or disqualifying the Contractor from future bidding as non-responsible. The Contractor shall ensure that compliance with RTC's DBE Program and the requirements of 49 C.F.R. Part 26 be included in any and all subcontracts entered into which arise out of or are related to this Agreement.
- B. For purposes of this Agreement, the RTC will accept only DBEs that are:
1. Certified at the time of bid opening or proposal evaluation, by the RTC or the Unified Certification Program; or
 2. An out-of-state firm who has been certified by either a local government, state government or Federal government entity authorized to certify DBE status or an agency whose DBE certification process has received Federal Transit Administration approval; or
 3. Certified by another agency approved by the RTC.

- C. The Contractor must take necessary and reasonable steps to ensure that DBEs have a fair opportunity to participate in this Agreement. If the Contractor qualifies as a certified DBE in accordance with the requirements of 49 C.F.R. Part 26, Subpart D, or is joint venturing with a DBE certified in accordance with the cited regulations, a copy of the DBE certification(s) issued by a Unified Certification Program (UCP) in accordance with the cited regulations, and a description of the dollar value of the proposed work that it intends to perform with its own forces, together with a statement of the percentage interest in the Contract held by a joint venture DBE must be submitted. The Contractor must provide (1) written documentation of the Contractor's commitment to use identified DBEs; and (2) written confirmation from the DBE that it is participating in the Agreement.
- D. Contractor shall not terminate DBE subcontractors listed in the DBE Participation Schedule without RTC's prior written consent. The RTC will provide its written consent only if Contractor has good cause to terminate the DBE firm. Before transmitting a request to terminate, Contractor shall give notice in writing to the DBE subcontractor of its intent to terminate and the reason for the request. Contractor shall give the DBE five days to respond to the notice and advise of the reasons why it objects to the proposed termination. When a DBE subcontractor is terminated or fails to complete its work on the Agreement for any reason, Contractor shall make good-faith efforts to find another DBE subcontractor to substitute for the original DBE and immediately notify The RTC in writing of its efforts to replace the original DBE. These good-faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the Agreement as the DBE that was terminated, to the extent needed to meet the contract goal established for this procurement.
- E. The Contractor is required to pay its subcontractors performing work related to this Agreement for satisfactory performance of that work no later than 30 days after the Contractor's receipt of payment for that work from the RTC. In addition, if the Contractor holds retainage from its subcontractors, it shall return any retainage to those subcontractors within 30 days after the subcontractor's work related to the Agreement is satisfactorily completed.

CLAUSE 13 - INCORPORATION OF FTA TERMS

The preceding provisions include, in part, certain standard terms and conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, and FTA's Master Agreement, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any RTC requests which would cause the RTC to be in violation of the FTA terms and conditions.

CLAUSE 14 - SUBSTANCE ABUSE REQUIREMENTS [49 U.S.C. § 5331; 49 C.F.R. part 655; 49 C.F.R. part 40]

The Contractor agrees to establish and implement a drug and alcohol testing program that complies with 49 C.F.R. Part 655, produce any documentation necessary to establish its compliance with Part 655, and permit any authorized representative of the United States Department of Transportation or its operating administrations, the State of Nevada, or the RTC, to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 C.F.R. Part 655 and review the testing process. The Contractor agrees further to certify annually its compliance with Part 655 and to submit the Management Information System (MIS) reports to the RTC. To certify compliance the Contractor shall use the “Substance Abuse Certifications” in the “Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements,” which is published annually in the Federal Register.

CLAUSE 15 - SAFETY

The Contractor agrees to comply and facilitate compliance with all applicable provisions of 49 U.S.C. § 5329 and any implementing regulations that FTA may issue.

CLAUSE 16 - PREVAILING WAGE AND ANTI-KICKBACK COMPLIANCE

- A. Contractor shall comply with the Davis-Bacon Act, 40 U.S.C. § 3141-3144 and 3146-3148, as supplemented by U.S. Department of Labor regulations at 29 CFR Part 5, “Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction.” In accordance with the statute, Contractor shall pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, Contractor agrees to pay wages not less than once a week.
- B. Contractor shall comply with the Copeland “Anti-Kickback” Act (40 U.S.C. § 3145), as supplemented by U.S. Department of Labor regulations at 29 CFR Part 3, “Contractors and Subcontractor on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States.” Contractor is prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled.

CLAUSE 17 - CONTRACT WORK HOURS AND SAFETY STANDARDS ACT-CONSTRUCTION

- A. Contractor shall comply with the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 3701-3708), as supplemented by the U.S. Department of Labor regulations at 29 CFR Part 5. Under 40 U.S.C. § 3702 of the Act, Contractor shall compute the wages of every mechanic and laborer, including watchmen and guards, on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate

of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. § 3704 are applicable to construction work and provide that no laborer or mechanic be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchase of supplies or materials or articles ordinarily available on the open market, or to contracts for transportation or transmission of intelligence.

- B. In the event of any violation of the clause set forth herein, Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, Contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of this clause in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard work week of forty hours without payment of the overtime wages required by this clause.
- C. The Federal Transit Administration shall upon its own action or upon written request of an authorized representative of the U.S. Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by Contractor or subcontractor under any such contract or any other Federal contract with the same prime Contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in this section.
- D. In any subcontracts, Contractor and its subcontractors shall insert the clauses set forth in this section and also a clause requiring the subcontractors to include these clauses in any lower-tier subcontracts. Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the clauses set forth in this Agreement.

CLAUSE 18 - CONTRACT WORK HOURS AND SAFETY STANDARDS ACT—NON-CONSTRUCTION

- A. Contractor shall comply with all Federal laws, regulations, and requirements providing wage and hour protections for non-construction employees, in accordance with 40 U.S.C. § 3702, Contract Work Hours and Safety Standards Act, and other relevant parts of that Act, 40 U.S.C. § 3701 et seq., and U.S. Department of Labor regulations, “Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Non-construction Contracts Subject to the Contract Work Hours and Safety Standards Act),” 29 CFR Part 5.
- B. Contractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three (3) years from the completion of the Agreement for all laborers and mechanics, including guards and watchmen, working on the Agreement. Such records shall contain the name and address of each such employee,

social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.

- C. Such records maintained under this section shall be made available by Contractor for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration and the U.S. Department of Labor, and Contractor will permit such representatives to interview employees during working hours on the job.
- D. Contractor shall require the inclusion of the language of this section in subcontracts of all tiers.

CLAUSE 19 - WHISTLEBLOWER PROTECTIONS

Contractor certifies that it is in compliance with Federal whistleblower protections at 10 U.S.C. § 2409, 41 U.S.C. § 4712 and 10 U.S.C. § 2324, 41 U.S.C. § 4304, and 41 U.S.C. § 4310.

CLAUSE 20 - SAFE OPERATION OF MOTOR VEHICLES [23 U.S.C. part 402; Executive Order No. 13043; Executive Order No. 13513; U.S. DOT Order No. 3902.10]

- A. **Seat Belt Use.** Contractor is encouraged to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned vehicles, company-rented vehicles, or personally operated vehicles. The terms “company-owned” and “company-leased” refer to vehicles owned or leased either by Contractor or the RTC.
- B. **Distracted Driving.** Contractor agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer, and driving a vehicle the driver owns or rents, a vehicle Contractor owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the work performed under this Agreement.
- C. Contractor shall require the inclusion of these requirements in subcontracts of all tiers.

CLAUSE 21 - OTHER ENVIRONMENTAL PROTECTIONS

- A. Contractor shall comply with all applicable environmental and resource-use laws, regulations, and requirements and shall follow applicable guidance, now in effect or that may become effective in the future, including state and local laws, ordinances, regulations, and requirements, and follow applicable guidance.
- B. Applicable requirements include but are not limited to (i) the National Environmental Policy Act of 1969, as amended, 42 U.S.C. §§ 4321 et seq., and related regulations, Executive Orders, and guidance; (ii) Federal Transit Administration guidance on environmental reviews; (iii) Executive Orders and circulars related to environmental justice; (iv) Wild and Scenic Rivers Act of 1968; (v) Coastal Zone Management Act of 1972; (vi) the Endangered Species Act of 1973; (vii) Magnuson Stevens Fishery Conservation and Management Act; (viii) Comprehensive Environmental Response, Compensation, and Liability Act; (ix) Executive Order No. 11990 relating to “Protection

of Wetlands;” (x) Executive Order Nos. 11988 and 13690 relating to “Floodplain Management;” (xi) 49 U.S.C. § 303, 23 CFR Part 774, and 49 CFR Part 622; (xii) historic preservation requirements; and (xiii) policies promoting the preservation of places and objects of religious importance to Native Americans.

CLAUSE 22 - LABOR REQUIREMENT

Contractor shall comply with the Fair Labor Standards Act (“FLSA”), 29 U.S.C. § 201 et seq. to the extent the FLSA applies to employees performing work with Federal assistance involving commerce, and as the Federal Government otherwise determines applicable.

SAMPLE



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 3.10

TO: Regional Transportation Commission

FROM: Doug Maloy, PE
Engineering Manager

Bill Thomas, AICP
Executive Director

SUBJECT: Professional Services Agreement (PSA) for Engineering and Environmental Services associated with the Southeast Connector Phase 2 Wetlands Mitigation

RECOMMENDATION

Approve a Professional Services Agreement (PSA) with Jacobs Engineering (Jacobs) to provide Engineering and Environmental services through the remainder of the wetlands establishment and monitoring period on Phase 2 of the SouthEast Connector project, in an amount not to exceed \$572,340; authorize the RTC Executive Director to execute the agreement.

SUMMARY

This Agreement (Attachment A) with Jacobs is for professional Engineering and Environmental Construction Management services associated with the Southeast Connector Phase 2 Project. Construction of Phase 2 of the Southeast Connector project, completed in 2018, included construction of mitigation wetlands under a United States Army Corps of Engineers USACE 404 Permit. The conditions of the permit include the requirement to provide monitoring during the maintenance period of approximately three (3) years following acceptance or as needed for the RTC to achieve sustainable USACE jurisdictional wetlands. Additionally, services to be provided under this agreement include reporting and maintenance oversight associated with the wetlands.

Jacobs provided the wetlands design and prepared the USACE 404 Permit as part of this project. It is recommended that Jacobs continue to provide services associated with RTC’s remaining responsibilities including the 404 Permit and associated jurisdictional wetlands.

FISCAL IMPACT

Funds for these services are included in the FY2021 budget.

ADVISORY COMMITTEE(S) RECOMMENDATION

There are no advisory committee recommendations pertaining to this report.

Attachment

**AGREEMENT
FOR
PROFESSIONAL SERVICES**

This agreement (this “Agreement”) is dated and effective as of August 21, 2020, by and between the Regional Transportation Commission of Washoe County (“RTC”) and Jacobs Engineering Group, Inc. (“CONSULTANT”).

WITNESSETH:

WHEREAS, RTC has received a proposal from CONSULTANT to provide additional Engineering and Environmental support services in connection with the establishment of the wetlands and other improvements constructed under the US Army Corps of Engineers 404 Permit as part of Phase 2 of the Southeast Connector Project (“PROJECT”).

NOW, THEREFORE, RTC and CONSULTANT, in consideration of the mutual covenants and other consideration set forth herein, do hereby agree as follows:

ARTICLE 1 – TERM AND ENGAGEMENT

- 1.1. The term of this Agreement shall be from the date first written above through December 31, 2023, unless terminated at an earlier date, or extended to a later date, pursuant to the provisions herein.
- 1.2. CONSULTANT will promptly, diligently and faithfully execute the work to completion in accordance with applicable professional standards subject to any delays due to strikes, acts of God, act of any government, civil disturbances, or any other cause beyond the reasonable control of CONSULTANT.
- 1.3. CONSULTANT shall not proceed with the work until both parties have executed this Agreement and a purchase order has been issued to CONSULTANT. If CONSULTANT violates that prohibition, CONSULTANT forfeits any and all right to reimbursement and payment for that work and waives any and all claims against RTC, its employees, agents, and affiliates, including but not limited to monetary damages, and any other remedy available at law or in equity arising under the terms of this Agreement. Furthermore, prior to execution and issuance of a purchase order, CONSULTANT shall not rely on the terms of this Agreement in any way, including but not limited to any written or oral representations, assurances or warranties made by RTC or any of its agents, employees or affiliates, or on any dates of performance, deadlines, indemnities, or any term contained in this Agreement or otherwise.

ARTICLE 2 - SERVICES OF CONSULTANT

2.1. SCOPE OF SERVICES

The scope of services consists of the tasks set forth in Exhibit A.

2.2. SCHEDULE OF SERVICES

Tasks and subtasks shall be completed in accordance with the schedule in Exhibit A. Any change(s) to the schedule must be approved by RTC's Project Manager.

2.3. CONTINGENCY

Contingency line items identified in the scope of services are for miscellaneous increases within the scope of work. Prior to the use of any contingency amounts, CONSULTANT shall provide a letter to RTC's Project Manager detailing the need, scope, and not-to-exceed budget for the proposed work. Work to be paid for out of contingency shall proceed only with the RTC Project Manager's written approval.

2.4. OPTIONS

RTC shall have the right to exercise its option(s) for all or any part of the optional tasks or subtasks identified in Exhibit A. CONSULTANT will prepare and submit a detailed scope of services reflecting the specific optional services requested, a schedule for such services, and a cost proposal. RTC will review and approve the scope of services and RTC and CONSULTANT will discuss and agree upon compensation and a schedule. CONSULTANT shall undertake no work on any optional task without written notice to proceed with the performance of said task. RTC, at its sole option and discretion, may select another individual or firm to perform the optional tasks or subtasks identified in Exhibit A.

2.5. ADDITIONAL SERVICES

CONSULTANT will provide additional services when agreed to in writing by RTC and CONSULTANT.

2.6. PERFORMANCE REQUIREMENTS

Any and all design and engineering work furnished by CONSULTANT shall be performed by or under the supervision of persons licensed to practice architecture, engineering, or surveying (as applicable) in the State of Nevada, by personnel who are careful, skilled, experienced and competent in their respective trades or professions, who are professionally qualified to perform the work, and who shall assume professional responsibility for the accuracy and completeness of documents prepared or checked by them, in accordance with appropriate prevailing professional standards. Notwithstanding the provision of any drawings, technical specifications, or other data by RTC, CONSULTANT shall have the

responsibility of supplying all items and details required for the deliverables required hereunder.

2.7. ERRORS AND OMISSIONS

CONSULTANT shall, without additional compensation, correct or revise any deficiencies, errors, or omissions caused by CONSULTANT in its analysis, reports, and services. CONSULTANT also agrees that if any error or omission is found, CONSULTANT will expeditiously make the necessary correction, at no expense to RTC. If an error or omission was directly caused by RTC, and not by CONSULTANT and RTC requires that such error or omission be corrected, CONSULTANT may be compensated for such additional work.

ARTICLE 3 - COMPENSATION

3.1. CONSULTANT shall be paid for hours worked at the hourly rates in Exhibit B. RTC shall not be responsible for any other costs or expenses except as provided in Exhibit B.

3.2. The maximum amount payable to CONSULTANT to complete each task is equal to the not-to-exceed amounts identified in Exhibit B. CONSULTANT can request in writing that RTC's Project Manager reallocate not-to-exceed amounts between tasks. A request to reallocate not-to-exceed amounts must be accompanied with a revised fee schedule and must be approved in writing by RTC's Project Manager prior to performance of the work. In no case shall CONSULTANT be compensated in excess of the following not-to exceed amounts:

Total Services (Tasks 1.0 to 3.0)	\$522,340
<u>Contingency (Task 4)</u>	<u>\$50,000</u>
Total Not-to-Exceed Amount	\$572,340

3.3. For any work authorized under Section 2.4, "Additional Services," RTC and CONSULTANT will negotiate not-to-exceed amounts based on the standard hourly rates and rates for testing in Exhibit B. Any work authorized under Section 2.4, "Additional Services," when performed by persons who are not employees or individuals employed by affiliates of CONSULTANT, will be billed at a mutually agreed upon rate for such services, but not more than 105% of the amounts billed to CONSULTANT for such services.

3.4. CONSULTANT shall receive compensation for preparing for and/or appearing in any litigation at the request of RTC, except: (1) if such litigation costs are incurred by CONSULTANT in defending its work or services or those of any of its sub-consultants; or (2) as may be required by CONSULTANT's indemnification obligations. Compensation for litigation services requested by RTC shall be paid at a mutually agreed upon rate and/or at a reasonable rate for such services.

ARTICLE 4 - INVOICING

- 4.1. CONSULTANT shall submit monthly invoices in the format specified by RTC. Invoices must be submitted to accountspayable@rtcwashoe.com. RTC's payment terms are 30 days after the receipt of the invoice. Simple interest will be paid at the rate of half a percent (0.5%) per month on all invoices approved by RTC that are not paid within thirty (30) days of receipt of the invoice.
- 4.2. RTC shall notify CONSULTANT of any disagreement with any submitted invoice for consulting services within thirty (30) days of receipt of an invoice. Any amounts not in dispute shall be promptly paid by RTC.
- 4.3. CONSULTANT shall maintain complete records supporting every request for payment that may become due. Upon request, CONSULTANT shall produce all or a portion of its records and RTC shall have the right to inspect and copy such records.

ARTICLE 5 - ACCESS TO INFORMATION AND PROPERTY

- 5.1. Upon request and without cost to CONSULTANT, RTC will provide all pertinent information that is reasonably available to RTC including surveys, reports and any other data relative to design and construction.
- 5.2. RTC will provide access to and make all provisions for CONSULTANT to enter upon RTC facilities and public lands, as required for CONSULTANT to perform its work under this Agreement.

ARTICLE 6 - OWNERSHIP OF WORK

- 6.1. Plans, reports, studies, tracings, maps, software, electronic files, licenses, programs, equipment manuals, and databases and other documents or instruments of service prepared or obtained by CONSULTANT in the course of performing work under this Agreement, shall be delivered to and become the property of RTC. Software already developed and purchased by CONSULTANT prior to the Agreement is excluded from this requirement. CONSULTANT and its sub-consultants shall convey and transfer all copyrightable interests, trademarks, licenses, and other intellectual property rights in such materials to RTC upon completion of all services under this Agreement and upon payment in full of all compensation due to CONSULTANT in accordance with the terms of this Agreement. Basic survey notes, sketches, charts, computations and similar data prepared or obtained by CONSULTANT under this Agreement shall, upon request, also be provided to RTC.
- 6.2. CONSULTANT represents that it has secured all necessary licenses, consents, or approvals to use the components of any intellectual property, including computer software, used in providing services under this Agreement, that it has full legal title to and the right to reproduce such materials, and that it has the right to convey such title and other necessary rights and interests to RTC.

- 6.3. CONSULTANT shall bear all costs arising from the use of patented, copyrighted, trade secret, or trademarked materials, equipment, devices, or processes used on or incorporated in the services and materials produced under this Agreement.
- 6.4. CONSULTANT agrees that all reports, communications, electronic files, databases, documents, and information that it obtains or prepares in connection with performing this Agreement shall be treated as confidential material and shall not be released or published without the prior written consent of RTC; provided, however, that CONSULTANT may refer to this scope of work in connection with its promotional literature in a professional and commercially reasonable manner. The provisions of this subsection shall not apply to information in whatever form that comes into the public domain. The provisions of this paragraph also shall not restrict CONSULTANT from giving notices required by law or complying with an order to provide information or data when such order is issued by a court, administrative agency, or other entity with proper jurisdiction, or if it is reasonably necessary for CONSULTANT to defend itself from any suit or claim.

ARTICLE 7 - TERMINATION

7.1. CONTRACT TERMINATION FOR DEFAULT

If CONSULTANT fails to perform services in the manner called for in this Agreement or if CONSULTANT fails to comply with any other provisions of this Agreement, RTC may terminate this Agreement for default. Termination shall be effected by serving a notice of termination on CONSULTANT setting forth the manner in which CONSULTANT is in default. CONSULTANT will only be paid the contract price for services delivered and accepted, or services performed in accordance with the manner of performance set forth in this Agreement.

If it is later determined by RTC that CONSULTANT had an excusable reason for not performing, such as a fire, flood, or events which are not the fault of or are beyond the control of CONSULTANT, RTC, after setting up a new performance schedule, may allow CONSULTANT to continue work, or treat the termination as a termination for convenience.

7.2. CONTRACT TERMINATION FOR CONVENIENCE

RTC may terminate this Agreement, in whole or in part, at any time by written notice to CONSULTANT when it is in RTC's best interest. CONSULTANT shall be paid its costs, including contract closeout costs, and profit on work performed up to the time of termination. CONSULTANT shall promptly submit its termination claim to RTC to be paid CONSULTANT. If CONSULTANT has any property in its possession belonging to RTC, CONSULTANT will account for the same, and dispose of it in the manner RTC directs.

ARTICLE 8 - INSURANCE

- 8.1. CONSULTANT shall not commence any work or permit any employee/agent to commence any work until satisfactory proof has been submitted to RTC that all insurance requirements have been met.
- 8.2. In conjunction with the performance of the services/work required by the terms of this Agreement, CONSULTANT shall obtain all types and amounts of insurance set forth in Exhibit C and shall comply with all provisions set forth therein.

ARTICLE 9 - HOLD HARMLESS

- 9.1. CONSULTANT's obligation under this provision is as set forth in Exhibit C. Said obligation would also extend to any liability of RTC resulting from any action to clear any lien and/or to recover for damage to RTC property.

ARTICLE 10 - EQUAL EMPLOYMENT OPPORTUNITY

- 10.1. During the performance of this Agreement, CONSULTANT agrees not to discriminate against any employee or applicant for employment because of race, color, religion, sex, age, disability, or national origin. CONSULTANT will take affirmative action to ensure that applicants are employed, and that employees are treated fairly during employment, without regard to their race, color, religion, sex, age, disability, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONSULTANT agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by RTC setting forth the provisions of this nondiscrimination clause.
- 10.2. CONSULTANT will, in all solicitations or advertisements for employees placed by or on behalf of CONSULTANT, state that well qualified applicants will receive consideration of employment without regard to race, color, religion, sex, age, disability, or national origin.
- 10.3. CONSULTANT will cause the foregoing provisions to be inserted in all sub-agreements for any work covered by this Agreement so that such provisions will be binding upon each sub-consultant.

ARTICLE 11 - RESOLUTION OF CLAIMS AND DISPUTES

11.1. NEGOTIATED RESOLUTION

In the event that any dispute or claim arises under this Agreement, the parties shall timely cooperate and negotiate in good faith to resolve any such dispute or claim. Such cooperation shall include providing the other party with all information in order to properly evaluate the dispute or claim and making available the necessary personnel to discuss and make decisions relative to the dispute or claim.

11.2. MEDIATION

If the parties have been unable to reach an informal negotiated resolution to the dispute or claim within thirty (30) days following submission in writing of the dispute or claim to the other party, or such longer period of time as the parties may agree to in writing, either party may then request, in writing, that the dispute or claim be submitted to mediation (the "Mediation Notice"). After the other party's receipt or deemed receipt of the Mediation Notice, the parties shall endeavor to agree upon a mutually acceptable mediator, but if the parties have been unable to agree upon a mediator within ten (10) days following receipt of the Mediation Notice, then each party shall select a mediator and those two selected mediators shall select the mediator. A mediator selected by the parties' designated mediators shall meet the qualification set forth in as provided in Rule 4 of Part C., "Nevada Mediation Rules" of the "Rules Governing Alternative Dispute Resolutions adopted by the Nevada Supreme Court." Unless otherwise agreed to by the parties, in writing, the mediator shall have complete discretion over the conduct of the mediation proceeding. Unless otherwise agreed to by the parties, in writing, the mediation proceeding must take place within thirty (30) days following appointment of the mediator. The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in Washoe County, Nevada, unless otherwise agreed to by the parties, in writing. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

11.3. LITIGATION

In the event that the parties are unable to settle and/or resolve the dispute or claim as provided above, then either party may proceed with litigation in the Second Judicial District Court of the State of Nevada, County of Washoe.

11.4. CONTINUING CONTRACT PERFORMANCE

During the pendency of any dispute or claim the parties shall proceed diligently with performance of this Agreement and such dispute or claim shall not constitute an excuse or defense for a party's nonperformance or delay.

ARTICLE 12 – PROJECT MANAGERS

- 12.1. RTC’s Project Manager is Doug Maloy or such other person as is later designated in writing by RTC. RTC’s Project Manager has authority to act as RTC’s representative with respect to the performance of this Agreement.
- 12.2. CONSULTANT’ Project Manager is Ken Greene or such other person as is later designated in writing by CONSULTANT. CONSULTANT’s Project Manager has authority to act as CONSULTANT’s representative with respect to the performance of this Agreement.

ARTICLE 13 - NOTICE

- 13.1. Notices required under this Agreement shall be given as follows:

RTC: Bill Thomas, AICP
Executive Director
Doug Maloy, PE
RTC Project Manager
Regional Transportation Commission
1105 Terminal Way
Reno, Nevada 89502
(775) 335-1865

CONSULTANT: Ken Greene
Project Manager
Jacobs Engineering Group, Inc.
50 West Liberty St., Suite 206
Reno, Nevada 89501
(775) 360 7202

ARTICLE 14 - DELAYS IN PERFORMANCE

- 14.1. TIME IS OF THE ESSENCE

It is understood and agreed that all times stated and referred to herein are of the essence. The period for performance may be extended by RTC’s Executive Director pursuant to the process specified herein. No extension of time shall be valid unless reduced to writing and signed by RTC’s Executive Director.

- 14.2. UNAVOIDABLE DELAYS

If the timely completion of the services under this Agreement should be unavoidably delayed, RTC may extend the time for completion of this Agreement for not less than the number of days CONSULTANT was excusably delayed. A delay is unavoidable only if the delay is not reasonably expected to occur in connection with or during CONSULTANT’s performance, is not caused directly or substantially by acts, omissions,

negligence or mistakes of CONSULTANT, is substantial and in fact causes CONSULTANT to miss specified completion dates and cannot adequately be guarded against by contractual or legal means.

14.3. NOTIFICATION OF DELAYS

CONSULTANT shall notify RTC as soon as CONSULTANT has knowledge that an event has occurred or otherwise becomes aware that CONSULTANT will be delayed in the completion of the work. Within ten (10) working days thereafter, CONSULTANT shall provide such notice to RTC, in writing, furnishing as much detail on the delay as possible and requesting an extension of time.

14.4. REQUEST FOR EXTENSION

Any request by CONSULTANT for an extension of time to complete the work under this Agreement shall be made in writing to RTC. CONSULTANT shall supply to RTC documentation to substantiate and justify the additional time needed to complete the work and shall provide a revised schedule. RTC shall provide CONSULTANT with notice of its decision within a reasonable time after receipt of a request.

ARTICLE 15 - GENERAL PROVISIONS

15.1. SUCCESSORS AND ASSIGNS

RTC and CONSULTANT bind themselves and their successors and assigns to the other party and to the successors and assigns of such party, with respect to the performance of all covenants of this Agreement. Except as set forth herein, neither RTC nor CONSULTANT shall assign or transfer interest in this Agreement without the written consent of the other. Nothing herein shall be construed as creating a personal liability on the part of any officer or agent or any public body which may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than RTC and CONSULTANT.

15.2. NON TRANSFERABILITY

This Agreement is for CONSULTANT's professional services, and CONSULTANT's rights and obligations hereunder may not be assigned without the prior written consent of RTC.

15.3. SEVERABILITY

If any part, term, article, or provision of this Agreement is, by a court of competent jurisdiction, held to be illegal, void, or unenforceable, or to be in conflict with any law of the State of Nevada, the validity of the remaining provisions or portions of this Agreement are not affected, and the rights and obligations of the parties shall be construed and enforced as if this Agreement did not contain the particular part, term, or provision held invalid.

15.4. RELATIONSHIP OF PARTIES

CONSULTANT is an independent contractor to RTC under this Agreement. Accordingly, CONSULTANT is not entitled to participate in any retirement, deferred compensation, health insurance plans or other benefits RTC provides to its employees. CONSULTANT shall be free to contract to provide similar services for others while it is under contract to RTC, so long as said services and advocacy are not in direct conflict, as determined by RTC, with services being provided by CONSULTANT to RTC.

15.5. WAIVER/BREACH

Any waiver or breach of a provision in this Agreement shall not be deemed a waiver of any other provision in this Agreement and no waiver is valid unless in writing and executed by the waiving party. An extension of the time for performance of any obligation or act shall not be deemed an extension of time for the performance of any other obligation or act. This Agreement inures to the benefit of and is binding upon the parties to this Agreement and their respective heirs, successors and assigns.

15.6. REGULATORY COMPLIANCE

- A. CONSULTANT shall comply with all applicable federal, state and local government laws, regulations and ordinances. CONSULTANT shall be responsible for obtaining all necessary permits and licenses for performance of services under this Agreement. Upon request of RTC, CONSULTANT shall furnish RTC certificates of compliance with all such laws, orders and regulations.
- B. CONSULTANT represents and warrants that none of the services to be rendered pursuant to this Agreement constitute the performance of public work, as that term is defined by Section 338.010(17) of the Nevada Revised Statutes. To the extent CONSULTANT does engage in such public work, CONSULTANT shall be responsible for paying the prevailing wage as required by Chapter 338 of the Nevada Revised Statutes.

15.7. EXCLUSIVE AGREEMENT

There are no verbal agreements, representations or understandings affecting this Agreement, and all negotiations, representations and undertakings are set forth herein with the understanding that this Agreement constitutes the entire understanding by and between the parties.

15.8. AMENDMENTS

No alteration, amendment or modification of this Agreement shall be effective unless it is in writing and signed by both parties.

15.9. CONTINUING OBLIGATION

CONSULTANT agrees that if, because of death or any other occurrence it becomes impossible for any principal or employee of CONSULTANT to render the services required under this Agreement, neither CONSULTANT nor the surviving principals shall be relieved of any obligation to render complete performance. However, in such event, RTC may terminate this Agreement if it considers the death or incapacity of such principal or employee to be a loss of such magnitude as to affect CONSULTANT’s ability to satisfactorily complete the performance of this Agreement.

15.10. APPLICABLE LAW AND VENUE

The provisions of this Agreement shall be governed and construed in accordance with the laws of the State of Nevada. The exclusive venue and court for all lawsuits concerning this Agreement shall be the Second Judicial District Court of the State of Nevada, County of Washoe, and the parties hereto submit to the jurisdiction of that District Court.

15.11. ATTORNEYS’ FEES

In the event of a dispute between the parties result in a proceeding in any Court of Nevada having jurisdiction, the prevailing party shall be entitled to an award of costs and a reasonable attorneys’ fees.

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SAMPLE

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

REGIONAL TRANSPORTATION COMMISSION
OF WASHOE COUNTY

By: _____
Bill Thomas, AICP, Executive Director

JACOBS ENGINEERING GROUP, INC.

By: _____
Terry DeBiase, SW Director of Projects

SAMPLE

Exhibit A

Scope of Services

SAMPLE

Exhibit A: SouthEast Connector Phase 2 Scope of Remaining Services

This scope of services between JACOBS Engineering and the Regional Transportation Commission of Washoe County (RTC) for the SouthEast Connector (SEC) Phase 2 project was prepared to continue cultural resources reporting and Letter of Map Revision (LOMR) finalization/submittal, and to continue request for information (RFI) and submittal reviews. Additionally, this scope of services provides 1) monitoring of Soil-Tech's ongoing revegetation maintenance activities for years 2 (2020 – second half) and 3 (2021) along the project's extent (e.g., Segments 1, 2, 3 and 4), and 2) compliance monitoring per the terms of U.S. Army Corps of Engineers (USACE) 404 Permit #SPK-2010-01058, including requirements specified in their August 21, 2019 compliance letter and reporting for 2 years (2022 through 2023). Justification for this scope of services to accomplish the following tasks through December 2023 is summarized below.

1. Design Support Services (Task 1.0)

This task covers design support services anticipated necessary to negotiate adaptive management with the USACE, and review/comment on and finalize Soil-Tech's revegetation maintenance reports through Years 2 (2020) and 3 (2021). Design services also scope task management and revisions to the design as-built drawings to 1) support adaptive management and the current conditions technical memorandum, 2) reflect Steamboat Creek (SBC) east bank armoring upstream of Alexander Lake Road (ALR), and 3) consider floodplain finished grades at the rock check dam location in the north end of Segment 1. Task 1.0 expenditures are based on our estimated level-of-effort for the work to be completed. The fee requested through the anticipated project duration from July 2020 through December 2023 and explanation for this request is summarized below and in Exhibit B.

Hydraulic analysis/construction support related to the ALR bike path regrading, archaeological site #9528 analysis, analysis of impacts related to Granite's construction yard and mitigation basin, and analysis of Thomas Creek and Segment 1 check dam impacts and restoration were completed and paid under RTC Project #532013. The design support work, including subcontracted scope items to NCE, that continues under this scope is as follows:

- Design Task Management
 - Design and hydraulic analysis task management
- Submittal Reviews & Preparation
 - Revegetation Maintenance Reports (Soil-Tech [Years 2 (2nd half) & 3])
 - Current Conditions TM and Adaptive Management Plan
- Design As-Built Revisions
 - Finish grade elevations & trommel waste placement (Granite Submittal 845)
 - SBC east bank rock placement & check dam restoration area (Segment 1)
- Hydraulic Analysis/Construction Support
 - Address draft LOMR comments (CoR & FEMA) and finalize LOMR submittal
 - Hydraulic support – assessment of existing conditions

2. Environmental Services (Task 2.0)

This task covers environmental services during revegetation maintenance (Year 2 (2nd half) & 3, performed by Soil-Tech) and follow-on 404 permit monitoring (Years 1 & 2) periods. Task 2.0 includes management by the lead biologist and project manager, coordination among the environmental services team. The environmental services task also includes 1) testing Segment 4 basin sediments (per Special Condition #2 and SAP Addendum #4), and 2) negotiation of the current conditions technical memorandum (Special Condition #7) in response to the USACE August 21, 2019 status letter.

Task 2.0 also includes preparation, technical review and submittal of the reports required pursuant to the 404 permit, including temporal impact restoration report (Special Condition #13), qualitative semi-annual and annual quantitative revegetation reports (Special Condition #12), and the revegetation success report per Special Condition 13.b. This task also includes periodic (2 to 4 times/year) coordination of 404 permit compliance with USACE, NDEP and the RTC, and subcontractor coordination to finalize the project's archaeological mitigation report.

Natural resources monitoring for this task includes site inspections every other month of Soil-Tech's Year 2 (2nd half) & 3 maintenance work, bi-annual (every 6 months) natural resources inventory surveys of Soil-Tech's Year 2 (2nd half) and 3 maintenance work, and 404 permit Years 1 & 2 (e.g., 2022 through 2023) annual or semi-annual (see below) compliance monitoring/reporting in the permit-required (e.g., Segment 4 and temporal impact locations in Segments 1, 2 and 3) per Mitigation and Monitoring Plan, Section 9 (404 Permit Application, Appendix C). Task 2.0 also includes adjustments for Kautz Environmental to finalize the mitigation report (the draft report is currently with NV State Historic Preservation Office (SHPO)) and complete curation of recovered artifacts, which were scoped and originally included in their purchase order authorized under RTC Project #532013. The fee requested through the anticipated project duration from July 2020 through December 2023 and explanation for this request is summarized below and in Exhibit B.

- Environmental Task Management
 - Task management by Project Manager
 - Task management by Task Leader
 - Administrative support
- Permit Support Services (404 Permit Compliance)
 - Semi-Annual Regulatory Meetings
 - Finalize Assessment of Existing Conditions
 - Preparation/Submittal of Temporal Impact Restoration Report (due April 27, 2021)
 - Qualitative Semi-Annual Monitoring Reports (monitoring period years 1 and 2)
 - Quantitative Annual Monitoring Reports (monitoring period years 1 and 2)
 - Demonstrative Mitigation Success Report (monitoring period year 2)
- Cultural Resources Support
 - Coordination of subcontract activities (admin, finalize report, complete curation, etc.)
- Natural Resources Support
 - Bi-Monthly Site Inspections (during 2020 and 2021 maintenance period)
 - Qualitative Semi-Annual Resource Surveys (during 2020 and 2021 maintenance period)
 - Quantitative Annual Resource Surveys (during 2020 and 2021 maintenance period)
 - Qualitative Semi-Annual Resource Surveys (during 2022-2023 monitoring period)
 - Quantitative Annual Resource Surveys (during 2022-2023 monitoring period)

3. Project Management (Task 3.0)

This task covers project management for subcontractor (Soil-Tech) maintenance and 404 permit monitoring compliance services and includes general project administration (e.g., preparation of monthly invoices and progress reports, correspondence review and distribution to project team, filing of project correspondence), project management (including monthly staff management meetings), coordination and communication with project team and RTC during the work, and project closeout. The fee requested extends from September 2020 through December 2023 and through the anticipated project duration from September 2020 through December 2023 and explanation for this request is summarized in Exhibit B.

4. Contingency (Task 4.0)

This is a contingency for miscellaneous increases within the scope of this contract during the Project Management Phase. CONSULTANT shall provide a letter detailing the need, scope, and not-to-exceed budget for any proposed work. Work under this task shall proceed only with the RTC Project Manager's written approval

SAMPLE

Exhibit B

Compensation

SAMPLE

Exhibit B: SouthEast Connector Phase 2 - Compensation Schedule

Task Description	Scope Task	Task	CH2M		KAUTZ		NCE		TOTAL	
			Hrs	Price	Hours	Price	Hours	Price	Hours	Price
	1	A1 - Design Engineering								
Design Engineering	1.1	A1.DE.MG - Design Task Management	32	\$6,064					32	\$6,064
	1.2	A1.DE.RR - Submittal Reviews & Preparation	246	\$39,594					246	\$39,594
	1.3	A1.DE.AD - Record Drawings	19	\$3,740					19	\$3,740
		DESIGN ENGINEERING	297	\$49,398	0	\$0	0	\$0	297	\$49,398
		A1 - Environmental Services								
Environmental Services	2	A1.ES.MG - Environmental Task Management	240	\$40,448					240	\$40,448
	2.1	A1.ES.NP - Permit Support Services	556	\$87,783					556	\$87,783
	2.2	A1.ES.CR - Cultural Resources Support	9	\$1,665		\$57,901		\$14,998	9	\$74,564
	2.3	A1.ES.NR - Natural Resources Support	1,036	\$179,592					1,036	\$179,592
		ENVIRONMENTAL SERVICES	1,841	\$309,488	0	\$57,901	0	\$14,998	1,841	\$382,386
	3	A1 - Project Management								
Project Mgmt	3.1	A1.PM.AD - Project Administration	504	\$86,911					504	\$86,911
		PROJECT MANAGEMENT	504	\$86,911	0	\$0	0	\$0	504	\$86,911
		TOTAL FOR REMAINING SERVICES (EXCL. CONTINGENCY)	2,642	\$445,797	0	\$57,901	0	\$14,998	2,642	\$518,695
Contingency Task	4	Contingency	0	\$50,000					0	\$50,000
		CONTINGENCY	0	\$50,000	0	\$0	0	\$0	0	\$50,000
		TOTAL SEC Remaining Services (incl. 5% subcontractor markup)	2,642	\$495,797	0	\$57,901	0	\$14,998	2,642	\$572,340

Exhibit B: SouthEast Connector Phase 2 - Compensation Schedule
Fee Detail - Task 1.0 (Design Engineering)

Labor Resource	Functional Category	Hours	Amount	Assumptions
Top Task A1				
Task A1.DE.MG - Design Task Management				
Greene, David Kenneth	Engineer Specialist	16	\$	3,032 Task management budget (1 hr/month for 18 months) & hydraulic analysis reviews
Stansbury, Kaci Courtni	Engineer Specialist	16	\$	3,032 Task management budget (1 hr/month for 18 months)
		0	\$	-
Subtotal for A1.DE.MG - Design Task Management		32	\$	6,064
Task A1.DE.RR - Submittal Reviews & Preparation				
Greene, David Kenneth	Engineer Specialist	22	\$	4,166 PM review (maint reports, current conditons TM, adaptive management plan)
Stansbury, Kaci Courtni	Engineer Specialist	16	\$	3,032 Submittal review - 1.5 reports/12 hrs/report
Boyd, Brian	Project Engineer	94	\$	12,445 Lead author (adaptive management plan)
Baldrige, Jessica	Associate Engineer	24	\$	3,072 Submittal review - 3 reports/8 hrs/report
Boyd, Brian	Project Engineer	60	\$	9,825 Lead reviewer (1.5 maint reports) - 45 hrs/report
Thomas, Jeremy	Sr. Technologist	30	\$	7,054 Submittal reviewer (1.5 maint reports) - 22 hrs/report
Subtotal for A1.DE.RR - Submittal Reviews & Preparation		246	\$	39,594
Task A1.DE.AD - Record Drawings				
Stansbury, Kaci Courtni	Engineer Specialist	11	\$	2,035 Lead engineer (record drawing addenda) from SMP As-Builts
Greene, David Kenneth	Engineer Specialist	3	\$	555 Record drawing addenda review (from SMP As-Builts)
Thomas, Jeremy	Sr. Technologist	5	\$	1,150 Record drawing peer review (from SMP As-Builts)
		0	\$	-
Subtotal for A1.DE.AD - Record Drawings		19	\$	3,740

**Exhibit B: SouthEast Connector Phase 2 - Compensation Schedule
Fee Detail - Task 1.0 (NCE)**

NCE - Budget Expenditures (through April 28, 2020)

Task Activity	Funds Remaining¹	Budget Amendment²	Balance Needed³	Comments
Modeling Analysis	\$ 3			Budget request to finalize LOMR (incl. draft comment review and responses) submittal and hydraulic support for current conditions assessment
LOMR Preparation	\$ 76	\$ 15,200	\$ 14,998	
Litigation Support	\$ 124			
TOTAL	\$ 203	\$ 15,200	\$ 14,998	

1 - based on October 29, 2019 invoice #175082514 from NCE

2 - NCE Budeget Amendment #2 dated November 27, 2019

3 - Completed work (\$14,800) performed (e.g., ALR bike path, Site #9528, Segment 4 & 1 hydraulic analysis) paid under RTC Project #532013

SAMPLE

Exhibit B: SouthEast Connector Phase 2 - Compensation Schedule
Fee Detail - Task 2.0 (Environmental Services)

Labor Resource	Functional Category	Hours	Amount	Assumptions
Top Task A1				
Task A1.ES.MG - Environmental Task Management				
Greene, David Kenneth	Engineer Specialist	80	\$ 15,616	Task management w/ task lead + coordination/meetings w/ NDEP, USACE & RTC - 24 hrs/year
Boyd, Brian	Project Engineer	100	\$ 16,900	Task lead budget + coordination/meetings w/ NDEP, USACE & RTC - 30 hrs/year
Baldrige, Jessica	Associate Engineer	60	\$ 7,932	Task support budget + meeting attendance w/ NDEP, USACE & RTC - 18 hrs/year
		0		
Subtotal for A1.ES.MG - Environmental Task Management		240	\$ 40,448	
Task A1.ES.NP - Permit Support Services				
Greene, David Kenneth	Engineer Specialist	49	\$ 9,472	Permit compliance review, Sr. review of existing conditions assessment & reports
Baldrige, Jessica	Associate Engineer	59	\$ 7,795	Tech review of temp impact restoration, qualitative/quantitative + success reports
Boyd, Brian	Project Engineer	147	\$ 24,921	Lead author - qualitative/quantitative + success reports
Thomas, Jeremy	Sr. Technologist	76	\$ 17,996	Lead author - temporal impact restoration report
Chelonis, John C	Technician 4	72	\$ 8,725	AutoCADD support for all deliverables
Dinkelman, Ilka D	Associate Engineer	123	\$ 15,928	Support author - temp impact restoration, qualitative/quantitative + success reports; testing
Becerra, Victoria	Office/Clerical/Accounting	29	\$ 2,947	Admin support for all deliverables
Subtotal for A1.ES.NP - Permit Support Services		556.05	\$ 87,783	
Task A1.ES.CR - Cultural Resources Support Services				
Greene, David Kenneth	Engineer Specialist	9	\$ 1,665	Coordination of subcontract services (final report, MOA close-out, covenant, interpretive marker)
Subtotal for A1.ES.CR - Cultural Resources Support Services		9	\$ 1,665	
Task A1.ES.NR - Natural Resources Support Services				
Greene, David Kenneth	Engineer Specialist	59	\$ 11,695	Bi-monthly site inspections + inspection reports (30 hrs/inspection for 2 yrs); resource surveys - twice
Baldrige, Jessica	Associate Engineer	195	\$ 25,687	annually for 5 years (2 maintenance + 3 monitoring years), incl. QC and reporting of subcontractor
Boyd, Brian	Project Engineer	265	\$ 44,743	maintenance work + monitoring setup, photopoint est, qualitative/quantitative monitoring (404 mitigation
Thomas, Jeremy	Sr. Technologist	204	\$ 49,842	areas) & reporting (2 reports - 404 mitigation area to USACE/RTC) per Mitigation and Monitoring Plan (Oct
Maloy, Vernal	Project Engineer	156	\$ 26,719	2014) Sect.9.
Dinkelman, Ilka D	Associate Engineer	156	\$ 20,907	
Labor Subtotal for A1.ES.NR - Natural Resources Support Services		1036.2	\$ 179,592	

**Exhibit B: SouthEast Connector Phase 2 - Compensation Schedule
Fee Detail - Task 2.0 (Kautz Environmental)**

Kautz Environmental Consultants - Budget Expenditures (through March 27, 2020)

Task Activity	Funds Needed¹	Funds Remaining²	Budget Requested³	Comments
Site 26Wa9528 HPTP (Final Draft)	\$ -	\$ -	\$ -	Scope 100% spent and complete
Admin/Safety	\$ -	\$ -	\$ -	Scope 100% spent and complete
Unanticipated Discoveries	\$ -	\$ -	\$ -	Scope 100% spent and complete
Tribal Monitoring (12 months; April 2017 thru March 2018); contingency (1 monitor for 6 months)	\$ -	\$ -	\$ -	Scope 100% spent and complete
Archaeological Monitoring (12 months; April 2017 thru March 2018); contingency (1 additional monitor for 6 months)	\$ -	\$ -	\$ -	Scope 100% spent and complete
Site 26Wa9528 Mitigation Remaining	\$ -	\$ -	\$ -	Scope 100% spent and complete
Site 26Wa9528 Lab Processing	\$ -	\$ -	\$ -	Scope 100% spent and complete
Geomorphology Consultant		\$ -	\$ -	Scope 100% spent and complete
Special Studies (C14, obsidian, fauna, dendro, etc.)	\$ -	\$ -	\$ -	Scope 100% spent and complete
Draft and Final Reports (Mitigation Sites)	\$ 13,500	\$ -	\$ 13,500	Draft report submitted w/ comments pending - estimated budget needed (incl. administration & interpretive marker production)
Draft and Final Reports (Unanticipated Discoveries)	\$ 6,500	\$ -	\$ 6,500	Scope 100% complete - budget remaining
Curation	\$ 39,006	\$ 1,105	\$ 37,901	Scope partially complete - estimated budget needed
Mapping	\$ -		\$ -	Scope 100% spent and complete
TOTAL	\$ 59,006	\$ 1,105	\$ 57,901	

1 - through March 27, 2020

2 - Kautz Closeout Task Budget dated December 4, 2019

3 - projected underrun of authorized budget based on footnote 2

Exhibit B: SouthEast Connector Phase 2 - Compensation Schedule
Fee Detail - Task 3.0 (Project Management)

Labor Resource	Functional Category	Hours	Amount	Assumptions
Top Task A1				
Task A1.PM.AD - Project Administration				
Greene, David Kenneth	Engineer Specialist	210	\$ 40,890	Project admin/management - 5 hrs/month thru maint/monitoring period
Boyd, Brian	Project Engineer	84	\$ 14,160	Project admin/management support - 2 hr/month thru maint/monitoring period
Gallegos, Mark	Staff Engineer 2	42	\$ 4,638	Project admin/management support - 1 hr/month thru maint/monitoring period
Ferrarese, Cathy	Associate Engineer	126	\$ 16,614	Project admin/accounting support - 3 hr/month thru maint/monitoring period
DeBaise, Terry	Principal Technologist	42	\$ 10,609	Project admin/accounting support - 1 hr/month thru maint/monitoring period
			\$ -	
Subtotal for A2.PM.AD - Project Administration		504	\$ 86,911	

SAMPLE

**Southeast Connector Phase 2 SDC Amendment
Fee Detail - Task 4.0 (Contingency Task)**

Labor Resource	Functional Category	Hours	Amount	Assumptions
Top Task A1				
Task A1.CT - Contingency Task				
Greene, David Kenneth Boyd, Brian	Engineer Specialist Project Engineer	NA	\$ 50,000	Contingency labor added per RTC's request and executed at their directon only.
			\$ -	
Subtotal for Contingency Task		0	\$ 50,000	
Total Labor for Contingency Task		0	\$ 50,000	

SAMPLE

Exhibit C

Indemnification and Insurance Requirements

SAMPLE

Exhibit C

**INDEMNIFICATION AND INSURANCE REQUIREMENTS FOR
PROFESSIONAL SERVICE AGREEMENTS**

2019-11-11 Version

1. INTRODUCTION

IT IS HIGHLY RECOMMENDED THAT CONSULTANTS CONFER WITH THEIR INSURANCE CARRIERS OR BROKERS TO DETERMINE THE AVAILABILITY OF THESE INSURANCE CERTIFICATES AND ENDORSEMENTS IN ADVANCE OF PROPOSAL SUBMISSION. IF THERE ARE ANY QUESTIONS REGARDING THESE INSURANCE REQUIREMENTS, IT IS RECOMMENDED THAT THE AGENT/BROKER CONTACT RTC'S FINANCE DIRECTOR AT (775) 348-0400.

2. INDEMNIFICATION

CONSULTANT agrees to defend, save and hold harmless and fully indemnify RTC, Washoe County, City of Reno, and City of Sparks, including their elected officials, officers, employees, and agents (hereafter, "Indemnitees") from and against any and all claims, proceedings, actions, liability and damages, including attorneys' fees and defense costs incurred in any action or proceeding (collectively "Damages") arising out of:

- A. Any breach of duty, neglect, error, misstatement, misleading statement or omission committed in the conduct of CONSULTANT'S profession, work or services rendered by (i) CONSULTANT, its employees, agents, officers, or directors, (ii) subconsultants (hereafter, "Subs"), or (iii) anyone else for which CONSULTANT may be legally responsible; and
- B. The negligent acts of CONSULTANT, its employees, agents, officers, directors, Subs, or anyone else for which CONSULTANT is legally responsible; and
- C. The infringement of any patent or copyright resulting from the use by the Indemnitees of any equipment, part, component or other deliverable (including software) supplied by CONSULTANT under or as a result of this Agreement, but excluding any infringement resulting from the modification or alteration by the Indemnitees of any equipment, part, component, or other deliverable (including software) except as consented to by CONSULTANT.

The Damages shall include, but are not limited to, those resulting from personal injury to any person, including bodily injury, sickness, disease or death and injury to real property or personal property, tangible or intangible, and the loss of use of any of that property, whether or not it is physically injured.

If the Indemnitees are involved in defending actions, CONSULTANT shall reimburse the Indemnitees for the time spent by such personnel at the rate the Indemnitees pay for such services.

If an Indemnitee is found to be liable in the proceeding, then CONSULTANT'S obligation hereunder shall be limited to the proportional share of the liability attributed to CONSULTANT.

In determining whether a claim is subject to indemnification, the incident underlying the claim shall determine the nature of the claim.

In the event of a violation or an infringement under paragraph 2.C above and the use is enjoined, CONSULTANT, at its sole expense, shall either (1) secure for the Indemnitees the right to continue using the materials by suspension of any injunction or by procuring a license or licenses for the Indemnitees; or (2) modify the materials so that they become non-infringing. This covenant shall survive the termination of this Agreement.

3. GENERAL REQUIREMENTS

Prior to the start of any work on a RTC project, CONSULTANT shall purchase and maintain insurance of the types and limits as described herein insuring against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONSULTANT, its Subs, or their employees, agents, or representatives. The cost of all such insurance shall be borne by CONSULTANT.

4. VERIFICATION OF COVERAGE

CONSULTANT shall furnish RTC with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth herein, on forms acceptable to RTC. All deductibles and self-insured retentions requiring RTC approval shall be shown on the certificate. All certificates and endorsements are to be addressed to RTC's Finance Director and be received and approved by RTC before work commences. The CONSULTANT agrees that RTC has the right to inspect CONSULTANT'S and the Sub's insurance policies, or certified copies of the policies, at any reasonable time. Copies of applicable policy forms or endorsements confirming required additional insured, waiver of subrogation and notice of cancellation provisions are required to be provided with any certificate(s) evidencing the required coverage.

5. NOTICE OF CANCELLATION

CONSULTANT or its insurers shall provide at least thirty (30) days' prior written notice to RTC prior to the cancellation or non-renewal of any insurance required under this Agreement. An exception may be included to provide at least ten (10) days' written notice if cancellation is due to non-payment of premium. CONSULTANT shall be responsible to provide prior written notice to RTC as soon as practicable upon receipt of any notice of cancellation, non-renewal, reduction in required limits or other material change in the insurance required under this Agreement.

6. SUBCONSULTANTS & SUBCONTRACTORS

CONSULTANT shall include all Subcontractors and Subconsultants (referred to collectively as "Subs") as insureds under its liability policies OR shall cause Subs employed by CONSULTANT to purchase and maintain separate liability coverages and limits of the types specified herein. If any Subs maintain separate liability coverages and limits, each shall include the RTC, Washoe County, City of Reno and City of Sparks as additional insureds under its commercial general liability policy, subject to the same requirements stated herein, without requiring a written contract or agreement between each of the additional insureds and any sub-consultant or sub-contractor. Any separate coverage limits of liability maintained by Subs shall be at least **\$1,000,000** per occurrence and at least **\$2,000,000** for any applicable coverage aggregates or the amount customarily carried by the Sub, whichever is GREATER. If any Subs provide their own insurance with limits less than required of the Contractor, Contractor shall include Subs in their coverage up to the full limits required of the Contractor. When requested by RTC, CONSULTANT shall furnish copies of certificates of insurance evidencing coverage for each Sub. The CONSULTANT need not require its non-design subcontractors to carry Professional Errors and Omissions Liability insurance.

7. DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions that exceed \$5,000 per occurrence or claim must be declared to and approved by RTC's Finance Director prior to signing this Agreement. RTC is entitled to request and receive additional documentation, financial or otherwise, prior to giving its approval of the deductibles and self-insured retentions. Any changes to the deductibles or self-insured retentions made during the term of this Agreement or during the term of any policy must be approved by the RTC's Finance Director prior to the change taking effect.

8. ACCEPTABILITY OF INSURERS

Required insurance is to be placed with insurers with a Best's rating of no less than A-VII and acceptable to RTC. RTC may accept coverage with carriers having lower Best's ratings upon review of financial information concerning CONSULTANT and the insurance carrier. RTC reserves the right to require that CONSULTANT'S insurer(s) be licensed and admitted in the State of Nevada or meet any applicable state and federal laws and regulations for non-admitted insurance placements.

9. OTHER CONDITIONS

- A. Failure to furnish the required certificate(s) or failure to maintain the required insurance may result in termination of this Agreement at RTC's option.
- B. If CONSULTANT fails to furnish the required certificate or fails to maintain the required insurance as set forth herein, RTC shall have the right, but not the obligation, to purchase said insurance at CONSULTANT's expense.

- C. Any waiver of CONSULTANT's obligation to furnish such certificate or maintain such insurance must be in writing and signed by an authorized representative of RTC. Failure of RTC to demand such certificate or other evidence of full compliance with these insurance requirements or failure of RTC to identify a deficiency from evidence that is provided shall not be construed as a waiver of CONSULTANT's obligation to maintain such insurance, or as a waiver as to the enforcement of any of these provisions at a later date.
- D. By requiring insurance herein, RTC does not represent that coverage and limits will necessarily be adequate to protect CONSULTANT, and such coverage and limits shall not be deemed as a limitation on CONSULTANT's liability under the indemnities granted to RTC in this contract.
- E. If CONSULTANT'S liability policies do not contain the standard ISO separation of insureds condition, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

10. COMMERCIAL GENERAL LIABILITY

CONSULTANT shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than **\$2,000,000** each occurrence. If such CGL insurance contains a general aggregate limit, it shall be increased to equal twice the required occurrence limit or revised to apply separately to this project.

CGL insurance shall be written on ISO occurrence form CG 00 01 04 13 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, products-completed operations, personal and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).

RTC and any other Indemnitees listed in Section 2. INDEMNIFICATION of this Agreement shall be included as an insured under the CGL, using ISO additional insured endorsement CG 20 10 07/04 or CG 20 33 07/04 or a substitute providing equivalent coverage, and under the commercial umbrella, if any.

This insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to RTC or any other Indemnitees under this Agreement.

CONSULTANT waives all rights against RTC and any other Indemnitees listed in Section 2. INDEMNIFICATION of this Agreement for recovery of damages to the extent these damages are covered by the commercial general liability or commercial umbrella liability insurance maintained pursuant to this agreement. CONSULTANT's insurer shall endorse CGL policy to waive subrogation against RTC with respect to any loss paid under the policy.

11. COMMERCIAL AUTOMOBILE LIABILITY

CONSULTANT shall maintain automobile liability and, if necessary, commercial umbrella liability insurance with a limit of not less than **\$1,000,000** each accident. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos).

Coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 25, or a substitute form providing equivalent liability coverage for all owned, leased, hired (rented) and non-owned vehicles (as applicable). RTC may agree to accept auto liability for non-owned and hired (rented) vehicles under the CGL if CONSULTANT does not own or operate any owned or leased vehicles.

CONSULTANT waives all rights against RTC, its officers, employees and volunteers for recovery of damages to the extent these damages are covered by the automobile liability or commercial umbrella liability insurance obtained by CONSULTANT pursuant to this Agreement.

12. INDUSTRIAL (WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY) INSURANCE

It is understood and agreed that there shall be no Industrial (Worker's Compensation and Employer's Liability) Insurance coverage provided for CONSULTANT or any Subs by RTC. The CONSULTANT, and any Subs, shall procure, pay for and maintain the required coverages.

CONSULTANT shall maintain workers' compensation and employer's liability insurance meeting the statutory requirements of the State of Nevada, including but not limited to NRS 616B.627 and NRS 617.210. The employer's liability limits shall not be less than **\$1,000,000** each accident for bodily injury by accident or **\$1,000,000** each employee for bodily injury by disease.

CONSULTANT shall provide a Final Certificate for itself and each Sub evidencing that CONSULTANT and each Sub maintained workers' compensation and employer's liability insurance throughout the entire course of the project.

If CONSULTANT, or any Sub is a sole proprietor, coverage for the sole proprietor must be purchased and evidence of coverage must appear on the Certificate of Insurance and Final Certificate.

CONSULTANT waives all rights against RTC, its elected officials, officers, employees and agents for recovery of damages to the extent these damages are covered by the workers compensation and employer's liability or commercial umbrella liability insurance obtained by Tenant pursuant to this agreement. CONSULTANT shall obtain an endorsement equivalent to WC 00 03 13 to affect this waiver.

13. PROFESSIONAL ERRORS AND OMISSIONS LIABILITY

CONSULTANT shall maintain professional liability insurance applying to liability for a professional, error, act, or omission arising out of the scope of CONSULTANT'S services provided under this Agreement with a limit of not less than **\$1,000,000** each claim and annual aggregate. CONSULTANT shall maintain professional liability insurance during the term of this Agreement and, if coverage is provided on a "claims made" or "claims made and reported" basis,

shall maintain coverage or purchase an extended reporting period for a period of at least three (3) years following the termination of this Agreement.

14. NETWORK SECURITY AND PRIVACY LIABILITY

If CONSULTANT will have access to RTC computer or network systems for any reason and/or data including personal information (as defined in NRS 603A.040) or confidential information, CONSULTANT shall maintain network security and privacy liability insurance insuring against loss resulting from (1) privacy breaches [liability arising from the loss or disclosure of confidential information] (2) system breach (3) denial or loss of service (4) introduction, implantation, or spread of malicious software code (5) unauthorized access to or use of computer systems and (6) system failure. Coverage shall be provided with a limit of not less than **\$1,000,000** per claim and annual aggregate.

15. CRIME INSURANCE

If CONSULTANT will have care, custody or control of RTC money, securities or other property, CONSULTANT shall maintain crime insurance including coverage for the loss of money, securities and other property by employees or other parties with a limit not less than **\$1,000,000** per occurrence. Coverage shall be endorsed to include coverage for loss of RTC money, securities and other property in the care, custody or control of CONSULTANT.



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 3.11

TO: Regional Transportation Commission

FROM: Judy Tortelli, P.E.
Engineer II

Bill Thomas, AICP
Executive Director

SUBJECT: Amendment No. 1 to the Professional Services Agreement between the RTC and Stantec Consulting Services, Inc. (Stantec) for East Prater Way Rehabilitation Project

RECOMMENDATION

Approve Amendment No. 1 to the existing Professional Services Agreement (PSA) between the RTC and Stantec for Engineering During Construction (EDC) services to be provided on the East Prater Way Rehabilitation Project in the amount of \$77,000 for a new not to exceed amount of \$834,823; authorize the RTC Executive Director to execute the amendment.

SUMMARY

This amendment provides funding for additional construction administration, inspection, and testing services required to enable the RTC’s consultant to continue to provide necessary support during the remainder of construction of the project. The additional funding is the result of RTC directed extra work and working days that were not anticipated in the original PSA for construction administration.

This amendment adds \$77,000 to the current PSA amount of \$757,823 for a new total not to exceed amount of \$834,823. Of this \$77,000 amendment, approximately \$13,000 is reimbursable to the RTC by the City of Sparks under an existing Interlocal Agreement. The fee schedule and amended scope of services associated with this amendment are included as Attachment A.

FISCAL IMPACT

Project appropriations are included in the approved FY 2020 Budget.

PREVIOUS ACTIONS BY BOARD

July 19, 2019

Approved the PSA with Stantec and authorized the Executive Director execute a PSA.

June 20, 2019 Approved the Qualified Consultant List for Engineering Design and Construction Management Services

January 18, 2019 Approved the FY 2020 Program of Projects

ADDITIONAL BACKGROUND

Twenty (20) working days were added to the contract duration for additional work on this project. The coordination effort associated with underground utility work exceeded hours originally budgeted for EDC services. Additional services were associated with the Sparks Police Department fiber optic line shut down and removal. That included several meetings with City of Sparks' staff and the Contractor team to coordinate the critical work to occur during the shutdown.

ADVISORY COMMITTEE(S) RECOMMENDATION

There are no advisory committee recommendations regarding this agenda item.

Attachment

AMENDMENT NO. 1
AGREEMENT
BETWEEN
REGIONAL TRANSPORTATION COMMISSION OF WASHOE COUNTY
AND
STANTEC CONSULTING SERVICES, INC.

The Regional Transportation Commission of Washoe County (“RTC”) and Stantec Consulting Services, Inc. (“CONSULTANT”), entered into an agreement on August 1, 2019 (the “Agreement”). This Amendment No. 1 is dated and effective as of August 21, 2020.

RECITALS

WHEREAS, RTC and CONSULTANT entered into the Agreement in order for CONSULTANT to perform certain engineering, design, construction management, and quality assurance services in connection with the Prater Way project; and

WHEREAS, the engineering design is complete and the remaining design budget, including unused contingency, shall be reallocated to cover construction services as described below; and

WHEREAS, the construction contract performance period was extended for the Prater Way Rehabilitation Project by 20 working days, and it was determined additional engineering during construction services would be necessary to provide coordination associated with underground utility work, construction administration, inspection, and testing; and

WHEREAS, the parties desire to amend the Agreement in order to reallocate \$31,766.58 of unused design budget to construction services, reduce construction contingency to \$10,000 and reallocate \$20,000 of unused contingency to construction services, and provide an additional \$77,000 of budget for construction services.

NOW, THEREFORE, in consideration of the mutual promises of the parties and other good and valuable consideration, the parties do agree as follows:

1. Section 3.2. shall be replaced in its entirety with the following:

The maximum amount payable to CONSULTANT to complete each task is equal to the not-to-exceed amounts identified in Exhibit B. CONSULTANT can request in writing that RTC’s Project Manager reallocate not-to-exceed amounts between tasks. A request to reallocate not-to-exceed amounts must be accompanied with a revised fee schedule, and must be approved in writing by RTC’s Project Manager prior to performance of the work. In no case shall CONSULTANT be compensated in excess of the following not-to exceed amounts:

Total Design Services (Tasks 2.1.A to 2.1.D)	\$331,536.42
Total OPTIONAL Construction Services (Task 2.1.E to 2.1.I)	\$493,286.58
<u>Contingency – Construction Services (Task 2.1.J)</u>	<u>\$10,000.00</u>
Total (Including Optional Services)	\$834,823.00

2. Exhibit A – Scope of Services of the Agreement is replaced in its entirety with the version of Exhibit A – attached
3. Exhibit B – Cost Proposal of the Agreement is replaced in its entirety with the version of Exhibit B – Cost Proposal attached hereto.
4. All other provisions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have made and executed this amendment.

REGIONAL TRANSPORTATION COMMISSION
OF WASHOE COUNTY

By _____
Bill Thomas AICP, Executive Director

STANTEC CONSULTING SERVICES, INC.

By _____
Joseph A. Mactutis, Principal

EXHIBIT A
SCOPE OF SERVICES
FOR THE
PRATER WAY REHAB – HOWARD DRIVE TO SPARKS BOULEVARD PROJECT

2.1. SCOPE OF SERVICES

This will generally consist of the following tasks:

2.1.A. Investigation of Existing Conditions

1. Falling Weight Deflectometer (FWD) Testing. (Not Applicable)
2. Condition Survey.
 - a. CONSULTANT will visually evaluate and document the condition of the existing pavement to include fatigue cracking, potholes, rutting, transverse cracking and raveling. A subjective measure of ride quality will also be obtained.
 - b. CONSULTANT will evaluate curb and gutter, sidewalk, and driveway approach based upon RTC criteria. The CONSULTANT shall also evaluate existing pedestrian ramps for compliance with current ADA standards and consider improvements needed for “complete street”.
3. Traffic Data.
 - a. Traffic data is needed to estimate the past 18-kip equivalent single axle load (ESAL) applications that have contributed to the current condition of the pavement, as well as the future 18-kip ESAL applications that will be required for rehabilitation/reconstruction design. It is assumed that all the information on average daily traffic (current and future), truck percentages and truck factors will be available from the Regional Transportation Commission, City of Sparks and/or the Nevada DOT traffic records. The CONSULTANT will also review accident data for possible safety problem areas, and provide recommendations.
 - b. CONSULTANT shall review RTC RIDE bus route schedules, calculate and include ESAL’s in the pavement design to ensure proposed structural sections will accommodate a 20-year pavement design life.
4. Right-of-Way Mapping and Engineering Services

- a. CONSULTANT will obtain record right-of-way based upon Washoe County GIS information. The record right-of-way information will be shown on the project plans. No further resolution of the roadway right-of-way is included in this task.

Deliverables – Record right-of-way in CAD format

- b. It is estimated approximately ten (10) parcels will require permanent and temporary easements to construct the planned improvements. CONSULTANT will perform boundary surveying including preparation of full Metes and Bounds descriptions of 10 individual parcels. This will include property record research, drafting of property boundaries from record descriptions, calculations of search coordinates for filed boundary survey, field boundary survey on each affected parcel, post processing and reduction of field data, boundary resolution based upon field findings, preparation of legal descriptions and exhibit maps of individual affected parcels. CONSULTANT shall pull preliminary Title Reports and updates as necessary for each affected parcel. All RTC comments shall be addressed prior to recordation.
- c. It is estimated approximately ten (10) parcels will require Permission to Construct to construct the planned improvements. CONSULTANT will provide an encroachment exhibit and vesting deeds for each parcel for use in RTC's discussion with property owners to acquire Permission to Construct.

Right-of-way appraisal, property owner negotiations, escrow coordination and title clearance is not included within this task.

Deliverables – property boundary for ten (10) parcels along with exhibit maps, legal descriptions, and title report for permanent and/or temporary construction easements on each parcel. Encroachment exhibits and vesting deeds for permissions to construct. Right-of-Way summary spreadsheet detailing easement type, size, and reason by parcel. Ten (10) permission to construct exhibits to also be provided.

5. Subsection Identification and Core Location Selection. (Not Applicable)
6. Geotechnical Investigation. Exploration will be completed by both exploratory borings and test pits. A total of 6 exploratory borings and 4 exploratory test pits will be completed.

CONSULTANT will log material encountered during exploration in the field. The existing structural section will be measured. Bulk samples of the subgrade soils will be obtained for R-value and moisture-density

relationship testing. Representative samples will be returned to our Reno laboratory for testing.

CONSULTANT will contact USA Dig to locate existing utilities at the site and obtain necessary excavation and encroachment permits. CONSULTANT will take every precaution to lower the risk of damaging underground structures; however, underground exploration is inherently risky as it is not possible to precisely locate all underground structures.

Representative samples of each significant soil type will be tested in the laboratory as to index properties, such as moisture content, grain size distribution and plasticity. These index properties are indicative of mechanical behavior of the soils.

Moisture-density curve relationship tests will also be completed on representative subgrade soils. Optimum moisture content determined by these tests will be compared to in-place subgrade soil moisture contents and provides a basis to determine if unstable subgrade soils will be encountered.

R-value testing will be performed on representative samples of anticipated subgrade soils. R-value testing is a measure of subgrade strength and expansion potential and is used in the design of flexible pavements.

Upon completion of the field, laboratory testing, and analysis phases of our investigation, a geotechnical investigation report will be completed for the project and include the following:

- Description of the project site with the approximate locations of our explorations, presented on a Site Plan;
- Descriptive logs of the explorations performed for this study;
- Summary of existing structural section thicknesses;
- General summary of subgrade soil description;
- Subgrade soil moisture and ground water conditions;
- Laboratory test results;
- Subgrade soil design resilient modulus;
- Construction Recommendations including:
 - Site preparation and grading recommendations;
 - Subgrade soil stabilization alternatives;
 - Structural section construction recommendations;
 - Anticipated construction difficulties.

7. Backcalculation Analysis. (Not Applicable)

8. Develop Feasible Rehabilitation/Reconstruction Alternatives. Based upon the results of the backcalculation, CONSULTANT will identify feasible

pavement rehabilitation and/or reconstruction alternatives for the project. Among the alternatives that will be considered are:

- Roadbed modification (reconstruction)
- Removal and AC/Aggregate Base paving
- Deep lift AC paving

Upon completion of the geotechnical investigation, CONSULTANT will meet with RTC to present feasible rehabilitation alternatives. CONSULTANT will then apply the design procedures contained in the latest (1993) AASHTO Guide for Design of Pavement Structures to generate the design layer thickness associated with each pavement alternative.

9. Conduct Life-Cycle Cost Analysis. (Not Applicable)
10. Identify Optimum Rehabilitation/Reconstruction Alternative. Based upon cost analysis, as well as some practical construction considerations, CONSULTANT will prepare the recommended rehabilitation or reconstruction alternative(s) for the project. It should be noted that because of varying conditions along the length of the project, there may be more than one recommendation.
11. Utility Investigation/Depiction
 - a. Overhead Utilities: CONSULTANT will investigate and locate all overhead utilities within the roadway right of way and areas reasonably affected. Deliverable will include depiction of all overhead utilities within the roadway right-of-way on plans developed under Section 2.1.B, Preliminary Design.
 - b. Subsurface Utilities: CONSULTANT will investigate and locate subsurface utilities within the roadway right-of-way, and areas reasonably effected, in accordance with the American Society of Civil Engineers Standard guideline for the Collection and Depiction of Existing Subsurface Utility Data, Quality Level C. Additionally, CONSULTANT will coordinate with Utility Owners to remove lids of surface features and document depth of utility device, or invert of pipe, within such surface features. Deliverables will include: Depiction of subsurface utilities on plan sheets developed under Section 2.1.B, Preliminary Design. An inventory of subsurface utility surface features by Owner, type, location, and depth of feature or pipe invert.
 - c. Utility coordination: Based on field investigation, CONSULTANT will provide RTC a list of utility company whose utilities are likely

to be within the project limits or reasonably affected by the project. RTC will issue the initial notification to the utility agencies on the list and CONSULTANT will coordinate with the utility agencies for upcoming work, facility relocation and new installation, and to insure utilities likely affected by the project are drawn on the plan and profile, evaluate potential conflicts through field investigation, investigate conflict resolution strategies. CONSULTANT will assist in relocation of utility with prior rights by facilitate meetings, review utility's design/cost for incorporation into a reimbursement agreement and/or incorporate the utility work into the RTC plans.

12. Report. The findings and recommendations of CONSULTANT for all tasks identified in Section 2.1.A shall be submitted by report with backup documentation. The Geotechnical Report and pavement design shall also be submitted to the Local Entity if the recommended pavement section varies from the Entities standards.

2.1.B. Preliminary Design

1. Supplemental Topography. Obtain cross-sections at critical locations within the length of project.
2. Mapping. Stantec will provide a topographic survey to locate existing roadway improvements on Prater Way from approximately 300 feet west of the intersection of Howard Drive then easterly to the intersection of Sparks Boulevard and will include roadway improvements on intersecting streets and drives extending 25-feet beyond curb returns. The topographic survey will include all roadway improvements up to back of walk and/or fences and walls and surface utilities within project corridor. The topographic survey will be completed using LiDar scanning along with supplemental field measurements at intersections and areas obscured by vegetation. Utility manholes and valves will be measured to pipe inverts and top of valve nuts. The detailed utility information will be completed using a traffic control company to close lanes of travel during the survey. The topographic AutoCAD drawing file will include existing roadway improvements, fence lines, walls, surface utilities, spot elevations, 1-foot contours and centerline and right-of-way of Prater Way and intersecting streets.

Field Survey

- Locate and measure existing street monuments and benchmarks.
- Establish control to complete topographic survey.
- Topographic survey on Prater Way and intersecting streets to include edge of pavement, pavement elevations, curb locations, striping, traffic signals and visible utilities.

- Utility detailed measurements with traffic control provided by traffic control company.

Office Support & Drafting

- Project coordination.
- Research and drafting of record maps and documents for right-of-way determination.
- Research and drafting of utility information.
- Field survey data reduction.
- Prepare AutoCAD drawing file showing existing improvements, spot elevations, 1-foot contours, centerline and right-of-way of Prater way and intersecting streets. The mapping will be based upon the Washoe County control network and City of Sparks benchmark(s) referenced to the North American Vertical Datum of 1988 (NAVD88).

Assumptions:

- Field Surveys will be completed during daylight hours.
- Prevailing wages will not be required for the field surveying services.
- No fees will be required for occupancy permit(s), if required.

3. Project Coordination. Attend meetings, review reports, and provide project coordination.
4. Plans and Specifications. Prepare preliminary Plans, an outline of Technical Specifications, and a preliminary cost estimate suitable for RTC and Local Government review. Construction plans shall cover an area sufficient for contractor's later use as a base for traffic control plans, e.g., coverage should include traffic control taper areas across intersections. Curb, gutter, and sidewalk that are deficient according to both RTC and local entity standards shall be identified.
5. Public Information Meeting. A presentation will be made by CONSULTANT and RTC to properties adjacent to the project work zone to discuss project limits, scope, tentative schedule, traffic controls, driveway access, public notification requirements, and concerns of adjacent properties before the plans and specifications are finalized. It is also assumed two (2) one-on-one meeting with local businesses/property owners will be required.
6. Traffic Signal Modification Design. CONSULTANT will prepare plans, specifications, and estimate (PS&E) for modification of the entire traffic signal system at all intersections in the project limits. Work will include:

- Full inventory of the existing signal system
 - Determining detection scheme and equipment
 - ADA accessible design for pedestrian buttons, as needed
 - Providing schedules for signal equipment and conductors
7. Drainage Design. Not included in this proposal. Stantec would be happy to provide a proposal for a technical drainage analysis, if requested.

2.1.C. Final Design

1. Prepare Final Plans and Specifications
 - a. Prepare Final Construction Plans, Contract Documents and Technical Specifications suitable for construction bid advertisement for the approved alignment in accordance with RTC standards and requirements. RTC will provide the boilerplate on disk in MS Word format. The RTC, Local Entity and Quality Control review comments will be incorporated into the final Plans and Specifications.

The final construction plans will be on 22" x 34" size sheets and will show all elements of the project construction, including plan/profile view, right-of-way lines, cross-sections and construction/slope limits. The final plan set will include, as a minimum:

- Cover Sheet
- Legend, General Notes, and Abbreviations
- Plan/Profile Sheets (at 1"=20' scale)
- Cross-section Sheets (at 1"=20' scale)
- Intersection, Grading, and Pedestrian Ramp Detail Sheets (at 1"=10' scale)
 - Traffic Signal Modification Sheets (at 1"=10' scale)
 - Signage and Striping Sheets (at 1"=20')
 - Detail Sheets (scales as noted).

Depths of existing sanitary sewer and storm drain utilities will be checked and noted on the plans if there is any reason to expect conflict due to vertical clearances. All located, existing underground utilities will be shown on the Plan Sheets accompanied with the following "Note: Subsurface utilities are depicted by their Quality Levels in accordance American Society of Civil Engineers Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data (CI/ASCE 38-02). All utility information shown hereon is depicted to Quality Level "C", unless otherwise noted."

The Contract Documents and Technical Specifications will reference the latest edition of Standard Specifications for Public Works Construction (Orange Book) for standard construction items. Technical provisions will be prepared for approved deviations from the Orange Book and unique construction items not adequately covered in the Orange Book. The final plans and specifications will be signed and sealed by a Nevada Registered Professional Civil Engineer in responsible charge of preparation. Plans and specifications will be submitted to the RTC, City of Sparks, utility agencies and other affected parties for review at the 50%, 90%, 100%, and final stages of completion per the following:

- 50% & 90% Plans – One 22”x34” set each to RTC and City of Sparks, two 11”x17” sets to RTC, six 11”x17” sets to City of Sparks, and one 11”x17” set each to utility agencies and other affected parties.
 - 90% Plans – One 11”x17” set to Washoe County Health District (WCHD).
 - 90% Specifications – One set each to RTC and City of Sparks.
 - 100% Plans – One 11”x17” each to RTC and City of Sparks.
 - 100% Plans – Email pdf of updated sheet(s) to WCHD as needed.
 - 100% Specifications – One set each to RTC and City of Sparks.
 - Final Working Plan Set – One 22”x34” set to RTC, one 11”x17” set each to RTC and City of Sparks.
 - Final Working Specification Document – One set each to RTC and City of Sparks, one copy in MS Word format of the Contract Documents and Technical Specifications to RTC.
- b. Independent Checker. An independent checker will check, initial and date each plan sheet. A quality control review of the plans, contract documents and technical specifications will be performed which will focus on technical aspects of the plans and specifications and will ensure that all items of work are adequately covered.
- c. Utility Agency Coordination. Distribute design review submittals (50% &90%) to utility agencies for review and comment, and provide RTC a list of utility agencies provided design review submittals and Utility Agency review comments.
- d. Constructability Review. CONSULTANT shall facilitate a one day workshop to perform a Constructability Review of the Project prior to the 90% submittal. The intent is to review plans, specifications, and construction approach to minimize potential construction change orders and ensure clear intent is provided. Field personnel

and designer shall attend and a field review of roadway segments is anticipated. Discussion topics may include review of design in the field, traffic signal equipment procurement, conflict identification, maintenance of traffic (closures/detours), special events, limitations of operations, schedule and phasing.

2. Final Engineer's Opinion of Probable Construction Costs and Time. Provide a final Engineer's opinion of probable construction costs for the project based on the final design and any alternatives or options. The cost opinion will be in the same format as the bid proposal form included in the contract documents. A quality control review of the cost opinion will be performed by the CONSULTANT. The CONSULTANT will also estimate the number of working or calendar days, as appropriate, for the construction of the projects.

2.1.D. Bidding Services

1. Plan Set and Specification Distribution. CONSULTANT will provide RTC with final plans and specifications, including addenda, in Portable Document Format (PDF), for use in the Ebid system.
2. Pre-bid Meeting. CONSULTANT will be available during the bidding process to answer technical questions and will hold the pre-bid meeting. All questions and responses will be documented and provided to RTC. CONSULTANT will prepare and provide PDF addenda, if required. All questions regarding legal aspects of the contract documents will be referred directly to RTC. CONSULTANT will prepare and provide a PDF summary of the pre-bid meeting, as directed by the RTC.
3. Bid Opening. CONSULTANT will attend the bid opening and review the bids received for irregularities and provide a recommendation for award. CONSULTANT will tabulate bid results into a MS Excel spreadsheet and check multiplication and addition of bid items.
4. Design Contingency (optional). This is a contingency for miscellaneous increases within the scope of this contract in the performance of services under Tasks 2.1.A. to 2.1.D. If CONSULTANT determines that it is necessary to perform work to be paid out of contingency, CONSULTANT shall provide a letter detailing the need, scope, and not-to-exceed budget for any proposed work. Work under this task shall proceed only with the RTC Project Manager's prior written approval.

2.1.E - I Construction Services (Optional) - The RTC and CONSULTANT shall review Optional Construction Services following the completion of final design to determine their appropriateness to the project.

2.1.E. Contract Administration (Optional)

1. Provide contract administration services as follows:

- Attend the preconstruction conference
- Perform construction coordination
- Review and provide recommendations on contractor's traffic control plans
- Review and stamp contractor's submittal for conformance to the contract documents, including plantmix bituminous pavement and Portland Cement concrete mix designs
- Review and provide recommendations on test results
- Review and provide recommendations on contractor's construction schedule and work progress
- Review construction for acceptance and/or mitigation
- Provide verification and approval of contractor's monthly pay request
- Supervise the inspection, surveying and material testing activities
- Provide recommendations to the RTC for any necessary construction changes due to field conditions
- Assist in change order review and approval
- Construction coordination of fiber optic relocation including temporary shut down of existing SPD fiber.

2.1.F. Construction Surveying (Optional)

Provide construction staking as follows:

- Locate and verify existing control and establish additional control to complete staking.
- Demolition limits staked for asphalt, concrete and curb removal.
- Curb staked at 50-foot intervals for mass grading and clearing and grubbing.
- Red tops staked at 50-foot intervals for sub-grade preparation.
- Curb staked at 50-foot intervals on tangents and at a maximum of 25-foot intervals on curves for improvement construction.
- Ramps, driveways and bus stop improvements staked at angle points, grade breaks and curves.
- Utilities and signals staked with two (2) offsets to utility structure and single offsets to pipelines at 50-foot intervals.
- Striping staked at 50-foot intervals on tangents and maximum of 25-foot intervals on curves.
- Street Monuments staked at center of monument with four (4) references.

Office Support & Drafting

- Project coordination.
- Calculations for staking.
- Review staking and prepare cut sheets.

Assumptions:

- Staking will be done during daylight hours.
- Prevailing wages will not be required for the field surveying services.
- The construction company awarded contract will have traffic control in place and no additional traffic control measures will be required for the construction staking.
- Monuments will be constructed by construction company awarded contract and center point marked by Stantec's survey crew.

2.1.G. Inspection (Optional)

1. Provide Inspector. Provide one full time inspector during all construction activities. 10-hour work days (inc. 2 hours overtime) and a 130 working day contract period are anticipated. This inspector will:
 - Attend the preconstruction conference
 - Monitor the work performed by the Contractor and verify that the work is in accordance with the plans and specifications
 - Assist in problem resolution with the RTC, contractor personnel, utility agencies, the public and others
 - Prepare daily inspection reports, submitted weekly to RTC and CC'd to the appropriate government jurisdiction(s).
 - Provide quantity reports and assist in contractor's monthly progress payments
 - Provide verification of the distribution of public relation notices required to be delivered by the contractor
 - Assist in preparation of the Punch List
 - Maintain a field blueline set of drawings to incorporate contractor record drawing mark-ups
2. Provide Additional Inspector During Paving Operations. Provide additional inspector during mainline paving days to monitor plantmix bituminous pavement placement and in-place density tests.
3. Provide Additional Inspector During Sewer Placement Work. Provide additional inspector during sewer placement to monitor asbestos pipe removal, placement of new pipe and removal and replacement of manholes. Provide concrete testing and backfill testing and observe vacuum testing. 10-hour work days (inc. 2 hours overtime) and 15 working days are anticipated.

2.1.H. Materials Testing (Optional)

1. Provide Material Testing for compliance with the specifications per the applicable Standard Specifications for Public Works Construction (Orange Book) testing requirements. Materials to be tested will include plantmix bituminous pavement, aggregate base, native subgrade material, structural fill material and Portland Cement Concrete. Test reports, accompanied with CONSULTANT's recommendation regarding acceptance/mitigation of materials, shall be submitted promptly to the RTC and CC'd to appropriate governmental jurisdiction(s).
2. Provide AC Plant Inspection and Testing. Provide plantmix bituminous pavement plant inspection and laboratory aggregate testing. Laboratory tests will consist of sieve analysis, percent of wear, fractured faces and plasticity index.
3. Provide Asphalt Cement Testing. Sampling and testing of asphalt cement binder material shall be in accordance with Section 1.01A ASPHALT CEMENT of the RTC's Special Technical Specifications. For each paving day, the CONSULTANT's designated representative shall coordinate with and receive asphalt cement binder samples from the designated plant representative. The CONSULTANT's designated representative shall be present during all sampling operations. Each sample will be properly labeled and signed off by both representatives. A sample shall be taken during the production of each "lot" (500 ton) of plantmix bituminous pavement using container no larger than a quart in size. CONSULTANT to submit all asphalt cement binder samples to the Nevada Department of Transportation (NDOT), Material Laboratory, for testing. All samples should accompany with a NDOT form titled "Transmittal for Asphalt Samples" to be provided by the RTC.
4. Provide On-site Nuclear Gauge Testing & Sampling during the placement of aggregate base and fill materials, on-site thin-lift Nuclear Gauge testing & sampling for plantmix bituminous pavement placement, and on-site PCC testing & sampling. Laboratory tests will include moisture density curves, Atterberg limits, and sieve analysis. Test frequency shall comply with the applicable edition of the Orange Book.
5. Provide Plantmix Bituminous Pavement Testing. Provide plantmix bituminous pavement tests per each "lot" (500 tons) placed. Laboratory test shall include extraction, aggregate gradation, specific gravity, flow & stability and Marshall unit weight. Reports will also include voids in total mix and voids filled.
6. Provide Plantmix Bituminous Pavement coring and Lab Testing. Lab test shall include core unit weight. Test reports will include percent compaction.

7. Provide Top Lift Longitudinal Joint Testing and Coring. Nuclear density testing will be performed on each side of all longitudinal joints at 200 foot intervals per every 1,000 foot segment. A core will be taken in every 1,000 foot segment near the point of one of the density tests on the side of the joint with the lowest mean joint density. The cores will be tested for specific gravity (air voids and compaction). The test report will include a Paving Plan and a Data/Calculation Sheet.

2.1.I. As-Built Information (Optional)

Record Drawings. Provide as-built record drawings for the completed project. Two sets of electronic drawings, in single file PDF format (22" x 34" at 300 dpi), on diskette will be provided to RTC for its files and distribution to the Local Entity. The PDF file shall include all plan sheets in one file with index/bookmark for easy access to different sheets or sections of the plan set.

The final record drawings must be identified, dated, and signed as the record drawings and must also contain the engineer's stamp and signature. The Consultant may either:

1. Provide the final revisions on the original engineer-stamped/signed reproducible drawings, which will then also be identified as the record drawings, or
2. Provide new engineer-stamped/signed reproducible drawings identified as the record drawings.

The Record Drawings shall include a scan of the original title sheet (including the appropriate signatures by RTC, local government, signed and stamped by the CONSULTANT) and identified as record drawings.

2.1.J Construction Contingency (Optional)

This is a contingency for miscellaneous increases within the scope of this contract in the performance of services under Tasks 2.1.E. to 2.1.I. If CONSULTANT determines that it is necessary to perform work to be paid out of contingency, CONSULTANT shall provide a letter detailing the need, scope, and not-to-exceed budget for any proposed work. Work under this task shall proceed only with the RTC Project Manager's prior written approval.

Exhibit B - Cost Proposal Prater Way Rehabilitation Project

Stantec Consulting Services Inc.

TASKS		Staff Classification, Hours and Fees													
		17	15	14	13	12	9	6							
		J. Welsh	J. Mactutis	E. Snyder	C. Alverson	T. Eich	D. Polffy, K. Dubai	V. Rasgado							
		Principal Engineer	Project Manager/Sr. Eng.	Survey Manager	Project Engineer	Project Engineer\ Land Surveyor	Staff Designer	Survey Assistant	Survey Crew	Manhour Summary	Subtotal	Subconsultant Fees	Expenses:	Total Sub-Task Cost	NOTES
RATES		\$ 234	\$ 211	\$ 201	\$ 185	\$ 177	\$ 152	\$ 126	\$ 165						
Task #	DESCRIPTION														
2.1.A	Investigation of Existing Conditions	5	40	60	16	0	36	78	20	255	\$ 43,230	\$ 31,064	\$ 6,862.75	\$ 81,156.75	1,2,3,4
2.1.B	Preliminary Design	11	100	92	140	60	208	96	136	843	\$ 144,838	\$ -	\$ 11,821.17	\$ 156,659.17	2,5
2.1.C	Final Design	38	88	0	120	0	220	0	0	466	\$ 83,100	\$ 4,116	\$ 308.50	\$ 87,524.50	1,2,6,7
2.1.D.1-3	Bidding Services	2	12	0	8	0	8	0	0	30	\$ 5,696	\$ -	\$ 500.00	\$ 6,196.00	7
2.1.D.4	Design Contingency (optional)	0	0	0	0	0	0	0	0		\$ -	\$ -	\$ -	\$ -	8
2.1.E	Construction Administration (optional)	0	330	0	81	0	80	0	0	491	\$ 96,775	\$ -	\$ 285.58	\$ 97,060.58	
2.1.F	Construction Surveying (optional)	0	0	64	0	0	0	80	213	357	\$ 58,089	\$ -	\$ -	\$ 58,089.00	
2.1.G	Inspection (optional)	0	0	0	0	0	0	0	0	0	\$ -	\$ 241,212	\$ -	\$ 279,212.00	1,9
2.1.H	Materials Testing (optional)	0	0	0	0	0	0	0	0	0	\$ -	\$ 51,721	\$ -	\$ 51,721.00	1,10
2.1.I	Record Drawings (optional)	2	4	0	16	0	16	0	0	38	\$ 6,704	\$ -	\$ 500.00	\$ 7,204.00	7
2.1.J	Construction Contingency (optional)	0	0	0	0	0	0	0	0	0	\$ -	\$ -	\$ 10,000.00	\$ 10,000.00	8
	Manhours	58	574	216	381	60	568	254	369	2480					
		\$ 13,572	\$ 121,114	\$ 43,416	\$ 70,485	\$ 10,620	\$ 86,336	\$ 32,004	\$ 60,885		\$ 438,432	\$ 328,113	\$ 30,278.00	\$ 834,823.00	

NOTES

- 1 5% markup on subconsultants
- 2 5% markup on expenses, unless otherwise noted
- 3 Subconsultant - CME geotechnical investigation (see attached cost proposal)
- 4 Expenses - Title reports and vested deed research
- 5 Expenses - Traffic control for survey, LiDAR Scanner (no markup)
- 6 Subconsultant - CME attendance at Constructability Meeting (see attached cost proposal)
- 7 Expenses - Reproduction (no markup)
- 8 Contingency
- 9 Subconsultant - CME construction inspection (see attached cost proposal)
- 10 Subconsultant - CME materials testing (see attached cost proposal)



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 3.12

TO: Regional Transportation Commission

FROM: Jeff Wilbrecht, P.E.
Engineer II

Bill Thomas, AICP
Executive Director

SUBJECT: Change Order No. 17 to the Construction Agreement between the RTC and Sierra Nevada Construction for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project (Plumb to Liberty & Maple to 15th)

RECOMMENDATION

Approve Change Order (CO) No. 17 to the construction agreement between the RTC and Sierra Nevada Construction in the amount of \$386,103 for additional work associated with changing the project scope to a hot mix asphalt overlay in lieu of a slurry seal in the North Virginia portion of the project on the Virginia Street Bus RAPID Transit (BRT) Extension Project; authorize the RTC Executive Director to execute CO No. 17.

SUMMARY

On North Virginia Street between approximately 11th Street through 15th Street, the original project plans included slurry sealing the area as a pavement preservation activity to provide a fresh surface for the new striping planned in the area. Subsequent to the design, the pavement within these limits of the project have degraded more rapidly than anticipated, primarily due to adjacent new construction and utility work resulting in an increased amount of pavement cracks from saw cutting and patching.

As such, the project team recommends increasing the response of maintenance along this segment of North Virginia Street to correct these issues. The proposed corrective maintenance will include milling approximately three inches of the existing structural section and replacing it with new asphalt concrete.

This will continue to extend the performance life of the pavement structural section in this area.

These changes will result in no change to the performance period for this contract. The total cost is \$386,103. The changes are further detailed in Attachment A.

FISCAL IMPACT

CO No. 17 results in an increase of \$386,103 to the SNC contract. The revised total SNC contract amount approved with this change order is \$49,428,609.

PREVIOUS ACTIONS BY BOARD

June 19, 2020	Approved Change Order No. 16 to the SNC contract for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project
May 22, 2020	Approved Change Order No. 15 to the SNC contract for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project
April 17, 2020	Approved Change Order No. 11, 12, 13, and 14 to the SNC contract for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project
February 21, 2020	Approved Change Order No. 07, 08, 09, and 10 to the SNC contract for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project
December 20, 2019	Approved Change Order No. 05 and 06 to the SNC contract for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project
November 15, 2019	Approved Change Order No. 01, 02, 03, and 04 to the SNC contract for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project
May 20, 2019	Approved the Construction Agreement between RTC and SNC (CMAR) for Phase 2 of the Virginia Street Bus RAPID Transit Extension Project

ADVISORY COMMITTEE(S) RECOMMENDATION

There are no advisory committee recommendations pertaining to this agenda item.

Attachment

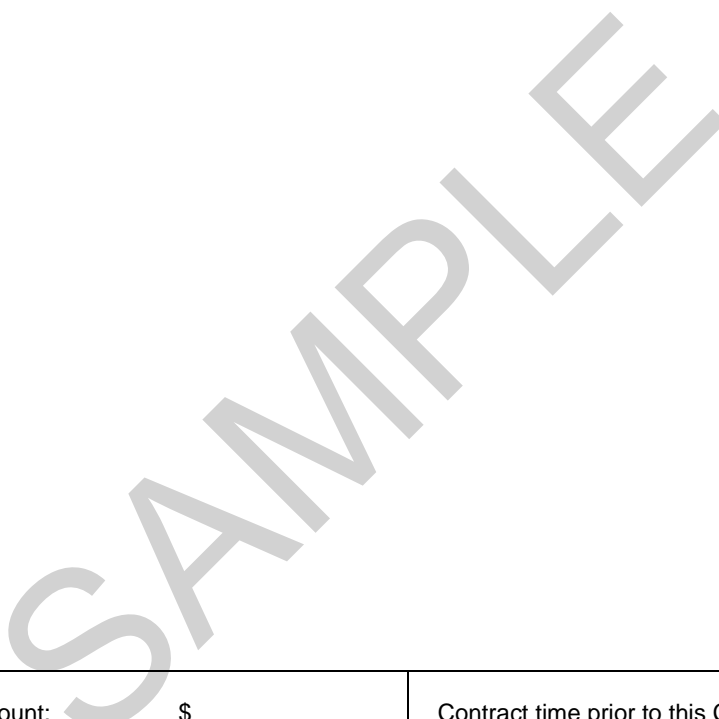


Project No. _____ **CONTRACT CHANGE ORDER (C.O.) NO.** _____ Sheet _____ of _____
 Change Order Requested By: _____ Date _____

To _____, Contractor for the _____ Project.
 You are hereby directed to make the herein described changes from the plans and specifications or do the following described work not included in the plans and specifications on this contract.

RTC FINANCE APPROVAL, AVAILABILITY OF FUNDS
 Jelena Williams _____ Date _____

Description of work to be done, estimate of quantities, and prices to be paid. Define additional work at contract price agreed price and force account. Identify if reimbursable work subject to a Board approved ICA. Use multiple sheets if necessary.



RTC CONTRACT COMPLIANCE OFFICER APPROVAL
 Ranjini Zucker _____ Date _____

Original Contract Amount: \$ _____
 Previously Approved C.O. Amounts: \$ _____
 Net Increase from this C.O.: \$ _____
 Total Revised Contract Amount: \$ _____
 Total Percent Change all C.O.'s: _____ %

Contract time prior to this C.O.: _____
 Net increase resulting from this C.O.: _____
 New Contract Time with this C.O.: _____

Contractor Acceptance:
 Accepted Date: _____
 By (Print Name): _____
 Signature: _____

RTC Approval:
 Recommended by (RTC Project Manager): _____ Date: _____
 Department Director: _____ Date: _____
 Chief Finance Officer: _____ Date: _____
 Executive Director: _____ Date: _____

NOTE: This Change Order is not effective until approved by Executive Director, RTC.



Member of the SNC-Lavalin Group

Atkins North America, Inc.
10509 Professional Circle, Suite 102
Reno, NV 89521-4883

Telephone: +1.775.828.1622
Fax: +1.775.851.1687

www.atkinsglobal.com/northamerica

July 14, 2020

Mr. Jeff Wilbrecht
Regional Transportation Commission
1105 Terminal Way
Reno, NV 89502

Subject: Virginia Street Bus Rapid Transit Extension; Phase 2
PCO 17.001 N. Virginia Street Mill and Fill

Dear Mr. Wilbrecht:

Please find enclosed cost proposal for N. Virginia Street Mill and Fill activities per revised plans dated March 26, 2020.

N. Virginia Street Mill and Fill.....\$386,102.97

SNC has not requested and will not receive any working days added to the contract duration for this change. If you have any questions, please call me at (775) 745-7026.

Sincerely,

George Jordy, P.E.
Sr. Resident Engineer

Enclosed: Copy of Sierra Nevada Construction's cost proposal for N. Virginia Street Mill and Fill activities.



June 1, 2020

Regional Transportation Commission
 1105 Terminal Way
 Reno, NV 89502

Mail PO Box 50760
 Sparks, NV 89435-0760

Yard 2055 East Greg Street
 Sparks, NV 89431

Phone 775.355.0420
 Fax 775.355.0535

NV lic. 25565 CA lic. 593393

Project: Virginia St. RAPID Extension Phase 2
 Subject: **Potential Change Order 038 – UNR Mill and Fill**

Attn: Jeff Wilbrecht

Sierra Nevada Construction is pleased to provide pricing to change the slurry portion of the North Virginia Street roadwork to a 3” mill and fill. Pricing is based on plans with updates dated 3/26/20. Bid item pricing was used up to 125% of roadwork quantities, above 125% the roadwork items were repriced according to new quantities per Orange Book. The credit for the slurry seal was provided at the new SF value minus 5,605 SF left for North of the roundabout, as there was an error in the schedule of values quantity.

Bid Item	Bid Item Description	Quantity	Unit	Unit Price	Extended Price
N33	Adjust SD MH	1	EA	\$1,668.36	\$1,668.36
N34	Adjust SS MH	9	EA	\$1,634.52	\$14,710.68
N42	Adjust WV	24	EA	\$885.89	\$21,261.36
	Remove and Install Loop Detectors	24	EA	\$750.00	\$18,000.00
N5	Remove Existing Pavement Surface	13,865.00	SF	\$1.36	\$18,856.40
N5Rev	Remove Existing Pavement Surface	112,429.00	SF	\$0.50	\$56,214.50
N82	Place 3" AC	11,260.00	SF	\$2.66	\$29,951.60
N82Rev	Place 3" AC	115,034.00	SF	\$2.20	\$253,074.80
N81	Place Micro-Surface Slurry Seal	(126,294.00)	SF	\$0.40	(\$50,517.60)
				Sub Total	\$363,220.10
				CMAR FEE	\$22,882.87
				Total	\$386,102.97

Special Conditions

- ~~With the acceptance of this proposal, it is acknowledged that 8 additional days are required to complete this work. If work extends beyond planned duration of November 2nd, 2020 these days may be used without penalty of liquidated damages.~~ **Atkins, IC**

If you have any questions, please feel free to contact me at (775) 432-8219.

Sincerely,



Emma Crossman
 Project Manager
 Sierra Nevada Construction, Inc.



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 3.13

TO: Regional Transportation Commission

FROM: Scott Miklos
Trip Reduction Analyst
Public Transportation and
Operations

Bill Thomas, AICP
Executive Director

SUBJECT: NDOT Cooperative Agreement to Fund the RTC’s Trip Reduction Program

RECOMMENDATION

Approve the cooperative agreement with the Nevada Department of Transportation (NDOT) to receive and use Congestion Mitigation and Air Quality (CMAQ) and Surface Transportation Block Grant (STBG) federal funds in the amount of \$1,150,000.00 for the RTC Trip Reduction Program; authorize the RTC Executive Director to execute the agreement.

SUMMARY

Since 1996, the RTC has operated a program aimed at reducing the number of trips made by single occupancy vehicles. Major components of the trip reduction program, marketed under the name RTC SMART TRIPS, include web-based and App trip matching services, subsidized vanpool and bus pass programs, and bicycle and pedestrian promotion. This new agreement provides funds to the RTC for the implementation of a Comprehensive Trip Reduction/Regional Rideshare Program in Washoe County for one year. Further, it authorizes the state to utilize up to \$1,150,000 in CMAQ and STBG funds to reimburse the RTC for 95% of eligible trip reduction program expenses. The remaining 5% of the expenses is paid by the RTC as the required local match for the federal funds in the amount of \$60,526. The project is included in the current Regional Transportation Improvement Program (RTIP).

FISCAL IMPACT

Funding for the trip reduction program is included in the FY 2021 Board approved budget.

ADVISORY COMMITTEES RECOMMENDATION

There are no advisory committee recommendations pertaining to this agenda item.

Attachment

COOPERATIVE AGREEMENT

This Agreement is made and entered into on _____, by and between the State of Nevada, acting by and through its Department of Transportation, hereinafter called the "DEPARTMENT", and the Regional Transportation Commission of Washoe County, 1105 Terminal Way, Suite 300, Reno, Nevada 89502, hereinafter called the "RTC".

WITNESSETH:

WHEREAS, a Cooperative Agreement is defined pursuant to Nevada Revised Statutes (NRS) 277.110 as an agreement between two or more public agencies for the joint exercise of powers, privileges, and authority; and

WHEREAS, pursuant to the provisions contained in Chapter 408 of the Nevada Revised Statutes, the Director of the DEPARTMENT may enter into those agreements necessary to carry out the provisions of the Chapter; and

WHEREAS, NRS 277.110 authorizes any two or more public agencies to enter into agreements for joint or cooperative action; and

WHEREAS, the parties to this Agreement are public agencies and authorized to enter into agreements in accordance with NRS 277.080 to 277.110, inclusive; and

WHEREAS, the purpose of this Agreement is to provide funding for the implementation of the Travel Demand Management Program, hereinafter called the "PROJECT;" and

WHEREAS, the current Transportation Act provides funding for all modes of transportation under which this PROJECT is eligible for ninety-five percent (95%) federal funds and five percent (5%) matching funds; and

WHEREAS, the PROJECT has been approved for Federal Congestion Mitigation and Air Quality (CMAQ) funds and Surface Transportation Block Grant (STBG) funds, Catalog of Federal Domestic Assistance (CFDA) Number CFDA 20.205; and

WHEREAS, the Travel Demand Management Program to be provided by the RTC will be of benefit to the DEPARTMENT, the RTC, and to the people of the State of Nevada; and

WHEREAS, the parties hereto are willing and able to perform the services described herein.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants herein contained, it is agreed as follows:

ARTICLE I - RTC AGREES

1. To provide the DEPARTMENT with a PROJECT, which promotes and assists the public and local businesses in the use of alternative modes of transportation, such as public transit, carpooling/ vanpooling, bicycling, walking, telecommuting, and flexible work schedules. The goal of the program is to reduce the overall number of single occupant trips with emphasis on commuter work trips, thus improving air quality and mobility in Washoe County, and surrounding areas of the county. The PROJECT will be accomplished through the use of various marketing tools, such as brochures, advertisements, and employee/ employer incentives focused

on increasing awareness of public transportation options, fuel conservation, and the long-term benefits of improved air quality and associated environmental factors.

2. Services to be included in the PROJECT shall be: Analysis of employee commuting needs; employer program design and implementation; ongoing program evaluation and consulting; bus pass subsidy program; carpool/ vanpool program; biking promotions; newsletters and mass mailings; print/ radio/ TV promotion; community education programs; student and university target marketing; flex-fare transit programs; and coordinated transportation programs.

3. To bill the DEPARTMENT quarterly for actual costs of the PROJECT (with supporting documentation) of which ninety-five percent (95%) in CMAQ and STBG funds of the eligible PROJECT costs will be reimbursed, not to exceed One Million One Hundred Fifty Thousand and No/100 Dollars (\$1,150,000.00) per year. The DEPARTMENT will deduct any preliminary engineering and construction engineering costs incurred by the DEPARTMENT for the PROJECT to determine the actual invoice cost. The RTC is responsible for the five percent (5%) match of Sixty Thousand Five Hundred Twenty-Six and No/100 Dollars (\$60,526.00). The RTC will provide supporting documentation to be audited to confirm that work performed conforms to DEPARTMENT and the Federal Highway Administration (FHWA) guidelines.

4. To complete the review of all change orders submitted by the DEPARTMENT within five (5) working days after service of such change orders. In the event the RTC does not provide the DEPARTMENT with a written response to the DEPARTMENT's change orders within five (5) working days following the DEPARTMENT's service of such change orders, the DEPARTMENT will proceed with change orders so as not to delay the PROJECT. No response from the RTC within this time frame will constitute the RTC's consent and acceptance for the DEPARTMENT to proceed. Any change of work must be approved through an updated work program amendment prior to work being done.

5. During the performance of this Agreement, the RTC, for itself, its assignees, and successors in interest agrees as follows:

a. Compliance with Regulations: The RTC shall comply with all of the regulations relative to nondiscrimination in federally-assisted programs of 49 CFR Part 21 as they may be amended from time to time (hereinafter "Regulations"), which are herein incorporated by reference and made a part of this Agreement.

b. Nondiscrimination: The RTC, with regard to the professional services performed by it during the Agreement, shall not discriminate on the grounds of race, color, age, religion, sex, creed, disability/handicap, national origin, or low income status in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The RTC shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices, when this Agreement covers a program set forth in Appendix B of the Regulations.

c. Solicitations for Subcontracts, Including Procurement of Materials, and Equipment: In all solicitations either by competitive bidding or negotiation made by the RTC for professional services to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the RTC of the subcontractor's obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color, age, religion, sex, creed, disability/handicap, national origin, or low income status.

d. Information and Reports: The RTC shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its facilities as may be determined by the DEPARTMENT or the FHWA to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of the RTC is in the exclusive possession of another who fails or refuses to furnish this information, the RTC shall so certify to the DEPARTMENT, or the FHWA as appropriate, and shall set forth what efforts it has made to obtain the information.

e. Sanctions for Noncompliance: In the event of the RTC's noncompliance with the nondiscrimination provisions of this Agreement, the DEPARTMENT shall impose such Agreement sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:

1. Withholding of payments to the RTC under this Agreement until the RTC complies, and/or

2. Cancellation, termination or suspension of this Agreement, in whole or in part.

f. Agreements with subcontractors will include provisions making all subcontractor records available for audit by the DEPARTMENT and/or the FHWA.

g. Incorporation of Provisions: The RTC will include the provisions of Paragraphs (a) through (f) above in every subcontract, including procurement of materials and leases of equipment, unless exempt by Regulations, order, or instructions issued pursuant thereto. The RTC will take such action with respect to any subcontract or procurement as the DEPARTMENT or the FHWA may direct as a means of enforcing such provisions, including sanctions for non-compliance. In the event the RTC becomes involved in, or is threatened with, litigation by a subcontractor or supplier as a result of such direction, the RTC may request the DEPARTMENT to enter into such litigation to protect the interests of the DEPARTMENT, and the RTC may request the United States to enter into such litigation to protect the interests of the United States.

ARTICLE II - DEPARTMENT AGREES

1. To fund ninety-five percent (95%) of the PROJECT with CMAQ and STBG funds, estimated to be and not to exceed One Million One Hundred Fifty Thousand and No/100 Dollars (\$1,150,000.00) per year.

2. To establish and maintain a budget for the Travel Demand Management Program. This budget will be maintained by the Transportation Multimodal Planning Division of the DEPARTMENT, and all invoices shall be submitted to the Transportation Multimodal Planning Division for approval and reimbursement.

3. To provide five (5) copies of the preliminary plans and specifications for review and comment and to invite the RTC to the specification review meeting to address said comments.

4. To allow the RTC to observe, review, and inspect PROJECT construction work with the understanding that all items of concern are to be reported to the DEPARTMENT's Resident Engineer and not to the Contractor.

5. To observe, review, and inspect all work associated with the PROJECT during construction with the understanding that any and all items of concern are reported to the DEPARTMENT's Resident Engineer for correction.

6. To allow the RTC to review and comment on the PROJECT change orders which involve features or items related to the PROJECT for which RTC assumes a maintenance responsibility. The RTC's written response shall be made within five (5) working days of service of a change order. No response from the RTC within this time frame shall constitute RTC's consent and its acceptance for the DEPARTMENT to proceed.

ARTICLE III - IT IS MUTUALLY AGREED

1. The term of this Agreement shall be from the date first written above through and including the 30th day of September, 2021.

2. This Agreement shall not become effective until and unless approved by appropriate official action of the governing body of each party.

3. In the event that the RTC performs or causes to be performed any work after: (a) the Agreement's expiration date as set forth within this Agreement, as it may be amended from time to time through written amendment signed by the parties hereto and approved by appropriate official action of the DEPARTMENT's governing body, prior to such expiration date; or (b) termination of this Agreement prior to the expiration date set forth within this Agreement; then the DEPARTMENT shall make no payment for work performed following the expiration or termination dates, and the RTC shall forfeit any and all right to payment for such work.

4. The RTC, on behalf of itself, its spouses, heirs, executors, administrators, successors, subrogees, servants, insurers, attorneys, independent representatives, personal representatives, agents, and assigns, does hereby waive, release, and forever discharge the State of Nevada, the DEPARTMENT, and each and every of their departments, divisions, agencies, officers, directors, agents, contractors, and employees, from any and all claims, demands, liens, liability, actions, causes of action, and suits for damages, at law and in equity, in any way connected with or arising from the RTC's provision of services and work performed following termination of this Agreement and/or following the expiration date of this Agreement, as it may be amended from time to time through written amendment signed by the parties hereto and approved by appropriate official action of the DEPARTMENT's governing body, prior to such expiration date.

5. Neither the State of Nevada, the DEPARTMENT, nor any of their departments, divisions, agencies, officers, directors, agents, contractors, and employees, shall have authority to extend this Agreement beyond the expiration date set forth within this Agreement, unless such extension is set forth within a written amendment signed by the parties hereto and approved by appropriate official action of the DEPARTMENT's governing body prior to such expiration date. The RTC shall not rely upon any oral or written representations expressed extrinsic to a written amendment signed by the parties hereto and approved by appropriate official action of the DEPARTMENT's governing body prior to such expiration date, purporting to alter or amend this Agreement, including, but not limited to, representations relating to the extension of the Agreement's expiration date.

6. Paragraphs 1 through 6 of this Article III - It is Mutually Agreed, shall survive the termination and expiration of this Agreement.

7. The RTC shall not proceed with said work until a copy of this fully executed Agreement is received. If the RTC does commence said work prior to receiving a copy of this fully executed Agreement, the RTC shall forfeit any and all right to reimbursement for that portion of the work performed prior to said dates. Furthermore, the RTC shall not rely on the terms of this Agreement in any way, including, but not limited to, any written or oral representations and

warranties made by the DEPARTMENT or any of its agents, employees, or affiliates, or on any dates of performance, deadlines, indemnities, or any other term contained in this Agreement or otherwise prior to the receipt of the fully executed Agreement. In the event the RTC violates the provisions of this Section, it waives any and all claims and damages against the DEPARTMENT, its employees, agents and/or affiliates, including, but not limited to, monetary damages and/or any other available remedy at law or in equity.

8. This Agreement may be terminated by either party prior to the date set forth above, provided that a termination shall not be effective until thirty (30) calendar days after a party has served written notice upon the other party. This Agreement may be terminated by mutual consent of both parties or unilaterally by either party without cause. The parties expressly agree that this Agreement shall be terminated immediately if for any reason Federal and/or State Legislature funding ability to satisfy this Agreement is withdrawn, limited, or impaired.

9. All notices or other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given if delivered personally in hand, by telephonic facsimile or electronic mail with simultaneous regular mail, or mailed certified mail, return receipt requested, postage prepaid on the date posted, and addressed to the other party at the address set forth below:

FOR DEPARTMENT:

Kristina Swallow, P.E., Director
Attn.: Sondra Rosenberg, Assistant Director, Planning
Nevada Department of Transportation
Program Development Division
1263 South Stewart Street
Carson City, NV 89712
Phone: (775) 888-7440
Fax: (775) 888-7202
E-mail: srosenberg@dot.nv.gov

FOR RTC:

William A. Thomas, Executive Director
Attn: Amy Cummings, Director of Planning
Regional Transportation Commission of Washoe County
1105 Terminal Way, Suite 300
Reno, NV 89502
Phone: (775) 348-0400
Fax: (775) 348-0450
E-mail: acummings@rtcwashoe.com

10. The total PROJECT costs shall be determined by adding together the total costs incurred by the DEPARTMENT for preliminary engineering, right of way engineering, right of way acquisition, the relocation of utilities, construction engineering, and construction costs. The RTC's match will be calculated as the applicable percent of the total PROJECT costs eligible for Federal funding, plus all costs not eligible for Federal funding.

11. The DEPARTMENT does not provide any warranty that the estimate of the PROJECT cost is an accurate reflection of the final cost. The DEPARTMENT disclaims any such warranty. The final costs may vary widely depending on the Contractor's bid prices. The RTC shall be wary in its reliance on the estimates set forth in this Agreement.

12. The DEPARTMENT will award the total contract in accordance with its rules and procedures under the Standard Specifications for Road and Bridge Construction to the lowest responsive and responsible bidder. The DEPARTMENT has the right to reject any and all bid proposals determined not to be in the best interest of the State.

13. Construction engineering costs will be the actual construction engineering costs incurred by the DEPARTMENT during the construction of the PROJECT.

14. Should this Agreement be terminated by the RTC prior to completion of the PROJECT, the RTC will reimburse the DEPARTMENT for all improvement costs incurred up to the point of Agreement termination and all costs incurred by the DEPARTMENT because of this Agreement's termination.

15. The RTC agrees to pay actual PROJECT costs whether they be greater than or less than the estimates shown herein.

16. The RTC will ensure that any reports, materials, studies, photographs, negatives, drawings or other documents prepared in the performance obligations under this Agreement shall be the exclusive, joint property of the RTC and the DEPARTMENT. The RTC will ensure any subconsultant will not use, willingly allow or cause to have such documents used for any purpose other than performance of obligations under this Agreement without the written consent of both the RTC and the DEPARTMENT. The RTC shall not utilize (and shall ensure any subconsultant will not utilize) any materials, information, or data obtained as a result of performance of this Agreement in any commercial or academic publication or presentation without the express written permission of the DEPARTMENT. The RTC (and any subconsultant) shall not reference an opinion of an employee or agent of the DEPARTMENT obtained as a result of performance of this Agreement in any publication or presentation without the written permission of the employee or agent to whom the opinion is attributed, in addition to the written permission of the DEPARTMENT.

17. Neither party shall be deemed to be in violation of this Agreement if it is prevented from performing any of its obligations hereunder due to strikes, failure of public transportation, civil or military authority, act of public enemy, accidents, fires, explosions, or acts of God, including, without limitations, earthquakes, floods, winds or storms. In such an event, the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated to promptly perform in accordance with the terms of the Agreement after the intervening cause ceases.

18. To the fullest extent of NRS Chapter 41 liability limitations, each party shall indemnify, hold harmless, and defend, not excluding the other's right to participate, the other from and against all liability, claims, actions, damages, losses, and expenses, including, but not limited to, reasonable attorneys' fees and costs, caused by the negligence, errors, omissions, recklessness, or intentional misconduct of its own officers, employees, and agents. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described herein. This indemnification obligation is conditioned upon the performance of the duty of the party seeking indemnification (indemnified party) to serve the other party (indemnifying party) with written notice of an actual or pending claim, within thirty (30) calendar days of the indemnified party's notice of such actual or pending claim or cause of action. The indemnifying party shall not be liable for reimbursement of any attorney's fees and costs incurred by the indemnified party due to said party exercising its right to participate with legal counsel.

19. The parties do not waive and intend to assert available NRS Chapter 41 liability limitations in all cases. Agreement liability of both parties shall not be subject to punitive damages. Actual damages for any DEPARTMENT breach shall never exceed the amount of funds which have been appropriated for payment under this Agreement, but not yet paid, for the fiscal year budget in existence at the time of the breach.

20. Failure to declare a breach or the actual waiver of any particular breach of this Agreement or any of its material or nonmaterial terms by either party shall not operate as a waiver by such party of any of its rights or remedies as to any other breach, including a breach of the same term.

21. An alteration ordered by the DEPARTMENT, which substantially changes the services provided for by the expressed intent of this Agreement will be considered extra work and shall be specified in a written amendment which will set forth the nature and scope thereof. The method of payment for extra work shall be specified at the time the amendment is written.

22. This Agreement and the rights and obligations of the parties hereto shall be governed by, and construed according to, the laws of the State of Nevada. The parties consent to the exclusive jurisdiction of the Nevada state district courts for enforcement of this Agreement.

23. The illegality or invalidity of any provision or portion of this Agreement shall not affect the validity of the remainder of the Agreement, and this Agreement shall be construed as if such provision did not exist. The unenforceability of such provision shall not be held to render any other provision or provisions of this Agreement unenforceable.

24. Except as otherwise expressly provided within this Agreement, all or any property presently owned by either party shall remain in such ownership upon termination of this Agreement, and there shall be no transfer of property between the parties during the course of this Agreement.

25. In the event the Nevada Legislature does not appropriate sufficient or any funds for a DEPARTMENT biennium during the term of this Agreement, this Agreement shall terminate.

26. It is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of any part of this Agreement to create in the public or any member thereof a third party beneficiary status hereunder or to authorize anyone not a party to this Agreement to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Agreement.

27. Each party agrees to keep and maintain under generally accepted accounting principles full, true, and complete records and documents pertaining to this Agreement and present, at any reasonable time, such information for inspection, examination, review, audit, and copying at any office where such records and documentation are maintained. Such records and documentation shall be maintained for three (3) years after final payment is made.

28. The parties are associated with each other only for the purposes and to the extent set forth in this Agreement. Each party is, and shall be, a public agency separate and distinct from the other party and shall have the right to supervise, manage, operate, control, and direct performance of the details incident to its duties under this Agreement. Nothing contained in this Agreement shall be deemed or construed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for one agency whatsoever with respect to the indebtedness, liabilities, and obligations of the other agency or any other party.

29. In connection with the performance of work under this Agreement, the parties agree not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation, or age, including, without limitation, with regard to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including, without limitation, apprenticeship. The parties further agree to insert this provision in

all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

30. Neither party shall assign, transfer or delegate any rights, obligations, or duties under this Agreement without the prior written consent of the other party.

31. The parties hereto represent and warrant that the person executing this Agreement on behalf of each party has full power and authority to enter into this Agreement and that the parties are authorized by law to engage in the cooperative action set forth herein.

32. Pursuant to NRS 239 information or documents may be open to public inspection and copying. The parties will have the duty to disclose unless a particular record is confidential by law or a common law balancing of interests.

33. Each party shall keep confidential all information, in whatever form, produced, prepared, observed, or received by that party to the extent that such information is confidential by law or otherwise required to be kept confidential by this Agreement.

34. This Agreement shall not become effective until and unless approved by appropriate official action of the governing body of each party.

35. This Agreement shall not become effective until and unless approved by the Nevada State Board of Examiners.

36. This Agreement constitutes the entire agreement of the parties and such is intended as a complete and exclusive statement of the promises, representations, negotiations, discussions, and other agreements that may have been made in connection with the subject matter hereof. Unless an integrated attachment to this Agreement specifically displays a mutual intent to amend a particular part of this Agreement, general conflicts in language between any such attachment and this Agreement shall be construed consistent with the terms of this Agreement. Unless otherwise expressly authorized by the terms of this Agreement, no modification or amendment to this Agreement shall be binding upon the parties unless the same is in writing and signed by the respective parties hereto and approved by the Attorney General.

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

Regional Transportation Commission of Washoe County

State of Nevada, acting by and through its DEPARTMENT OF TRANSPORTATION

KRISTINA SWALLOW, P.E.
DIRECTOR

Bill Thomas, AICP, Executive Director

Approved as to Legality and Form:

Approved as to Form:

SHANE CHESNEY

First Assistant Attorney General
State of Nevada

Adam Spear

RTC Legal Counsel

Board of Examiners

SAMPLE



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 4.1

TO: Regional Transportation Commission

FROM: Dale Keller, P.E.
Engineering Manager

Bill Thomas, AICP
Executive Director

SUBJECT: Lemmon Drive Monthly Progress Report

RECOMMENDATION

Receive a presentation on the Lemmon Drive project and provide direction accordingly.

SUMMARY

The project includes widening Lemmon Drive from US 395 to Military Road from four lanes to six lanes (Segment 1) and widening Lemmon Drive from Fleetwood Drive to Chickadee Drive from two lanes to four lanes (Segment 2).

Segment 1

The RTC is collaborating with the Nevada Department of Transportation (NDOT) to incorporate the proposed US 395 / Lemmon Drive Interchange improvements with RTC’s Segment 1 widening project. Currently, both agencies are negotiating an Interlocal Cooperative Agreement (ICA) where NDOT would fund the construction of the Diverging Diamond Interchange (DDI) and RTC would administer the entire project under one construction contract.

The Segment 1 Final design is underway. The project team is addressing engineering conflicts and finalizing any right-of-way impacts. The anticipated construction start date is spring 2021.

Segment 2

After considering a wide range of alternatives, the Project’s Technical Advisory Committee (TAC) endorsed three (3) top roadway alternatives (see Attachment A). The Top 3 Alternatives are:

- **Alternative 2 - Raise Existing Lemmon Drive:** This alternative would elevate the existing Lemmon Drive above the 100-year floodplain.
- **Alternative 6 – Natural Berm Realignment:** This alternative would realign Lemmon Drive to the west along the natural berm of Swan Lake. The realignment would begin near Deodar Way and possibly end at the northern end by Pompe Way.
- **Alternative 8 – Deodar Way Realignment:** This alignment would realign Lemmon Drive to the east and follow the current Deodar Way corridor to Chickadee Drive.

The top three (3) roadway alternatives will be presented to the public later this summer. See the attached Level One Alternatives Analysis Screening Report (Attachment B) for detailed information on the screening process and results.

The RTC is working closely with Washoe County and the City of Reno as the Swan Lake recovery plan continues, and long-term mitigation alternatives are prepared and vetted. The RTC is streamlining the preliminary roadway design and collaborating with local agencies in the overall program to improve conditions around Swan Lake.

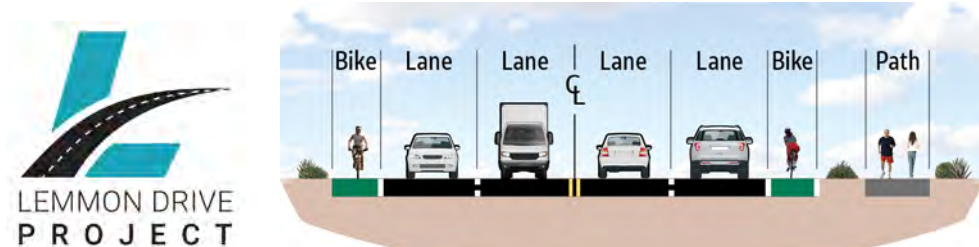
PREVIOUS ACTIONS BY BOARD

July 17, 2020	Received an update on the project
June 19, 2020	Received an update on the project
May 22, 2020	Received an update on the project
September 20, 2019	Approved the Professional Services Agreement (PSA) with Jacobs Engineering for the design of the Lemmon Drive Project
May 20, 2019	Approved the Procurement for the Selection of Engineering Professional Services for Design the Lemmon Drive Project
April 17, 2019	Received an update on the project

ADVISORY COMMITTEE(S) RECOMMENDATION

There are no advisory committee recommendations pertaining to this agenda item.

Attachments



Lemmon Drive Project - Segment 2
Top Three Ranked Alternatives

0 0.25 0.5 Miles



Data Sources: FEMA, Jacobs, and Washoe County





Technical Memorandum

Lemmon Drive Capacity Improvement Project

Project Name: Lemmon Drive Capacity Improvement Project

Subject: Level One Alternatives Analysis Screening Summary for Segment 2

Date: July 24, 2020 – FINAL

Attention: Dale Keller - RTC

From: Kaci Stansbury – Jacobs

Copies to:

Amy Cummings – RTC	Dan Doenges - RTC
Brian Stewart – RTC	Jon Simpson - City of Reno
Doug Maloy – RTC	David Hutchinson - City of Reno
Blaine Petersen – RTC	Warren Call - RTC
Dwayne Smith - Washoe County	Mitchell Fink - Washoe County
Dylan Menes – Washoe County	Ben Jesch – Washoe County
John Flansberg – City of Reno	Randall Rice – City of Reno
Matt Brenzina – City of Reno	Angela Fuss – City of Reno
Kerri Lanza – City of Reno	Heather Manzo – City of Reno
Zen Rookhuyzen – Jacobs	Mateo Franzoia – Jacobs
Jared Hudson – Jacobs	Shane Dyer – J-U-B
Lonnie Johnson – J-U-B	Bryan Byrne – J-U-B
Lori Williams – Tri Sage	Anthony Deveny - Jacobs

1. Project Background

The Regional Transportation Commission (RTC) of Washoe County has initiated the Lemmon Drive Capacity Improvement Project identified in the 2040 Regional Transportation Plan (RTP). To increase capacity, Lemmon Drive will be increased from four to six lanes between Sky Vista Parkway/Buck Drive and Military Road, referred to as Segment 1, and from two lanes to four lanes between Fleetwood Drive and Chickadee Drive, referred to as Segment 2. Improvements will accommodate future growth, and include complete street improvements, providing safe, multimodal connectivity through bike lanes, sidewalks, and/or shared use paths, and linkages to public transit stops. Improvements to Segment 2 will also address the fact that a large portion of Segment 2 is located below the 100-year flood plain, which is currently identified at elevation 4924.0, and has experienced flooding since 2017. Recent evaluation with FEMA as part of the Swan Lake Mitigation Studies expects this 100-year flood elevation to rise, but the new elevation has not been finalized. Preliminary results indicate the new elevation may rise approximately 0.6 feet to 4924.6, but final results are pending. Historically, prior to 2003, Lemmon Drive experienced localized flooding in the area of Segment 2 every seven to eight years. In 2003, The Lemmon Drive Rehabilitation Project raised the profile of Lemmon Drive approximately six inches, and until 2017 there were no flooding issues. In 2017, an unusual weather pattern of multiple atmospheric river events saturated the Swan Lake floodplain and water inundated the roadway. Washoe County constructed HESCO barriers and installed pumping facilities along the roadway to clear the water off Lemmon Drive and keep the road open to traffic.



Technical Memorandum

Level One Alternatives Analysis Screening
Summary for Segment 2

According to the 2040 RTP, Lemmon Drive is classified as a "Medium Access Control Arterial". The posted speed limit is 35 mph from US 395 to 1000-feet north of the Sky Visa Parkway/Buck Drive intersection where it changes to 45 mph. At Bernoulli St, the speed limit reduces back down to 35 mph. When Washoe County constructed the HESCO barriers and installed pumping facilities, it required the speed limit to be reduced to 20 mph north of Patrician Drive. These mitigation efforts have greatly affected traffic safety and mobility along Segment 2 of Lemmon Drive. RTC Bus Route 17 provides connectivity between Downtown Reno and Lemmon Valley via North Virginia Street along Lemmon Drive north to Fleetwood Drive.

The North Valleys Multimodal Transportation Study, completed in February 2017, focused on traffic operation analysis and capacity improvements, safety improvements, pedestrian and bicycle connectivity, and transit service needs. During a public meeting held on February 4, 2016, closing the sidewalk gaps on Lemmon Drive was a second priority identified by the 70 community members in attendance. Their number one priority was the US-395/Lemmon Drive interchange. Improvements at the Red Rock / Silver Lake Intersection and the Parr Boulevard / US-395 Interchange Intersection were tied with closing the sidewalk gaps as a second priority.

Existing and 2040 projected traffic volumes along Lemmon Drive based on the raw, unrefined, RTC adopted model outputs are summarized in Table 1 below. These traffic volumes are lower than those shown for a full build-out development condition in the North Valleys Multimodal Transportation Study model. However, they are from RTC's year 2040 adopted travel demand model and consistent with the approach taken for the traffic analysis Jacobs completed for Lemmon Drive, Segment 1.

Table 1. Lemmon Drive Traffic Volumes from RTC's Adopted Model

Roadway Segment	Year 2020 October Daily Volume from RTC's Adopted Model	Year 2040 October Daily Volume from RTC's Adopted Model
Lemmon Drive just north of Fleetwood Drive	5,200	12,000*
Lemmon Drive just south of Chickadee Drive	4,500	14,000*
Lemmon Drive just north of Chickadee Drive	4,500	7,100*
Future Eagle Canyon Drive Extension	N/A	3,900

* Includes contributing traffic volume from the Eagle Canyon Drive Extension, assumed to be completed in the 2027 through 2040 timeline.

This technical memorandum summarizes the Level 1 Alternative Analysis Screening Process to identify the top three alternative alignments for Segment 2 that address the purpose and need of adding capacity, providing safe multimodal connectivity, and raise the roadway out of the 100-year flood plain.

2. Project Goals

To develop project goals that address the purpose and need of Segment 2, a Technical Advisory Committee (TAC) has been formed with representatives from the RTC, Washoe County, City of Reno, and Jacobs. The TAC has met monthly beginning in February 2020, and together, the TAC has developed eight project goals:

- G1. Widen Lemmon Drive from two (2) lanes to four (4) lanes as outlined in the 2040 Regional Transportation Plan (RTP) to accommodate potential future growth.
- G2. Provide a safe and reliable regional road during a 100-year flood event by having at least one dry lane in each direction of travel.
- G3. Support the Swan Lake mitigation efforts by incorporating floodplain mitigation along Lemmon Drive that significantly reduce or eliminate future maintenance costs for Washoe County and City of Reno. These maintenance costs include HESCO barriers and pumping facilities.
- G4. Incorporate safe access for all multi-modal users with the construction of a multi-use path, safer pedestrian crossings, and bike lanes.
- G5. Provide opportunities along Lemmon Drive to aid long-term flood response planning.
- G6. Upgrade Lemmon Drive to comply with current engineering design criteria (horizontal, vertical, clear zone, etc.) and eliminate any deficiencies in the existing roadway alignment.
- G7. Ensure connectivity of future road-network improvements such as the Eagle Canyon Drive Extension and other potential projects in the proposed 2050 RTP by considering logical termini suitable for the region.
- G8. Deliver a cost appropriate solution that addresses the goals of the project.

3. Alternatives Screening Process

The alternatives screening process and evaluation criteria for Segment 2 are established early on to ensure that alternatives are assessed objectively by evaluating their ability to meet the identified project goals summarized above.

The alternatives screening process is a two-step process. This first step, known as Level 1 screening, begins with brainstorming ideas with an open-minded approach, identifying all possible alignments and concepts. These alternatives will be qualitatively evaluated against the project goals to determine three alternatives to advance to a 15% design level for further evaluation.

The second step, known as Level 2 screening, will then evaluate the 15% design of the three alternatives against the project goals, TAC input, and professional judgement to determine the preferred alternative to advance to 30% design.

4. Segment 2 Alternatives and Assumptions

The development of Segment 2 alternatives occurred during the TAC workshop held on February 27th, 2020. During the TAC workshop, attendees split into four teams to brainstorm alternative alignment ideas, and then each team presented their ideas to the rest of the TAC for discussion. Through this process, twelve alternatives (A1 through A12) were identified, including the No-Build alternative to carry through the Level 1 screening process. Each alternative and the assumptions associated with that alternative are summarized below and are shown in Figures 1-12.

For each alternative except the No Build, it is assumed that Lemmon Drive from Fleetwood Drive to Palace Drive is widened to four lanes with the addition of bicycle lanes in both directions. In addition, it is assumed the profile of Lemmon Drive will be raised to ensure the roadway is above the revised 100-yr flood elevation. Freeboard for wave action will be evaluated as well.

The existing multi-use path along the east side of Lemmon Drive is an 8-ft wide asphalt path and was also flooded during the weather events beginning in 2017. Some areas of the path were still inundated in the fall of 2019. The unique location of this project within the isolated playa basin requires the elevation of the path and the roadway to be set to an agreed upon elevation that consider freeboard for wave action in addition to standing water elevations, rather than a storm event year elevation.

To assist in determining high level construction costs for each alternative, The NDOT Cost Wizard Spreadsheet tool was used. The NDOT Cost Wizard Tool provides consistent calculations with standardized user input. These are included below in Tables 1 through 12.

The assumptions for each of the alternative layouts and the cost wizards are summarized below.

A1. No Build:

- Lemmon Drive remains a 2-lane facility on its existing alignment
- Current maintenance costs for pavement rehabilitation and flood mitigation (including pumping facilities, HESCO barriers, earthen berms, and Tiger Dams) would be ongoing
- The existing geometric deficiencies, including inadequate shoulder width, lack of dedicated bicycle lanes, and a profile elevation below the 100-year floodplain remain. Additionally, in the no-build scenario, the reduced regulatory posted speed limit of 20 mph remains due to flooding mitigation measures in place.
- Lemmon Drive won't have capacity for future connectivity of Eagle Canyon Drive, or other developments
- The existing multi-use path along the east side of Lemmon Drive remains in place along its existing profile, which in August 2019 Google imagery shows a 250 foot length segment is underwater.
- Lemmon Drive currently does not have designated bike lanes, nor is there an adequate shoulder along the existing Lemmon Drive to accommodate bicycles
- Current pumping activities would need to be continued to get water into Swan Lake from east of Lemmon Drive



Figure 1. No Build

Lemmon Drive remains a
2-lane facility on its
existing alignment



A2. Elevate existing Lemmon Drive above the 100-yr. floodplain:

- Maintain existing horizontal alignment of Lemmon Drive
- Widen from 2 to 4 lanes as an undivided arterial; and raise the vertical profile up to 2.5' to ensure one lane in either travel direction remains dry to provide residents and emergency vehicle access during a 100-yr. flood event
(existing profile low point is approximately 4922.4')
- Will require volumetric mitigation for additional roadway fill placed in the floodplain
- Requires equalization culverts under the roadway to keep the WSE the same on both sides of the roadway
- Includes dedicated bicycle lanes in both directions
- The existing 8' wide multi-use path east of Lemmon Drive is reconstructed as a 10' wide path and the profile raised above an agreed upon elevation.
- Adequate shoulder width and a vertical profile that meet current design standards will be provided.
- Raising the profile of Lemmon Drive will require side street profile tie-in adjustments
- Raising the roadway profile elevation does not imply the roadway will act as a berm/levee; but this could be an option depending on the solution determined by the Washoe County Swan Lake Mitigation Studies.
- Raising the profile grade allows reconstruction of the pavement section with less dewatering efforts than trying to reconstruct at the same profile elevation.
- Cost Wizard Assumptions:
 - Lemmon Drive profile raised approximately 2.5' to be above the new floodplain elevation with agreed upon freeboard so construction was priced as a "new" 4-lane undivided roadway.
 - Multiuse path profile raised so priced as 'new' construction
 - Traffic signal installed at Chickadee Drive to accommodate anticipated volumes with the future Eagle Canyon Drive roadway extension
 - Additional Items used Default value of 15% plus volumetric mitigation for roadway fill at a place holder cost of \$1,000,000
 - Default Standard Percentage Adders values were used for Erosion Control, Traffic Control, Roadside Safety, Landscaping/Aesthetics, Mobilization, and Construction Engineering & Inspection
 - Construction Cost Escalation to year 2023
 - Engineering Design Escalation to year 2022
 - Hydraulics/Storm Water Costs set at 5% since within a floodplain
 - No acquisition of right of way



Figure 2. Elevate
Lemmon Drive

Elevate existing Lemmon Drive
above the 100-yr floodplain;
Widen from two to four lanes



SUMMARY

ESTIMATED PROBABLE CONSTRUCTION COST

Alt. 2-Widen&Raise Profile Along Ext Alg

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

SECTION	ESCALATED TO YEAR	TOTAL
SECTION I - ROADWAY CONSTRUCTION		\$11,613,878
SECTION II - BRIDGES		
SECTION III - WALLS		
SECTION IV - TYPICAL INTERCHANGES		
SECTION V - SIGNAL SYSTEMS AT INTERSECTIONS		\$212,000
SECTION VI - DEMOLITION		
SECTION VII - ADDITIONAL ITEMS		\$2,773,882
SECTION VIII - STANDARD PERCENTAGE ADDERS		\$6,329,470
TOTAL PRESENT DAY CONSTRUCTION COST		\$20,929,230
TOTAL ESCALATED CONSTRUCTION COST	2023	\$23,011,688
TOTAL CONSTRUCTION & ENGINEERING	2022	\$24,409,000
SECTION IX - HYDRAULICS/STORM WATER COSTS	2023	\$1,341,885
SECTION X - RIGHT OF WAY COSTS	2022	
GRAND TOTAL PROJECT COST		\$25,750,885

	CURRENT ESTIMATE	LOW RANGE	HIGH RANGE
TOTAL PRESENT DAY CONSTRUCTION COST	\$20,900,000	\$19,800,000	\$24,000,000
TOTAL PROJECT COST	\$25,800,000	\$24,300,000	\$29,600,000

Estimate prepared by:	K. Stansbury
Date of initial estimate:	May 11, 2020
Date of latest estimate revision:	May 11, 2020
Route name or number:	PWP-WA-2020-xxx
Project Title:	Alt. 2-Widen&Raise Profile Along Ext Alg
Project length (in miles):	2.4
District price database used:	District 2
Predominant County:	Washoe
NDOT project manager:	RTC PM - Dale Keller

A3. Elevate one side of the roadway above the floodplain:

- One option for this alternative is to rehabilitate the existing Lemmon Drive along its existing alignment and convert it to a two-lane northbound or southbound alignment. A new two-lane alignment for the alternative direction is constructed either west or east of the existing Lemmon Drive, depending on the direction travel, above the newly established 100-year floodplain elevation. In this option, if the southbound lanes are constructed at the 100-year floodplain elevation, they could act as a berm/levee as necessary to coordinate with the Washoe County Swan Lake Mitigation Study.
- The other option for this alternative would be to raise the profile of the existing Lemmon Drive alignment above the newly established 100-yr. floodplain elevation and convert it to a two-lane northbound or southbound alignment. A new two-lane alignment for the alternative direction is constructed either west of east of the exiting Lemmon Drive, depending on the direction of travel, near the existing ground elevation. In this option, raising the existing roadway for the southbound direction could allow the roadway closest to Swan Lake to act as a berm/levee as necessary to coordinate with the Washoe County Swan Lake Mitigation Study.
- To accommodate the difference in profiles, the roadway becomes a divided alignment similar to the geometric layout between Military Road and Fleetwood Drive. U-turn opportunities would be located at the locations of the side street intersections.
- In the event of a flood, the higher roadway could be converted to a two-lane two-directional roadway to maintain access along this regional road.
- Includes a bicycle lane in each direction and a 10' wide multi-use path separated from the roadway alignment.
- Compared to Alternative #2, this alternative lessens the amount of new fill placed within the floodplain by only elevating one direction of travel
- Must address the need to get the water into Swan Lake from the east with one direction of travel near the existing ground elevation.
- Reconstruction of the existing Lemmon Drive will include adequate shoulder widths and minor geometric profile adjustments as necessary to ensure 0.5% longitudinal grade.
- Cost Wizard Assumptions:
 - Southbound Lemmon Drive profile raised approximately 2.5' above new floodplain elevation so priced 2-lane undivided road as 'new' roadway construction and 2-lane roadway as roadbed modification with asphalt pavement.
 - Multiuse path profile raised so priced as 'new' construction
 - Traffic signals installed at both northbound and southbound at Chickadee Drive to accommodate volumes of future Eagle Canyon Drive Extension
 - Additional Items used Default value of 15% plus volumetric mitigation for southbound roadway fill at \$750,000 and cost to pump water under northbound roadway at \$250,000.
 - Default Standard Percentage Adders values were used for Erosion Control, Traffic Control, Roadside Safety, Landscaping/Aesthetics, Mobilization, and Construction Engineering & Inspection.



Technical Memorandum

Level One Alternatives Analysis Screening
Summary for Segment 2

- Construction Cost Escalation to year 2023
- Engineering Design Escalation to year 2022
- Hydraulics/Storm Water Costs set at 5% since within a floodplain
- No acquisition of right of way

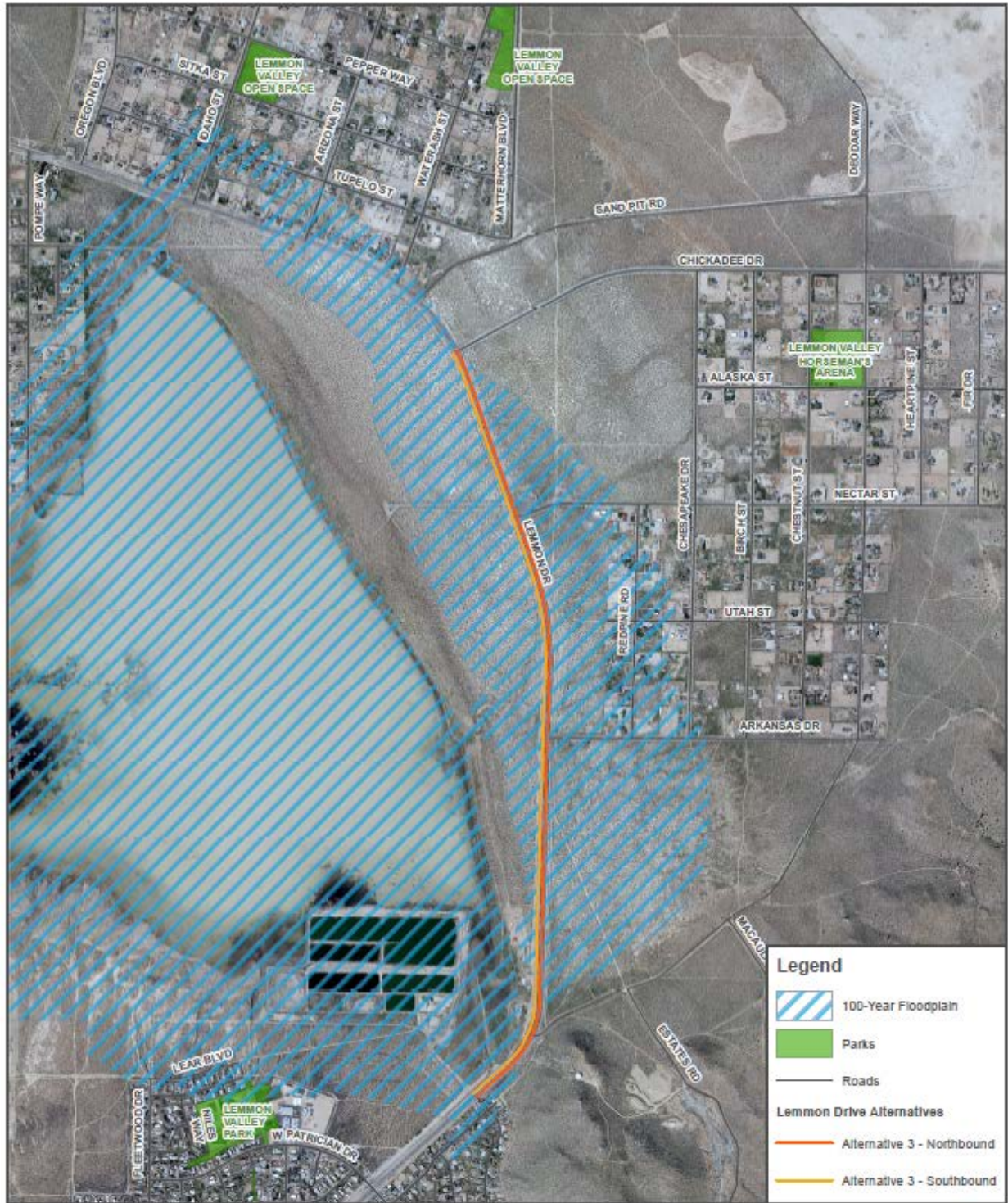


Figure 3. Elevate One Side of Lemmon Drive

Convert existing Lemmon Drive into a two-lane southbound alignment and construct a new northbound alignment east of Lemmon Dr above the floodplain



SUMMARY

ESTIMATED PROBABLE CONSTRUCTION COST

Alt. 3 - Elevate SB / NB along Existing

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

SECTION	ESCALATED TO YEAR	TOTAL
SECTION I - ROADWAY CONSTRUCTION		\$9,309,475
SECTION II - BRIDGES		
SECTION III - WALLS		
SECTION IV - TYPICAL INTERCHANGES		
SECTION V - SIGNAL SYSTEMS AT INTERSECTIONS		\$318,000
SECTION VI - DEMOLITION		
SECTION VII - ADDITIONAL ITEMS		\$2,444,121
SECTION VIII - STANDARD PERCENTAGE ADDERS		\$5,233,429
TOTAL PRESENT DAY CONSTRUCTION COST		\$17,305,026
TOTAL ESCALATED CONSTRUCTION COST	2023	\$19,026,876
TOTAL CONSTRUCTION & ENGINEERING	2022	\$20,183,152
SECTION IX - HYDRAULICS/STORM WATER COSTS	2023	\$1,109,569
SECTION X - RIGHT OF WAY COSTS	2022	
GRAND TOTAL PROJECT COST		\$21,292,721

	CURRENT ESTIMATE	LOW RANGE	HIGH RANGE
TOTAL PRESENT DAY CONSTRUCTION COST	\$17,300,000	\$16,300,000	\$19,900,000
TOTAL PROJECT COST	\$21,300,000	\$20,100,000	\$24,400,000

Estimate prepared by:	K. Stansbury
Date of initial estimate:	May 11, 2020
Date of latest estimate revision:	May 11, 2020
Route name or number:	PWP-WA-2020-xxx
Project Title:	Alt. 3 - Elevate SB / NB along Existing
Project length (in miles):	2.4
District price database used:	District 2
Predominant County:	Washoe
NDOT project manager:	RTC PM - Dale Keller

A4. Lake Volume removal to lower the floodplain below the existing elevation of Lemmon Drive: .

- Excavate enough soil from Swan Lake to lower the flood plain elevation approximately 2.5' allowing the existing profile of Lemmon Drive to be maintained, while widening to four lanes.
- Excavation will also be done east of Lemmon Drive to provide additional retention volume and avoid overtopping of the roadway. Even with this retention volume, there must still be a way to accommodate getting water into Swan Lake from east of Lemmon Drive.
- Includes a dedicated bicycle lane in each direction and a 10' wide multi-use path
- An exorbitant amount of excavation would be required for this to be a viable alternative; a recent Washoe County study showed approximately 2 feet of removal would be required to provide an additional 3200 Acre-feet of lake volume at a cost of \$100-\$120 million, not including off haul costs.
- Off-haul of excavation is required as it cannot be placed on nearby land earmarked to be developed.
- Ongoing maintenance of sedimentation removal would be required to maintain excavated volume
- A study performed by TMWA shows there is an existing aquifer confining clay layer that any excavation shall not penetrate.
- Reconstruction of the existing Lemmon Drive will widen it to four lanes, include adequate shoulder widths and minor geometric profile adjustments as necessary to ensure 0.5% longitudinal grade. Lemmon Drive will not need to be elevated, as the excavation lowers the 100-year floodplain elevation.
- Cost Wizard Assumptions:
 - Roadway priced as widen 2 lanes to 4 lanes and the existing 2-lane roadway receives roadbed modification with asphalt pavement.
 - Multiuse path profile raised so priced as 'new' construction
 - Traffic signal installed at Chickadee Drive to accommodate future volumes with Eagle Canyon Drive Extension
 - Additional Items used Default value of 15% plus excavation of Swan Lake to provide 3,200 Acre-feet of floodplain storage volume at a cost of \$110,000,000.
 - Default Standard Percentage Adders values were used for Erosion Control, Traffic Control, Roadside Safety, Landscaping/Aesthetics, Mobilization, and Construction Engineering & Inspection.
 - Construction Cost Escalation to year 2023
 - Engineering Design Escalation to year 2022
 - Hydraulics/Storm Water Costs set at 5% since within a floodplain
 - No acquisition of right of way

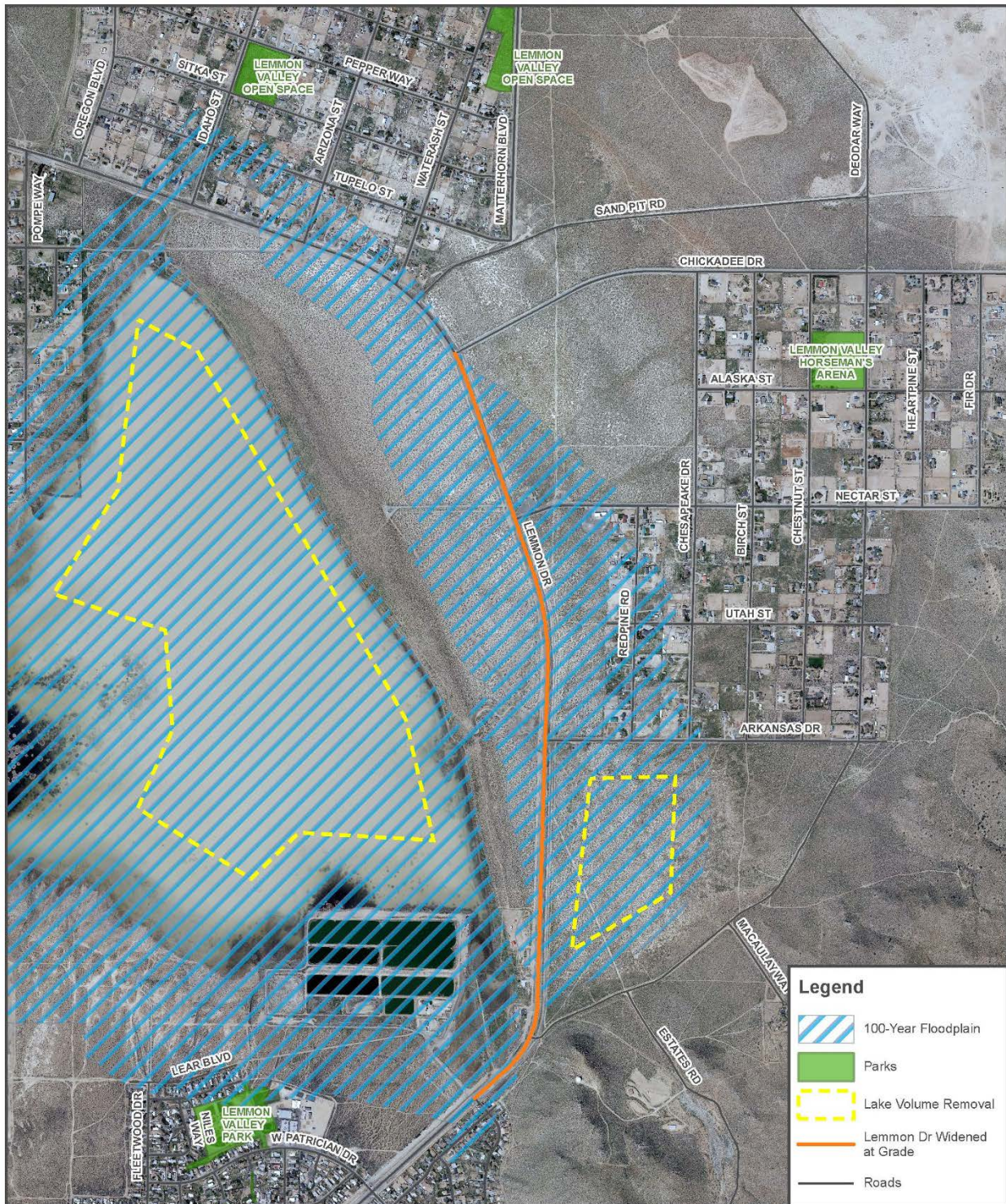


Figure 4. Lower the
Floodplain

Excavate enough soil from Swan Lake
to lower the floodplain elevation by
-2.5 feet; Excavate east of Lemmon Dr
to provide additional retention volume



SUMMARY

ESTIMATED PROBABLE CONSTRUCTION COST

Alternative 4 - Excavate Swan Lake

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

SECTION	ESCALATED TO YEAR	TOTAL
SECTION I - ROADWAY CONSTRUCTION		\$8,059,368
SECTION II - BRIDGES		
SECTION III - WALLS		
SECTION IV - TYPICAL INTERCHANGES		
SECTION V - SIGNAL SYSTEMS AT INTERSECTIONS		\$212,000
SECTION VI - DEMOLITION		
SECTION VII - ADDITIONAL ITEMS		\$111,240,705
SECTION VIII - STANDARD PERCENTAGE ADDERS		\$51,812,368
TOTAL PRESENT DAY CONSTRUCTION COST		\$171,324,441
TOTAL ESCALATED CONSTRUCTION COST	2023	\$188,371,223
TOTAL CONSTRUCTION & ENGINEERING	2022	\$199,770,929
SECTION IX - HYDRAULICS/STORM WATER COSTS	2023	\$10,982,407
SECTION X - RIGHT OF WAY COSTS	2022	
GRAND TOTAL PROJECT COST		\$210,753,336

	CURRENT ESTIMATE	LOW RANGE	HIGH RANGE
TOTAL PRESENT DAY CONSTRUCTION COST	\$171,300,000	\$157,200,000	\$205,500,000
TOTAL PROJECT COST	\$210,800,000	\$194,700,000	\$250,800,000

Estimate prepared by:	K. Stansbury
Date of initial estimate:	May 11, 2020
Date of latest estimate revision:	May 11, 2020
Route name or number:	PWP-WA-2020-xxx
Project Title:	Alternative 4 - Excavate Swan Lake
Project length (in miles):	2.4
District price database used:	District 2
Predominant County:	Washoe
NDOT project manager:	RTC PM - Dale Keller

A5. Elevate Shared-use path to act as a berm/levee:

- Construct a 10' wide multi-use path west of the existing Lemmon Drive alignment to act as a berm/levee. This alternative should only be considered if a berm/levee is the solution determined by the Washoe County Swan Lake Mitigation Study.
- Lemmon Drive is widened to four lanes along its existing alignment and includes the addition of dedicated bikes lanes in both directions.
- Adequate shoulder widths and minor profile adjustments to ensure a minimum 0.5% profile grade are included to comply with current design standards.
- Must address the need to get offsite flows into Swan Lake from east and north of Lemmon Drive.
- Assumes roadway widened to the east and the shared use path berm/levee is constructed west of Lemmon Drive.
- Cost Wizard Assumptions:
 - Roadway priced as widen 2 lanes to 4 lanes and the existing 2-lane roadway receives roadbed modification with asphalt pavement.
 - Multiuse path profile raised so priced as 'new' construction
 - Traffic signal installed at Chickadee Drive to accommodate volumes of future Eagle Canyon Drive Extension
 - Additional Items: used Default value of 15% plus berm/levee design requirements at \$1,500,000 plus pumping requirements under Lemmon Drive from east/north at \$500,000.
 - Default Standard Percentage Adders values were used for Erosion Control, Traffic Control, Roadside Safety, Landscaping/Aesthetics, Mobilization, and Construction Engineering & Inspection
 - Construction Cost Escalation to year 2023
 - Engineering Design Escalation to year 2022
 - Hydraulics/Storm Water Costs set at 5% since within a floodplain
 - No acquisition of right of way

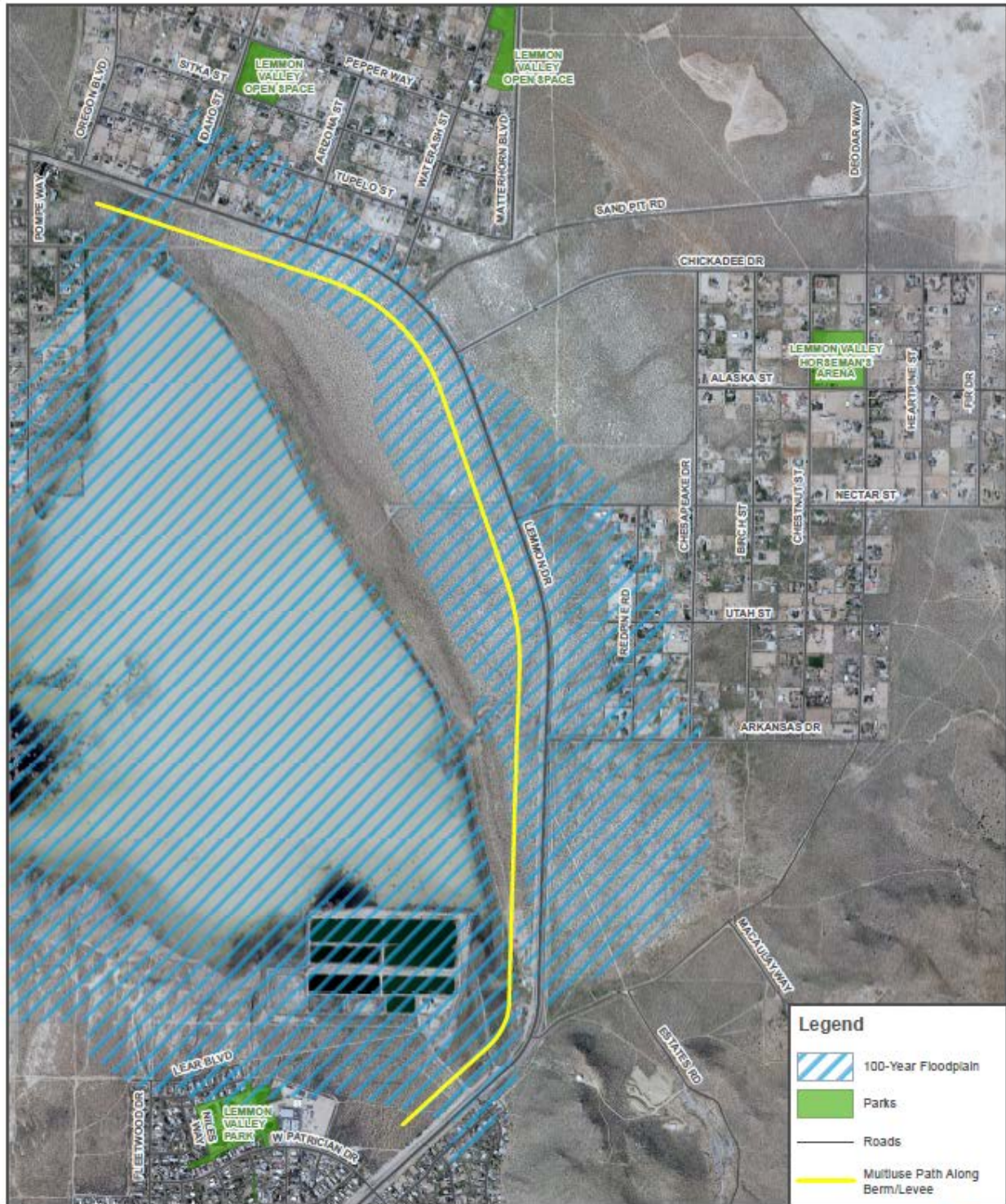


Figure 5. Elevated Shared-Use Path

Construct a ten foot wide multi-use path west of the existing Lemmon Dr alignment to act as a berm/levee



SUMMARY

ESTIMATED PROBABLE CONSTRUCTION COST

Alt. 5 - Elevated Path as Berm/Levee

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

SECTION	ESCALATED TO YEAR	TOTAL
SECTION I - ROADWAY CONSTRUCTION		\$8,059,368
SECTION II - BRIDGES		
SECTION III - WALLS		
SECTION IV - TYPICAL INTERCHANGES		
SECTION V - SIGNAL SYSTEMS AT INTERSECTIONS		\$212,000
SECTION VI - DEMOLITION		
SECTION VII - ADDITIONAL ITEMS		\$3,240,705
SECTION VIII - STANDARD PERCENTAGE ADDERS		\$4,990,858
TOTAL PRESENT DAY CONSTRUCTION COST		\$16,502,931
TOTAL ESCALATED CONSTRUCTION COST	2023	\$18,144,972
TOTAL CONSTRUCTION & ENGINEERING	2022	\$19,247,903
SECTION IX - HYDRAULICS/STORM WATER COSTS	2023	\$1,058,153
SECTION X - RIGHT OF WAY COSTS	2022	
GRAND TOTAL PROJECT COST		\$20,306,056

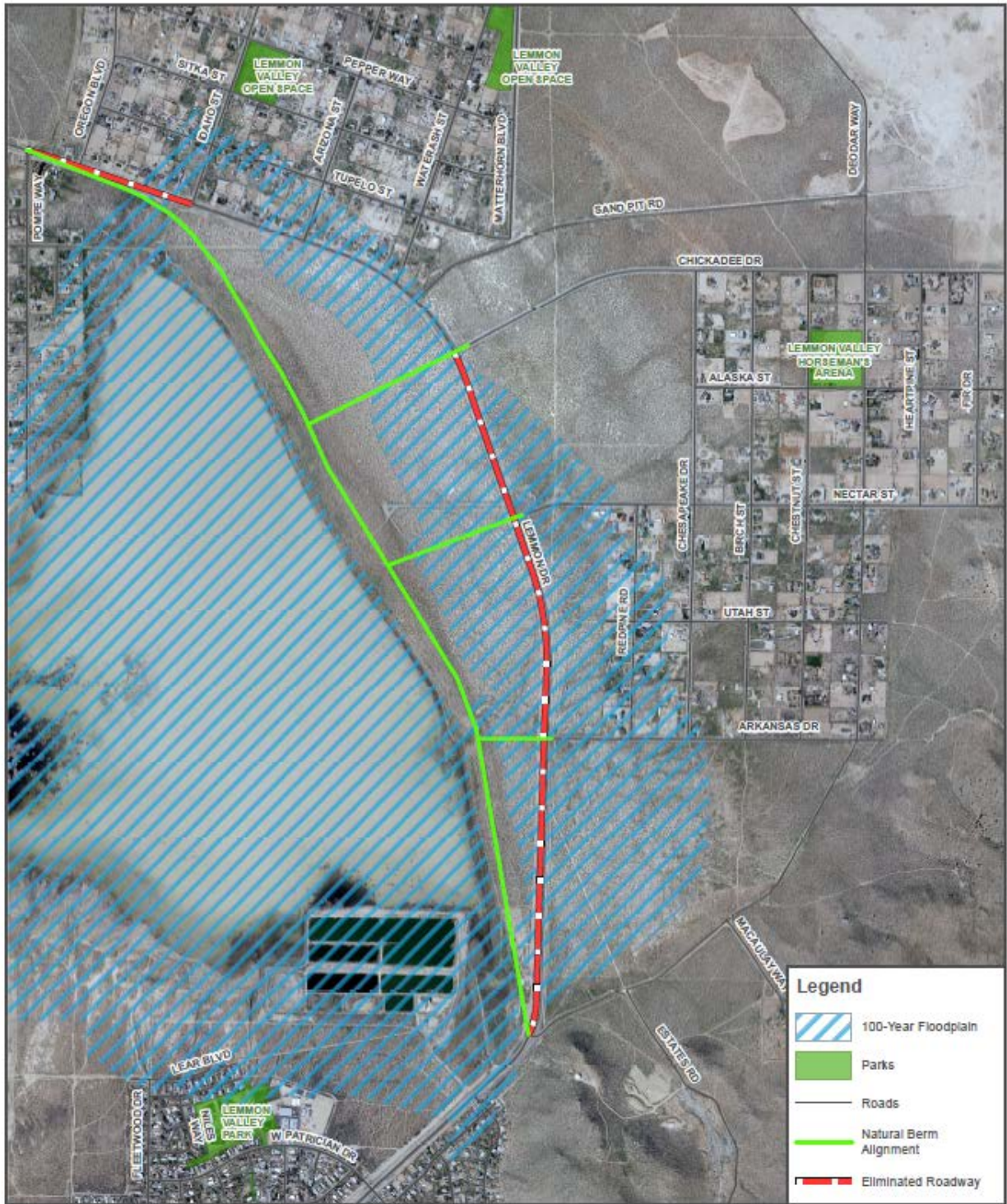
	CURRENT ESTIMATE	LOW RANGE	HIGH RANGE
TOTAL PRESENT DAY CONSTRUCTION COST	\$16,500,000	\$15,500,000	\$19,000,000
TOTAL PROJECT COST	\$20,300,000	\$19,100,000	\$23,400,000

Estimate prepared by:	K. Stansbury
Date of initial estimate:	May 11, 2020
Date of latest estimate revision:	May 11, 2020
Route name or number:	PWP-WA-2020-xxx
Project Title:	Alt. 5 - Elevated Path as Berm/Levee
Project length (in miles):	2.4
District price database used:	District 2
Predominant County:	Washoe
NDOT project manager:	RTC PM - Dale Keller

A6. Natural Berm Realignment:

- Realign Lemmon Drive to the west along the natural berm of Swan Lake; (Google shows a dirt road labeled as Idaho Street along this natural berm).
- The realignment would begin with a continuation of the horizontal curve near Deodar Way to align the roadway with the natural berm.
- At the northern end, the realignment would end with a horizontal curve matching into the existing Lemmon Drive alignment at Pompe Way (to provide adequate distance to match back into the existing profile of Lemmon Drive).
- The existing elevation of this natural berm allows Lemmon Drive to be constructed 'at-grade' and be above the adjusted 100-yr. floodplain elevation
- The new alignment would provide four lanes and be designed to current geometric standards.
- Potentially, Arkansas St., Nectar St., and Chickadee Dr., or some combination thereof, would be extended westward to connect into the realigned Lemmon Drive.
- A drainage structure would need to be provided along the realigned Lemmon Drive near the Arkansas St. extension to perpetuate an existing low spot along the natural berm.
- The existing Lemmon Drive between Pompe Way and Idaho Street would be eliminated, requiring the acquisition of approximately ten properties with frontage to Lemmon Drive.
- Idaho Street is not extended to tie into the realigned Lemmon Drive.
- With the removal of Lemmon Drive between Pompe Way and Idaho Street, additional volumetric storage becomes available and a large equalization structure would be constructed under the natural berm alignment at the northern end of Swan Lake.
- Jean Way would continue to have access to/from the western side of Swan Lake.
- The existing 3,500 feet of Lemmon Drive from Idaho Street south to Chickadee Drive would be maintained to preserve local access for the properties with frontage to Lemmon Drive. This existing segment of roadway provides access to the realigned Lemmon Drive via Chickadee Drive.
- From Chickadee Drive south to Deodar Way the existing roadway would be removed. This eliminates the need to continue to maintain this roadway and eliminates the need for any necessary intersection improvements with the extension of Arkansas St., Nectar St. and Chickadee Drive. In addition, this increases the available volume within the floodplain and may assist in lowering the base floodplain elevation.
- Dedicated bike lanes in both directions are included along the realigned Lemmon Drive.
- A 10' wide multi-use path would either be constructed along the west side of the realigned Lemmon Drive to provide scenic views of Swan Lake and the multitude of birds that migrate through the area, or along its existing alignment but raised to an agreed upon elevation.
- Cost Wizard Assumptions:
 - Lemmon Drive priced as new 4-lane undivided roadway, a length of 3.0 miles, extension of Chickadee Dr., Nectar St., and Arkansas St. roadways are priced as new 2-lane undivided roadways, with a total combined length of 0.85 miles.

- Multiuse path is either realigned or the profile raised, so is priced as 'new' construction
- 4-lane culvert/bridge structure provided to perpetuate the natural break in the berm near the Arkansas St. extension
- 4-lane culvert/bridge structure provide to perpetuate the natural drainage way at the north end of Swan Lake.
- Traffic signal installed at Chickadee Drive to accommodate future volumes from the extension of Eagle Canyon Drive.
- Demolish 1.85 miles of existing Lemmon Drive
- Additional Items: used Default value of 15%.
- Default Standard Percentage Adders values were used for Erosion Control, Traffic Control, Roadside Safety, Landscaping/Aesthetics, Mobilization, and Construction Engineering & Inspection
- Construction Cost Escalation to year 2023
- Engineering Design Escalation to year 2022
- Hydraulics/Storm Water Costs set at 5% since within a floodplain
- Right of Way acquisition is required:
 - Developed Parcels assumed at \$500,000 (take and relocation)
 - 080-461-03
 - 080-671-04
 - Washoe County Owned Parcels @ \$0 acre (portion or full)
 - 080-461-19
 - BLM owned parcels @ \$0/acre (portion or full)
 - 080-671-43
 - 080-722-02
 - Undeveloped parcels owned by North Valleys Investment Group @6,000/acre
 - 080-671-57 – 40 acres
 - 080-671-56 – 20 acres
 - 080-671-55 – 36 acres
 - 080-722-03 – 100 acres



SUMMARY

ESTIMATED PROBABLE CONSTRUCTION COST

Alt. 6 - Natural Berm Realignment

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

SECTION	ESCALATED TO YEAR	TOTAL
SECTION I - ROADWAY CONSTRUCTION		\$16,776,765
SECTION II - BRIDGES		\$3,923,198
SECTION III - WALLS		
SECTION IV - TYPICAL INTERCHANGES		
SECTION V - SIGNAL SYSTEMS AT INTERSECTIONS		\$212,000
SECTION VI - DEMOLITION		\$345,786
SECTION VII - ADDITIONAL ITEMS		\$3,188,663
SECTION VIII - STANDARD PERCENTAGE ADDERS		\$10,598,314
TOTAL PRESENT DAY CONSTRUCTION COST		\$35,044,727
TOTAL ESCALATED CONSTRUCTION COST	2023	\$38,531,677
TOTAL CONSTRUCTION & ENGINEERING	2022	\$40,867,774
SECTION IX - HYDRAULICS/STORM WATER COSTS	2023	\$2,246,706
SECTION X - RIGHT OF WAY COSTS	2022	\$2,334,195
GRAND TOTAL PROJECT COST		\$45,448,676

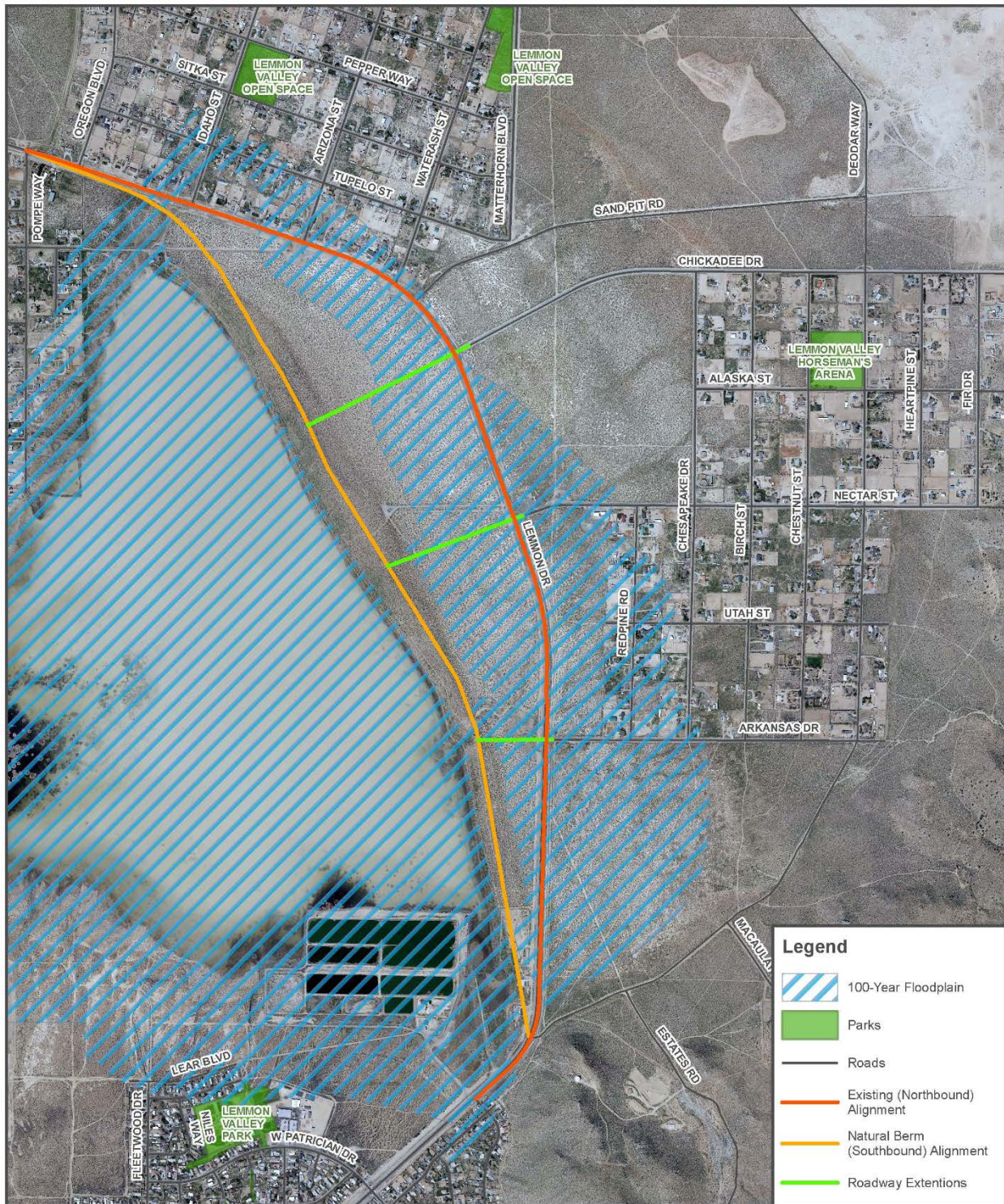
	CURRENT ESTIMATE	LOW RANGE	HIGH RANGE
TOTAL PRESENT DAY CONSTRUCTION COST	\$35,000,000	\$32,400,000	\$39,700,000
TOTAL PROJECT COST	\$45,400,000	\$42,300,000	\$51,700,000

Estimate prepared by:	K. Stansbury
Date of initial estimate:	May 11, 2020
Date of latest estimate revision:	May 11, 2020
Route name or number:	PWP-WA-2020-xxx
Project Title:	Alt. 6 - Natural Berm Realignment
Project length (in miles):	3.0
District price database used:	District 2
Predominant County:	Washoe
NDOT project manager:	RTC PM - Dale Keller

A7. Divided alignment between existing alignment and the natural berm alignment:

- Similar to Alternative 6, however, only construct the two southbound lanes along the natural berm alignment above the 100-year flood elevation, while maintaining the existing Lemmon Drive alignment for the two northbound lanes.
- Arkansas St., Nectar St., and Chickadee Dr. would be extended westward to connect into the realigned Lemmon Drive. This creates additional intersections, as these cross streets would require intersections at both the northbound and the southbound alignments.
- Unlike Alternative 6, the existing Lemmon Drive between Pompe Way and Idaho Street is perpetuated for the northbound direction, and no acquisitions are required.
- During times of elevated lake levels, the natural berm alignment can be converted into a two-lane, two-way roadway to maintain regional access.
- A dedicated bike lane for both directions of travel is included in the roadway typical section.
- A 10' wide multi-use path would either be provided along the west side of the new southbound natural berm alignment to provide scenic views of Swan Lake and the multitude of birds that migrate through the area or raised and widened along the existing path alignment.
- The southbound alignment is designed to current geometric design standards.
- Reconstruction of the existing Lemmon Drive for the northbound lanes will include adequate shoulder widths and minor geometric profile adjustments as necessary to ensure 0.5% longitudinal grade. Northbound Lemmon Drive will not be elevated above the 100-year floodplain elevation.
- Need to accommodate getting the water into Swan Lake from east and north of Lemmon Drive.
- Cost Wizard Assumptions:
 - Lemmon Drive priced as new 2-lane undivided roadway for southbound, 3.0 miles, and, roadbed modification with asphalt pavement for separate northbound, 2.0 miles. Extension of Chickadee Dr., Nectar St., and Arkansas St. roadways priced as new 2-lane undivided roadways, a total combined length of 0.85 miles.
 - Multiuse path either relocated or raised along its existing alignment so priced as 'new' construction.
 - 2-lane culvert/bridge structure provided to perpetuate the natural break in the berm near the Arkansas St. extension for southbound natural berm alignment.
 - 2-lane culvert/bridge structure provide to perpetuate the natural drainage way at the north end of Swan Lake for southbound natural berm alignment.
 - Traffic signals installed at southbound and northbound Lemmon Drive at Chickadee Drive to accommodate future volumes from the extension of Eagle Canyon Drive.
 - Additional Items: used Default value of 15%.
 - Default Standard Percentage Adders values were used for Erosion Control, Traffic Control, Roadside Safety, Landscaping/Aesthetics, Mobilization, and Construction Engineering & Inspection

- Construction Cost Escalation to year 2023
- Engineering Design Escalation to year 2022
- Hydraulics/Storm Water Costs set at 5% since within a floodplain
- Right of Way acquisition is required: (assumed to impact approximately same amount as if doing full 4 lane roadway along natural berm)
 - Developed Parcels assumed at \$500,000 (take and relocation)
 - 080-461-03
 - 080-671-04
 - Washoe County Owned Parcels @ \$0 acre (portion or full)
 - 080-461-19
 - BLM owned parcels @ \$0/acre (portion or full)
 - 080-671-43
 - 080-722-02
 - Undeveloped parcels owned by North Valleys Investment Group @6,000/acre
 - 080-671-57 – 40 acres
 - 080-671-56 – 20 acres
 - 080-671-55 – 36 acres
 - 080-722-03 – 100 acres



SUMMARY

ESTIMATED PROBABLE CONSTRUCTION COST

Alt. 7 - SB NaturalBerm / NB Existing

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

SECTION	ESCALATED TO YEAR	TOTAL
SECTION I - ROADWAY CONSTRUCTION		\$13,189,644
SECTION II - BRIDGES		\$2,082,519
SECTION III - WALLS		
SECTION IV - TYPICAL INTERCHANGES		
SECTION V - SIGNAL SYSTEMS AT INTERSECTIONS		\$318,000
SECTION VI - DEMOLITION		
SECTION VII - ADDITIONAL ITEMS		\$2,338,524
SECTION VIII - STANDARD PERCENTAGE ADDERS		\$7,772,669
TOTAL PRESENT DAY CONSTRUCTION COST		\$25,701,357
TOTAL ESCALATED CONSTRUCTION COST	2023	\$28,258,642
TOTAL CONSTRUCTION & ENGINEERING	2022	\$29,973,335
SECTION IX - HYDRAULICS/STORM WATER COSTS	2023	\$1,647,784
SECTION X - RIGHT OF WAY COSTS	2022	\$2,334,195
GRAND TOTAL PROJECT COST		\$33,955,315

	CURRENT ESTIMATE	LOW RANGE	HIGH RANGE
TOTAL PRESENT DAY CONSTRUCTION COST	\$25,700,000	\$23,900,000	\$29,200,000
TOTAL PROJECT COST	\$34,000,000	\$31,800,000	\$38,800,000

Estimate prepared by:	K. Stansbury
Date of initial estimate:	May 11, 2020
Date of latest estimate revision:	May 11, 2020
Route name or number:	PWP-WA-2020-xxx
Project Title:	Alt. 7 - SB NaturalBerm / NB Existing
Project length (in miles):	3.0
District price database used:	District 2
Predominant County:	Washoe
NDOT project manager:	RTC PM - Dale Keller

A8. Deodar Way Realignment:

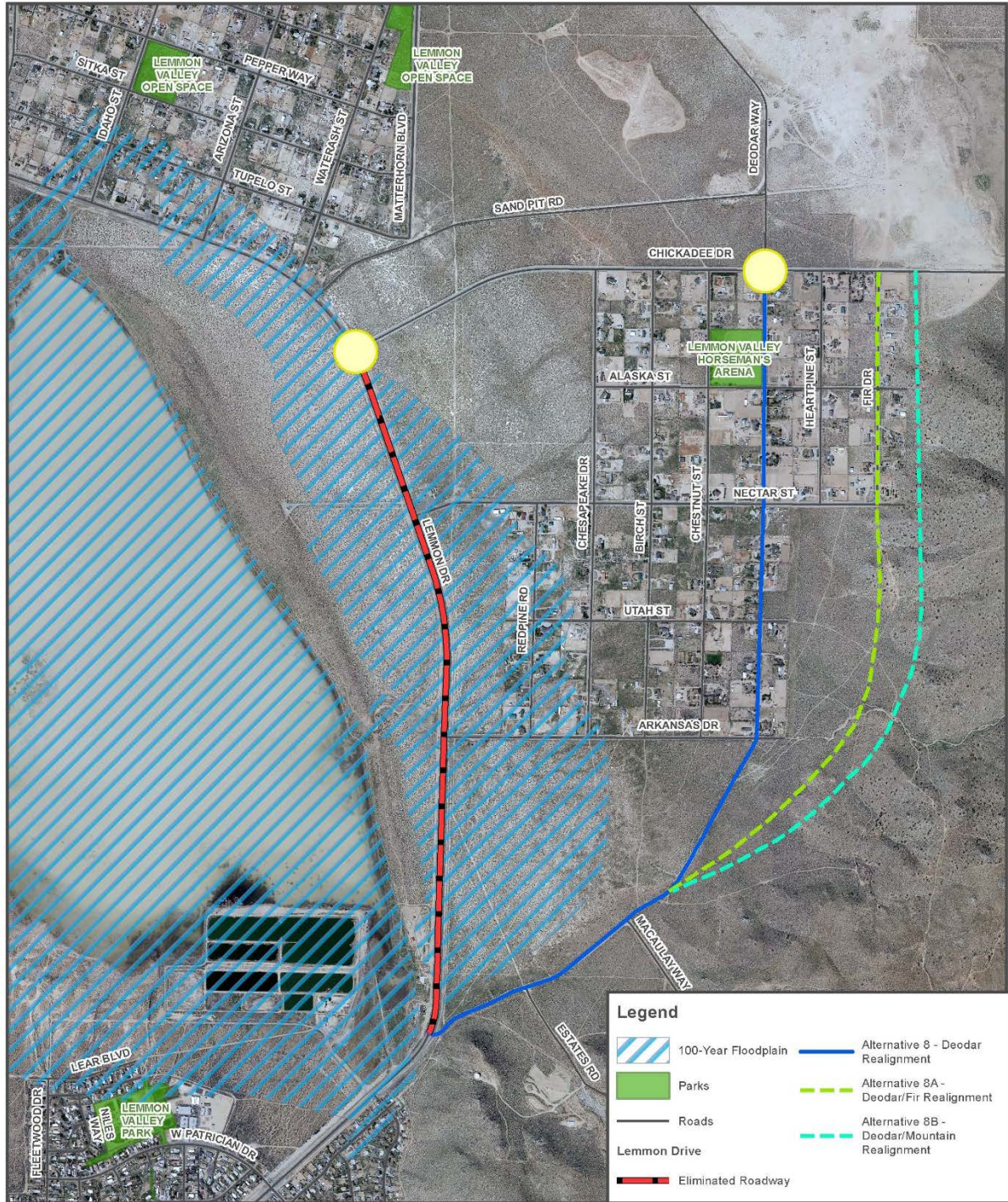
- Realign Lemmon Drive to the east along the existing Deodar Way corridor.
- Existing Lemmon Drive between Chickadee Drive and Deodar Way is eliminated.
- The realignment would begin near the existing Deodar Way intersection, continuing north along the Deodar Way corridor, terminating as a signalized intersection with Chickadee Dr.
- This alignment can be built 'on-grade' as it would be above the adjusted 100-yr. floodplain elevation
- The new alignment would provide four lanes and be designed to current geometric standards.
- Widening of the existing Deodar Way corridor to accommodate four lanes of traffic and a dedicated bike lane in both directions would have property impacts to approximately 40 parcels.
- The existing 8' wide multi-use path would be reconstructed as a 10' wide path and the profile raised to an agreed upon elevation. This separates path users from the four-lane roadway facility and provides scenic views of Swan Lake.
- This realignment introduces two intersections that current traffic along Lemmon Drive does not navigate through, a signalized intersection where the realigned Lemmon Drive intersects Chickadee Dr. and a possible roundabout for the directional traffic movement where Chickadee Dr. intersects with the existing Lemmon Drive. Realigning Chickadee Drive along a large radius horizontal curve west of Chesapeake Dr. to Tupelo Street may be possible to eliminate the need for a second intersection where Chickadee Dr. would intersect with the existing Lemmon Dr.
- A second option for this alternative, identified as alternative 8a, is to realign Lemmon Drive east of Deodar Way along Fir Drive. Fir Drive would be widened to the east to accommodate the four lanes and dedicated bike lanes, affecting only 8 parcels, rather than the 40 parcels required along the Deodar Way alignment.
- A third option for this alternative is to realign Lemmon Drive farther east to avoid all the developed parcels of this neighborhood. This alternative is identified as 8b. The terrain becomes very hilly just east of Fir Drive so retaining walls may be required. Connectivity to the neighborhood must be perpetuated from the realigned Lemmon Drive.
- The new profile alignment would accommodate existing drainage pathways to Swan Lake.
- Mitigation measures would still need to be employed at Nectar St. and other localized spots along the existing Lemmon Drive alignment to address flooding. The existing Lemmon Drive could be repurposed into a HESCO barrier platform should future water elevations require protection of developed parcels.
- Alt. 8 Cost Wizard Assumptions:
 - Lemmon Drive priced as new 4-lane undivided roadway from Fleetwood Dr. to Chickadee Dr., along Deodar Way, a length of 2.87 miles. Then Chickadee Dr. priced as two new lanes plus two lanes of roadbed modification from the realignment to the existing Lemmon Drive, a length of 0.92 miles.

- Multiuse path constructed new along realignment or raised and widened along the existing alignment.
- Traffic signals installed at realigned Lemmon Drive (Deodar Way) / Chickadee Dr. and at Chickadee Dr. / existing Lemmon Drive (priced as signal but a roundabout seems like a more practical solution).
- Demolish 1.45 miles of existing Lemmon Drive
- Additional Items: used Default value of 15%.
- Default Standard Percentage Adders values were used for Erosion Control, Traffic Control, Roadside Safety, Landscaping/Aesthetics, Mobilization, and Construction Engineering & Inspection
- Construction Cost Escalation to year 2023
- Engineering Design Escalation to year 2022
- Hydraulics/Storm Water Costs set at 5% since within a floodplain
- Right of Way acquisition is required:
 - Developed Parcels assumed at \$500,000 (take and relocation)
 - 080-285-09, 080-285-10, 080-285-07, 080-285-06, 080-285-05, 080-286-01, 080-286-02, 080-286-03, 080-286-04, 080-272-09, 080-272-10, 080-272-14, 080-272-13, 080-272-18, 080-272-17, 080-272-05, 080-273-01, 080-273-02, 080-273-03, 080-273-04, 080-263-08, 080-263-07, 080-263-06, 080-263-05, 080-274-01, 080-274-02, 080-274-03, 080-274-04, 080-264-04, 080-264-03, 080-264-07, 080-279-05, 080-279-12, 080-279-11, 080-279-07, 080-279-08
 - Washoe County Owned Parcels @ \$0 acre (portion or full)
 - none
 - BLM owned parcels @ \$0/acre (portion or full)
 - none
 - Undeveloped parcels owned by North Valleys Investment Group @6,000/acre
 - 080-730-16 – 15 acres
 - 080-730-15 – 5 acres
 - 080-730-14 – 5 acres
 - 080-730-13 – 10 acres
 - 080-730-12 – 10 acres
 - 080-271-02 – 5 acres
 - 080-721-03 – 10 acres
 - 080-721-04 – 10 acres
- Alt. 8a Cost Wizard Assumptions (along Fir Drive):
 - Lemmon Drive priced as new 4-lane undivided roadway from Fleetwood Dr. to Chickadee Dr. along a realignment that uses Deodar Way and Fir Drive, a length of

2.97 miles. Then Chickadee Dr. priced as two new lanes plus two lanes of roadbed modification from the realignment to the existing Lemmon Drive, a length of 1.18 miles.

- Multiuse path constructed new along realignment or widened and raised along existing alignment.
 - Traffic signals installed at realigned Lemmon Drive (Fir Dr.) / Chickadee Dr. and at Chickadee Dr. / existing Lemmon Drive (priced as signal but a roundabout seems like a more practical solution).
 - Demolish 1.45 miles of existing Lemmon Drive
 - Approximate 250 ft long by 50 ft height MSE wall at location of hill
 - Additional Items: used Default value of 15%.
 - Default Standard Percentage Adders values were used for Erosion Control, Traffic Control, Roadside Safety, Landscaping/Aesthetics, Mobilization, and Construction Engineering & Inspection
 - Construction Cost Escalation to year 2023
 - Engineering Design Escalation to year 2022
 - Hydraulics/Storm Water Costs set at 5% since within a floodplain
 - Right of Way acquisition is required (eastern side of Fir Dr.):
 - Developed Parcels assumed at \$500,000 (take and relocation)
 - 080-276-01, 080-276-02, 080-276-03, 080-276-05, 080-277-05, 080-277-02, 080-277-03, 080-277-04
 - Washoe County Owned Parcels @ \$0 acre (portion or full)
 - none
 - BLM owned parcels @ \$0/acre (portion or full)
 - 080-740-02 – 5 acres
 - Undeveloped parcels owned by North Valleys Investment Group @6,000/acre
 - 080-730-16 – 15 acres
 - 080-730-15 – 15 acres
 - 080-730-14 – 5 acres
 - 080-730-13 – 20 acres
 - 080-271-02 – 5 acres
 - 080-721-03 – 10 acres
 - 080-721-04 – 10 acres
 - Undeveloped (with well) parcel owned by Sha-Neva Inc. @\$20,000/acre
 - 080-710-13 – 2 acres
- Alt. 8b Cost Wizard Assumptions (east of Fir Drive):
 - Lemmon Drive priced as a new 4-lane undivided roadway from Fleetwood Dr. to Chickadee Dr., along Deodar Way and east of Fir Drive, a length of 3.0 miles. Then Chickadee Dr. priced as two new lanes plus two lanes of roadbed modification from the realignment to the existing Lemmon Drive, a length of 1.25 miles.

- Multiuse path constructed new along realignment or widened and raised along its existing alignment.
- Traffic signals installed at realigned Lemmon Drive (Fir Dr.) / Chickadee Dr. and at Chickadee Dr. / existing Lemmon Drive (this one priced as signal but a roundabout seems like a more practical solution).
- Demolish 1.45 miles of existing Lemmon Drive
- Three MSE walls along hills, approximate 250 ft long by 50 ft height, 800 ft long by 75 ft height, 400 ft long by 20 ft height
- Additional Items: used Default value of 15%.
- Default Standard Percentage Adders values were used for Erosion Control, Traffic Control, Roadside Safety, Landscaping/Aesthetics, Mobilization, and Construction Engineering & Inspection
- Construction Cost Escalation to year 2023
- Engineering Design Escalation to year 2022
- Hydraulics/Storm Water Costs set at 5% since within a floodplain
- Right of Way acquisition is required (eastern side of Fir Dr.):
 - Developed Parcels assumed at \$500,000 (take and relocation)
 - none
 - Washoe County Owned Parcels @ \$0 acre (portion or full)
 - none
 - BLM owned parcels @ \$0/acre (portion or full)
 - 080-740-02 – 5 acres
 - 080-710-14 – 5 acres
 - Undeveloped parcels owned by North Valleys Investment Group @6,000/acre
 - 080-730-16 – 15 acres
 - 080-730-15 – 15 acres
 - 080-730-14 – 5 acres
 - 080-730-13 – 20 acres
 - 080-271-02 – 5 acres
 - 080-721-03 – 10 acres
 - 080-721-04 – 10 acres
 - Undeveloped (with well) parcel owned by Sha-Neva Inc. @\$20,000/acre
 - 080-710-13 – 2 acres
 - Undeveloped parcels owned by Hungry Valley Enterprises, LLC @ \$6,000/acre
 - 080-710-12 – 2 acres



SUMMARY

ESTIMATED PROBABLE CONSTRUCTION COST

Alt 8 - Deodar Realignment

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

SECTION	ESCALATED TO YEAR	TOTAL
SECTION I - ROADWAY CONSTRUCTION		\$16,983,838
SECTION II - BRIDGES		
SECTION III - WALLS		
SECTION IV - TYPICAL INTERCHANGES		
SECTION V - SIGNAL SYSTEMS AT INTERSECTIONS		\$371,000
SECTION VI - DEMOLITION		\$271,022
SECTION VII - ADDITIONAL ITEMS		\$2,643,879
SECTION VIII - STANDARD PERCENTAGE ADDERS		\$8,787,591
TOTAL PRESENT DAY CONSTRUCTION COST		\$29,057,330
TOTAL ESCALATED CONSTRUCTION COST	2023	\$31,948,534
TOTAL CONSTRUCTION & ENGINEERING	2022	\$33,886,425
SECTION IX - HYDRAULICS/STORM WATER COSTS	2023	\$1,862,906
SECTION X - RIGHT OF WAY COSTS	2022	\$19,759,134
GRAND TOTAL PROJECT COST		\$55,508,465

	CURRENT ESTIMATE	LOW RANGE	HIGH RANGE
TOTAL PRESENT DAY CONSTRUCTION COST	\$29,100,000	\$27,500,000	\$33,200,000
TOTAL PROJECT COST	\$55,500,000	\$53,000,000	\$64,600,000

Estimate prepared by:	K. Stansbury
Date of initial estimate:	May 11, 2020
Date of latest estimate revision:	May 11, 2020
Route name or number:	PWP-WA-2020-xxx
Project Title:	Alt 8 - Deodar Realignment
Project length (in miles):	2.9
District price database used:	District 2
Predominant County:	Washoe
NDOT project manager:	RTC PM - Dale Keller

SUMMARY

ESTIMATED PROBABLE CONSTRUCTION COST

Alt 8a - Deodar/Fir Realignment

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

SECTION	ESCALATED TO YEAR	TOTAL
SECTION I - ROADWAY CONSTRUCTION		\$18,342,586
SECTION II - BRIDGES		
SECTION III - WALLS		\$711,500
SECTION IV - TYPICAL INTERCHANGES		
SECTION V - SIGNAL SYSTEMS AT INTERSECTIONS		\$371,000
SECTION VI - DEMOLITION		\$271,022
SECTION VII - ADDITIONAL ITEMS		\$2,954,416
SECTION VIII - STANDARD PERCENTAGE ADDERS		\$9,819,739
TOTAL PRESENT DAY CONSTRUCTION COST		\$32,470,263
TOTAL ESCALATED CONSTRUCTION COST	2023	\$35,701,054
TOTAL CONSTRUCTION & ENGINEERING	2022	\$37,865,930
SECTION IX - HYDRAULICS/STORM WATER COSTS	2023	\$2,081,680
SECTION X - RIGHT OF WAY COSTS	2022	\$4,848,604
GRAND TOTAL PROJECT COST		\$44,796,214

	CURRENT ESTIMATE	LOW RANGE	HIGH RANGE
TOTAL PRESENT DAY CONSTRUCTION COST	\$32,500,000	\$30,800,000	\$37,100,000
TOTAL PROJECT COST	\$44,800,000	\$42,600,000	\$51,500,000

Estimate prepared by:	K. Stansbury
Date of initial estimate:	May 11, 2020
Date of latest estimate revision:	May 11, 2020
Route name or number:	PWP-WA-2020-xxx
Project Title:	Alt 8a - Deodar/Fir Realignment
Project length (in miles):	3.0
District price database used:	District 2
Predominant County:	Washoe
NDOT project manager:	RTC PM - Dale Keller

SUMMARY

ESTIMATED PROBABLE CONSTRUCTION COST

Alt 8b - Deodar/East of Fir Realignment

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

SECTION	ESCALATED TO YEAR	TOTAL
SECTION I - ROADWAY CONSTRUCTION		\$18,723,293
SECTION II - BRIDGES		
SECTION III - WALLS		\$4,226,310
SECTION IV - TYPICAL INTERCHANGES		
SECTION V - SIGNAL SYSTEMS AT INTERSECTIONS		\$371,000
SECTION VI - DEMOLITION		\$271,022
SECTION VII - ADDITIONAL ITEMS		\$3,538,744
SECTION VIII - STANDARD PERCENTAGE ADDERS		\$11,761,896
TOTAL PRESENT DAY CONSTRUCTION COST		\$38,892,265
TOTAL ESCALATED CONSTRUCTION COST	2023	\$42,762,045
TOTAL CONSTRUCTION & ENGINEERING	2022	\$45,354,032
SECTION IX - HYDRAULICS/STORM WATER COSTS	2023	\$2,493,338
SECTION X - RIGHT OF WAY COSTS	2022	\$570,676
GRAND TOTAL PROJECT COST		\$48,418,046

	CURRENT ESTIMATE	LOW RANGE	HIGH RANGE
TOTAL PRESENT DAY CONSTRUCTION COST	\$38,900,000	\$37,000,000	\$44,300,000
TOTAL PROJECT COST	\$48,400,000	\$46,100,000	\$55,200,000

Estimate prepared by:	K. Stansbury
Date of initial estimate:	May 11, 2020
Date of latest estimate revision:	May 11, 2020
Route name or number:	PWP-WA-2020-xxx
Project Title:	Alt 8b - Deodar/East of Fir Realignment
Project length (in miles):	3.0
District price database used:	District 2
Predominant County:	Washoe
NDOT project manager:	RTC PM - Dale Keller

A9. Chesapeake Dr. Realignment:

- Similar to Alternative 8, this alternative realigns Lemmon Drive to the east starting along Deodar Way, but then turns north along the existing Chesapeake Dr., widening to the west to avoid parcels at the north end as it connects to Chickadee Dr.
- Unlike Alternative 8, the realignment along this corridor at existing ground elevations does not completely remove Lemmon Drive out of the 100-yr. floodplain.
- The new alignment would provide four lanes and be designed to current geometric standards.
- Existing Lemmon Drive between Chickadee Drive and Deodar Way is eliminated.
- Widening of the existing Chesapeake Dr. corridor to accommodate four lanes of traffic and a dedicated bike lane in both directions would have property impacts to approximately 20 parcels.
- This realignment introduces two intersections that current traffic along Lemmon Drive does not navigate through, a signalized intersection where the realigned Lemmon Drive intersects Chickadee Dr. and a possible roundabout for the directional traffic movement where Chickadee Dr. intersects with the existing Lemmon Drive. Realigning Chickadee Drive along a large radius horizontal curve west of Chesapeake Dr. to Tupelo Street may be possible to eliminate the need for a second intersection where Chickadee Dr. would intersect with the existing Lemmon Dr.
- The existing 8' wide multi-use path would be reconstructed as a 10' wide path and the profile raised to an agreed upon elevation. This separates path users from the four-lane roadway facility and provides scenic views of Swan Lake.
- The new profile alignment would accommodate existing drainage pathways to Swan Lake.
- Mitigation measures would still need to be employed at Nectar St. and other localized low spots along the existing Lemmon Drive alignment to address flooding. The existing Lemmon Drive could be repurposed into a HESCO barrier platform.
- RTC suggested an alternative to the Chesapeake Dr. (or any of the full realignment options) to realign Lemmon Drive as a 2-lane facility and use a combination of a 'Bravo' alignment for the additional two lanes. This alternative was not analyzed further as it does not provide the increased capacity in the vicinity of Chickadee Dr. where the future Eagle Canyon Drive Extension may connect into.
- Alt. 9 Cost Wizard Assumptions:
 - Lemmon Drive priced as new 4-lane undivided roadway from Fleetwood to Chickadee Dr., along Chesapeake Dr., a length of 2.65 miles. Then Chickadee Dr. priced as a new two-lane road plus two lanes of roadbed modification from the realignment to the existing Lemmon Drive, a length of 0.56 miles.
 - Multiuse path is constructed new along existing alignment as a widened path raised to an agreed upon elevation.
 - Traffic signals installed at realigned Lemmon Drive (Chesapeake Dr.) / Chickadee Dr. and at Chickadee Dr./ existing Lemmon Drive (at this location a roundabout may be appropriate).

- Demolish 1.45 miles of existing Lemmon Drive
- Additional Items: used Default value of 15%.
- Default Standard Percentage Adders values were used for Erosion Control, Traffic Control, Roadside Safety, Landscaping/Aesthetics, Mobilization, and Construction Engineering & Inspection
- Construction Cost Escalation to year 2023
- Engineering Design Escalation to year 2022
- Hydraulics/Storm Water Costs set at 5% since within a floodplain
- Right of Way acquisition is required:
 - Developed Parcels assumed at \$500,000 (take and relocation)
 - 080-282-08, 080-282-07, 080-282-06, 080-282-05, 080-283-01, 080-283-02, 080-283-03, 080-288-04, 080-288-03, 080-288-02, 080-288-12, 080-288-11, 080-287-05, 080-287-06, 080-287-12, 080-287-11, 080-287-15, 080-287-14
 - Washoe County Owned Parcels @ \$0 acre (portion or full)
 - none
 - BLM owned parcels @ \$0/acre (portion or full)
 - none
 - Undeveloped parcels owned by North Valleys Investment Group @ \$6,000/acre
 - 080-730-16 – 20 acres
 - 080-730-14 – 20 acres
 - 080-730-12 – 5 acres
 - 080-730-11 – 10 acres
 - 080-723-03 – 1 acre
 - 080-723-01 – 10 acres
 - 080-721-03 – 5 acres
 - 080-721-04 – 10 acres

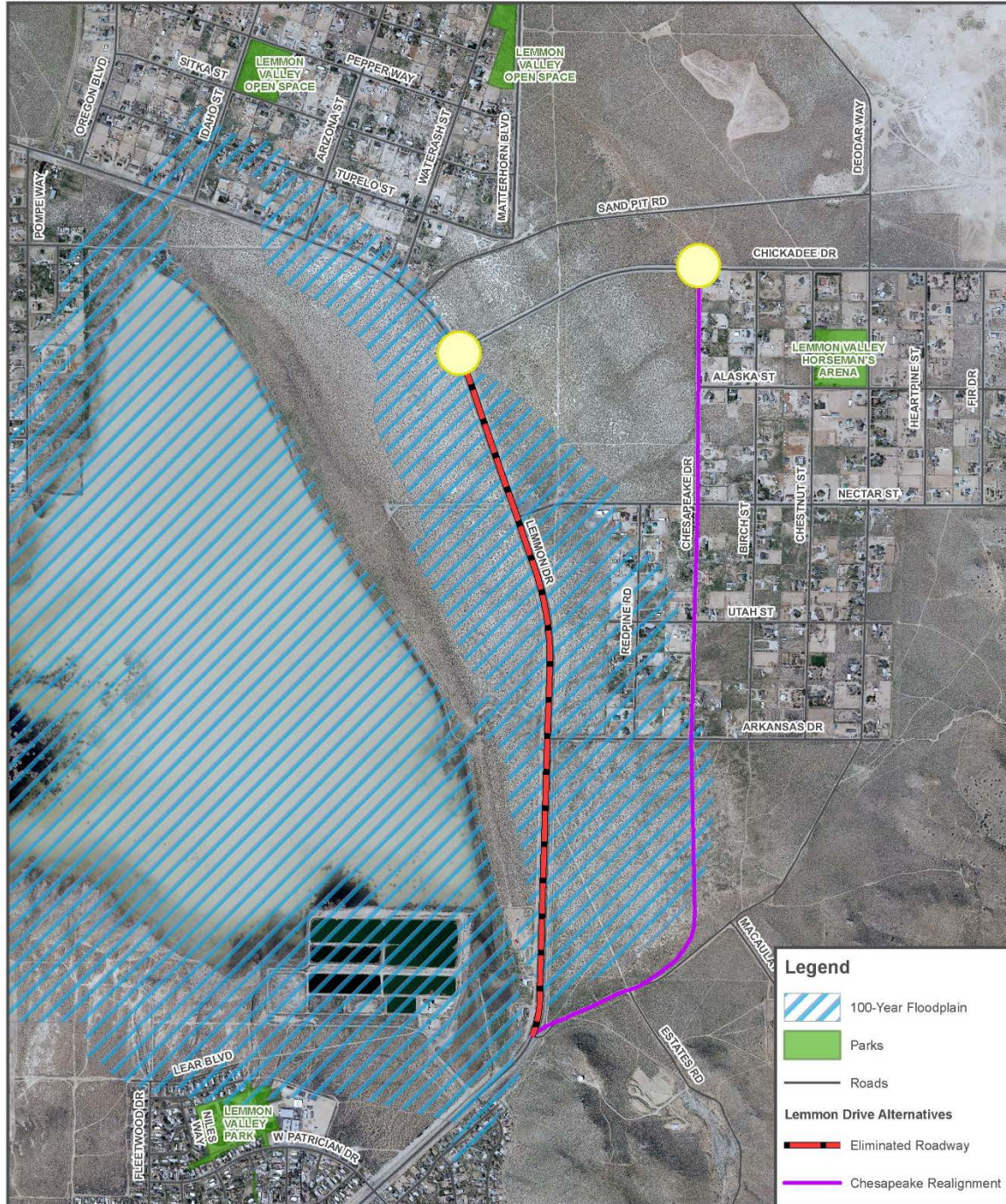


Figure 9.
Chesapeake Alignment

Widen to four lanes, and realign east along Deodar Way, turn north along Chesapeake Dr to Nectar St, then curve west to rejoin the existing Lemmon Dr alignment

SUMMARY

ESTIMATED PROBABLE CONSTRUCTION COST

Alt 9 - Chesapeake Realignment

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

SECTION	ESCALATED TO YEAR	TOTAL
SECTION I - ROADWAY CONSTRUCTION		\$14,707,920
SECTION II - BRIDGES		
SECTION III - WALLS		
SECTION IV - TYPICAL INTERCHANGES		
SECTION V - SIGNAL SYSTEMS AT INTERSECTIONS		\$371,000
SECTION VI - DEMOLITION		\$271,022
SECTION VII - ADDITIONAL ITEMS		\$2,302,491
SECTION VIII - STANDARD PERCENTAGE ADDERS		\$7,652,904
TOTAL PRESENT DAY CONSTRUCTION COST		\$25,305,337
TOTAL ESCALATED CONSTRUCTION COST	2023	\$27,823,218
TOTAL CONSTRUCTION & ENGINEERING	2022	\$29,511,574
SECTION IX - HYDRAULICS/STORM WATER COSTS	2023	\$1,622,399
SECTION X - RIGHT OF WAY COSTS	2022	\$10,175,632
GRAND TOTAL PROJECT COST		\$41,309,605

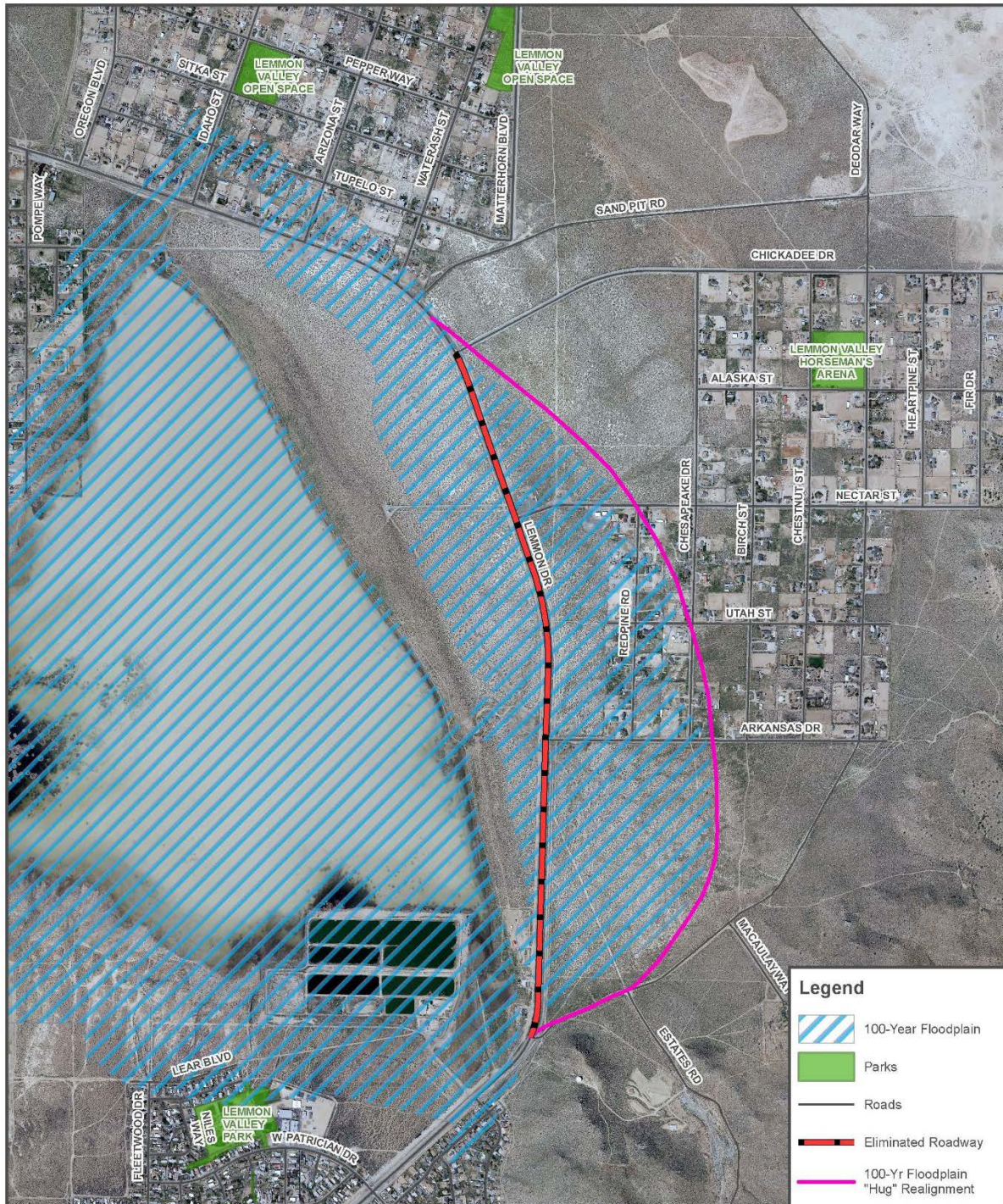
	CURRENT ESTIMATE	LOW RANGE	HIGH RANGE
TOTAL PRESENT DAY CONSTRUCTION COST	\$25,300,000	\$23,900,000	\$28,900,000
TOTAL PROJECT COST	\$41,300,000	\$39,300,000	\$47,800,000

Estimate prepared by:	K. Stansbury
Date of initial estimate:	May 11, 2020
Date of latest estimate revision:	May 11, 2020
Route name or number:	PWP-WA-2020-xxx
Project Title:	Alt 9 - Chesapeake Realignment
Project length (in miles):	2.7
District price database used:	District 2
Predominant County:	Washoe
NDOT project manager:	RTC PM - Dale Keller

A10. Realign Lemmon Drive Eastward to “Hug” the outside of the floodplain: Realign Lemmon Drive to the east to “hug” the edge of the adjusted 100-year floodplain

- Similar to alternatives 8 and 9, Lemmon Drive is realigned to the east beginning at Deodar Way, however, this alternative doesn’t follow an existing roadway corridor, but rather makes a large sweeping arc to ‘hug’ the floodplain limits connecting back into Lemmon Drive near Chesapeake Dr.
- The new alignment would provide four lanes with dedicated bike lanes and be designed to current geometric standards.
- Existing Lemmon Drive between Chickadee Drive and Deodar Way is eliminated.
- This sweeping arc ‘hug’ alignment would have property impacts to approximately 25 parcels and would also affect interior circulation within the neighborhood. Acquisition of parcels along this alignment may be favorable to some property owners who have experienced recent flooding.
- In addition to acquiring parcels along the alignment, there would be several parcels west of the realigned Lemmon Drive that would require acquisition as access to Lemmon Drive would be severed and they would remain in the floodplain.
- A FEMA grant known as the Hazard Mitigation Grant Program, is a voluntary option for certain homeowners located with the FEMA-designated flood plain to sell their property and relocate outside of the floodplain. Washoe County would then deed the land as open.
- The existing 8’ wide multi-use path would be reconstructed as a 10’ wide path and the profile raised to an agreed upon elevation. This separates path users from the four-lane roadway facility and provides scenic views of Swan Lake.
- Unlike Alternative 8, this realignment perpetuates Lemmon Drive as the through arterial movement and does not introduce additional intersections.
- The new alignment would accommodate existing drainage pathways to Swan Lake.
- Mitigation measures would still need to be employed at Nectar St. and other localized spots along the existing Lemmon Drive alignment to address flooding. The existing Lemmon Drive could be repurposed into a HESCO barrier platform.
- Alt. 10 Cost Wizard Assumptions:
 - Lemmon Drive priced as new 4-lane undivided roadway from Fleetwood Dr. to Chickadee Dr., along an alignment that ‘hugs’ the floodplain, a length of 2.75 miles.
 - Multiuse path constructed new along realignment
 - Traffic signal installed at realigned Lemmon Drive / Chickadee Drive.
 - Demolish 1.45 miles of existing Lemmon Drive
 - Additional Items: used Default value of 15%.
 - Default Standard Percentage Adders values were used for Erosion Control, Traffic Control, Roadside Safety, Landscaping/Aesthetics, Mobilization, and Construction Engineering & Inspection
 - Construction Cost Escalation to year 2023
 - Engineering Design Escalation to year 2022
 - Hydraulics/Storm Water Costs set at 5% since within a floodplain

- Right of Way acquisition is required:
 - Developed Parcels assumed at \$500,000 (take and relocation)
 - 080-283-01, 080-283-02, 080-283-03, 080-282-08, 080-282-07, 080-282-06, 080-282-05, 080-282-04, 080-282-09, 080-282-10, 080-282-02, 080-282-01, 080-281-15, 080-281-16, 080-281-12, 080-281-11, 080-281-08, 080-281-07, 080-288-04, 080-288-03, 080-288-05, 080-288-06, 080-281-06, 080-281-13, 080-281-14, 080-281-04, 080-281-03, 080-281-02, 080-289-01, 080-289-02
 - Washoe County Owned Parcels @ \$0 acre (portion or full)
 - none
 - BLM owned parcels @ \$0/acre (portion or full)
 - none
 - Undeveloped parcels owned by North Valleys Investment Group @ \$6,000/acre
 - 080-730-16 – 20 acres
 - 080-730-14 – 20 acres
 - 080-730-12 – 5 acres
 - 080-730-11 – 10 acres
 - 080-723-01 – 1 acre
 - 080-721-03 – 40 acres
 - 080-721-02 – 20 acres



SUMMARY

ESTIMATED PROBABLE CONSTRUCTION COST

Alt 10 - 'Hug' Realignment

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

SECTION	ESCALATED TO YEAR	TOTAL
SECTION I - ROADWAY CONSTRUCTION		\$13,307,568
SECTION II - BRIDGES		
SECTION III - WALLS		
SECTION IV - TYPICAL INTERCHANGES		
SECTION V - SIGNAL SYSTEMS AT INTERSECTIONS		\$159,000
SECTION VI - DEMOLITION		\$271,022
SECTION VII - ADDITIONAL ITEMS		\$2,060,639
SECTION VIII - STANDARD PERCENTAGE ADDERS		\$6,849,046
TOTAL PRESENT DAY CONSTRUCTION COST		\$22,647,274
TOTAL ESCALATED CONSTRUCTION COST	2023	\$24,900,678
TOTAL CONSTRUCTION & ENGINEERING	2022	\$26,412,253
SECTION IX - HYDRAULICS/STORM WATER COSTS	2023	\$1,452,014
SECTION X - RIGHT OF WAY COSTS	2022	\$16,837,099
GRAND TOTAL PROJECT COST		\$44,701,366

	CURRENT ESTIMATE	LOW RANGE	HIGH RANGE
TOTAL PRESENT DAY CONSTRUCTION COST	\$22,600,000	\$21,400,000	\$25,900,000
TOTAL PROJECT COST	\$44,700,000	\$42,700,000	\$52,100,000

Estimate prepared by:	K. Stansbury
Date of initial estimate:	May 11, 2020
Date of latest estimate revision:	May 11, 2020
Route name or number:	PWP-WA-2020-xxx
Project Title:	Alt 10 - 'Hug' Realignment
Project length (in miles):	2.8
District price database used:	District 2
Predominant County:	Washoe
NDOT project manager:	RTC PM - Dale Keller

A11. Elevate existing Lemmon Drive with "Structures":

- Replace Lemmon Drive with a continuous series of bridges creating a four-lane viaduct that is above the adjusted 100-year floodplain elevation
- Allows for easy equalization of flood waters under viaduct structures
- Includes a dedicated bike lane in both directions along the viaduct
- A 10' multi-use path is included separate from the viaduct or the existing path may be widened, and the profile adjusted.
- The geometry of Lemmon Drive would comply with current engineering design criteria
- To provide connectivity with side streets; entire intersections become structures and side street profiles are required to be adjusted.
- Cost Wizard Assumptions:
 - 1.2 miles of Lemmon Drive raised onto viaduct structures and priced as bridge structure; an additional 1.2 miles raised approximately 2.5' above new floodplain elevation and priced as a "new" 4-lane undivided roadway
 - Multiuse path profile raised so priced as 'new' construction
 - Traffic signal installed at Chickadee Drive to accommodate future volumes of the Eagle Canyon Drive Extension
 - Default Standard Percentage Adders values were used for Erosion Control, Traffic Control, Roadside Safety, Landscaping/Aesthetics, Mobilization, and Construction Engineering & Inspection
 - Construction Cost Escalation to year 2023
 - Engineering Design Escalation to year 2022
 - Hydraulics/Storm Water Costs set at 5% since within a floodplain
 - No acquisition of right of way

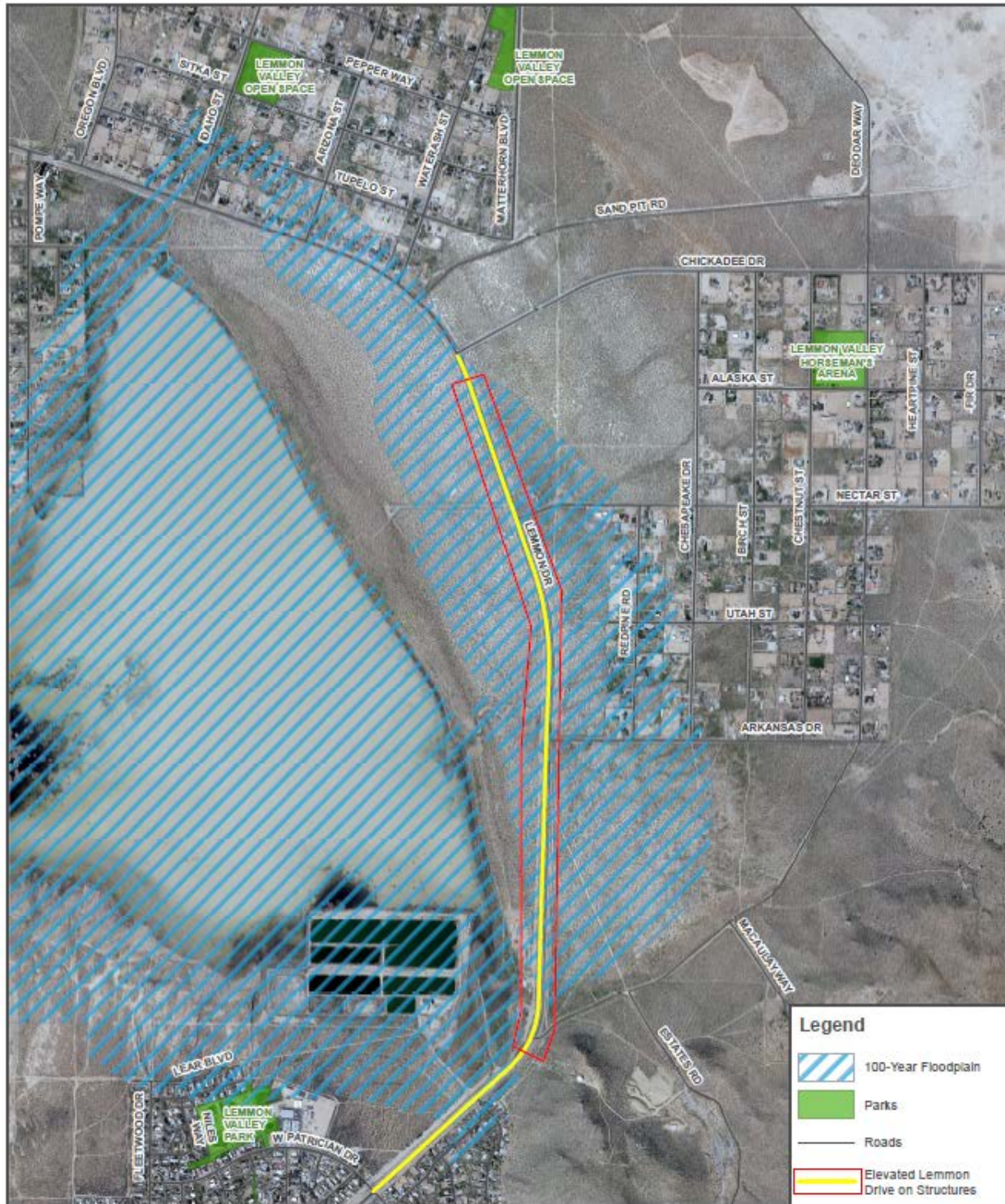


Figure 11. Elevate
Lemmon Drive

Replace Lemmon Dr with a continuous series of bridges creating a four-lane viaduct above the 100-yr floodplain. To provide connectivity with side streets, entire intersections become structures.



SUMMARY

ESTIMATED PROBABLE CONSTRUCTION COST

Alt. 11-Elevate Along Structures

PREPARED BY THE NEVADA DEPARTMENT OF TRANSPORTATION

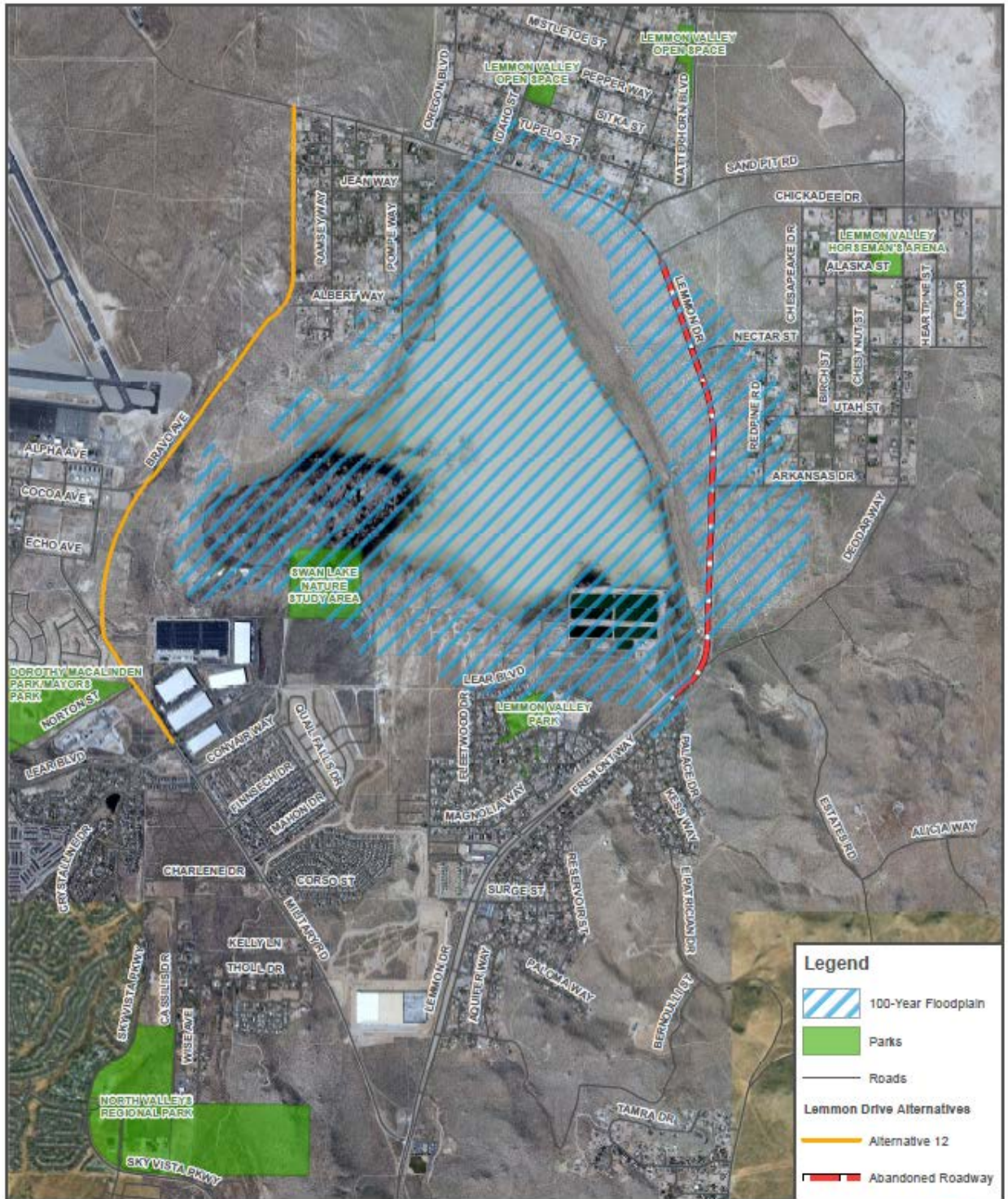
SECTION	ESCALATED TO YEAR	TOTAL
SECTION I - ROADWAY CONSTRUCTION		\$6,423,969
SECTION II - BRIDGES		\$74,240,206
SECTION III - WALLS		
SECTION IV - TYPICAL INTERCHANGES		
SECTION V - SIGNAL SYSTEMS AT INTERSECTIONS		\$212,000
SECTION VI - DEMOLITION		
SECTION VII - ADDITIONAL ITEMS		\$12,131,426
SECTION VIII - STANDARD PERCENTAGE ADDERS		\$40,321,818
TOTAL PRESENT DAY CONSTRUCTION COST		\$133,329,419
TOTAL ESCALATED CONSTRUCTION COST	2023	\$146,595,697
TOTAL CONSTRUCTION & ENGINEERING	2022	\$155,468,453
SECTION IX - HYDRAULICS/STORM WATER COSTS	2023	\$8,546,878
SECTION X - RIGHT OF WAY COSTS	2022	
GRAND TOTAL PROJECT COST		\$164,015,331

	CURRENT ESTIMATE	LOW RANGE	HIGH RANGE
TOTAL PRESENT DAY CONSTRUCTION COST	\$133,300,000	\$111,200,000	\$145,100,000
TOTAL PROJECT COST	\$164,000,000	\$140,400,000	\$180,300,000

Estimate prepared by:	K. Stansbury
Date of initial estimate:	May 11, 2020
Date of latest estimate revision:	May 11, 2020
Route name or number:	PWP-WA-2020-xxx
Project Title:	Alt. 11-Elevate Along Structures
Project length (in miles):	2.4
District price database used:	District 2
Predominant County:	Washoe
NDOT project manager:	RTC PM - Dale Keller

A12. Eliminate Lemmon Drive (Back door):

- This alternative assumes Lemmon Drive gets abandoned between Palace Dr. and Chickadee Dr. and a route to the west of Swan Lake must be used to access the northern section of Lemmon Drive.
- The western route would consist of using Military Road, to Lear Blvd, then along a new alignment to connect to the existing Bravo Avenue corridor upgraded to a four-lane facility, and finally northward along a new alignment one block west of Ramsey Way, connecting into the existing Lemmon Drive with a signalized intersection.
- This alternative reduces overall capacity of the transportation network, eliminates circulation, and overburdens an already at capacity Military Road.
- This alternative does not provide for connectivity of the future Eagle Canyon Drive Extension.
- Eliminating the existing Lemmon Dr access would not be favorable to stakeholders
- Cost Wizard Assumptions:
 - No Cost Wizard was completed as this alternative has a fatal flaw of reducing the overall network capacity



5. Segment 2 Level 1 Screening

After brainstorming alignment alternatives during the February 27, 2020 TAC workshop, each team qualitatively evaluated the twelve alternatives against the project goals using a *Consumer Reports* type evaluation of Good (green), Medium (yellow), and Poor (red). Once each team went through the evaluation exercise separately, the rankings were discussed amongst the TAC with each agency providing any insight they had, including identifying potential advantages and disadvantages for each alternative.

The team evaluations were then averaged to determine a single grade for each alternative/goal matrix as shown in Figure 13. A summary of the advantages and disadvantages for each alternative per goal are included in Attachment A. All goals were weighted equally.

The NDOT Cost Wizard spreadsheet tool was used to determine high level construction costs for each alternative. The cost of the alternatives is summarized below, listed lowest to highest.

A1 - No Build	\$0
A5 - Elevated Shared Use Path	\$ 20.3 million
A3 - Divided w/ SB Raised	\$ 21.3 million
A2 - Widen/Raise along existing alignment	\$ 25.8 million
A7 - Divided w/ SB along Natural Berm, NB along existing	\$ 34.0 million
A9 - Chesapeake Dr. Realignment	\$ 41.3 million
A10 - "Hug" Floodplain Realignment	\$ 44.7 million
A8a - Deodar Way/Fir Dr. Realignment	\$ 44.8 million
A6 - Natural Berm Realignment	\$ 45.4 million
A8b - Deodar Way/East of Fir Dr. Realignment	\$ 48.4 million
A8 - Deodar Way Realignment	\$ 55.5 million
A11 - Elevate Existing Lemmon Dr. w/ Structures	\$164.0 million
A4 - Lake volume removal	\$210.8 million
A12 - No cost wizard developed/ fatal flaw	Not Priced / Fatal Flaw

5.1 Level 1 Screening Results

The results of the Level 1 screening demonstrate that:

Two of the alternatives, A1-No Build and A12-Eliminate Lemmon Drive, do not provide additional network capacity which is the purpose of the Lemmon Drive Capacity Improvements Project per the RTC's 2040 Regional Transportation Plan (RTP) and therefore are not viable options.

Two of the alternatives, A4-Swan Lake Volume Removal and A11-Elevate Existing Lemmon Drive On Structures, have exorbitant costs and therefore are also not viable options.

Alternative A3- Raising the northbound or southbound direction of a divided alignment reduces roadway fill volumes very minimally compared to raising the entire undivided alignment, alternative A2. The divided alignment would require additional intersections to accommodate turning movements, introducing additional traffic conflict points, and as a result, reducing safety. With only one direction of travel elevated, providing a dry lane in each direction during high storm events would require changes in traffic patterns placing two-way traffic along what typically is two lane, one-way traffic. These reductions in safety, without any benefit in cost savings eliminate this alternative from further evaluation.

Similar to Alternative A3, Alternative A7- Divided alignment with southbound along the natural berm and northbound along the existing Lemmon Drive alignment, requires additional intersections to accommodate turning movements and requires changes in traffic patterns to provide a dry lane for both directions during high storm events. These reductions in safety combined with an increased cost compared to alternative A2, eliminate this alternative from further evaluation.

Alternative A5-Elevated Shared Use Path would provide a barrier to maintain water within Swan Lake to the west of the alignment. However, without raising the roadway profile in addition to widening it to four lanes, Lemmon Drive will still experience flooding due to heavy storm water runoff from the east and north as it flows to the low point of the closed basin of Swan Lake. As a result, this alternative effectively functions as the no-build alternative from a flooding standpoint, but with additional capacity. Without the ability to provide one dry lane for both directions of travel during the 100-year storm, this alternative has a fatal flaw and is eliminated from further evaluation.

Five alternatives, A8, A8a, A8b, A9, and A10, realign Lemmon Drive to the east. Of these eastern realignment alternatives, Alternative A9-Chesapeake Dr. is the cheapest, however, it does not realign Lemmon Drive completely out of the floodplain south of Arkansas Drive. The second cheapest option of the eastern realignments, Alternative A10-Hug Alignment, realigns Lemmon Dr. out of the floodplain boundary, however, cost savings over Alternative A8a-Deodar Way / Fir Dr. Realignment are negligible and don't outweigh the neighbor access impacts and multiple parcel acquisitions required with Alternative A10. Alternative 8, realignment along Deodar Way, and the two sub-alternatives, A8a-Deodar Way/Fir Dr Realignment and A8b Deodar Way/East of Fir Dr. Realignment, provide alignment alternatives that are of out of the adjusted 100-year floodplain elevation without the need to place fill volume within the floodplain. Placing additional fill within the floodplain requires volumetric mitigation excavation and equalization culvert structures to ensure the water surface elevation throughout the surrounding properties is not negatively impacted.

One alternative, A6-Natural Berm Realignment, realigns Lemmon Drive to the west along the natural berm of Swan Lake. Alternative A6 costs approximately the same as the eastern realignment options, however alternative A6 impacts fewer developed parcels than the eastern realignment options.

Figure 13. Lemmon Drive Segment 2 Alternatives - Level 1 Analysis

Alternative	GOAL 1 Widen 2 to 4 lanes	GOAL 2 Reliable in 100-year flood (1-dry lane each way)	GOAL 3 Support Swan Lake recovery efforts (floodplain mitigation)	GOAL 4 Safe Access for multi-modal (Bike Lanes and Multi-Use Path)	GOAL 5 Incorporate Opportunities To Aid Long-Term Flood Response Planning	GOAL 6 Upgrade to current design criteria (eliminate any deficiencies)	GOAL 7 Connectivity w/ future roadways (Eagle Canyon Ext., et al)	GOAL 8 Cost-Appropriate solution	Cost Wizard Estimate	LEVEL 1 SCREENING CONCLUSIONS
A1) No Build	○	○	○	○	○	○	○	Connectivity but not enough capacity	N/A	Eliminate from further evaluation Does not address any goals
A2) Raise Existing Lemmon Drive above 100-yr. floodplain elevation	●	●	◐	●	●	●	●	Maintains existing connectivity options	\$25.8 million	Advance to Level 2 Screening
A3) Raise one side (Northbound or Southbound) above 100-yr.	●	◐	◐	●	●	●	○	Requires intersections at both northbound and southbound connectivity locations	\$21.3 million	Eliminate from further evaluation Decreased Safety, No Cost Benefits
A4) Lake volume removal to get Lemmon out of 100-yr.	●	●	●	●	◐	●	●	Maintains existing connectivity options	\$210.8 million	Eliminate from further evaluation Extremely high construction costs
A5) Elevated shared use path	●	○	●	◐	◐	●	●	Maintains existing connectivity options	\$20.3 million	Eliminate from further evaluation Fatal Flaw - Unable to Provide Dry Lanes During 100-Yr storm
A6) Natural Berm alignment	●	●	●	●	●	●	○	Requires additional length to connect to realigned Lemmon Drive	\$45.4 million	Advance to Level 2 Screening
A7) Divided alignment Southbound along natural berm & northbound along existing	●	◐	●	●	●	●	○	Requires intersections at both northbound and southbound connectivity locations	\$34 million	Eliminate from further evaluation Decreased Safety, No Cost Benefits
A8) Deodar alignment	●	●	◐	●	●	●	○	Changes 'through' movement from Lemmon Drive to Chickadee, No stop control along existing Lemmon Dr.	A8) \$55.5 million A8a) \$44.8 million A8b) \$48.4 million	Advance to Level 2 Screening with subalternatives 8a and 8b
A9) Chesapeake alignment	●	●	◐	●	●	●	○	Changes 'through' movement from Lemmon Drive to Chickadee, No stop control along existing Lemmon Dr.	A9) \$41.3 million	Eliminate from further evaluation. Much greater right of way impacts than Alt 8, and a portion of the alignment is still within the floodplain limit
A10) Align Lemmon Dr. outside 100-yr. (Hug)	●	●	○	●	●	●	◐	Maintains existing connectivity options	A10) \$44.7 million	Eliminate from further evaluation. High right of way impacts, and properties to west are not adequately addressed
A11) Elevate Lemmon Dr. with structures	●	●	●	◐	○	●	○	Connectivity on Structures is difficult geometry	\$164.0 million	Eliminate from further evaluation Extremely high construction costs
A12) Eliminate Lemmon Dr.	○	○	○	○	●	○	○	Eliminated capacity from the regional road network	No Cost Wizard Developed	Eliminate from further evaluation Reduces system network capacity; Does not address any goals;

- Negative Impact / Does Not Address Goal
- ◐ Medium Impact / Somewhat Addresses Goal / No Change From Existing
- Positive Impact / Addresses Goal

6. Conclusions

Based on the results of the Level 1 Screening process, the Alternatives that will be advanced to a 15% design for further screening are:

A2- Raise profile and widen along the existing Lemmon Drive alignment

A8, A8a, A8b – Realigning Lemmon Drive to the east along Deodar Way, Deodar Way/Fir Drive, and Deodar Way/East of Fir Drive

A6 – Realigning Lemmon Drive to the west along the natural berm of Swan Lake.

The 15% design will include determining typical sections, profile adjustment, drainage concepts, impacts to adjoining cross streets, multi-use path alignment, floodplain impacts and mitigation measures, striping configuration, traffic analysis results, major utility conflicts, and coordination with regional Swan Lake improvements. Deliverables for the 15% design will be 1"=100' scale roll plots with plan linework and profile view. A design technical memo for each alternative will also be prepared summarizing key design issues and possible mitigations, and a planning level construction cost estimate using developed quantities.

Once the 15% design of the alternatives has been completed, the Level 2 screening process, a qualitative evaluation of the 15% design against the same project goals, will be completed to provide consensus of the preferred alternative to advance to a 30% design.







Technical Memorandum

Level One Alternatives Analysis Screening
Summary for Segment 2

ATTACHMENT A – ADVANTAGES AND DISADVANTAGES FOR EACH GOAL

Level 1 Screening: Evaluation with Respect to Defined Goals





Goal #01: Widen Lemmon Drive from two (2) lanes to four (4) lanes as outlined in the Regional Transportation Plan (RTP) to accommodate potential future growth.

Alternative	Potential Advantages	Potential Disadvantages	Preferences (Check One)
#1) "No Build"		Does not add capacity for future Eagle Canyon Drive connection or future development	
#2) Raise Ex. Lemmon above 100-yr	Adds required capacity as an undivided arterial		
#3) Raise one side (N or S) above 100-yr	Adds required capacity as a divided arterial, which matches the 4-lane roadway configuration to the south		
#4) Lake volume removal, take Lemmon out of 100-yr	Adds required capacity as an undivided arterial		

Level 1 Screening: Evaluation with Respect to Defined Goals





Alternative	Potential Advantages	Potential Disadvantages	Preferences (Check One)
#5) Elevated shared use path	Adds required capacity as an undivided arterial		<input checked="" type="radio"/>
#6) Natural Berm alignment	Adds required capacity as an undivided arterial		<input checked="" type="radio"/>
#7) Split alignment/ existing + berm	Adds required capacity along split alignments		<input checked="" type="radio"/>
#8) Deodar alignment	Adds required capacity as an undivided arterial		<input checked="" type="radio"/>

Level 1 Screening: Evaluation with Respect to Defined Goals





<p>#9) Chesapeake alignment</p>	<p>Adds required capacity as an undivided arterial</p>		
<p>#10) Align Lemmon Dr. outside of 100-Yr Flood Plain ("Hug")</p>	<p>Adds required capacity as an undivided arterial</p>		
<p>#11) Elevate Lemmon Dr. with Structures</p>	<p>Adds required capacity</p>	<p>Structural design may necessitate the separation of northbound and southbound directions onto separate structures</p>	
<p>#12) Eliminate Lemmon Dr.</p>		<p>This would reduce capacity. Places more traffic on alternative routes which are already at or near capacity.</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals





Goal #02: Provide a reliable regional road during 100-year flood event by having one dry lane in each direction.

Alternative	Potential Advantages	Potential Disadvantages	Preferences (Check One)
#1) "No Build"		HESCO Barriers and Pumping Facilities are required to keep the roadway dry.	
#2) Raise Ex. Lemmon above 100-yr	<p>New roadway alignment profile can be set above the updated 100-year flood elevation.</p> <p>Traffic Patterns remain the same to access the 'dry' lanes.</p>		
#3) Raise one side (N or S) above 100-yr	New two-lane roadway alignment profile can be set above the updated 100-year flood elevation.	<p>Traffic patterns are required to change to accommodate two-way traffic on the elevated two-lane roadway.</p> <p>At-grade roadway alignment still gets flooded from water getting into Swan Lake unless adequate pumping or other alternative</p>	
#4) Lake volume removal, take Lemmon out of 100-yr	Traffic Patterns remain the same to access the 'dry' lanes.	<p>Hydraulic Models required to determine amount and location of volume necessary to be removed to ensure roadway would remain dry.</p> <p>Ongoing maintenance to ensure sedimentation does not cause WSE to raise.</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals





Alternative	Potential Advantages	Potential Disadvantages	Preferences (Check One)
#5) Elevated shared use path	Traffic Patterns remain the same to access the 'dry' lanes.	At-grade roadway alignment still gets flooded from water getting into Swan Lake unless adequate pumping or another alternative	
#6) Natural Berm Realignment	<p>Roadway alignment can be at-grade and still provide all travel lanes and bike lanes to remain dry</p> <p>Traffic Patterns remain the same to access the 'dry' lanes.</p>		
#7) Split alignment/ existing + berm		Traffic patterns are required to change to accommodate two-way traffic on the elevated two-lane roadway.	
#8) Deodar alignment	<p>Roadway alignment can be at-grade and still provide all travel lanes and bike lanes to remain dry</p> <p>Traffic Patterns remain the same to access the 'dry' lanes.</p>		

Level 1 Screening: Evaluation with Respect to Defined Goals

<p>#9) Chesapeake alignment</p>	<p>Mostly at-grade alignment and remains dry</p> <p>Traffic Patterns remain the same to access the 'dry' lanes.</p>	<p>A portion of alignment still falls within floodplain and would require elevated profile to remain dry</p>	
<p>#10) Align Lemmon Dr. outside of 100-Yr Flood Plain ("Hug")</p>	<p>At-grade alignment and remains dry</p> <p>Traffic Patterns remain the same to access the 'dry' lanes.</p>		
<p>#11) Elevate Lemmon Dr. with Structures</p>	<p>Ensures dry lanes by providing plenty of area for equalization under the viaduct</p> <p>Traffic Patterns remain the same to access the 'dry' lanes.</p>	<p>Structure widths must be adequate to provide emergency vehicle access</p> <p>Elevated alignment limits emergency vehicle access locations</p>	
<p>#12) Eliminate Lemmon Dr.</p>		<p>This eliminates a regional road needed by emergency vehicles and residents.</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals





Goal # G3: Support the Swan Lake recovery efforts by incorporating floodplain mitigation along Lemmon Drive and reduce water surface elevation within the closed basin.

Alternative	Potential Advantages	Potential Disadvantages	Impact
A1) "No Build"	Does not add additional fill within the floodplain	Does not incorporate volumetric mitigation to reduce the WSE	
A2) Raise Ex. Lemmon above 100-yr	Raised profile eliminates need for HESCO barriers and provides opportunities to incorporate equalization culverts which eliminates need for pumping	Raising the roadway profile adds additional fill volume within the floodplain that would need mitigated	
A3) Raise one side (N or S) above 100-yr	Places less fill volume within the floodplain than alternative 2	Unable to place equalization culverts under the existing roadway profile so pumping still required	
A4) Lake volume removal, take Lemmon out of 100-yr	Lowers floodplain elevation without placing additional roadway fill	Existing clay layer must not be penetrated Still need pumping to get across the roadway	

Level 1 Screening: Evaluation with Respect to Defined Goals





Alternative	Potential Advantages	Potential Disadvantages	Impact
<p>A5) Elevated shared use path</p>	<p>Places even less fill within the floodplain than alternative 3</p>	<p>Unable to place equalization culverts under the existing roadway profile; still need pumping</p>	
<p>A6) Natural Berm alignment</p>	<p>The roadway alignment would be above the floodplain elevation, eliminating the need for volumetric mitigation for the roadway volume.</p> <p>Elimination of a large portion of the existing roadway provides additional volumetric area to reduce the WSE.</p>		
<p>A7) Split alignment/ existing +natural berm</p>	<p>The southbound half of the roadway would be above the floodplain elevation, eliminating the need for volumetric mitigation</p>	<p>Existing Lemmon Drive remains in place, eliminating the ability to provide volumetric mitigation with removal of the roadway</p> <p>Unable to place equalization culverts under the existing roadway profile so still need pumping</p>	
<p>A8) Deodar alignment</p>	<p>Drainage features incorporated into design to get water under the roadway from the east</p> <p>Elimination of a large portion of the existing roadway provides additional volumetric area to reduce the WSE</p>		

Level 1 Screening: Evaluation with Respect to Defined Goals





<p>A9) Chesapeake alignment</p>	<p>Drainage features incorporated into design to get water under the roadway from the east</p> <p>Elimination of a large portion of the existing roadway provides additional volumetric area to reduce the WSE.</p>		
<p>A10) Align Lemmon Dr. outside of 100-Yr Flood Plain ("Hug")</p>	<p>Drainage features incorporated into design to get water under the roadway from the east</p> <p>Elimination of a large portion of the existing roadway provides additional volumetric area to reduce the WSE.</p>		
<p>A11) Elevate Lemmon Dr. with Structures</p>	<p>Raising the alignment onto structures provides a continuous opening for water to equalize on either side of the alignment</p> <p>Raising the roadway on structures allows the existing roadway to be removed and provides additional volumetric area to reduce the WSE.</p>		
<p>A12) Eliminate Lemmon Dr.</p>		<p>Does not address the problem</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals





Goal # G4: Incorporate safe access for all multi-modal users with the construction of a multi-use path, safer pedestrian crossings, and bike lanes.

Alternative	Potential Advantages	Potential Disadvantages	Impact
A1) "No Build"		<p>Approximately 250' of the existing multi-use path east of Lemmon Drive is underwater (Google August 2019 imagery)</p> <p>Existing Lemmon Drive does not have bike lanes</p>	
A2) Raise Ex. Lemmon above 100-yr	<p>Existing separated multi-use path is widened from 8' to 10'</p> <p>Bike lanes added in both directions</p>	<p>Path not raised to 100-year flood, only 5-year (or other?)</p> <p>How long does path remain inundated with water at different design storms?</p>	
A3) Raise one side (N or S) above 100-yr	<p>Includes a bike lane along both directions of travel</p> <p>Includes a separated 10' multi-use path (either update existing path or construct new)</p>	<p>Path not raised to 100-year flood, only 5-year (or other?)</p> <p>How long does path remain inundated with water at different design storms?</p>	
A4) Lake volume removal, take Lemmon out of 100-yr	<p>Includes a bike lane along both directions of travel</p> <p>Includes a separated 10' multi-use path (either update existing path or construct new)</p>	<p>Path not raised to 100-year flood, only 5-year (or other?)</p> <p>How long does path remain inundated with water at different design storms?</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals





Alternative	Potential Advantages	Potential Disadvantages	Impact
<p>A5) Elevated shared use path</p>	<p>Includes a bike lane along both directions of travel</p> <p>Includes a separated 10' multi-use path</p>	<p>Height and alignment of multi-use path may require safety railing</p> <p>No intermediate locations to enter/exit the multi-use path</p>	
<p>A6) Natural Berm alignment</p>	<p>Includes a bike lane along both directions of travel</p> <p>Includes a separated 10' multi-use path</p> <p>If Path alignment along natural berm can provide views of Swan Lake</p>	<p>If path alignment is along the natural berm, it increases the distance to residential locations where trips begin/end</p>	
<p>A7) Split alignment/ existing + berm</p>	<p>Includes a bike lane along both directions of travel</p> <p>Includes a separated 10' multi-use path can either be placed along the natural berm or widen the existing path</p>	<p>If path alignment is along the natural berm, it increases the distance to residential locations where trips begin/end</p>	
<p>A8) Deodar alignment</p>	<p>Includes a bike lane along both directions of travel</p> <p>Includes a separated 10' multi-use path</p>	<p>Path not raised to 100-year flood, only 5-year (or other?)</p> <p>How long does path remain inundated with water at different design storms?</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals





<p>A9) Chesapeake alignment</p>	<p>Includes a bike lane along both directions of travel</p> <p>Includes a separated 10' multi-use path</p>	<p>Path not raised to 100-year flood, only 5-year (or other?)</p> <p>How long does path remain inundated with water at different design storms?</p>	
<p>A10) Align Lemmon Dr. outside of 100-Yr Flood Plain ("Hug")</p>	<p>Includes a bike lane along both directions of travel</p> <p>Includes a separated 10' multi-use path</p>	<p>Path not raised to 100-year flood, only 5-year (or other?)</p> <p>How long does path remain inundated with water at different design storms?</p>	
<p>A11) Elevate Lemmon Dr. with Structures</p>	<p>Includes a bike lane along both directions of travel</p> <p>Includes 10' multi-use path separated from the bridge</p>	<p>No escape route for bikes when on structures.</p> <p>Elevated alignment limits access locations</p>	
<p>A12) Eliminate Lemmon Dr.</p>		<p>Multi-modal improvements would be needed along other existing roadways.</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals





Goal # G5: Provide opportunities along Lemmon Drive to aid long-term flood response planning.

Alternative	Potential Advantages	Potential Disadvantages	Impact
A1) "No Build"		<p>This would not eliminate the need for HESCO barriers.</p> <p>Pumping is still necessary to get the water from the east and north sides of Lemmon Drive into Swan Lake</p>	
A2) Raise Ex. Lemmon above 100-yr	<p>This would eliminate the need for HESCO barriers.</p> <p>Equalization culverts under the roadway to eliminate need for pumping while getting water from east and north of the roadway into Swan Lake</p>		
A3) Raise one side (N or S) above 100-yr	<p>This would eliminate the need for HESCO barriers.</p>	<p>Pumping is still necessary to get the water from the east and north sides of Lemmon Drive into Swan Lake under the at-grade alignment</p>	
A4) Lake volume removal, take Lemmon out of 100-yr	<p>This would eliminate the need for HESCO barriers.</p>	<p>Pumping is still necessary to get the water from the east and north sides of Lemmon Drive into Swan Lake under the at-grade alignment</p> <p>Ongoing maintenance to ensure sedimentation does not cause WSE to raise.</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals





Alternative	Potential Advantages	Potential Disadvantages	Preferences (Check One)
<p>A5) Elevated shared use path</p>	<p>This would eliminate the need for HESCO barriers.</p> <p><i>(Verify this with Washoe County)</i></p>	<p>Pumping is still necessary to get the water from the east and north sides of Lemmon Drive into Swan Lake under the at-grade alignment</p>	<p align="center"></p>
<p>A6) Natural Berm alignment</p>	<p>This would eliminate the need for HESCO barrier and pumping facilities</p>	<p>Ongoing pavement Maintenance still required for approximately 3,500 feet of Lemmon Drive at the north end of Swan Lake</p>	<p align="center"></p>
<p>A7) Split alignment/ existing + berm</p>		<p>Pumping is still necessary to get the water from the east and north sides of Lemmon Drive into Swan Lake under the at-grade alignment.</p> <p>HESCO barriers still required along the west side of the existing Lemmon Drive</p>	<p align="center"></p>
<p>A8) Deodar alignment</p>	<p>This would eliminate the need for HESCO barriers and pumping facilities</p>		<p align="center"></p>

Level 1 Screening: Evaluation with Respect to Defined Goals

A9) Chesapeake alignment	This would eliminate the need for HESCO barriers and pumping facilities		
A10) Align Lemmon Dr. outside of 100-Yr Flood Plain ("Hug")	This would eliminate the need for HESCO barriers and pumping facilities		
A11) Elevate Lemmon Dr. with Structures	This would eliminate the need for HESCO barriers and pumping facilities		
A12) Eliminate Lemmon Dr.	This would eliminate the need for HESCO barriers and pumping facilities		

Level 1 Screening: Evaluation with Respect to Defined Goals





Goal # G6: Upgrade Lemmon Drive to comply with the current engineering design criteria (horizontal, vertical, clear zone, etc.) and eliminate any deficiencies in the existing roadway alignment.

Alternative	Potential Advantages	Potential Disadvantages	Impact
A1) "No Build"		Any existing deficiencies remain in place; including the current 20 mph posted speed limit because of HESCO Barriers and pumping facilities	
A2) Raise Ex. Lemmon above 100-yr	Any vertical deficiencies can be corrected.	Any existing horizontal deficiencies may/may not be able to be corrected.	
A3) Raise one side (N or S) above 100-yr	Roadway becomes a divided alignment New roadway alignment can meet design criteria	Any existing deficiencies may/may not be able to be corrected.	
A4) Lake volume removal, take Lemmon out of 100-yr		Any existing deficiencies may/may not be able to be corrected.	

Level 1 Screening: Evaluation with Respect to Defined Goals





Alternative	Potential Advantages	Potential Disadvantages	Impact
<p>A5) Elevated shared use path</p>		<p>Any existing deficiencies may/may not be able to be corrected.</p> <p>Requirement for HESCO barriers requires reduced speeds to remain in place</p>	
<p>A6) Natural Berm alignment</p>	<p>New alignment can meet current design standards.</p>		
<p>A7) Split alignment/ existing + berm</p>	<p>Roadway becomes a split alignment</p> <p>New roadway alignment can meet design criteria</p> <p>Any vertical deficiencies along existing alignment can be corrected.</p>	<p>Any horizontal deficiencies along existing alignment remain in place.</p> <p>Requirement for HESCO barriers requires reduced speeds to remain in place</p> <p>Additional intersections introduce additional conflict points</p>	
<p>A8) Deodar alignment</p>	<p>New alignment can meet current design standards.</p>	<p>Additional intersections introduce additional conflict points</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals




<p>A9) Chesapeake alignment</p>	<p>New alignment can meet current design standards.</p>	<p>Additional intersections introduce additional conflict points</p>	
<p>A10) Align Lemmon Dr. outside of 100-Yr Flood Plain ("Hug")</p>	<p>New alignment can meet current design standards.</p> <p>No additional intersections required</p>		
<p>A11) Elevate Lemmon Dr. with Structures</p>	<p>New alignment can meet current design standards.</p>	<p>Would require major change in profile tie-in of side streets.</p> <p>Intersections on structures</p>	
<p>A12) Eliminate Lemmon Dr.</p>		<p>It is unknown if other alignments meet current design standards.</p> <p>Additional intersection introduce additional conflict points</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals





Goal # G7: Ensure connectivity of future road-network improvements such as the Eagle Canyon Extension and other potential projects in the proposed 2050 RTP by considering logical termini suitable for the region.

Alternative	Potential Advantages	Potential Disadvantages	Impact
A1) "No Build"	Provides connectivity of Eagle Canyon Extension	Lemmon Drive may not meet future capacity needs with forecasted growth in this area.	
A2) Raise Ex. Lemmon above 100-yr	All side street connections remain in their existing location; Accommodates the alternative locations of the Eagle Canyon Extension corridor as well	Profile adjustments will be necessary on side streets to connect to raised profile of Lemmon Drive	
A3) Raise one side (N or S) above 100-yr	All side street connections remain in their existing location; Accommodates the alternative locations of the Eagle Canyon Extension corridor as well	Profile adjustments will be necessary on side streets if northbound alignment profile is raised Adds additional intersections southbound direction separate from northbound direction	
A4) Lake volume removal, take Lemmon out of 100-yr	All side street connections remain in their existing location; Accommodates the alternative locations of the Eagle Canyon Extension corridor as well		

Level 1 Screening: Evaluation with Respect to Defined Goals





Alternative	Potential Advantages	Potential Disadvantages	Impact
<p>A5) Elevated shared use path</p>	<p>All side street connections remain in their existing location;</p> <p>Accommodates the alternative locations of the Eagle Canyon Extension corridor as well</p>		
<p>A6) Natural Berm alignment</p>	<p>Shorter route for potential Stead Airport growth</p>	<p>Chickadee Drive would need to be extended to tie into the realigned Lemmon Dr.</p>	
<p>A7) Split alignment/ existing + berm</p>		<p>Requires existing side streets to be extended to the new alignment to access southbound direction</p> <p>This adds additional intersections (required at both alignments for access in either direction)</p>	
<p>A8) Deodar alignment</p>		<p>Lemmon Drive would intersect with Chickadee Drive, rather than Chickadee intersection with Lemmon Drive.</p> <p>In addition, traffic would be required to navigate a second intersection where Chickadee intersects existing Lemmon Drive</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals





<p>A9) Chesapeake alignment</p>		<p>Lemmon Drive would intersect with Chickadee Drive, rather than Chickadee intersection with Lemmon Drive.</p> <p>In addition, traffic would be required to navigate a second intersection where Chickadee intersects existing Lemmon Drive</p>	
<p>A10) Align Lemmon Dr. outside of 100-Yr Flood Plain ("Hug")</p>	<p>Lemmon Drive remains the through movement with no additional intersections</p> <p>Accommodates the alternative locations of the Eagle Canyon Extension corridor as well</p>		
<p>A11) Elevate Lemmon Dr. with Structures</p>		<p>Connectivity requires intersections to be on large structures</p>	
<p>A12) Eliminate Lemmon Dr.</p>		<p>This eliminates connectivity with future improvements.</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals





Goal # G8: Deliver a cost appropriate solution that addresses the goals of the project.

Alternative	Potential Advantages	Potential Disadvantages	Impact
A1) "No Build"	No construction costs	<p>On-going pavement rehabilitation maintenance costs</p> <p>On-going flood mitigation costs including HESCO Barriers, Tiger Dams, and pumping facilities</p>	
A2) Raise Ex. Lemmon above 100-yr	Dewatering efforts during construction reduced by raising the profile	There would be a cost for import, as well as a cost for offsetting volumetric mitigation.	
A3) Raise one side (N or S) above 100-yr	This would require approximately 1/3 of the amount of fill compared to Alternative #2, so there would be less cost than Alternative # 2.	Dewatering necessary to reconstruct existing pavement section	
A4) Lake volume removal, take Lemmon out of 100-yr		<p>This would be very expensive. Washoe County studied excavation of 1' = 1600 AcFt \$50-60 million, not including haul costs.</p> <p>High dewatering costs to reconstruct the roadway as a 4-lane facility</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals

Alternative	Potential Advantages	Potential Disadvantages	Impact
<p>A5) Elevated shared use path</p>	<p>Minimal fill required to raise existing roadway elevation</p>	<p>Dewatering necessary to reconstruct existing pavement section</p> <p>Berm/Levee design requirements will add additional costs</p>	
<p>A6) Natural Berm Realignment</p>	<p>Can be constructed at-grade so minimum fill required</p> <p>Eliminates the construction dewatering issues that are along the existing alignment</p>	<p>Box Culvert required under the alignment near the Arkansas St. extension and at the northern end to perpetuate existing drainage</p>	
<p>A7) Split alignment/ existing + berm</p>	<p>New alignment can be constructed at-grade so minimal fill required</p>	<p>Large drainage structures necessary under the alignment near the Arkansas St. extension and at the northern end</p> <p>Construction dewatering issues along existing alignment</p>	
<p>A8) Deodar Realignment</p>	<p>Sub-Alternatives can reduce number of impacted parcels</p>	<p>ROW impacts approximately 40 parcels</p>	

Level 1 Screening: Evaluation with Respect to Defined Goals

<p>A9) Chesapeake Realignment</p>		<p>ROW impacts approximately 20 parcels</p>	
<p>A10) Align Lemmon Dr. outside of 100-Yr Flood Plain ("Hug")</p>	<p>FEMA's Hazard Mitigation Grant Program could assist in purchasing parcels located within the floodplain</p>	<p>ROW impacts approximately 20 parcels.</p>	
<p>A11) Elevate Lemmon Dr. with Structures</p>		<p>Structures are very expensive.</p>	
<p>A12) Eliminate Lemmon Dr.</p>		<p>The widening of other roadways and the additional new roadways needed to provide a backdoor alignment are still costly</p>	



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

August 20, 2020

AGENDA ITEM 5.1

TO: Regional Transportation Commission

FROM: Amy Cummings, AICP/LEED AP
Director of Planning, Deputy
Executive Director

Bill Thomas, AICP
Executive Director

SUBJECT: 2050 Regional Transportation Plan (RTP) Transportation Call for Projects Update

RECOMMENDATION

Receive a report on the 2050 Regional Transportation Plan (RTP) Transportation call for projects and provide direction accordingly.

SUMMARY

The RTC issued a call for projects in an effort to seek agency and public input about projects to consider in the 2050 RTP. The RTC implemented an online survey to seek input from the public on potential new projects, which was open from June 22 through July 20, 2020. Staff also made presentations to the Regional Planning Commission, Regional Planning Governing Board, and RTC Advisory Committees to seek additional input on projects to consider. Stakeholder meetings were held with staff from each jurisdiction. RTC will evaluate all projects suggested for potential inclusion in the plan. A list of projects to analyze are provided in the attachment.

FISCAL IMPACT

2050 RTP development is included in the Unified Planning Work Program.

PREVIOUS ACTIONS BY BOARD

- June 19, 2020 Board approved 2050 RTP Guiding Principles
- December 20, 2019 Board received report on the 2050 RTP visioning exercise
- November 15, 2019 Board received report regarding the 2050 RTP public and agency outreach process and schedule

August 17, 2018 Amendment No. 1 to the 2040 RTP approved

May 21, 2017 2040 RTP approved

ADDITIONAL BACKGROUND

The RTP is the RTC's long-range transportation plan as required under Title 23, Part 450 of the Code of Federal Regulations (CFR). It contains major transportation projects and programs for Washoe County for all modes of travel. It functions as the major tool for implementing long-range transportation planning. The RTP captures the community's vision of the transportation system and identifies the projects, programs and services necessary to achieve that vision that will be implemented by RTC, member entities, and Nevada Department of Transportation (NDOT).

This plan will be based on a robust community engagement process and conducted in collaboration with partner agencies. The plan will address the safety, mobility, connectivity, and traffic operations issues that are resulting from strong population and employment growth in the region. Federal regulations require that the long range planning document be updated every four years. The current RTP approval extends through May 2021.

Attachment A: Projects Suggested for Consideration in the 2050 RTP

The following projects were suggested by members of the public, partner agencies, and other stakeholders. Each project will be evaluated for inclusion in the 2050 RTP.

Project Type	Project Location	Project Limits
Bike Facility	NW McCarran Boulevard	4th Street to N Virginia
Bike Facility	Plumb Lane	Hunter Lake Drive to Arlington Avenue
Bike Lanes	7th Street	Stoker Avenue to N McCarran
Bike Lanes	9th Street	Virginia St to Evans
Bike Lanes	Neil Road	Kietzke to S Virginia
Bike Lanes	Terminal Way	Plumb to Airway Drive
Bike Path	I-80 Bike Path - Truckee River	Vista Boulevard to TRI Center
Bike Path	West Reno Bike Path - Truckee River Connections	S McCarran to Idlewild Park
Bike Path	River Path	Near Lake Street
Complete Streets	Downtown Reno Circulation	Various Streets – Downtown Reno
Complete Streets	Sierra Street	9th Street to N. Virginia
Cycle Track	Regional network of protected bike lanes/cycle tracks	Region-wide
Cycle Track	Under the I-80 freeway	Glendale Avenue to Sparks Marina
Interchange	US 395 @ White Lake Parkway	Convert to diverging diamond interchange (DDI)
Interchange	I-80 interchanges	@ Sparks, McCarran, and Vista
Interchange	I-80 & Greg Street	I-80 & Greg Street
Interchange	Golden Valley @ US395	Golden Valley @ US395
Intersection	Geiger Grade & Veterans	Geiger Grade & Veterans
Road Widening	Highland Ranch to Pyramid Way	Highland Ranch to Pyramid Way
Intersection	Los Altos & Canoe Hill	Los Altos & Canoe Hill
Intersection	Mayberry & Hunter Lake	Mayberry & Hunter Lake
Intersection	Plumas & Urban Road	Plumas & Urban Road
Intersection	Damonte Ranch & Steamboat Parkway	Damonte Ranch & Steamboat Parkway
Intersection	South Meadows Parkway & Echo Valley Parkway	South Meadows Parkway & Echo Valley Parkway
Intersection	Veterans Parkway & Long Meadow Drive	Veterans Parkway & Long Meadow Drive
Intersection	S Meadows Parkway & Veterans Parkway	S Meadows Parkway & Veterans Parkway
Intersection	California & Mayberry Drive	California & Mayberry Drive
Intersection	S Virginia & Longley Lane	S Virginia & Longley Lane
Intersection	Mayberry Drive & W 4th Street	Mayberry Drive & W 4th Street

Project Type	Project Location	Project Limits
Intersection	Double Diamond Parkway & Brentworth Way	Double Diamond Parkway & Brentworth Way
Intersection	S Meadows Parkway & Wilbur May Parkway	S Meadows Parkway & Wilbur May Parkway
Intersection	Mesa Park & 4th Street	Mesa Park & 4th Street
Intersection	Lincoln Way & Scheels	roundabout
Monorail Transit	Monorail to airport	
Multi Use Path	River Path to Giroux Kuenzli	Giroux to Truckee River
Multi Use Path	SE McCarran	Greg Street to S Virginia
Multi Use Path	Virginia to Veterans Connection	Virginia to Steamboat
Multi Use Path	Virginia Street	UNR to Dandini
Multi Use Path	Sullivan Lane	S. of McCarran to El Rancho (access to Wildcreek HS)
Multi Use Path	Spice Island/Franklin Way	connection to Tahoe-Pyramid Bikeway
Multiuse Path	Mary/Plumas Street from Midtown to Moana	California to Moana Ln
Multimodal	5th Street	Keystone to Evans
Multimodal	Evans Street	9th Street to 2nd Street
Multimodal	Grove Street	S Virginia to Kietzke Ln
Multimodal	Lakeside Drive	S McCarran to S Virginia
Multimodal	McCarran Boulevard	Baring to Pyramid
Multimodal	Mill Street	Greg Street to S McCarran Boulevard
Multimodal	North McCarran Boulevard	N Virginia to El Rancho
Multimodal	Peckham Lane	Lakeside Drive to Airway Drive
Multimodal	Sparks Boulevard	Disc to Baring
Multimodal	Sutro Street	N McCarran to Plumb Ln
Multimodal	Vista Boulevard	Los Altos to Wingfield Hills Road
Multimodal	West 4th Street	S McCarran to I-80
Multimodal	Spanish Springs Road	North Truckee Lane to Sparks Boulevard
New Road	Daybreak	Include Daybreak regional roads
New Road	9th Street	Valley to N Wells Avenue
New Road	Echo Avenue	Red Rock Road to Moya Boulevard
New Road	Lemmon Drive	Lemmon Drive to Red Rock Road
New Road	Moya Boulevard	Lemmon Drive to Echo Avenue
Road Widening	N. Hills Boulevard	Golden Valley Road to Buck Drive
Road Widening	O'Brien Pass	N Hills to W 7th Avenue
New Road	Pave Silver Knolls Boulevard	Red Rock Road to Silver Knolls Boulevard
New Road	Rio Wrangler Parkway North	Extending north to South Meadows Pkwy
New Road	SS/ER Parkway	Red Rock Road to Mud Spring Drive

Project Type	Project Location	Project Limits
New Road	TRI Center Connection	Veterans Parkway to TRI Center
New Road	TRI Center Connection	La Posada to TRI Center
Park & Ride lot	Sparks Industrial	
Park & Ride lot	Geiger Grade Roundabout	
Park & Ride lot	W 4th Street	
Reconstruct	E. Patrician Drive/Estates Road	Lemmon Drive to Golden Valley Road
Reconstruct	North Virginia	Stead to White Lake
Road Extension	Sun Valley Boulevard	to West Sun Valley Arterial
Road Extension	Vista Knolls Parkway	To Lemmon Drive
Road Widening	Pembroke Drive	McCarran to Veterans
Road Widening	Mira Loma Drive	McCarran to Veterans
Road Widening	Arrowcreek Parkway	Extend current project from Wedge Parkway to Thomas Creek
Road Widening	McCarran Boulevard	Skyline to Virginia
Road Widening	White Lake Parkway	US395 Interchange to Village Parkway
Road Widening	Damonte Ranch Parkway	Double R to I580
Road Widening	Double R	South Meadows to Longley
Road Widening	I-80 Vista to USA Parkway	Vista to USA Parkway
Road Widening	Rio Wrangler Parkway	Spring Flower Drive to Western Skies Drive
Road Widening	S. Virginia Street	Longley Lane to I580
Road Widening	Steamboat Parkway and Damonte Ranch Parkway	Veterans Parkway to Promenade Way
Road Widening	Vista Boulevard	Wingfield Parkway to Hubble Drive
Road Widening/ Reconstruct	Highland Ranch Parkway	Pyramid Way to Sun Valley Boulevard
Roundabout	Woodland Avenue & 4th Street	Woodland Avenue & 4th Street
Roundabout	La Posada & Cordoba Boulevard	La Posada & Cordoba Boulevard
Roundabout	Arlington Avenue & Marsh Avenue	Arlington & Marsh
Roundabout	Hunter Lake Drive & Mayberry Drive	Hunter Lake Drive & Mayberry Drive
Roundabout	S Meadows Parkway & Echo Valley Parkway	S Meadows Parkway & Echo Valley Parkway
Roundabout	Steamboat Parkway & Rio Wrangler Parkway	Steamboat Parkway & Rio Wrangler Parkway
Safety	McCarran Boulevard	Greg to Prater
Safety	Traffic Calming N. Virginia	9th Street to N McCarran
Sidewalk	Dandini Boulevard	Spectrum to Clear Acre Lane
Sidewalk	Sun Valley Boulevard	to Desert Skies MS
Sidewalk/Shared Use Path	Skyline Boulevard	Arlington to Cashill
Sidewalk/Shared Use Path	Moana Lane	Skyline to Plumas

Project Type	Project Location	Project Limits
Sidewalks	Mary Gojack Park	
Sidewalks	Skyline Drive	Where? To Sharon Drive
Sidewalks	El Rancho Drive	N McCarran to Sullivan Ln
Transit Service	4th/Prater	Downtown Reno to Legends
Transit Station	Peppermill Station & joint development	



REGIONAL TRANSPORTATION COMMISSION

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August 20, 2020

AGENDA ITEM 6.1

TO: Regional Transportation Commission

FROM: Bill Thomas, AICP *BT*
Executive Director

SUBJECT: Director's Report

Monthly verbal update/messages from RTC Executive Director Bill Thomas – *no action will be taken on this item.*



REGIONAL TRANSPORTATION COMMISSION

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August 20, 2020

AGENDA ITEM 6.2

TO: Regional Transportation Commission

FROM: Bill Thomas, AICP *BT*
Executive Director

SUBJECT: Federal Report

Monthly update/messages from RTC Executive Director Bill Thomas – *no action will be taken on this item.*

Federal Update for RTC of Washoe County
Prepared by Cardinal Infrastructure and Thompson Coburn
August 20, 2020 Board Meeting

COVID-19 Relief Package

On July 27th, Senate Republican leadership released several pieces of legislation that take the form the Health, Economic Assistance, Liability Protection, and Schools (HEALS) Act. The HEALS Act has served as the starting marker in the Senate, and is not the bill that will ultimately pass Congress.

- The Safe to Work Act is the COVID-19 liability protection measure, requiring a showing of willful misconduct or gross negligence to recover for COVID-19 exposure claims. A “safe harbor” is created if a defendant made reasonable efforts to comply with applicable public health guidelines. The bill creates a Federal cause of action and preempts state law that imposes liability for exposure on broader grounds, but provides for the application of state laws that impose further liability limitations.
- The Small Business Recovery and Paycheck Protection Program (PPP) Act allows the hardest hit small businesses, with revenue declines of 50% or more, to receive a second PPP loan. The second loans are limited to small businesses with 300 or fewer employees, with a simplified forgiveness application process for the smallest borrowers. It also expands the PPP loan eligibility to 501(c)(6) organizations, so EDAWN and economic development entities across the country would qualify.
- The Time to Rescue United States’ Trusts (TRUST) Act, which, among other items, creates individual rescue committees for various trust funds (including the Highway Trust Fund) to provide legislation for its solvency.
- The \$306 billion in appropriations includes but is not limited to:
 - \$16 billion for states to increase testing.
 - \$26 billion for development and distribution of vaccines, therapeutics, and diagnostics.
 - \$105 billion for the Education Stabilization Fund, to help schools adapt to operating during the pandemic.
 - \$448 million in additional funding for the census.
 - \$208 million for the Transportation Security Administration.
 - \$10 billion to the Federal Aviation Administration’s Airport Improvement Program
- Additional HEALS Act legislation includes the Safely Back to School and Back to Work Act, Restoring Critical Supply Chains and Intellectual Property Act, American Workers, Families, and Employers Assistance Act, and Supporting America's Restaurant Workers Act.

The HEALS Act does not include funding for public transit agencies, or supplemental funding for state and local governments. APTA is advocating for the inclusion of \$32-36 billion in transit funding. The total price tag of the HEALS Act is in the \$1 trillion range.

The House-passed Health and Economic Recovery Omnibus Emergency Solutions (HEROES) Act includes \$15.75 billion in operating assistance grants for public transit. Of that amount, \$11.75 billion is to be distributed by formula (going to the larger systems in areas of over 3 million in population under the state of good repair and 5307 programs) and \$4 billion to be made available to any grantee or sub-recipient by application to the U.S. Department of Transportation (U.S. DOT) based on a showing that significant additional funds are required to maintain basic transit service. For state and local funding, the bill provides \$500 billion to states and \$375 billion to local governments, and \$15 billion to state DOTs. The total price tag of the HEROES bill is in the \$3 trillion range.

The House and Senate remain far apart, both in scope and overall funding, and negotiations have stalled. The timeline for passage of a relief package remains incredibly fluid. Furthermore, Senator Ted Cruz (R-TX) and Senator Lindsey Graham (R-SC) have commented that a number of Senate Republicans are in opposition to the HEALS Act and have expressed concern over any additional economic relief package.

Executive Orders

Given the state of negotiations in Congress over the COVID-19 relief package, the President signed four executive actions. House Speaker Pelosi has called the executive actions unconstitutional; congressional members and governors on both sides of the aisle have acknowledged the onus is on Congress to act.

- Memorandum on Authorizing the Other Needs Assistance Program for Major Disaster Declarations Related to Coronavirus Disease 2019.
 - Restores supplemental unemployment benefits of up to \$400 per week, which will include a federal contribution of \$300 and a state contribution of at least \$100 for eligible claimants, using federal resources available from the Disaster Relief Fund and Coronavirus Relief Fund.
- Memorandum on Deferring Payroll Tax Obligations in Light of the Ongoing COVID-19 Disaster.
 - Defers certain payroll tax obligations on earnings under \$4,000 per bi-weekly period or \$104,000 annually on a pre-tax basis.
- Memorandum on Continued Student Loan Payment Relief During the COVID-19 Pandemic.
 - Defers student loan payments and interest through December 31, 2020 for those experiencing hardship.
- Executive Order on Fighting the Spread of COVID-19 by Providing Assistance to Renters and Homeowners.
 - Requests the Secretary of the Treasury, Secretary of Housing and Urban Development, and Secretary of Health and Human Services take necessary actions to extend the moratoriums on evictions.

RTC Letter on COVID-19 Relief

On August 4th, Executive Director Bill Thomas sent a letter to Senator Cortez Masto and Senator Rosen, addressing RTC's legislative priorities as Congress looks at future COVID-19 recovery and stimulus legislation. The letter states the RTC's preference for any additional supplemental funding for public transit to be distributed under the existing Coronavirus Aid, Relief, and Economic Security (CARES) Act regime (i.e., via the 5307 formula), as compared to the currently proposed HEROES Act, which reserves \$11.75 billion for agencies in regions with populations of over 3 million and provides \$4 billion in discretionary grant program funding.

The letter also encourages Congress to consider including the following provisions in any future COVID-19 relief legislation:

- Provide additional funds to metropolitan, regional, and rural planning organizations through the Metropolitan Planning program, Federal Transit Administration (FTA) planning funding, and the State Planning and Research Program.
- Utilize the Surface Transportation Grant Program under the federal-aid highway program and public transportation program for stimulus spending.
- Allow funds provided in a future stimulus bill to be used as the local share funds for any program such as the Surface Transportation Block Grant Program, Congestion Mitigation and Air Quality, and Metropolitan Planning.
- Waive all restrictions under the 5307 Urbanized Areas Formula Grant program on the use of funds for operating expenses for the remainder of Fiscal Year (FY) 2020 and FY 2021.

RTC Buses and Bus Facilities Award

The RTC received \$4.08 million from the FTA's Buses and Bus Facilities grant program to replace older vehicles with new hybrid diesel-electric buses. FTA received 282 applications totaling approximately \$1.8 billion in funding requests, and awarded a total of \$464 million in grants to 96 projects.

Appropriations

On July 31st, the House passed a package of appropriation bills, including FY 2021 transportation appropriations. The transportation appropriations measure totals \$107.2 billion in total budgetary resources for U.S. DOT, an increase of \$21.1 billion above FY 2020 and \$19.4 billion above the President's budget request, including:

- \$1 billion for the BUILD program, with an additional \$3 billion in emergency funding to remain available until September 30, 2022.
- \$663 million for the Buses and Bus Facilities discretionary grant program, including language to make eligible projects that "increase green space surrounding a bus transportation hub structure."
\$180 million for the Low or No Emission Vehicle Grant Program. For "Transit Infrastructure Funds" (i.e. Buses and Bus Facilities and Low-No), the federal share of the costs may be up to 100%.
- \$2.175 billion for Capital Investment Grant (CIG) projects, with an additional \$5 billion in emergency funding.

- \$1 million for the Public Transportation Innovation Program, with grants for "the development of software to facilitate the provision of demand-response public transportation service that dispatches public transportation fleet vehicles through riders' mobile devices or other advanced means."
- \$150 million for Federal Highway Administration's (FHWA's) Nationally Significant Federal Lands and Tribal Projects

On July 30th, the White House issued a veto threat to House appropriations in its statement of administration policy (SAP). While the SAP makes note of the appropriations package exceeding Congress' two-year budget agreement spending limits, it specifically notes objections to the transportation appropriations bill, including:

- Opposition to an additional \$26 billion in COVID-19 relief spending.
- Opposition to "the inclusion of new and excessive parameters and timelines placed on [BUILD, Capital Investment Grant program, etc]."
- Opposition to the overall funding level for U.S. DOT.
- Opposition to obligation limitations (budget authority) for highway and transit programs financed out of the Highway Trust Fund.
- Objects to the face mask mandate for passengers and transportation workers.

Senate Appropriations Committee Chairman Richard Shelby (R-AL) indicated that the Senate may not advance any FY 2021 spending bills this year. Chairman Shelby believes the Senate will instead move a continuing resolution (CR) before funding for the federal government expires on Wednesday, September 30, 2020.

Surface Transportation Reauthorization

The U.S. Conference of Mayors Infrastructure Task Force Committee held a conference call with House Transportation and Infrastructure Committee Chairman Peter DeFazio (D-OR). During the discussion, Chairman DeFazio said, "In all probability, we're going to be negotiating an extension [of the FAST Act]...We'll continue to push for H.R. 2, but to be very frank, the Senate has done virtually nothing." Although it has been rumored for months that the FAST act will likely have a short-term extension, for the first time, Chairman DeFazio has gone on the record with this eventuality.

Biden/Harris Campaign

Former Vice President Joe Biden selected Senator Kamala Harris (D-CA) as his Vice President nominee. Senator Harris has been a strong advocate and champion for public transit, emerging transportation technology, and robust infrastructure investment during her time in the Senate, as well as during her presidential campaign.

In Biden's clean energy and infrastructure plan, he calls for "high-quality, zero-emissions public transportation options through flexible federal investments with strong labor protections that create good, union jobs and meet the needs of these cities – ranging from light rail networks to improving existing transit and bus lines to installing infrastructure for pedestrians and bicyclists," as well as "strengthen and enforce" Buy America and Buy American requirements.

During Senator Harris' presidential campaign, she called for an investment in public transit systems "that reduce vehicle miles traveled and address gaps in first mile, last mile service." She has also endorsed more free public transportation, adding, "...infrastructure spending isn't a transportation issue for most Americans — it's a human rights issue." While Senator Harris and Vice President Biden call for these historic investments, they have not specifically identified pay-fors.

Part of the Senator's presidential campaign platform included "investing in clean energy and electrifying transportation...achieving a clean economy by 2045" and "funding robust public transportation networks." This goal will be reached by requiring new vehicle purchases be zero-emission by 2030 and "focusing...investments toward projects that reduce vehicle miles traveled and address gaps in first mile, last mile service."

Harris' campaign also endorsed a \$1 trillion infrastructure plan that included \$385 billion to repair roads and bridges, improve public transportation and "promote innovative transformations to our transportation networks." Furthermore, during the campaign for the California Senate seat, Harris endorsed the creation of an infrastructure bank to repair and expand transportation infrastructure, as well as highlighted the important issues of ADA and equity in transit.

Update to NEPA Regulations

On July 15th, the Council on Environmental Quality (CEQ) announced its final rule, "Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act." According to a fact sheet provided by the White House, the final rule makes several amendments, among others, including:

- Establishes presumptive time limits of two years for the preparation of environmental impact statements (EISs) and one year for the preparation of environmental assessments (EAs).
- Requires joint schedules, a single EIS, and a single record of decision (ROD), to the extent practicable, for NEPA decisions involving multiple Federal agencies. Permitting actions are to be included on the joint schedule.
- Allows agencies to establish procedures to use other agencies' categorical exclusions (CEs) and to adopt EAs and CE determinations, where appropriate.
- Allows agencies to establish those activities not subject to NEPA, including instances in which the agency determines that another statute would serve the function of agency compliance with NEPA.
- Promotes use of modern technologies for information sharing and public outreach.
- Clarifies that mitigation measures must have a nexus to effects of the proposed action or alternatives.

The final rule goes into effect on September 14th; however, the timing could potentially be impacted by Congressional review and legislative action and/or litigation challenging the rule. The revised regulations apply to all NEPA processes begun after the September 14, 2020, effective date. The CEQ regulation states that agencies have the discretion to apply the revised regulations to ongoing activities and environmental reviews begun before the effective date. Agencies are to issue revisions to their implementing regulations within 12 months of the effective date of the CEQ regulation.



REGIONAL TRANSPORTATION COMMISSION

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August 20, 2020

AGENDA ITEM 6.3

TO: Regional Transportation Commission

FROM: Kristina Swallow, Director NDOT

SUBJECT: Nevada Department of Transportation

Monthly verbal update/messages from NDOT Director Kristina Swallow – *no action will be taken on this item.*



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August 20, 2020

AGENDA ITEM 7

TO: Regional Transportation Commission

FROM: 

Bill Thomas, AICP
Executive Director

SUBJECT: Legal Counsel Report

The monthly Regional Transportation Commission (RTC) agenda includes a standing item for staff and legal counsel to provide information on any legal issues facing the RTC. This allows the Board to discuss such issues and provide direction to staff or take action as necessary.

The RTC may, consistent with Chapter 241 of NRS, decide to interrupt the public meeting at any time to conduct a closed session to confer with legal counsel and possibly deliberate on legal issues. Any action on pending legal matters will be made when the public meeting is reconvened.



REGIONAL TRANSPORTATION COMMISSION

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August 20, 2020

AGENDA ITEM 8

TO: Regional Transportation Commission

FROM:

A handwritten signature in black ink, appearing to be "Bill Thomas", written over a horizontal line.

Bill Thomas, AICP
Executive Director

SUBJECT: Public Input

This agenda item allows the public the opportunity to provide information on topics within the jurisdiction of the Regional Transportation Commission (RTC). Any person wishing to wait to provide public comment on a specific agenda item should indicate that item number on the “comment” card. The RTC Chair reserves the right to take all public comment during Public Input. Individuals addressing the Board during the Public Input portion of the meeting will be limited to three minutes total. However, an individual acting as a spokesperson for a group of individuals may request additional time. Individuals are expected to provide public input in a professional and constructive manner.